



ABYSS VANUATU OCEAN INSTITUTE (AVOI)

Havannah Harbour Pilot Program, Lot 149 Lapita Estate Headquarters and Training Hub & National Scale-up Framework

Detailed Ministerial Overview for Cross-Government Coordination

Prepared to support coordinated engagement between Ocean Affairs, Fisheries, Tourism, Environment and Conservation, EPA, Maritime, Customs and other relevant agencies and departments.

This document presents AVOI as a practical national pilot and delivery model aligned with the broader priorities reflected in Vanuatu National Ocean Policy Version 2 and related 2030 ocean, climate and community resilience objectives.

AVOI proposes Havannah Harbour as the proof-of-concept location, with Lot 149 of Lapita Estate established as the permanent operational base, training hub and focal institute site.

Prepared for circulation to relevant Government of Vanuatu ministries,
agencies, statutory authorities and key partners.

April 2026



1. Executive Summary

Abyss Vanuatu Ocean Institute (AVOI) is being established as a permanent ocean institute, conservation initiative and research hub based at Lot 149 of Lapita Estate in Havannah Harbour. From this base, AVOI proposes to deliver a practical, science-led and community-supported pilot program that integrates marine restoration, Reef Ball deployment, managed artificial reef and wreck deployment, Vanuatu Ocean Ranger training, drone-enabled marine and terrestrial conservation monitoring and sustainable eco-tourism activation.

The intent is to prove the model in Havannah Harbour, refine it in partnership with Government and customary stakeholders, and then scale it nationally through a repeatable framework that can support marine protected area (MPA) design and implementation, Reef Ball deployment, ranger training and place-based blue economy opportunities across Vanuatu.

AVOI is not proposing a stand-alone site project. It is proposing a national delivery model: Havannah Harbour as the pilot, Lot 149 as the permanent Headquarters and science training hub, the Vanuatu Ocean Rangers as the workforce, Reef Balls and responsibly prepared vessels as restoration tools, Use of AI and hightech drones fitted with thermal cameras to assist with remote area monitoring and pest species management and a streamlined inter-agency playbook as the mechanism for national scale.

- Establish Lot 149 as the permanent AVOI headquarters, training centre and operational hub.
- Use Havannah Harbour as a proof-of-concept site for scientific baseline surveys, Reef Ball habitat deployments, managed artificial reefs, eco-tourism activation and future MPA design with science oversight through University of Technology Sydney, Professor David Booth and his associates.
- Develop a repeatable and scalable Vanuatu Ocean Ranger model that can be replicated through regional selection camps and satellite programs across the country.
- Support a streamlined, whole-of-government framework for site selection, approvals, deployment and monitoring that reduces unnecessary delays and duplication while maintaining environmental, maritime and customary safeguards reducing operational costs to increase impact ability.
- Help Vanuatu advance practical ocean restoration, local employment, tourism growth, stewardship and data-led decision-making in line with national ocean policy priorities **before** 2030.

2. AVOI: Institute Identity and National Proposition

AVOI is designed to operate as a national ocean institute with practical delivery capability. It combines research, restoration, training, community engagement, eco-tourism activation and operational field programs under one umbrella. The institute is intended to provide a highly visible and functional model for how marine conservation, economic development and local capability can be advanced together.

- A permanent institute base at Lot 149 of Lapita Estate, functioning as the operational headquarters and principal training hub.
- Reef Ball Foundation Vanuatu Contractor capability, providing a pathway for controlled design, fabrication and deployment of engineered habitat structures.
- A practical restoration platform incorporating Reef Balls, coral propagation support, habitat enhancement and managed vessel repurposing for artificial reef use.
- A dedicated Vanuatu Ocean Rangers workforce development program focused on local Ni-Vanuatu leadership, stewardship and field delivery.

- Integration of drone technology, Artificial Intelligence Learning Programming (Designed specifically for Vanuatu by our partners) will assist in world first drone monitoring systems and applied training to improve conservation outcomes and operational efficiency.
- Strong community engagement and customary support across the broader Havannah Harbour and surrounding island network. (Already in place)

This positioning allows AVOI to function not only as a project proponent, but as a national platform through which Government, communities, scientific partners and private sector actors can collaborate on practical marine restoration and sustainable blue economy initiatives.

3. Why Havannah Harbour (North-Western Efate) is the Right Pilot

Havannah Harbour provides a rare opportunity to test multiple ocean policy objectives in one location. It is suitable for demonstrating how a marine institute base, ranger workforce, restoration deployments, managed vessel use, eco-tourism activation and future MPA design can operate together as a single proof-of-concept program.

Workstream	Havannah Harbour Proof of Concept	National Scale-Up Value
Institute Headquarters	Lot 149 becomes the permanent base for operations, training, logistics, stakeholder engagement and field mobilisation.	Creates a permanent national headquarters and standard-setting centre for future regional programs.
Reef Ball program	Initial Reef Ball cluster design, deployment and monitoring are tested in a controlled and visible location.	Creates a repeatable model for reef restoration and habitat enhancement in other provinces and communities.
Managed vessel deployments	Suitable vessels can be assessed, prepared and used as habitat and eco-tourism assets in a structured way.	Provides a national framework for responsible vessel repurposing linked to restoration, tourism and MPA outcomes.
Vanuatu Ocean Rangers	Initial ranger cohorts are trained and field-tested from the Havannah base.	Creates a scalable workforce pipeline for marine stewardship and restoration delivery nationwide.
Eco-tourism activation	Restoration and wreck assets are linked to the Lapita Estate and Havannah Harbour Marina development context.	Demonstrates how restoration can support regional tourism growth, jobs and investment confidence.

The Broader North-Western Efate and its islands (From Devils point, Eratoka Island & Pauls Rock UNESCO sites, Lalepa, Moso, Pele and Nguna Island) was significantly impacted by a spate of recent natural disasters resulting in large scale habitat loss. It is therefore proposed as the first pilot landscape through which AVOI and Government can jointly test, refine and validate the model before moving to a broader national rollout.

4. Core Program Components

4.1 Lot 149 as the Permanent AVOI Headquarters and Training Hub

AVOI will maintain its permanent base at Lot 149 of Lapita Estate. This site will function as the focal institute location, training centre, coordination hub and operational launch point for the initial proof of concept in Havannah Harbour and for the subsequent expansion of programs across Vanuatu.

- Scientific diving training and operational dive safety development.
- First aid and emergency care training.
- Drone servicing, maintenance and operational systems training, and remote autonomous drone monitoring station.
- Fish and invertebrate identification training.
- Basic reef and habitat survey training, including field data collection and repeatable monitoring methods.
- Turtle conservation training and nest protection procedures.
- Boat skipper certification support and practical marine operations training.
- Reef Ball fabrication, handling, deployment support and monitoring workflows.

By consolidating initial capability development at Lot 149, AVOI can standardise procedures, quality control, safety systems and training materials before those systems are replicated through satellite sites in other regions. Working to ISO 45001.2015 WH&S Management System Standards, we ensure optimum staff, participant and operational safety.

4.2 Reef Ball Deployment, Vessel Repurposing and Eco-Tourism Activation

The Havannah Harbour pilot will combine engineered Reef Ball habitat systems with the planned and responsible use of suitable decommissioned vessels as artificial reef assets. Together, these tools provide an opportunity to increase habitat complexity, support fisheries productivity, create new dive experiences, improve eco-tourism value and contribute to future MPA design and marine spatial planning.

[CLICK HERE TO VIEW A VIDEO THAT SHOWS WHAT REEF BALL FOUNDATION IS ALL ABOUT](#)

Within the Havannah Harbour and proposed new marina development setting, the pilot can also demonstrate how wreck diving, habitat restoration and conservation-focused visitor experiences can become part of a coherent eco-tourism proposition for the region. This helps create a more visible public case for marine restoration by linking biodiversity, community benefit and economic value.

4.3 Vanuatu Ocean Rangers and the Abyss Vanuatu Ocean Ranger Camp Initiative

The Vanuatu Ocean Rangers are intended to become the face of AVOI, conducting a range of skilled operations creating the stewardship backbone of the AVOI model. Rangers will support marine monitoring, Reef Ball deployment, coral work, turtle conservation, Pest management, terrestrial arboreal species identification and drone surveying, operational field support, community engagement and local compliance visibility. The program is designed to build a skilled Ni-Vanuatu cohort that is both technically capable and values-led.

To make the program scalable and repeatable, AVOI proposes to establish the Abyss Vanuatu Ocean Ranger Camp Initiative as a three-day regional selection and development process. Each camp will be delivered in a structured format so that all participants gain something positive from the experience, including ocean knowledge, exposure to stewardship values, teamwork development, practical field awareness and a stronger understanding of what marine leadership looks like in their own region.

Following each camp, only a selected number of participants will be offered positions as full-time Vanuatu Ocean Rangers. Selection will be based on transparent criteria, including enthusiasm, willingness to learn, communication ability, behaviour, interaction with others in a team environment and basic capacity to conduct the tasks required of Rangers.

This model ensures that the program remains merit-based and mission-driven while still leaving a positive knowledge legacy in every participating community. It also creates a repeatable process that can be rolled out in each region as satellite sites are established.

4.4 Drone-Enabled Conservation and Applied Monitoring

AVOI is also developing an applied drone and AI-enabled monitoring capability to work in parallel with the Vanuatu Ocean Rangers. This includes autonomous and manned drone systems intended to support nighttime turtle nesting detection, invasive predator monitoring, arboreal species detection and identification, remote site observation and rapid field intelligence gathering.

[CLICK HERE TO SEE THE NEW INNOVATIVE DRONE TECHNOLOGY](#)

Within the pilot, this technology will demonstrate how marine and coastal conservation programs can be strengthened by better data capture, faster response capability and stronger coordination between technology systems and field teams. It also reinforces the institute's position as a practical innovation partner for government and communities.

New incountry drone technology can also assist with natural disaster and emergency response deployment prioritising in remote island locations, with deployed drones allowing for immediate line of sight, both in the day and at night through night vision and thermal technology. The scope of incountry drone use for climate change response is endless; including assessing remote villages for damages, injured persons or loss of life, allowing for remote triage assisting in effective prioritising of emergency service deployments in the immediate aftermath of events, to locating lost vessels at sea, and missing persons both on land and at sea)

5. Community, Customary and Regional Engagement

A defining feature of the AVOI model is that it is not built as a purely technical intervention. Its success depends on respectful local engagement, customary support, shared stewardship and visible community benefit. AVOI's engagement approach is therefore grounded in consultation with chiefs, customary owners and surrounding communities, with the pilot framed as a collaborative initiative rather than an externally imposed program.

For Government, this is important because it means the proof of concept is intended to be socially grounded from the outset. Community engagement and customary support already extend across key parts of the wider Havannah Harbour landscape, including Devils Point, Eratoka Island & Pauls Rock UNESCO sites, Lalepa, Moso, Pele and Nguna Islands. This gives the pilot the potential to operate as a genuinely place-based model with regional relevance and community legitimacy.

The same engagement logic will be used for future national scale-up: each satellite site should be developed with early chief and community engagement, local opportunity pathways, practical benefit-sharing and clear visibility around how restoration, tourism and stewardship outcomes connect to local priorities.

6. Alignment with Vanuatu National Ocean Policy | Version 2

AVOI should be understood as a practical delivery mechanism aligned with the major themes reflected in Vanuatu National Ocean Policy Version 2 and related government priorities to 2030. Rather than treating policy as a high-level aspiration only, AVOI proposes an operational model that can visibly demonstrate integrated delivery on the water, on the coast and within communities.

- Integrated ocean governance: linking Ocean Affairs, Fisheries, Tourism, Environment and Conservation, EPA, Maritime, Customs and community stakeholders into one coordinated delivery model.
- Marine ecosystem protection and restoration: creating measurable habitat enhancement through Reef Ball deployments, coral support, managed artificial reefs and future MPA planning backed by science.
- Sustainable blue economy growth: connecting restoration to eco-tourism activation, local enterprise, jobs and investor confidence.
- Knowledge, monitoring and data-led management: using site-based surveys, drone-supported monitoring, GPS-referenced assets and structured reporting to support better decision-making.
- Climate resilience and practical adaptation: building stronger ecological resilience and local capability through habitat restoration, Vanuatu Ocean Ranger training and responsive in-field systems.
- Community stewardship and local leadership: ensuring that conservation delivery is connected to chiefs, communities and trained Ni-Vanuatu field teams.

In this sense, AVOI offers Government a pilot through which policy priorities can be tested, demonstrated and then translated into a repeatable national framework.

7. Streamlined Government Systems and the National Playbook

A key contribution AVOI seeks to make is not only in program delivery, but in helping Government design a more efficient pathway for marine restoration and eco-tourism implementation. The pilot provides an opportunity to develop a streamlined national playbook that is specifically aligned to AVOI's wreck deployment and Reef Ball deployment initiatives and can later support broader national rollout.

- Site selection criteria and scientific suitability assessment.
- Vessel identification, suitability review, cleaning and preparation requirements.
- Reef Ball deployment planning, environmental safeguards and operational standards.
- Chief and customary engagement requirements and sequencing.
- Customs, importation and related administrative pathways where relevant.
- Inter-agency approvals, compliance obligations and reporting expectations.
- Maritime, harbour and navigational safety considerations.
- Monitoring, adaptive management and long-term stewardship requirements.

The objective of this playbook is to reduce unnecessary delays, duplicated process, fragmented decision-making and avoidable administrative costs, while maintaining proper environmental protection, navigational safety, statutory compliance and respect for customary interests. If successful, it will help suitable Reef Ball and vessel deployments move forward in a more timely and coordinated manner and allow the program to scale nationally at a realistic pace **well before 2030**.

8. Governance and Cross-Government Collaboration Model

To provide confidence, structure and accountability, AVOI proposes a two-level governance model during the proof-of-concept and early scale-up phase.

Governance Body	Purpose and Role
Internal AVOI Steering Committee	Provide internal strategic oversight, coordinate delivery partners, maintain quality and safety systems, guide training and uphold community and scientific standards.
Government Mentoring and Coordination Committee	A separate inter-agency group to help mentor AVOI, coordinate approvals, guide sequencing, identify barriers, refine playbook and support responsible scaling, once proof of concept is underway.

The Government Mentoring and Coordination Committee could include Ocean Affairs, Fisheries, Tourism, Environment and Conservation, EPA, Maritime, Customs and other relevant agencies and authorities. The intent is not to create parallel bureaucracy, but to establish an enabling mechanism that can help mentor AVOI through early delivery and support a coordinated route to scale.

9. Requests for Government Partnership and Next Steps

AVOI respectfully seeks cross-government support in the following areas as the Havannah Harbour pilot is developed and refined:

- Recognition of Havannah Harbour as a practical pilot landscape for integrated marine restoration, eco-tourism and future scientifically designed MPA development with UTS (Prof. David Booth oversight).
- Support for Lot 149 as the permanent AVOI Headquarters, training hub and coordination centre.
- Participation in a Government Mentoring and Coordination Committee to help guide early implementation.
- Collaboration on the development of the streamlined national playbook for Reef Ball and vessel deployment initiatives, as well as develop pest management best practice for remote island communities.
- Support for the responsible province wide design for approval pathways that reduce delay and duplication while preserving safeguards and reducing approval fees restricting the scalability of the initiative.
- Continued engagement with chiefs, communities and regional stakeholders as foundational partners in delivery and stewardship.
- Support for the staged development of satellite sites once the Havannah Harbour proof of concept has been demonstrated and proven through ongoing surveys and data collection.

AVOI's long-term goal is to help Government build a highly visible and repeatable national model for ocean restoration and sustainable blue economy development that is envied by all other pacific neighbouring countries. In addition, our strong partnership with UTS and Professor David Booth can help guide a national roll out of science and community backed MPA implementation helping us achieve the 30% goal by 2030.

AVOI's Headquarters in Havannah Harbour is the starting point, providing the initial proof of concept, prior to a national roll out replicating the success we will achieve in our local area. The headquarters will also remain the hub for training and primary base of the Vanuatu Ocean Rangers

With the right partnership structure, AVOI can become the place where Vanuatu demonstrates how restoration, workforce development, community stewardship, tourism growth and practical ocean governance can be delivered together and then rapidly expanded across a country, demonstrating that policy implementation can actually occur and not just be a list of wishful goals. **Action not just words.**

We see Vanuatu and AVOI as being a global leader in pioneering scalable sustainable conservation.

For that reason, AVOI welcomes the opportunity to continue engaging with Fisheries, Tourism, Environment and Conservation, Ocean Affairs, Maritime, Customs and other relevant agencies to refine this framework and identify the most practical path to implementation.

Prepared by Abyss Vanuatu Ocean Institute (AVOI)

For cross-government discussion, coordination and pathway development.

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OUR PARTNERS

(CLICK BELOW TO SEE WHAT OUR PARTNERS ARE ALL ABOUT)



APPENDIX



Image 1 | Reef Ball Deployment sites are selected in area of low habitat complexity with minimal surface area. Selection criteria will form part of the Vanuatu Ocean National Playbook to help streamline approvals and expedite deployments.

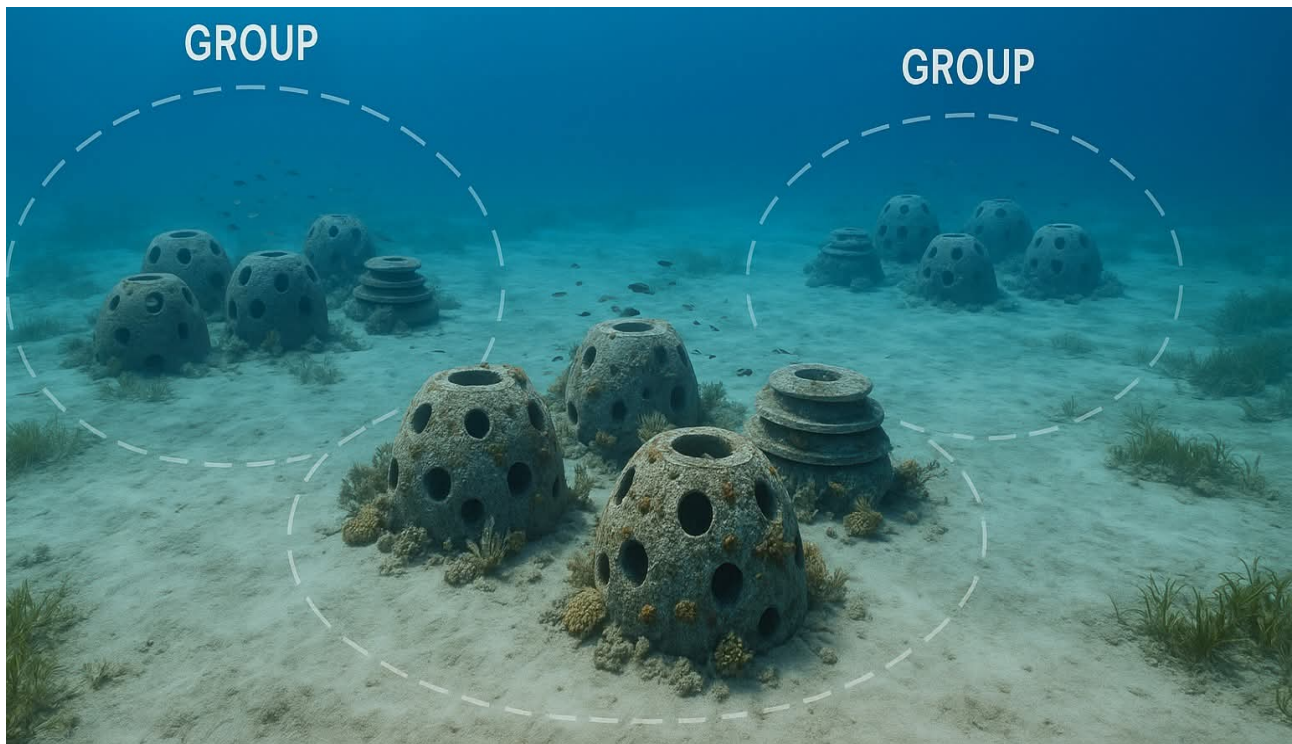


Image 2 | Reef Balls will be deployed in various arrays depending on the purpose of the deployment

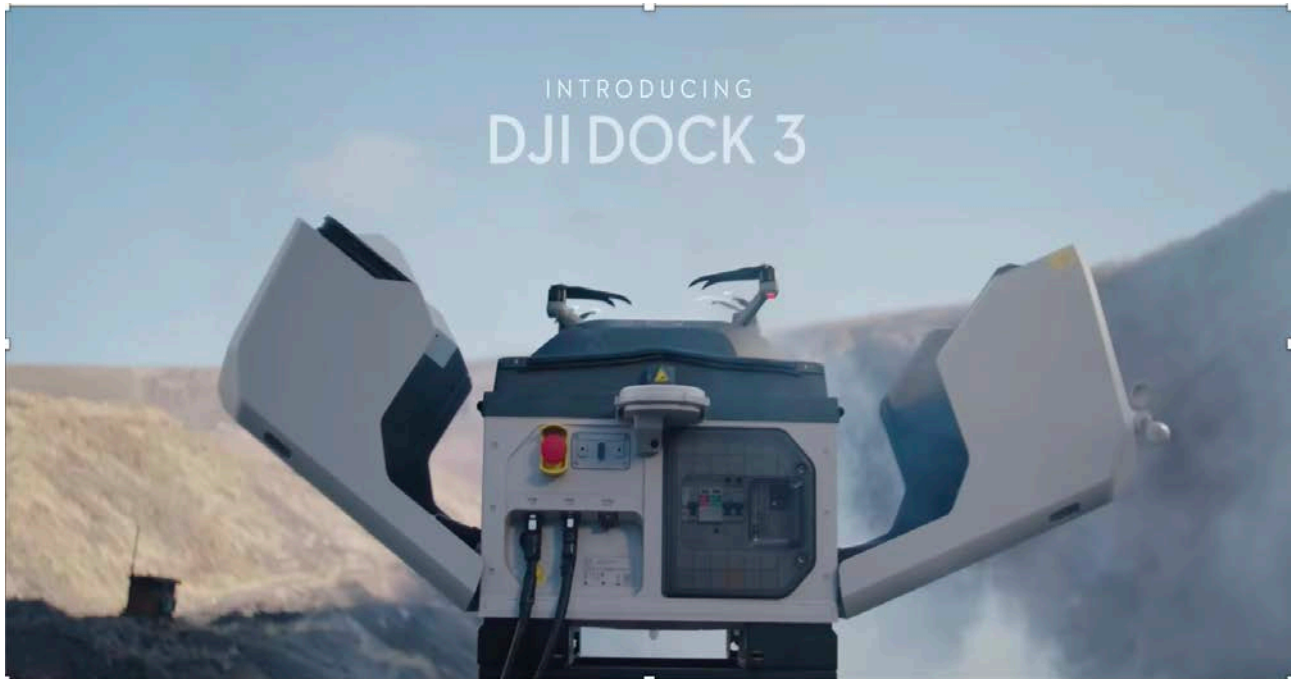


Image 3 | Self deploying autonomus drone dock station allows remote deployment in isolated areas for continual monitoring and surveying. Including unmanned autonomous flight following pre-determined paths at critical habitat areas.



Image 5 | Drones are fitted with state-of-the-art Infrared Thermal Cameras capable of finding heat signatures as small as a mouse, through to missing people and vessels, and arboreal species detection. With our inhouse Artificial Intelligence software programmer, we will design specific species detection software that will be uploaded into the drones to target protected and endangered species, helping monitor some of the most vulnerable species in the world.



Image 6 | Here you can see the drone picking up someone missing at sea. Drones can not just survey but can be deployed in emergency situations to save lives.

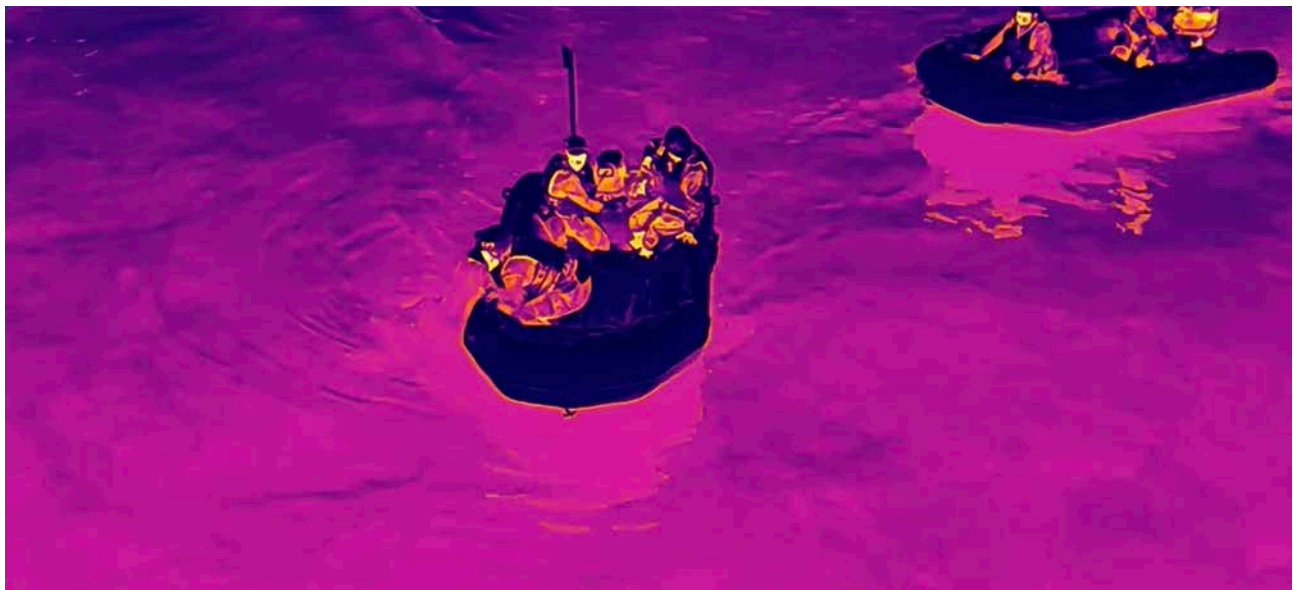


Image 7 | Drones can monitor nighttime rescue operations giving land-based co-ordinators real time information on the progress of the rescue.



Image 8 | Autonomas Drones will allow large scale surveys to be conducted at night in areas unsafe for vessel use, offering innovative, accurate data sets never captured in the region. Our propriatory AI coding and real time learning program will allow for GPS and species identification.

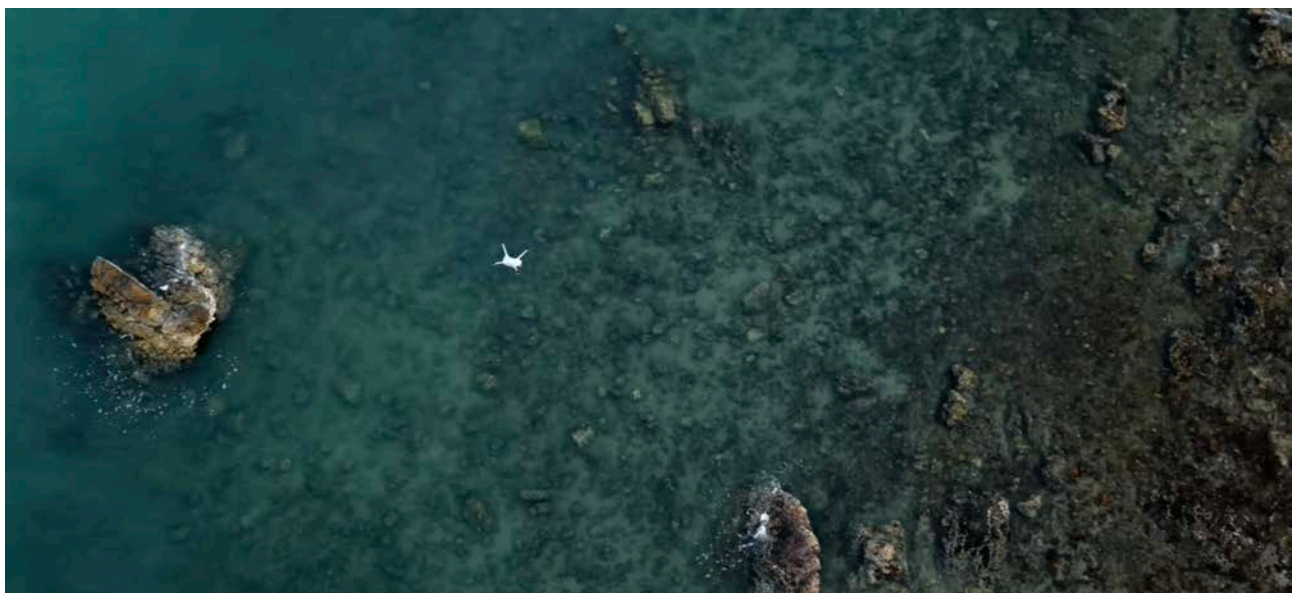


Image 9 | Here you can see one of the drones conducting shoreline surveys during the day. Flying over water allows the unobstructed flight zone for effective beach monitoring.



Image 10 | Drones can also monitor Marine Protected Zones, capturing illegal fishing activity and potching to connect police with evidence for investigations.



Image 11 | State of the art drones are capable of flying in adverse weather allowing for increased uninterrupted survey data sets.



Image 12 | Vanuatu Ocean Rangers will use the GPS data to return to the sites during the safety of daytime to assess the turtle nests ensuring they are in a safe area and implement protective measures around the nest to prevent predators getting to the eggs. If appropriate, they will also install covert trail cameras to detect any predators (including humans) who may disturb the nest.



Image 13 | The cage mesh will be sized to allow the turtles to only crawl through the seaward side of the cage, decreasing mortality rates due to them going in the wrong direction away from the sea.



Image 14 | We will be developing 2 Conservation Dive Resorts to support the science community and Vanuatu Ocean Ranger Camps , along with increasing local employment, skills training and conservation based eco-tourism.



Image 15 | Abyss Vanuatu Ocean Institute on lot 149 located next to the American Pool with our ABYSS Vanuatu Conservation Dive Resort net door on Lot 150.



Image 16 | The overall vision for the design uses the Hawksbill turtle shell for inspiration. Landscaping improvements of the Americal Pool (Right), Abyss Vanuatu Ocean Institute (Center) and Abyss Vanuatu Conservation Dive Resort (Left).



Image 17 | Reefball Deployments can be placed anywhere to help improve habitat complexity including under jetties, beside seawalls to offset any damage created from the construction.



Image 18 | Netting is used to provide day guests the opportunity to see how effective Reef Balls are at fish and coral recruitment. This also allows people with disabilities, mobility issues and anyone who does not want to into the water to see firsthand the impacts the Reef Balls have on an otherwise barren environment.



Image 19 | Shows the reception entrance to the mainland Conservation Dive Resort, designed to allow uninterrupted views from the road all the way through to the ocean.



Image 20 | Open symmetrical design is slick and simple while offering a premier experience for the diving guests.



Image 21 | Sunken Lounge will allow a unique training and briefing area, while keeping guests cool and comfortable.



Image 22 | Moso Island Conservation Dive Resort will have some of the same design concepts of the mainland while maintaining the natural setting. With 100m of ocean frontage it will provide the perfect location for large school and international dive expedition groups.



Image 23 | Open plan Bungalows will be available for couples or those who wish to have their own space.



Image 24 | The inside of the bungalows is simple and well thought out for a comfortable stay.



Image 25 | The views from the rooms will look back towards the AVOI Headquarters over to the mainland.



Image 26 | Large Dorm style accomodation will allow a cost-effective solution for those clientel on a budget.



Image 27 | Dorm accomodation will be simple, clean and slick providing comfortable stays for every client.