



2024 TIDE ANNUAL REPORT



LETTER FROM THE DIRECTOR



Figure 1. TIDE Executive Director - Leonardo Chavarria Jr.

In 2024, we deepened our commitment to community-driven conservation across the Toledo landscape and seascape, navigating unprecedented environmental challenges while strengthening the foundations of resilience, stewardship, and sustainability. From reforestation to ecotourism and environmental education, our team worked hand in hand with local partners, stakeholders, and supporters to achieve meaningful and measurable impact.

We managed and protected a ridge-to-reef corridor vital to Belize's biodiversity, conducting over 1,600 patrols across four protected areas to deter illegal activities and to ensure ecosystem health. Our marine and terrestrial enforcement teams responded to wildfires, poaching, and illegal fishing while supporting community safety and ecological integrity.

In response to an intense and prolonged wildfire season, we assisted communities across Toledo in suppression efforts and expanded our investment in fire response infrastructure, including new equipment and training for front line teams. Our wildland fire management trainings equipped 75 participants from rural communities with essential skills and knowledge, reinforcing shared responsibility in protecting the forest.

VISION:

Toledo's healthy ecosystems support biodiversity, and communities, whilst contributing to national sustainable development goals

We planted more than 8.5 hectares of forest through our IUCN-supported reforestation initiative and launched a native plant nursery that now houses thousands of seedlings for future restoration. Our biodiversity monitoring continued to deliver critical insights: we recorded 7,130 sea turtle eggs, advanced Yellow-Headed Parrot recovery, and expanded bird monitoring across our sites through MoSI and transect protocols.

Through TIDE Tours, we welcomed 601 visitors and increased gross income by 6.1%, sustaining livelihoods while connecting guests to the cultural and ecological richness of southern Belize. Our Ridge to Reef Expeditions remained a pillar of impact tourism, linking conservation with education, and investing in community benefit. We also laid the groundwork for a full-scale STEM education roll out in 2025 and expanded our digital reach to connect with new audiences.

We continued to invest in people. From scholarships and youth clubs to career fairs and summer camps, we reached over 800 young people through education and engagement. Our summer camp alone impacted 152 children from five communities, many of whom are now better equipped to become environmental stewards.

Regionally, we stepped into leadership as the new President of the Tri-national Alliance for the Conservation of the Gulf of Honduras (TRIGOH), convening partners to address solid waste management and co-develop the Gulf of Honduras Cup—a youth-driven, environmentally anchored initiative for 2025–2026.

As we look ahead, we are energized by the momentum built in 2024. We remain committed to protecting Belize's natural heritage, empowering communities, and building partnerships that create lasting change. Together, we are proving that local leadership, science-based management, and shared stewardship can deliver a more sustainable and resilient future for all.

Leonardo Chavarria - TIDE Executive Director

TABLE OF CONTENTS

About TIDE	4
2024 Highlights	6
Natural Resource Management: Resource Management and Protection.	7
Payne's Creek National Park	7
Port Honduras Marine Reserve	7
Sapodilla Cayes Marine Reserve	8
TIDE Private Protected Lands	8
Wildland Fire Management	9
Wildland Fire Management Training	9
Natural Resource Management: Research and Monitoring	10
Yellow-Headed Parrot Monitoring	10
Reforestation	11
Sea Turtle Monitoring in PHMR	11
MoSI Monitoring in TPPL	12
Fish Spawning and Aggregation Monitoring	12
Community Stewardship: Education and Outreach	13
Outreach to Fisherfolks	13
Toledo Environmental Clubs	13
Career Days	14
Reef Week	14
Summer Camp	14
TIDE Conservation Festival 2024	14
Community Stewardship: Community Development	15
TIDE Scholarship Program.	15
Financial Sustainability	16
2024 Flash Summary	16
Financial Sustainability Director's Overview	16
Business Operations	17
Financial Performance	17
Economic Impact	17
Capacity Building	18
Environmental Impact.	18
STEM Education and Marketing	18
2025 Outlook	18
Governance	19
Responsibility of TIDE's Board.	19
Activities Accomplished by the Board of Directors	19
Finances	20

MISSION:

To strengthen natural resource management and community stewardship within the Toledo landscape and seascape



Figure 2. TIDE participate in Punta Gorda Town Independence Day 2024 celebrations.

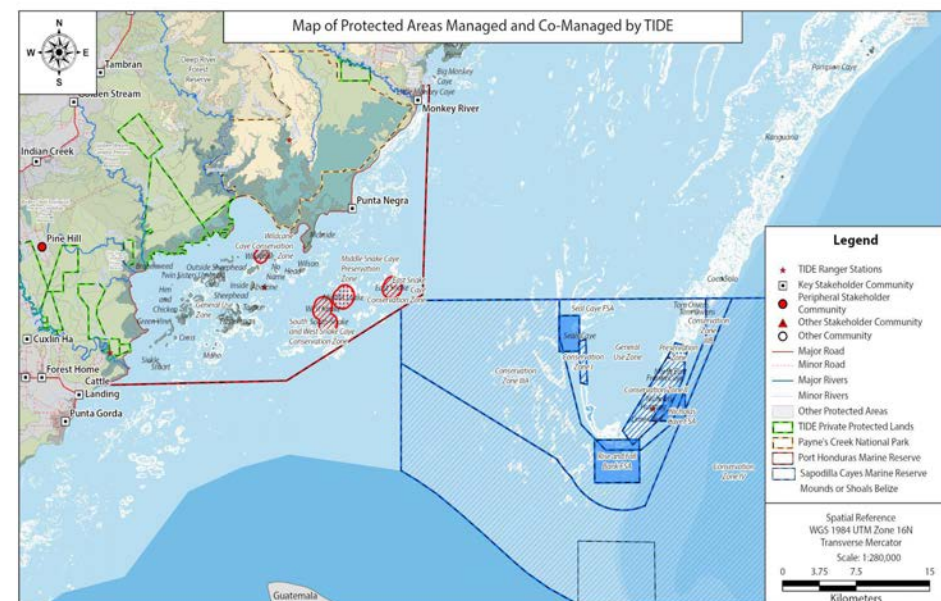
ABOUT TIDE

The Toledo Institute for Development and Environment (TIDE) is a leading conservation non-profit organization established in 1997 to address critical environmental threats in Southern Belize, including illegal fishing and the poaching of endangered species.

TIDE manages a network of protected terrestrial and marine ecosystems within the Maya Mountain Marine Corridor (Figure 3), a critical ridge-to-reef landscape that links Belize's inland forests with its coastal and marine habitats. This interconnected conservation approach plays a pivotal role in maintaining ecological integrity, enhancing climate resilience, and supporting the livelihoods of surrounding communities.

Headquartered in Punta Gorda, TIDE has grown into a both nationally and internationally institution recognized for its work in biodiversity conservation, community engagement, and sustainable development.

With a presence in over 25 communities and a dedicated team of more than 38 full-time staff, TIDE works hand-in-hand with local stakeholders, government agencies, and international partners to implement science and community-based conservation strategies. These include adaptive resource management, environmental education, ecosystem restoration, and sustainable tourism.



TIDE's Key Strategic Areas for 2022 - 2026 are:

- Natural Resource Management
- Community Stewardship
- Supporting Policy Implementation
- Sharing Successful Models
- Institutional Capacity

Figure 3. Map of protected Areas Managed and Co-managed by TIDE. The Maya Mountain Marine Corridor is an 830,000 acre ridge-to-reef landscape that connects the Maya Mountains with the coastal waters and coral reefs of the Gulf of Honduras.

TIDE's Role in Toledo

TIDE applies an integrated, community-driven model focused on effective management of protected areas that advance national conservation goals, biodiversity protection, and climate resilience across the Toledo landscape and seascape.

TIDE's approach is grounded in science-based, adaptive management, using research and monitoring to inform responsive decision-making.

TIDE leads in marine and terrestrial conservation, fire management, and community stewardship, promoting successful, replicable models. Strong collaboration with government, NGOs, academia, and local communities ensures coordinated, participatory governance.

TIDE also advocates for enabling policies, while fostering inclusive conservation, education, employment, and capacity building to enhance local stewardship and long-term sustainability.



Figure 4. PHMR Head Ranger Edwin Cabrera explains the role of enforcement at Port Honduras Marine Reserve to a group of pre-schoolers and chaperones whilst at Abalone Caye (during one of TIDE's many PHMR Field Trips).



Figure 5. View of TIDE's reforestation site at Big Falls, at the start of 2024 fire season, with the Maya Mountains in the background.

TIDE'S Scope in Belize

TIDE's ridge-to-reef landscape spans six major watersheds flowing into Port Honduras Marine Reserve, stretching from the Maya Mountains in the west to the coastal wetlands, Snake Cayes, and Sapodilla Cayes Marine Reserve in the east.

This ecological continuum forms a vital connection between land and sea within the Mesoamerican Biological Corridor, encompassing coral reefs, mangroves, lagoons, tropical broadleaf forests, and pine savannas. TIDE's portfolio—nationally and private protected areas—plays a key role in Belize's National Protected Areas System. Through strong community and stakeholder partnerships, TIDE promotes ecosystem-based management to support biodiversity, climate resilience, and sustainable development in Southern Belize.

TIDE'S Portfolio of Protected Areas

TIDE manages three nationally recognized protected areas and 21,911 acres of privately owned conservation lands in Southern Belize.

These include Payne's Creek National Park (37,680 acres) co-managed with the National Biodiversity Office; Port Honduras Marine Reserve (approx. 100,000 acres) and Sapodilla Cayes Marine Reserve (321,623 acres), both under co-management with the Fisheries Department.

The privately held lands, known as TIDE Private Protected Lands (TPPL), comprise of fourteen distinct parcels across the Toledo District. Collectively, these areas form a vital part of Belize's southern Biological Corridor, protecting critical ecosystems and advancing integrated landscape and seascape-level conservation and climate resilience strategies.



Figure 6. View of Port Honduras Marine Reserve from a lookout tower on TIDE's property at Punta Ycacos.

2024 HIGHLIGHTS

The 2024 monitoring season for the Yellow-Headed Parrot in Payne's Creek National Park (PCNP) and adjacent areas focused on the restoration of nesting sites, early nest inspections yielded some amazing results: A total of 41 nests were monitored, with 36 confirmed active, indicating robust nesting activity in the surveyed habitat. These nests produced 76 eggs, leading to the successful hatching of 36 chicks.



70-Hectare Reforestation Initiative Launched! With support from IUCN, TIDE commenced one of Southern Belize's most ambitious ecological restoration efforts within the TIDE Private Protected Lands (TPPL).

In 2024, the initiative began with the planting of 3,500 native tree seedlings, marking the first phase of a **70-hectare reforestation project** aimed at restoring degraded tropical forest and enhancing biodiversity.



In January 2024, TPPL Head Ranger Mr. Reymundo Chen advanced to the level of Bander following a rigorous ten-day assessment by the North American Banding Council (NABC) in Peten, Guatemala.



Responding to Widespread Wildland Fires. A prolonged drought in 2024 contributed to extensive wildland fires across Toledo, severely impacting homes, farms, pine savannahs, and broadleaf forests. In response, TIDE staff provided critical support to partner organizations, government agencies, and local communities, playing an active role in fire suppression efforts across multiple affected areas.



Biodiversity Monitoring Breakthroughs. In 2024, sea turtle monitoring efforts documented 7,130 eggs with a 72% hatching success rate along key nesting beaches. Concurrently, SMART patrols recorded 24 manatee sightings and captured evidence of jaguar presence, reflecting the continued ecological richness of TIDE-managed areas and the effectiveness of ongoing wildlife monitoring programs.



NATURAL RESOURCE MANAGEMENT: RESOURCE MANAGEMENT AND PROTECTION

The Natural Resource Management Program focuses on the TIDE protected areas, and on the TIDE ridge-to-reef landscape and seascape, with strate-

Figure 7. Youth cleanup in front of TIDE's Building - Punta Ycacos. TIDE focuses on holistic conservation of the ecosystems and biodiversity.

Payne's Creek National Park

In 2024, Payne's Creek National Park rangers completed 358 patrols, covering over 15,000 kilometers and 807 patrol hours.

While primarily focused on routine monitoring, patrols also included reconnaissance and logistical support. Rangers recorded 818 observations, including wildlife sightings, illegal fishing and logging, and several forest fires. Four major fires near Thousand Creek and the Deep River Forest Reserve (believed to be human-caused) required active suppression by park staff, underscoring the persistent wildfire threat to the park's ecosystems.



Figure 8. Mr Mario Muschamp explains Payne's Creek National Park ecology to international journalists in 2024.

Port Honduras Marine Reserve

In 2024, Port Honduras Marine Reserve's enforcement team conducted 520 patrols, covering approximately 14,823 kilometers and spending 882 patrol hours at sea.

While this marked a slight decrease from 610 patrols in 2023, efforts remained focused on key conservation and preservation zones, particularly around the ecologically sensitive Snake Cayes. Enforcement actions included the removal of two gill nets and two out-of-season lobster traps, the issuance of one verbal warning, and multiple responses to repeated incursions by Guatemalan vessels near South Snake Caye.



Figure 9. East-snake Caye - Port Honduras Marine Reserve

Sapodilla Cayes Marine Reserve

In 2024, rangers conducted 352 patrols in the Sapodilla Cayes Marine Reserve (SCMR), covering 13,150 kilometers over 814 hours. A total of 36 infractions were observed, resulting in 4 verbal warnings and 2 arrests.

The offenders were prosecuted for multiple violations, including possession of shark without a permit, commercial fishing in Conservation Zone 4, use of long lines, and operating without valid licenses. Fines totaled \$12,550.00, and the vessel and engine were confiscated by the Government of Belize. Additionally, the team removed 27 illegal fishing gears from the reserve, including 2 fish traps, 13 long lines, and 12 gillnets—measuring approximately 1,500 feet in total.

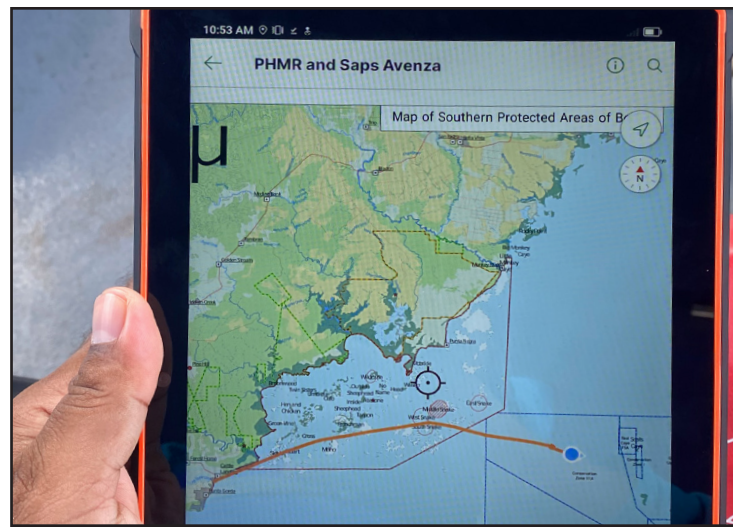


Figure 10. GPS showing route to Hunting Caye - Sapodilla Cayes Marine Reserve

TIDE Private Protected Lands

In 2024, T I D E conducted 408 patrols across the TIDE Private Protected Lands (TPPL), including 64 land-based and 344 water-based operations. Patrols focused on the Rio Grande and adjacent

coastal areas, where 60 individuals were encountered—primarily residents from Punta Gorda, Cattle Landing, Forest Home, Elridgeville, Cuxlin Ha, Big Falls, and San Marcos. Activity peaked between April and June, with 17 recorded incidents of illegal hunting, fishing, and unauthorized entry.



Figure 11. Terrestrial Ranger Leonard Teul



Figure 12. Makeshift camp discovered on patrol - TPPL



Figure 13. Rangers on patrol - TPPL

Wildland Fire Management:

For 2024, Payne's Creek National Park staff played a central role in wildfire suppression efforts throughout the Toledo District, supporting a wide range of communities and land managers in response to one of the most intense wildfire seasons in recent years. From May 14th to June 3rd, TIDE staff assisted at Golden Stream Corridor Preserve (GSCP) and Columbia River Forest Reserve (CRFR), working alongside Southern Belize Fire Working Group (SBFWG) and partner Ya'axché Conservation Trust (YCT) during a three-day deployment from May 14–16.

In addition to this coordinated response, PCNP rangers supported fire suppression efforts in the communities of San Miguel, Silver Creek, Hicatee, Indian Creek, and San Pedro Colombia, as well as in the TIDE Private Protected Lands (TPPL) and Copal Tree Lands



Figure 14. TIDE responds to wildfire in San Miguel, Toledo

(near Big Falls). Collectively, these fires affected several thousand acres of broadleaf forest, an ecosystem that is not naturally adapted to fire. The ecological impacts were significant and will be long-lasting, requiring ongoing monitoring to assess changes in forest structure, species composition, and regeneration capacity over time.

The 2024 wildfire season highlighted a major gap: front line teams lacked sufficient equipment. In response, we procured over 20 new sets firefighting kits including a large water tank, with support from Protected Areas Conservation Trust (PACT). These assets represent a major step in improving regional fire preparedness and enhancing the organization's ability to respond effectively to future wildfire events across Southern Belize.



Figure 15. TIDE Fire Crew in San Pedro Colombia, Toledo

Wildland Fire Management Training:

Through two consultancies facilitated by SATIIM and Humana People to People, TIDE staff delivered Basic Fire Management Training to approximately 75 participants from the communities of Santa Teresa, Otoxha, Dolores, and San Lucas.

The training covered key topics, including: (1) fire behavior and dynamics, (2) use of firefighting tools, (3) safety protocols, (4) operational strategies, (5)

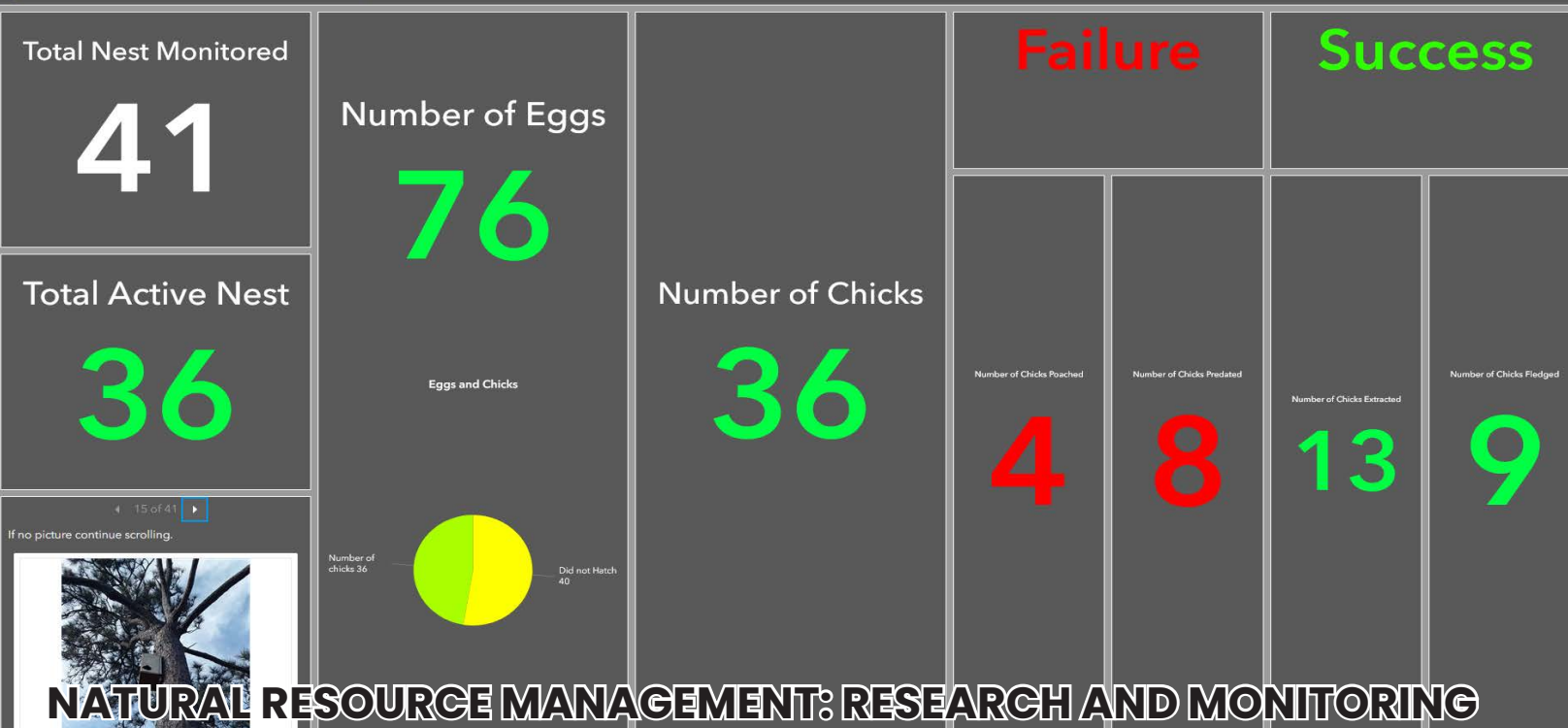
the Incident Command System (ICS) for coordinated response, and (6) planning and implementation of prescribed or controlled burns. Based on feedback received from participants, the training significantly enhanced their understanding of wildland fire risks and preparedness. Participants expressed increased confidence in applying the knowledge gained to improve community-level fire management and response capabilities.



Figure 16. TIDE running Wildland Fire Management Training with community members of Santa Teresa, Toledo



Figure 17. TIDE running Wildland Fire Management Training with community members of Santa Teresa, Toledo



NATURAL RESOURCE MANAGEMENT: RESEARCH AND MONITORING

TIDE integrates science-based monitoring with adaptive management to protect ecosystems across its ridge-to-reef corridor. Through enforcement, biodiversity surveys, fire response, and habitat

Figure 18. 2024 Yellow-headed parrot ARC GIS Dashboard restoration, our teams collect and apply data to guide conservation actions and strengthen ecosystem resilience.

Yellow-headed Parrot Monitoring

The 2024 monitoring season for the Yellow-Headed Parrot in Payne’s Creek National Park (PCNP) and adjacent areas focused on the restoration of nesting sites, early nest inspections, continuous monitoring of active nests, and the strategic protection or extraction of chicks.

- 4 chicks were poached (despite regular enforcement patrols).
- 8 succumbed to natural predation.
- 13 were extracted and transferred to Belize Bird Rescue (BBR) for captive rearing.
- 9 chicks successfully fledged into the wild without intervention.

These combined efforts in nest management, chick safeguarding, and anti-poaching patrols continue to play a crucial role in the long-term conservation of this endangered species within Belize’s southern biological corridor.



Figure 19. Yellow-headed parrot fledglings are transferred to Belize Bird Rescue



Figure 20. Yellow-headed adult parrot returns from BBR

Reforestation In 2024, with funding and support from IUCN, TIDE commenced the implementation of a two-year initiative that will see 70ha of degraded forest within the TPPL restored to its natural ecological state. An ecological baseline assessment was conducted by a local team, and a restoration plan was developed to guide efforts. Restoration is being conducted using the Applied Nucleation Reforestation Technique, where clusters of five trees with varying ecological functions are planted in close proximity to one another. To support the efforts, TIDE’s Native Plant Nursery was established within the TPPL beside TIDE’s Big Falls Retreat, which now houses several thousand native tree seedlings. At the end of 2024, a solar powered storage and office facility, as well as an irrigation system, were close to completion. By the end of December, a total of 8.5ha were planted, and the remaining areas will be replanted when the rains return in late 2025.



Figure 21. TIDE Nursery Manager Mr. Norman Budna joins the team for an Earth day celebration.

Sea Turtle Monitoring in PHMR

Sea Turtle Nest Monitoring Program – Reinstated in 2020, TIDE’s Sea Turtle Nest Monitoring Program is led by Mr. Mario Muschamp and supported by rangers from Payne’s Creek National Park (PCNP) and the TIDE Private Protected Lands (TPPL) teams. Monitoring is conducted along the Punta Ycacos coastline, extending northward toward Monkey River, with nest inspections carried out regularly as part of routine patrols.

these, approximately 5,150 hatchlings successfully emerged, yielding a hatching success rate of 72.2%. The monitoring team also documented 1,076 infertile eggs and 427 eggs damaged by root intrusion.

During the 2024 nesting season, a total of 7,130 sea turtle eggs were recorded across 58 nest sites. Of

Environmental stressors included partial inundation of four nests and the complete loss of one nest. Predation also impacted nesting success: four nests were completely predated, two partially predated—grey foxes were responsible for five of these cases, while raccoons accounted for one.



Figure 22. Sea turtle nest site on Punta Ycacos Beach



Figure 23. Sea turtles successfully emerging on Punta Ycacos Beach

MoSI Monitoring in TPPL

The MoSI (Monitoring of Survival and Reproduction in Migratory Birds) program continued in 2024 at the TPPL Rio Grande monitoring site, with data collection pulses conducted from November 2023 to March 2024, and resuming again in November 2024. To strengthen capacity in this specialized monitoring effort, TIDE invested in targeted training opportunities. In January 2024, TPPL Head Ranger Mr. Reymundo Chen advanced to the level of Bander following a rigorous ten-day assessment by the North American Banding Council (NABC) in Peten, Guatemala.

Additionally, in September 2024, TIDE's terrestrial rangers participated in a two-day training led by the University of Belize Environmental Research Institute (UB-ERI). This session focused on MoSI data input, and management.



Figure 24. TIDE Terrestrial Ranger and keen birder George Teul on a monitoring trip - Big Falls Reforestation Site

Fish Spawning and Aggregation Monitoring

Fish Spawning Aggregation (FSA) monitoring continued in the Sapodilla Cayes Marine Reserve (SCMR) from December 2023 through June 2024, with surveys conducted at four known FSA sites.

During the season, a total of 27 commercially important fish species were observed, including various groupers, snappers, and jacks. High concentrations of jacks were recorded at three of the four sites throughout the monitoring period. Notably, the Jewel Wall, located within the Cayman Crown area, consistently yielded sightings of jacks, snappers, and other pelagic species, particularly in the latter half of the

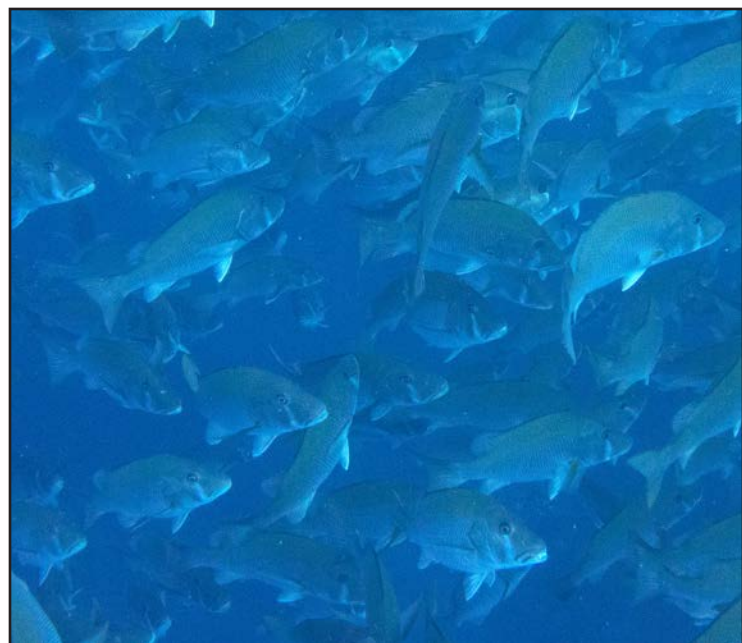


Figure 25. Dogsnapper aggregation at SCMR

season.

TIDE identified a caye that emerged as a key hotspot for groupers and snappers, especially during January and February. Indicators of reproductive and spawning behavior—primarily among grouper species—were documented at three of the four survey sites. As TIDE continues its FSA monitoring, it is building a robust dataset that supports the sustainable management of these ecologically and economically critical sites, contributing to national fisheries conservation efforts.



Figure 26. TIDE Community Researchers conducting FSA monitoring at SCMR



COMMUNITY STEWARDSHIP: EDUCATION AND OUTREACH

TIDE's Community Stewardship Program is built on two core pillars. The first focuses on environmental education, aiming to inform and inspire communities to become active stewards of natural resources. The second emphasizes community

Figure 27, Big Falls Eco-Warriors clean up the Rio Grande.

engagement, involving individuals in development initiatives that directly enhance natural resource management across the Toledo landscape.

Outreach to Fisherfolks

In March 2024, TIDE hosted a Fisher Forum in Seine Bight Village, funded by IUCN, shortly after officially assuming the Presidency of the Tri-national Alliance for the Conservation of the Gulf of Honduras (TRIGOH) in February 2024.

The forum brought together over 45 fisherfolk from across the Stann Creek and Toledo Districts, providing a platform to discuss the current state of fisheries in the Gulf of Honduras.

Participants examined shared challenges and opportunities, and exchanged knowledge on successful economic alternatives implemented in coastal communities by TRIGOH members and their strategic partners.

Presentations were delivered by TRIGOH, the Belize Fisheries Department, MarAlliance, The Nature Conservancy, Humana People to People Belize, and Fishers4Science.

Toledo Environmental Clubs

In 2024, TIDE engaged 12 youth clubs in activities such as the Climate Change Forum, Youth Conservation Festival, donor presentations, and community clean-ups. These activities fostered environmental awareness, leadership, and collaboration among young conservation advocates.

A standout moment was the international participation of club leader Ms. Christa Salam, who traveled to Kyiv, Ukraine, to share the work of TIDE and voices of Belizean youth with global audiences. Five club exchanges were held, during which members planted 120 seedlings and visited the TPPL nursery to learn

The session concluded with the selection of community representatives to attend a Tri-national Fisher Forum planned for Puerto Barrios, Guatemala later in 2024. This forum exemplified TIDE's continued commitment to regional cooperation, sustainable fisheries, and community-driven solutions in the Gulf of Honduras.



Figure 28. Fisherfolk gather to discuss regional fisheries - Seine Bight.

about reforestation.



Figure 29. Youth leaders travel North to participate in a National Forum on Climate Change.

Career Day/Fairs In 2024, TIDE continued its annual participation in Career Fairs at Toledo Community College, Julian Cho Technical High School, and George Town Technical High School, reaching an estimated 500 third- and

Reef Week Reef Week 2024: Education and Action – Under the theme “UNITE IN THE CORAL REEF FIGHT: LEARN, TEACH AND DO WHAT’S RIGHT” TIDE engaged 135 upper-division students from 6 primary schools, along with Julian Cho Technical High School and its online audience, in educational sessions highlighting the importance of coral reefs. As part of the celebration, 11 winners of an online competition participated in a snorkeling field trip to West Snake Caye, experiencing the reef firsthand. Additionally, several environmental clubs organized

TIDE Summer Camp TIDE Summer Camp 2024: Youth in Conservation – Held under the theme “Linking Land and Seascapes for Conservation” TIDE’s 2024 Summer Camp engaged 152 children (ages 9–13) from five buffer communities: Punta Gorda, San Marcos, Barranco, Trio, and Monkey River. Over five days, campers explored conservation through hands-on restoration activities, environmental education, and peer interaction. Local volunteers facilitated tailored sessions, ensuring age-appropriate learning. A highlight was the visit to TIDE’s Native Plant Nursery and Restoration Site in Big Falls, where children filled seedling bags and

TIDE Conservation Festival 2024 Toledo’s only conservation festival, was held from October 11–13 in Punta Gorda Town under the theme “Linking Land and Seascapes for Conservation!” The weekend opened with the vibrant TIDE Gala, drawing strong local and international support for our fundraising efforts, with guests enjoying cultural entertainment and local cuisine.

The Youth Conservation Competition featured six talented participants from across southern Belize, with



Figures 32, 33, 24. Fish Fest 2024 & Youth Conservation Competition 2024 Winners

fourth-form students. These events offered youth valuable insights into career paths in conservation, environmental science, and community development, strengthening awareness and interest in sustainable futures.

river and community cleanups, collectively removing 36 bags of trash, reinforcing the connection between education, stewardship, and action.



Figure 30. Competition winners on a field trip - PHMR

planted native seeds—deepening their understanding of biodiversity and the role of ecological restoration in protected area management.



Figure 31. TIDE Summer Camp outdoor fun - Trio Village.

Ms. Mavel Gutierrez, sponsored by Southern Environmental Association, taking first place for 2024–2025. The Grand Finale on October 13 brought together over 2,000 attendees at the TIDE Compound for a day of celebration, food, competitions, and fun. Highlights included the annual fishing tournament, won by Thomas Scully Garbutt and his daughter, along with volleyball matches, coconut husking, and children’s games. Special thanks to MC Paul (Turboman) Mahung, our generous donors, and the dedicated staff and volunteers who made this unforgettable weekend possible.

TRIGOH TIDE participated in multiple TRIGOH meetings. The first of which was held in Puerto Barrios, Guatemala, where the focus was on the urgent issue of solid waste management and its growing impact on coastal communities, particularly in Toledo. Discussions emphasized the need for a coordinated regional response to address the effects of solid waste on marine life, local livelihoods, and the overall health and aesthetics of the Gulf’s waters.

TIDE along with IUCN is also engaged in the develop-



Figure 35. Planning the first Integrated Landscape Management Plan for the Gulf of Honduras Region

ment of the first Integrated Landscape Management Plan for the Gulf of Honduras Region. TIDE is actively engaging in the planning of the Gulf of Honduras Cup for 2025–2026, which aims to blend environmental action with youth sports. Each participating country will engage four soccer teams, with each team required to implement an environmental project as a qualifier for the 2026 round. Support has already been confirmed from Amuddis and Ak Tena-mit in Guatemala, and efforts are underway to secure NGO participation from Honduras to strengthen this collaborative initiative.



Figure 36. TIDE hosts a TRIGOH meeting - TIDE HQ, Punta Gorda

COMMUNITY STEWARDSHIP: COMMUNITY DEVELOPMENT

TIDE Scholarship Program In the 2023–2024 school year, seven students graduated from the TIDE Scholarship Program, and 20 new recipients from the buffer communities of San Marcos, Golden Stream, Indian Creek, San Pedro Columbia, and Silver Creek were awarded scholarships for the new academic year beginning in September 2024. During the March and November school breaks,

scholarship students participated in a field trip to Punta Ycacos, with an educational stop at TIDE’s Abalone Caye Ranger Station to learn about the Port Honduras Marine Reserve (PHMR). At Punta Ycacos, the students took part in a beach cleanup, collecting over 50 sacks of marine debris, primarily plastic waste, washed ashore from the Caribbean Sea—combining experiential learning with meaningful conservation action.



Figure 37. Leonardo Chavarria helps TIDE Scholarship Students register - TIDE HQ, Punta Gorda



Figure 38. TIDE Scholarship Students give back by participating in coastal cleanups - Punta Ycacos



FINANCIAL SUSTAINABILITY

TIDE's Financial Sustainability Program is a key component in building institutional capacity.

Figure 39. Successful participants in TIDE's inaugural International Certificate in Bird Ecology

2024 Flash Summary The year 2024 marked another significant milestone for TIDE Tours, building upon the momentum of our historic 2023 achievements. TIDE Tours strengthened our role as a catalyst for conservation, community development, and economic growth in Southern Belize. Central to this success was the continued expansion of the Ridge to Reef Expeditions, which provided hundreds of international visitors with immersive learning experiences, while generating tangible income for local partners and stakeholders. Key investments were made in site infrastructure and

the standardization of Science, Technology, Engineering and Mathematics (STEM) programming, enhancing educational access and delivery. TIDE Tours also introduced innovative training initiatives, including our inaugural **International Certificate in Bird Ecology**. Although overall visitor numbers slightly declined, increased per-visitor engagement, enhanced facilities, and streamlined operations collectively contributed to a strong financial performance—solidifying 2024 as one of the most successful years in our history.



Figure 40. TIDE Tours Field Guides annual review - Abalone Caye

Financial Sustainability Director's Overview

TIDE Tours (the ecotourism division of TIDE) championed environmental stewardship and cultural appreciation through innovative tourism programming. In 2024, smart operational planning and strengthened systems sustained the gains made in 2023. At the heart of this success was the Ridge to Reef Expeditions program, which connected international guests with Belize's natural and cultural landscapes through tailored ecotourism experiences. Strategic

partnerships with institutions such as Education First (EF), University of Alabama, and The Nature Conservancy enabled us to deliver conservation-focused programming interwoven with cultural exchange. Coupled with improvements in monitoring technologies, visitor facilities, and local capacity building, these efforts set a strong foundation for future growth.

Business Operations In 2024, 601 visitors participated in Ridge to Reef Expeditions (lower than the 844 EF participants and 93 day tours recorded in 2023). However, this reduction was offset by a strategic pivot to longer, more tour formats. The result: greater per-visitor value and more meaningful community engagement. EF Tours remained a core partner, contributing 510

Financial Performance

TIDE Tours closed 2024 with a 6.1% increase in gross income over 2023, with Ridge to Reef Expeditions contributing a 19.4% increase. Accommodation revenue grew by 25.2%, spurred by upgraded facilities and expanded utilization of TIDE's lodging assets. Net profit rose by 5.3%, while 16.6% of total income was paid in taxes, reinforcing our commitment to fiscal transparency and integrity. Strategic investment and prudent expense management continue to build long-term financial resilience in TIDE Tours operations.

participants, while the University of Alabama maintained its conservation-focused learning cohort. The addition of Pod Volunteer further diversified our offerings with an 18-day reforestation support program. Substantial infrastructure investments continued, particularly at Payne's Creek, and conceptual plans were developed for future expansion of TIDE's tourism sites.



Figure 41. Ridge to Reef Expeditions - San Pedro Colombia

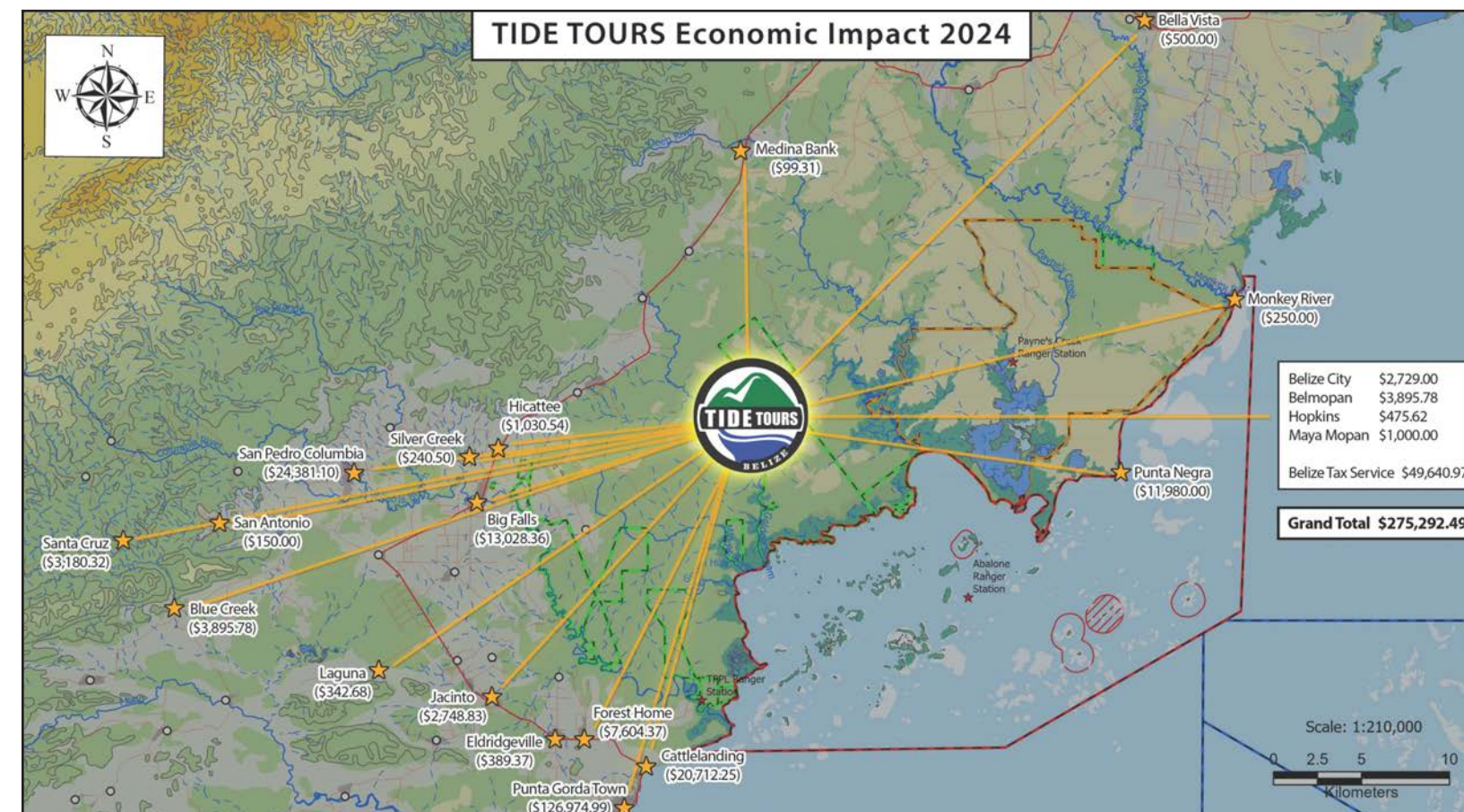


Figure 42. TIDE Tours Economic Impact 2024

Economic Impact

The redesigned programming model delivered deeper engagement and more sustainable outcomes. Despite fewer visitors, extended stays and integrated activities translated into broader economic benefits for local communities. Lodging providers, caterers, freelance guides, and

transportation services all benefited from increased demand (Figure 42 shows the dollar amount TIDE Tours has pumped into communities in Toledo). These localized economic gains were further amplified by partnerships that prioritized community sourcing, ensuring widespread impact throughout Toledo.

Capacity Building

Human capital development remained a central focus. Five new team members completed the TIDE Hybrid Tour Guide Program, blending theoretical training with in-field learning. Five TIDE staff also received professional training

through the International Certificate in Bird Ecology, held at Big Falls Retreat. TIDE supported student internships in partnership with the University of Belize and Toledo Community College, offering four students hands-on experience in tourism operations.

Environmental Impact

TIDE Tours remained steadfast in integrating environmental restoration into guest experiences. In 2024, a total of 1,403 trees were planted—894 by EF Tours, 284 by University of Alabama, and 225 by POD Volunteers (See Figure 43). Planting

efforts were guided by ecological data to prioritize long-term habitat restoration. The use of GIS mapping and digital monitoring tools enhanced both the precision of planting initiatives and the educational value for visitors, allowing them to visualize their contribution to conservation.



Figure 43. Local Communities and the environment benefit from Ridge to Reef Tree Planting activities

STEM Education and Marketing

TIDE Tours advanced the development of a structured STEM framework, laying the groundwork for a full-scale roll out in 2025. The initiative focuses on aligning content with international academic standards, complemented by the creation of standardized learning guides and site-specific curricula across

TIDE's protected areas. Digital marketing was expanded in 2024, and a comprehensive campaign is being prepared for the second-half of 2025. This will strengthen client retention and attract new audiences seeking meaningful, conservation-driven travel experiences.

2025 Outlook

As TIDE Tours looks ahead, we are poised to consolidate our leadership in field-based STEM and educational tourism. TIDE Tours will continue to inspire a love for nature, empower local communities, and promote sustainable livelihoods through tourism. With improved infrastructure, refined programming, and growing international and local partnerships, 2025 offers exciting opportunities to deepen impact and expand our reach—ensuring that both people and ecosystems thrive.



Figure 44. TIDE Tours Officer Maureen Assi promoting Punta Gorda as a destination



GOVERNANCE

TIDE's Board is composed of Belizean professionals elected for their expertise in areas such as business, natural resource management, education, community development, public relations, and finance.

Figure 45. (From L-R) TIDE Vice-Chair - Roy Polonio, TIDE Treasurer - Nancy Gomez, TIDE Executive Director - Leonardo Chavarria Jr.

Responsibility of TIDE's Board

The Board of Directors holds ultimate responsibility for the strategic direction and policy formulation of TIDE. Their oversight ensures the organization operates with integrity, accountability, and effectiveness. Key responsibilities include:

- Safeguarding TIDE's vision, values, and objectives, and upholding its institutional policies.
- Ensuring high standards in planning, operations,

administration, evaluation, and reporting.

- Guaranteeing compliance with all statutory and legal obligations.
- Securing adequate financial and human resources to support TIDE's mission.
- Ensuring that all resources entrusted to TIDE are used efficiently, transparently, and for their intended purposes.

The Board plays a critical role in maintaining the organization's credibility and long-term sustainability.

Board of Directors Accomplishments

In 2024 TIDE Board of Directors met on 7 occasions under the new leadership of new Chair Mr. Jerry Enriquez and Vice-chair Mr. Roy Polonio. Roy Polonio also represented the TIDE Board by attending TRIGOH meetings throughout the year. In August four members of TIDE's Board attended a virtual one-day capacity building training covering topics such as: Financial Sustainability, funding mechanisms, and climate change – how it affects TIDE's work and ways in which TIDE can implement mitigation and adaptation programs.



Figure 46. TIDE Board of Directors attend a virtual workshop on Climate Change Adaptation and Mitigation

FINANCES

The total public support and revenues for 2024 were USD \$1,215,283.66.

2024 Expenses were USD \$1,216,362.00 comprised of

General & Administrative (31%), Sapodilla Cayes Marine Reserve (18%), TIDE Sustainability Initiative (18%), Port Honduras Marine Reserve (13%), TIDE Private Lands (10%), and Payne's Creek National Park (9%).

TIDE 2024 Income Breakdown

■ Grants, Private ■ Grants, Public ■ Self-generated ■ Other Income

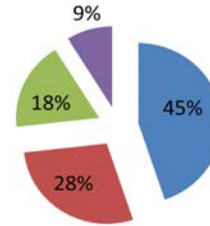


Figure 47. 2024 Income

TIDE 2024 Expenses by Functional Areas

■ TIDE Private Lands ■ Payne's Creek National Park
 ■ Port Honduras Marine Reserve ■ General & Administrative
 ■ Sapodilla Cayes Marine Reserve ■ TIDE Sustainability Initiative

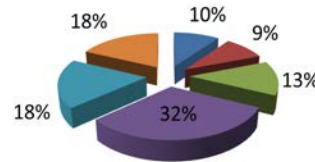


Figure 48. 2024 Expenses



Figure 49. TIDE staff plant trees on Earth Day 2024

Toledo Institute for Development and Environment
 1 Mile San Antonio Road
 Punta Gorda
 Toledo District
 Belize, Central America
 Tel: 501-722-2274/2431
 Email: info@tidebelize.org
<http://www.tidebelize.org>

