

Investing in Sustainable Nature and Adventure-based Tourism in the Coral Triangle

Exploring the benefits of investing in low-impact, high-value
Sustainable Nature and Adventure-based Tourism vs. Mass Tourism

May 2017

Produced by 2iis Consulting in collaboration with



**CORAL TRIANGLE
INITIATIVE**

ON CORAL REEFS, FISHERIES AND FOOD SECURITY

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Investing in Sustainable Nature and Adventure-based Tourism in the Coral Triangle.

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Prepared by 2iis Consulting on behalf of WWF-Pacific.

The lead author of this report was Richard Plumpton, Principal of 2iis Consulting.

Substantive input was also received from:

Jackie Thomas, Leader, WWF Coral Triangle Programme;
Carl Solomon and Charlotte Prouse, Directors, Destination Marketing Store; and
Keith Richards, Director Raleo Ltd and Chair of the Consumer Panel of the Civil Aviation Authority.

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2iis Consulting

Email | info@2iis.com.au
Tel | +61 468 703 377
Web | www.2iis.com.au



WWF South Pacific Programme Office

4 Ma'afu Street, Suva, Fiji
Tel | +679 3315533
Web | www.wwfpacific.org

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SECTIONS 1–2

1 | FOREWORD

2 | EXECUTIVE SUMMARY & KEY FINDINGS

NOTE

This report contains additional analysis undertaken in May 2017 to supplement the detailed Baseline Analysis of Nature-based Tourism in the Coral Triangle undertaken between November 2015 and January 2016.

This document should be read in conjunction with the 2015 Baseline Analysis report, as many of the conclusions drawn then are directly relevant to the findings contained in this report.

The original Baseline Analysis can be downloaded from: <https://www.2iis.com.au/wwfcoraltriangle>.

1 | FOREWORD

This report is part of the 'Developing & Promoting Sustainable Nature-based Tourism in the Coral Triangle' project. Supported by funding from the Australian Government, this initiative looks to assist the 6 countries of the *Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security (CTI-CFF)* to develop and accelerate a long-term approach to more sustainable Nature and Adventure-based Tourism in the Coral Triangle. The current CTI-CFF countries are Indonesia, Malaysia, Papua New Guinea, the Philippines, Solomon Islands and Timor-Leste.

The long-term vision that the broader initiative is designed to support is that ***'The Coral Triangle Region is a renowned sustainable tourism destination with economic benefits flowing to communities, governments and private enterprise, providing a strong incentive to protect and sustain the region's natural environment.'***¹

The broader initiative focuses on the long-term business opportunity a Coral Triangle Nature and Adventure-based Tourism Brand could present for the whole region and what would be necessary to support and promote it. It looks to help lay the foundations for a long-term transition to a more sustainable Tourism model that could play a significant role in the future economic, social and environmental prosperity (and resilience) of the region. It is also intended to encourage and assist the Tourism Industry to accelerate its investment in Sustainable Nature and Adventure-based Tourism within the Coral Triangle.

In late 2015, a detailed Baseline Analysis titled **'Nature-based Marine Tourism in the Coral Triangle'** was undertaken as an early stage of the initiative, summarising the current state of Tourism in the 6 CTI-CFF countries and exploring some of the opportunities for growing the and Nature and Adventure-based Tourism Sector throughout the region.

The Baseline Analysis touched on some of the Direct Economic Benefits Nature-based Tourism can provide vs. Mass Tourism, but, given the breadth of the report, did not look closely at the potential broader Societal, Environmental and Indirect Economic Benefits that investing in Nature and Adventure-based Tourism can bring to the Communities of the Coral Triangle Region.

This report aims to build on the initial 2015 Baseline Analysis report and explore these broader benefits, with a particular focus on analysing the potential Return on Investment (ROI) that NABT development can deliver compared with Mass Tourism Development.

Given the data and analysis available for Nature-based Tourism remains inconsistent (as noted in the original Baseline Analysis), assumptions have been made on the following pages to enable certain areas to be explored in more depth. These assumptions are clearly outlined where they occur and summarised in Section 6.1.

The original Baseline Analysis can be downloaded from: <https://www.2iis.com.au/wwfcoraltriangle>.



2 | EXECUTIVE SUMMARY | Page 1 of 2

The **'Investing in Sustainable Nature and Adventure-based Tourism in the Coral Triangle'** report explores the potential benefits of investing in Nature and Adventure-based Tourism (NABT) as opposed to Mass Tourism in the Coral Triangle Region. It is a component of the **'Developing and Promoting Sustainable Nature-based Tourism in the Coral Triangle'** initiative, a project that commenced in July 2015 with the support of the Australian Government.

It builds on the **'Nature-based Marine Tourism in the Coral Triangle'** Baseline Analysis report published in December 2015 and supplements the broad analysis contained in that document with a detailed look at both the potential Return on Investment (ROI) and overall Socio-Economic and Environmental benefits that could be delivered with targeted NABT investments in the Coral Triangle Region. In undertaking this ROI analysis, it also factored in the negative impacts that all Sectors of Tourism Developments can have on a location.

In analysing the ROI of NABT and Mass Tourism, this report seeks to provide indicative ranges rather than definitive forecasts. These ranges are based on 3 core ROI estimates (Private/Community, Public and Tourism Promotion ROIs), which are then weighted according to 9 potential Weighted Impact Measures that have been identified as being of particular significance to Tourism Development in the Coral Triangle.

Given the disparate and incomplete nature of the Tourism data available (particularly NABT data), an analysis of this kind is challenging. This has led to a relatively large number of assumptions being made to allow for as clear, robust and useful a set of conclusions as possible to be made. These assumptions are included in full in Section 6.1.1 and the detail on the workings behind the ROI calculations can be found in Section 6.2.

Overall, this latest report reinforces and provides additional detail on the clear long-term benefits of investing in NABT over Mass Tourism in areas of Medium to High Conservation Value, or with significant potential for NABT.

It finds that investing in NABT at suitable sites throughout the Coral Triangle could deliver a potential US \$1.46–US \$1.88 trillion per annum in total Socio-Economic and Environmental value by 2035 at an average Weighted ROI of 14.5–16.5% (vs. 8.5–10% for Mass Tourism). These average Weighted ROI figures indicate that NABT outperforms Mass Tourism by, on average, 60–65% over a 20-year period.²

From a Return on Investment (ROI) point of view, even at the Base ROI level (a simple measure of Economic ROI before any 'Weighted Impact Measures' are taken into account), NABT delivers a higher average ROI than Mass Tourism (9–10% vs 7–8%).³ This indicates that any investment would deliver, on average, a 28–30% better return over a 20-year time period if invested in NABT vs. Mass Tourism (*See Section 6, p. 26 for full ROI analysis*).⁴

If you then factor in all the potential Socio-Economic & Environmental benefits and possible negative impacts that NABT could bring, then the Weighted Average ROI for NABT jumps +64% to 14.5–16.5% (vs. Mass at 8.5–10.0%).⁵

Having looked at average returns, the analysis then examines the potential range that could be achieved by both NABT and Mass Tourism. The Weighted ROI Averages for NABT range from a low of 2.21% to a high of 28.64%, vs. 0.06% to 19.00% for Mass Tourism. Establishing that NABT in the Coral Triangle could deliver a potential return of up to almost 29% per annum vs. 19% for Mass Tourism, is a highly significant finding.⁶

The low range figure of 2.21% for NABT (vs. 0.06% for Mass) is also interesting, given it indicates NABT has greater potential to deliver an adequate ROI even when Tourism experiences a downturn or financial conditions are tougher. This finding is supported by anecdotal evidence gathered during the writing of both this report and the 2015 Baseline Analysis, which indicates that NAB Tourists are a much more resilient target group than Mass Tourists.

The overall potential return of up to 29% for NABT indicates very clearly that not only are the overall potential financial returns much higher, but that NABT can also provide broad and deep additional Socio-Economic, Cultural and Environmental benefits to the Coral Triangle Communities in which it is developed. This 4-way potential impact led to the term 'Quadruple Bottom Line Benefits' being used in this report as a way of summarising these inter-connected impacts on a Community.

To explore the potential 'Quadruple Bottom Line Benefits' of NABT and Mass Tourism in more detail, 9 'Weighted Impact Measures' were identified, with a score for each measure then calculated (–10 to + 10). These measures

2 | EXECUTIVE SUMMARY | Page 2 of 2

looked to establish in which areas the two kinds of Tourism could deliver either the most positive or negative impacts (outside of purely providing direct Tourism Revenue). They were deliberately selected with the kinds of Tourism that appear most likely to suit the Coral Triangle Region in mind. The 9 Measures used were:

1) Direct Economic Benefits; 2) Indirect Economic Benefits; 3) Societal and Community Benefits; 4) Environmental Benefits; 5) Sustainable Revenue Generation Potential; 6) Destination Investment & Maintenance Requirements; 7) Overall Tourism Lifecycle; 8) 'Green Premium Price Potential'; and 9) Climate Change Resilience.

Unsurprisingly, NABT had a much higher overall potential than Mass Tourism for a broad range of additional benefits outside of the pure economic returns available. What was striking, however, was how closely the benefits of NABT matched up with the CTI-CFF's identified priority areas for Tourism Development in the Coral Triangle.

Looking at the Weighted Impact Measures, NABT was found to perform more than twice as strongly on average as Mass Tourism (6.99 vs. 3.06) and had 15 positive scores out of a possible 18 (83%) vs. 11 (61%) for Mass Tourism.

NABT performed particularly strongly with regards to Societal & Community Benefits (9.20 for NABT vs. 1.10 for Mass), Sustainable Revenue Generation (8.80 vs. 5.20), Environmental Protection (8.75 vs. 2.10) and the breadth of Direct and Indirect Economic benefits it can bring (6.70 vs. 2.30).

From an Overall Lifecycle point of view, NABT was found to be almost twice as likely to become a sustainable Economic Driver for the area it is developed in than Mass Tourism (8.20 vs. 4.15); with the potential for an additional 'Green Premium' to be received (5.30 vs. 0.60) and for helping build Climate Resilience (5.60 vs. 2.20) identified as useful secondary areas.

Lastly, the long-term Destination Infrastructure & Maintenance requirements were found to be less onerous for NABT than Mass (2.60 vs. -1.50 on average). This finding was mainly driven by the large 'rejuvenation investment' that Mass Tourism Destinations tend to require at some point to halt the usual decline in their lifecycle. (*See Section 5.1.1*).

Broadly speaking, the Weighted Impact Analysis summarised above strongly supports the findings of the original Baseline Analysis and confirms that NABT is far more likely than Mass Tourism to have significant, long-lasting positive impacts on a Community, whilst being much less likely to have any significant negative impacts.

Outside of the ROI and Weighted Impact Measures analysis summarised above, a number of other areas are also explored in this report. They include an overview of the potential benefits and negative impacts that Tourism can bring; a brief look at the Relative Rates of Return of NABT and Mass Tourism; a review of the lifecycle models for different forms of Tourism; a summary of the renewed UN focus on using Sustainable Tourism as a development tool; and the inclusion of a small selection of NABT and Mass Tourism case studies. All of these other areas were either used as inputs to the ROI and Weighted Impacts analysis, or were captured due to their relevance to the broader **'Developing and Promoting Sustainable Nature-based Tourism in the Coral Triangle'** initiative.

Taken together, the findings outlined above and detailed in the body of this report clearly support the broader conclusions drawn in the 2015 Baseline Analysis about the potential for Nature and Adventure-based Tourism to have a significant and far-reaching development impact in the Coral Triangle.

Based on the ROI of up to 29% and total value of US \$1.46–US \$1.88 trillion per annum for Coral Triangle NABT identified, the apparently robust business case initially outlined in early 2016 is strongly confirmed by this report.

The challenge now is to outline that strong business case for Coral Triangle NABT Development in as compelling a way as possible and then share it with potential investors – both Public and Private. This process has already commenced through the development of an Investment Prospectus for Coral Triangle NABT Development (initially in Papua New Guinea, the Solomon Islands and Timor-Leste) that will include the key findings from this report.

Following that, it will be up to the CTI-CFF Secretariat and individual Coral Triangle Countries to work out how best to open up the US \$1.88 trillion Coral Triangle NABT opportunity. An opportunity that this report encourages is fully explored as, even if only half of the forecast value becomes a reality, that US \$0.95 trillion will still have a transformative impact on more than 100 million people in local Communities right across the Coral Triangle.

INVESTING IN NATURE & ADVENTURE-BASED TOURISM IN THE CORAL TRIANGLE

KEY FINDINGS

Nature and Adventure-based Tourism (NABT) is forecast to be worth US \$1.46–US \$1.88 trillion per annum in Total Socio-Economic and Environmental Value to the Coral Triangle by 2035



Timor-Leste US \$1.9–2.2 billion
The Solomon Islands US \$2.1–2.5 billion
Papua New Guinea US \$11.9–13.8 billion
The Philippines US \$174–220 billion
Malaysia US \$595–770 billion
Indonesia US \$674–871 billion

The direct Economic Value NABT could provide to the 6 Coral Triangle Countries is forecast to grow to US \$159–US \$204 billion per annum

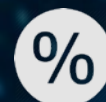


Timor-Leste US \$210–240 million
The Solomon Islands US \$231–273 million
Papua New Guinea US \$1.3–1.5 billion
The Philippines US \$19–24 billion
Malaysia US \$65–84 billion
Indonesia US \$73–95 billion
(Forecasts above from 2015 Baseline Analysis)

Over the next 20 years, NABT's Weighted Return on Investment (ROI) is predicted to average 14.5–16.5% across the 6 Countries
(vs. 8.5–10% for Mass Tourism)



ROI could reach as high as 29% at sites of High Conservation Value or high potential for Nature and Adventure-based Tourism
(vs. 19% for Mass Tourism)



This means Nature & Adventure-Based Tourism would outperform Mass Tourism by 60–65% on average, whilst delivering significant positive Socio-Economic and Environmental Benefits to over 105 million people



The Key Findings above are based on modeling by 2iis Consulting using data from the UN Statistics Division, UNWTO, WTTC, OECD, TIES, UNEP and selected academic sources cited elsewhere in this report.

SECTIONS 3 – 4

3 | BACKGROUND

4 | THE OPPORTUNITY FOR INVESTMENT IN SUSTAINABLE NATURE AND ADVENTURE- BASED TOURISM IN THE CORAL TRIANGLE

3 | BACKGROUND

'Every day, more than three million Tourists cross international borders. Every year, almost 1.2 billion people travel abroad. Tourism has become a pillar of economies, a passport to prosperity, and a transformative force for improving millions of lives.'

The world can, and must, harness the power of Tourism as we strive to carry out the (...United Nation's...) 2030 Agenda for Sustainable Development.'

*António Guterres, United Nations Secretary-General, 18 January 2017
Official Launch of the 'International Year of Sustainable Tourism for Development 2017'*

3.1 Tourism as a Sustainable Development Tool

As we approach the middle of 2017, a year dubbed the *'International Year of Sustainable Tourism for Development'* by the United Nations, the significant potential role of Tourism in helping achieve the UN's Sustainable Development Goals (SDGs) has rarely been clearer or more widely accepted.

In 2015 the UNWTO laid out how Tourism was increasingly recognised at key political forums and among the World's decision makers when it came to the Sustainable Development agenda. Milestones they highlighted as being significant included the inclusion of Sustainable Tourism in the RIO+20 outcome document *'The Future We Want'*, the highlighting of Tourism as *'a change vector along the road to the Green Economy'* by the UN Environment Programme (UNEP); and the G20 backing of Tourism as a sector uniquely positioned to assist in addressing global economic challenges – particularly for those increasingly being faced by the Least Developed Countries (LDCs).⁷

The key role of Tourism in the *'Aid for Trade'* agenda has also been increasingly recognised in the last 5 years by, amongst others, the Organization for Economic Co-operation and Development (OECD), the World Trade Organisation (WTO), the European Union and major unilateral and multi-lateral donors, particularly through the Enhanced Integrated Framework, a WTO multi-donor programme for LDCs.⁸

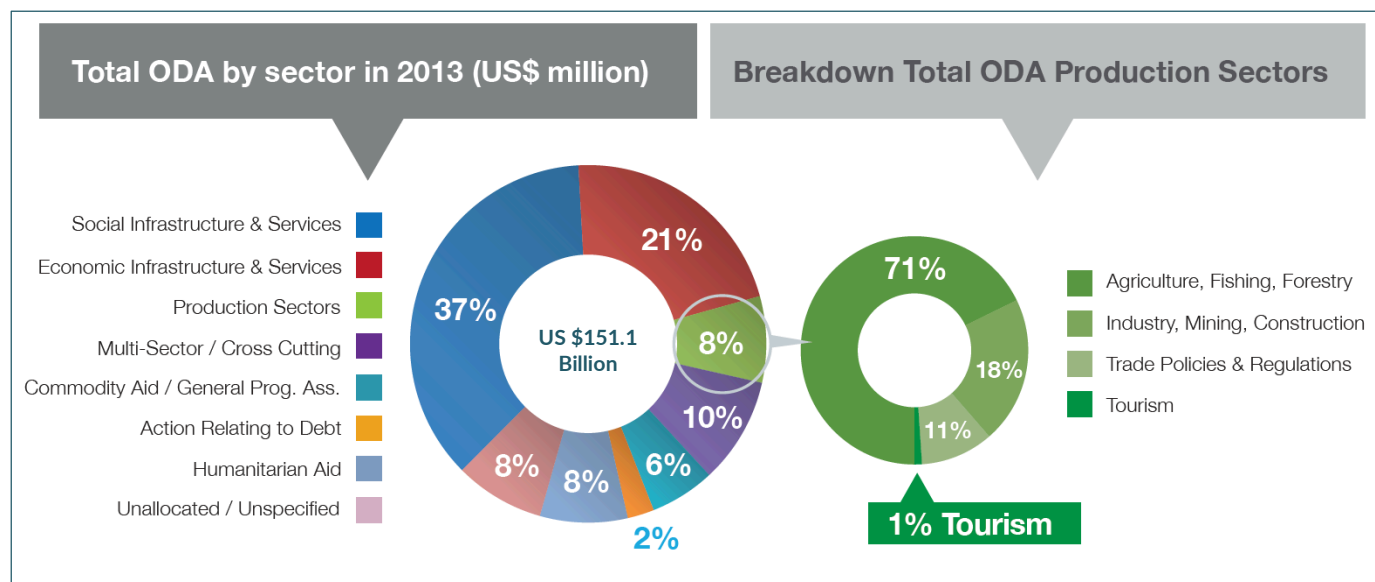


3.1 Tourism as a Sustainable Development Tool | Continued

However, despite this recognition at the highest levels of Government and within International bodies like the UN and World Bank, Tourism remains considerably untapped as a vehicle for structural development aid. Between 2006–13, for example, it made up only 0.09% (or US \$140 million) of Official Development Assistance (see *Graphic 1, below*) and 0.4% of Aid for Trade (AfT).⁹ This is particularly significant when looking at the proportion of the US \$151.1 billion annual ODA directed to Economic Infrastructure (21%, US \$31.7 billion), Social Infrastructure (37%, US \$55.9 billion) and Humanitarian Aid (21%, US \$12.1 billion) – all sectors that can positively benefit from appropriate Sustainable Tourism Development (thus getting a secondary impact beyond just Tourism growth).

Graphic 1: Tourism and Development Assistance 2006–2013

Source: United Nations World Tourism Organisation (UNWTO) © 2015.



Given the focus on increasing the use of Tourism as a Sustainable Development tool, it would be fair to assume that the proportion of Development Assistance being directed more overtly to Sustainable Tourism is already increasing and, given its potential to assist in Socio-economic Growth whilst minimising Environmental and Cultural impacts, this trend seems likely to accelerate over the coming decades.

Alongside this likely ODA funding increase is the forecast strong demand growth in Global Tourism, with International Arrivals predicted to increase from 1.2 billion in 2014 to 1.8 billion by 2030 and Domestic Trips from 5.5 billion to 9 billion.¹⁰ This strong demand growth will provide clear and ongoing incentives for increased Tourism investment to provide the products and services that these additional Tourists will need.

Overall, Tourism currently accounts for almost 10% of global GDP, generates more than US\$ 1.5 trillion in trade income (or 30% of the world's Services Exports) and provides 1 in 11 jobs worldwide.¹¹ Increasing demand (due primarily to rising urbanisation and the growth in the middle classes) will drive an already significant Socio-Economic sector to become ever-more critical to the world's Economy.

Due to a variety of risks (including over-population and climate change), this growth will not be linear and it is certainly not a given that the types of Tourism pursued globally will all be sustainably developed. However, the growing realisation of the potential for Sustainable Tourism to 'do good', increasing demand amongst Tourists for lower-impact forms of Travel and Tourism, and the clear evidence of the damage that Mass or Mainstream Tourism can do to Communities and locations, are all driving a shift to more sustainable forms of Tourism, whilst Mass Tourism growth has slowed and in some areas even shown signs of decline.

More detail on the growth trends in Tourism – and the risks and challenges of this growth – can be found in the full Baseline Analysis report '*Nature-based Tourism in the Coral Triangle*' completed by 2iis Consulting in December 2015.¹²

3.2 The Coral Triangle Initiative on Coral Reefs Fisheries and Food Security (CTI-CFF)

The broader Sustainable Tourism initiative (of which this report is a part) focuses on finding ways to accelerate the development of sustainable Nature and Adventure-based Tourism in the Coral Triangle – or, more specifically, within the 6 countries of the Coral Triangle Initiative on Coral Reefs Fisheries and Food Security (CTI-CFF).

The CTI-CFF is a multilateral partnership formed in 2007 to address the urgent threats facing the coastal and marine resources of one of the most biologically diverse and ecologically rich regions on earth.¹³ 'The Coral Triangle Implementation Area' encompasses Indonesia, Malaysia, Papua New Guinea, the Philippines, Solomon Islands and Timor-Leste (see Map 1 below) and includes a number of areas already relatively well-developed for Tourism (both Mass/ Mainstream and Sustainable/ Nature-based).

The CTI-CFF was initially focused on improving food security, livelihoods and income provision through the protection of the marine resources that directly support over 130 million people living in coastal communities and provide significant benefits to the 360 million+ people who reside in the 6 CTI-CFF countries. However, Nature and Adventure-based Tourism was identified early-on as a sector that could contribute significantly to the broader goals of the CTI-CFF. These goals were covered in some detail in the original Baseline Analysis report (Section 3) and can also be found in the CTI-CFF's 'Regional Plan of Action (RPOA)' that was ratified in 2009.

Of particular relevance to this report was the clear identification in the RPOA of the potential for Nature and Adventure-based Tourism to support vulnerable communities throughout the Coral Triangle region, whilst also assisting in the implementation and growth of the Marine Protected Area (MPA) system. The importance of encouraging Private Sector Investment in Sustainable Tourism practices in the Coral Triangle was also identified.¹⁴

Within this context, whilst there has been much general interest in the Coral Triangle countries around Tourism for a number of years, a clear need for a standalone CTI-CFF regional initiative focused specifically on facilitating Sustainable Tourism Development was identified in late 2014 and ultimately led to the **Developing and Promoting Sustainable Nature-based Tourism in the Coral Triangle** project.¹⁵

Map 1: The Coral Triangle Implementation Area

© CTI-CFF Coral Triangle Atlas Team

See Appendix C for Maps of Key Marine Habitats and Seascapes of The Coral Triangle.



3.3 The 'Developing and Promoting Sustainable Nature-based Tourism in the Coral Triangle' Project

Beginning in mid-2015, 'Developing and Promoting Sustainable Nature-based Tourism in the Coral Triangle' is an Australian Government funded initiative, implemented by the World Wide Fund for Nature (WWF).

It aims to assist the six countries of the Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security (CTI-CFF) to develop a long-term approach to more sustainable Tourism in the region that supports resilient and sustainable livelihoods.

The initiative has four overall long-term aims:

- 1) **Promote world class, high quality and sustainable visitor experiences** right across the Coral Triangle;
- 2) **Increase the value of Tourism** to Local, Regional and National Economies;
- 3) **Enhance the role of Marine Protected Areas** in local communities (e.g. supporting sustainable livelihoods); and
- 4) **Build support for protecting the Natural and Cultural Assets of the region**, in particular the marine and coastal resources of the Coral Triangle.

Three key potential benefits have also underpinned the projects' implementation:

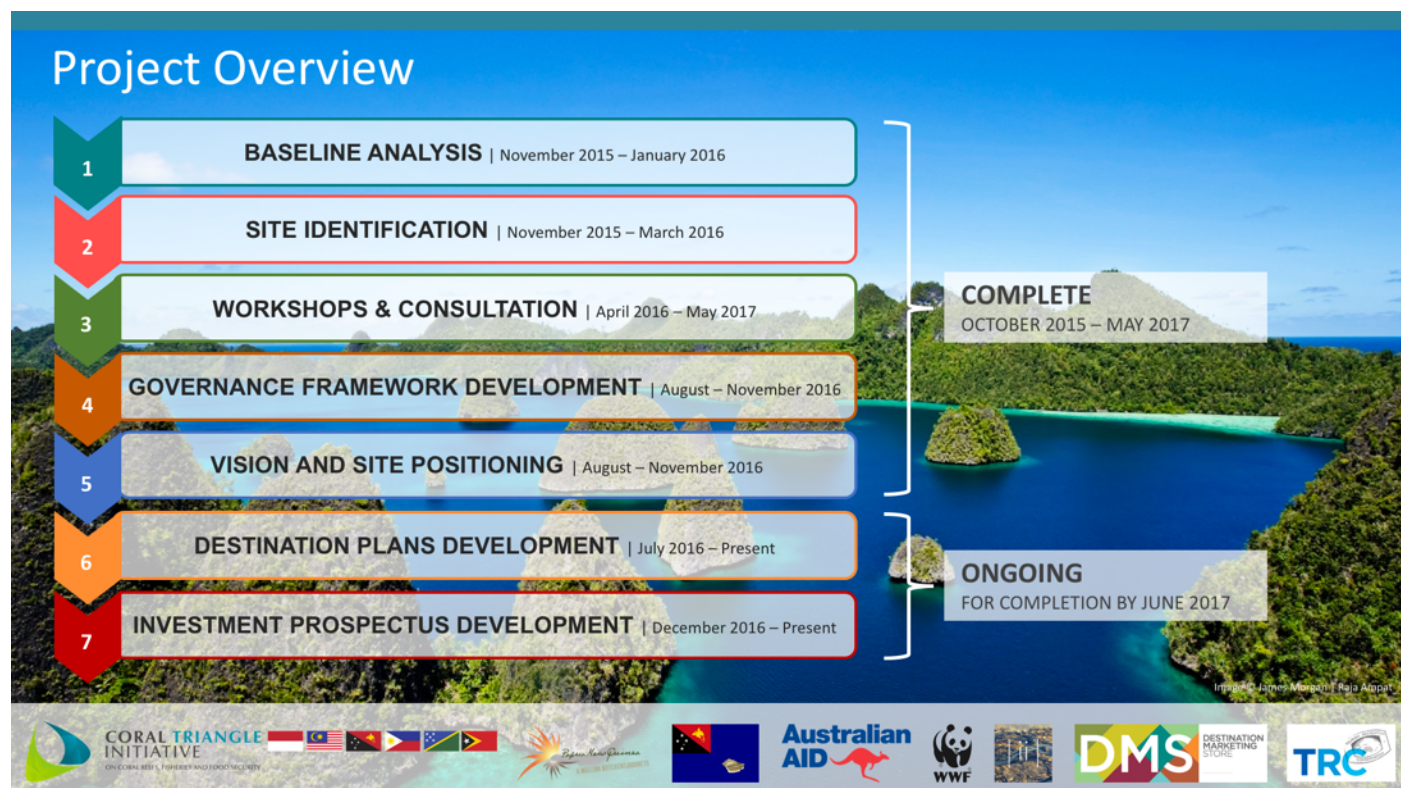
- 1) **Creation of a partnership** between Tourism and Conservation to support resilient local Communities by enabling sustainable livelihoods;
- 2) **Improved protection of marine & coastal resources** by providing incentives for conservation vs. exploitation; and
- 3) **Greater awareness and cut-through for Tourism in the Coral Triangle** in a competitive global Tourism market.

In terms of project delivery, seven stages were outlined during the planning stages, with five of these complete at the time of writing of this report and the final two (Destination Plans and Investment Prospectus Development) due for completion by June 2017.

These stages are detailed in the graphic below, including an indication of the timeframe for each stage.

Graphic 2: 'Developing and Promoting Sustainable Nature-based Tourism in the Coral Triangle': Project Stages

Source: 2iis Consulting & WWF Project Overview for Kimbe Bay Workshop (11/05/2017), © 2017.



3.4 Nature-based Marine Tourism in the Coral Triangle: Exploring the potential for low impact, high-value Nature and Adventure-based Marine and Coastal Tourism (2015)

As the first stage of the project, the Baseline Analysis report summarised the current state of Nature and Adventure-based Tourism in the 6 CTI-CFF countries and explored some of the opportunities for growing this sector of Tourism throughout the Coral Triangle region.

Completed in December 2015, it included:

- 1) **An outline of key Global Tourism Trends.**
- 2) **Detailed analysis of Tourism in the 6 CTI-CFF Countries** (Indonesia, Malaysia, Papua New Guinea, the Philippines, Solomon Islands & Timor Leste).
- 3) **An analysis of the potential for NBMT growth to 2035 in the Coral Triangle.**
- 4) **An outline of the key risks and barriers to that growth** (including climate change).
- 5) **Global and regional case studies** of best practice to inform any future approach.
- 6) **An initial review of potential sites for NBMT development across the Coral Triangle.**
- 7) **An initial outline of potential Governance Frameworks.**

Significantly, the report also outlined the Economic Potential for Nature and Adventure-based Tourism in the Coral Triangle as increasing from between US **\$19.7 billion–US \$24.7 billion** in 2015, to between US **\$159 billion–US \$204 billion** by 2035.¹⁶

As well as looking at the Direct Economic Potential an initial look was taken at the potential 'quadruple bottom line benefit' of NABT in the Coral Triangle:

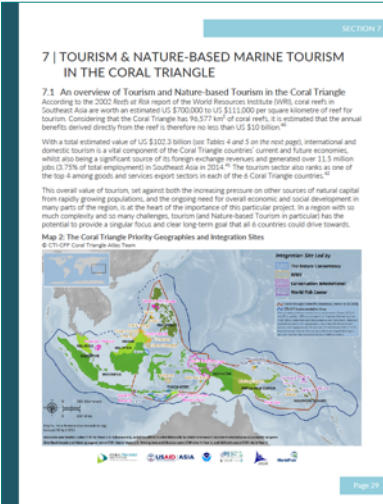
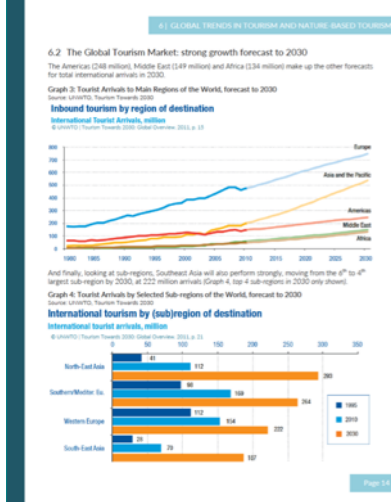
- 1) Increased Cross-sector Economic Growth;
- 2) Societal/ Cultural Preservation;
- 3) Long-term Environmental Protection/Management
- 4) Increased Resilience to the Accelerating Impacts of Climate Change.

However, the broad nature of the Baseline Analysis did not allow for a more detailed look at these additional Societal, Environmental and Indirect Economic benefits to be undertaken at the time.

This additional analysis was, however, identified in 2016 as a potential area for further study and, now work on the Investment Prospectus is nearing completion, has resulted in this additional report being undertaken.

Graphic 3: Selected Pages of 2015/16 Baseline Analysis

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Full report and summary available at: <https://www.2iis.com.au/wwfcoraltriangle>

3.5 Site Selection, Destination Planning & Promoting Targeted Investment

Whilst the overall intent of the project is to develop and accelerate a long-term approach to more Sustainable Nature-based Tourism throughout the Coral Triangle, given their greater current need for accelerated Tourism Development Papua New Guinea, the Solomon Islands and Timor-Leste have been focused on initially. The funding from the Australian Government was also provided specifically to support these 3 countries.

Following the Baseline Analysis of their overall Tourism Sectors (which included an initial look at potential sites), a number of locations of high potential for Nature and Adventure-based Tourism were identified as possible pilot sites through field visits in PNG, the Solomon Islands and Timor-Leste. This led to detailed consultation with the Government and Tourism Promotion Authority of each country, before three suitable sites were selected as the locations where detailed planning and development work would be undertaken in 2016 and early 2017.

The locations of these pilot sites can be found on Map 2 (below) and are described as follows:

Site 1: Papua New Guinea | Kimbe Bay and Surrounds, West New Britain Province

Focused on Kimbe Bay, the site extends to the west past the Guillaumez Pensinsular towards Tuvulu and Cape Goucester and east towards the border of East New Britain (ending level with Lolobau Island).

Site 2: The Solomon Islands | Outer Western Province

Encompasses the region of Western Province known as the 'Outer Side of The Slot' or New Georgia Sound. Includes Ghizo, Rendova & Tetepare Islands; Munda and Marovo and Vona Vona Lagoons; Kolombangara and Simbo Islands.

Site 3: Timor Leste | Ataúro Island, Lesser Sunda Islands.

Ataúro is described by the Government as a Sub-district of Dili. Divided into five areas (Sukos) – Makili, Makadade, Vila-Maumeta, Beloi and Biqueli. Each of these is under the control of a Chef de Suko.



3.5 Site Selection, Destination Planning & Promoting Targeted Investment | Continued

With the 3 pilot sites identified, detailed Destination Planning has since been undertaken. A Destination Plan (DP) is a framework for developing and managing sustainable experiences for visitors. It identifies:

- 1) **The shared vision** of the Community and industry for Tourism;
- 2) **How the site should be positioned** in the eyes of potential visitors (target market) to achieve this vision;
- 3) **The hero or signature experiences** that can be used to support the positioning and attract visitors to the island; and
- 4) **Enablers to address challenges, gaps, opportunities and barriers** to destination planning, development and management.

The three Destination Plans (DPs) are due for completion by June 2017 and include details on how the pilot sites will need to be developed to become 'best-in-class' sustainable Nature and Adventure-based Tourism locations, as well as providing development frameworks for other suitable NABT locations right across the Coral Triangle.

Details from the DP documents are also being used to develop an 'Investment Prospectus' that will seek to encourage NABT Investment in the Coral Triangle. The Investment Prospectus focuses on highlighting:

- 1) **Enabling Infrastructure** that facilitates increased and sustainable visitation, enhances accessibility and/or supports tours and activities within the site;
- 2) **Opportunities for Private Sector Investment** in new or revitalised visitor experiences or services, for example accommodation and partnerships with local Communities;
- 3) **Destination Management and Marketing**, including packaging & bundling of experiences and accommodation, content creation and promotion; and
- 4) **Training and Capacity Building Initiatives**, particularly those aimed at enhancing visitor experiences, hospitality or business skills, especially for Community-based organisations.

The Prospectus is designed to encourage investment in Sustainable NABT from:

- 1) **National or Provincial Governments**, to enable key priorities to be aligned to or incorporated in national strategies or plans;
- 2) **Bilateral or Multilateral Development Partners**, to enable key priorities to be aligned to or incorporated in development assistance strategies or programs, particularly those relating to the conservation of coastal and marine resources within the Coral Triangle countries and sustainable livelihoods/ economic development; and
- 3) **Private Sector Investors** who are seeking opportunities to develop and provide high quality, low-impact sustainable Nature or Adventure-based Tourism experiences or enterprises within the Coral Triangle region.

The key findings from this additional report into the benefits of investing in NABT vs. Mass Tourism will be included in both the Destination Plans and Investment Prospectus to help articulate the Return on Investment (ROI) that could be achieved through focusing more overtly on NABT in the 6 Coral Triangle countries, whilst avoiding rapid Mass Tourism growth.



Images © James Morgan, Don Silcock & WWF

3.6 Defining Sustainable Nature and Adventure-based Tourism

The classification and segmentation of the various categories of Sustainable Tourism are not always precisely defined (or constant) within the Tourism Industry and there remains ongoing debate about the various sub-categories and exactly how they should be defined.

Given this reports' focus is on Sustainable Nature and Adventure-based Tourism in the Coral Triangle, there is obviously a need for a consistent definition to ensure clarity. For the purposes of this document, the following definition of Nature-based Tourism has been used (including Adventure Tourism as a sub-set):

'Nature-based Tourism is any type of tourism that relies on experiences directly related to natural attractions and includes Ecotourism, adventure tourism, extractive tourism, wildlife tourism and nature retreats'.¹⁷

To clearly define Sustainable Tourism, the UN World Tourism Organisation (UNWTO) has been relied upon, which defines it as ***'Tourism that takes full account of its current and future economic, social and environmental impacts, addressing the needs of visitors, the industry, the environment and host communities'.¹⁸***

And finally, given the focus on Tourism in Marine and Coastal areas, the definition by the International Coastal and Marine Tourism Society (ICMTS) has been used, as follows:

'Coastal and marine tourism includes those recreational activities which involve travel away from one's place of residence which have as their host or focus the marine environment and/or the coastal zone.

The marine environment is defined as those waters that are saline and tide-affected. The coastal zone is defined as those areas of land which border the marine environment. The coastal zone extends inland to the first major change in topography beyond which coastal processes have little influence.

Examples of Coastal Ecosystems: Estuaries, coastal dunes, rocky coasts, sandy beaches, coastal cliffs, intertidal (littoral) areas.

Examples of Marine Ecosystems: Coral reefs, benthic zones, kelp forests, rocky reefs, continental shelves, sea-mounts, hydro-thermal vents, open oceans, polar oceans.

Oceanic Zones: Epipelagic, mesopelagic, bathypelagic, abyssopelagic, hadalpelagic.

Coastal Zones: Inshore, littoral, foreshore, backshore.'¹⁹

Further detail on Tourism definitions can be found in Appendix B (page 54).



3.6 Defining Mass Tourism

Along with the definitions of Sustainable Nature and Adventure-based Tourism on the previous page, a definition of Travel and Tourism more broadly and then Mass Tourism specifically is also included.

To help define Mass Tourism, the World Travel and Tourism Council's (WTTC) definition has been relied upon to first define Travel and Tourism, which outlines that ***'Travel and Tourism relates to the activity of travellers on trips outside their usual environment with a duration of less than one year.'***²⁰

A general definition of Tourism based on Pierce et al is also used:

'(Tourism is...) the sum of government and private sector activities that shape and serve the needs and manage the consequences of holiday, business and other travel.'²¹

The Mass Tourism referred to in this report is based on a definition derived from the WTTC and UNWTO:

'Mass tourism is a form of tourism that involves tens of thousands of people going to the same resort often at the same time of year. It is the most popular form of tourism as it is often the cheapest way to holiday, and is often sold as a Package Deal.'²²

'A package deal is one in which all of the tourists needs are catered for by one company, these needs include travel/ flights, activities, accommodation and sometimes food.'²³

Also relied on for definitions in this report is Ivanov and Ivanova's 'Scale of Tourism Development/ Ecological Footprint (SDEF) Grid and Tourism Sustainability Vectors. This was described in some detail in the original report and is included in Appendix A for reference. (Appendix A, p. 51, Section 6.4).

The SDEF outlines 2 potential additional Tourism definitions, 'Mass Ecotourism' and 'Eco Mass Tourism' that sit between the usual 'Ecotourism' and 'Mass Tourism' extremes. It then explores the overall economic, social and environmental impact of each type and looks at the potential sustainability change path for each type and what that might imply. For the Coral Triangle project (including this report), Nature-based Tourism is defined as sitting mainly within the 'Ecotourism' definition, but over time is viewed as being able to stretch into 'Mass Ecotourism'.



4 | THE OPPORTUNITY FOR INVESTMENT IN SUSTAINABLE NABT IN THE CORAL TRIANGLE

As laid out in the 2015 Baseline Analysis, there is a clear opportunity for Nature and Adventure-based Tourism to play a strong role in supporting sustainable Socio-Economic Development in the Coral Triangle region.²⁴ Based purely on Direct Economic Potential, NABT could deliver between US \$159 billion–US \$204 billion in value to the CTI-CFF Countries by 2035 (of a global NABT market potential of US \$775 billion–US \$996 billion).²⁵

Within that global potential, the Asia Pacific region (where the Coral Triangle is located) is the fastest growing region for Tourism overall and also for Nature and Adventure-based Tourism – the latter forecast to grow to US \$234.5 billion–US \$301.5 billion over the same timeframe (see Table 1 below).

Table 1: Current and Forecast Value of Nature-based and Adventure Tourism (2015 vs. 2035)

Sources: UN Statistics Division, UN World Tourism Organisation, World Travel and Tourism Council, CTI-CFF Countries, © 2iis.

REGION/ SCALE	Estimated Value in 2015			Forecast to 2035*		
	Total Tourism Market (US\$)	Nature & Adventure-based Tourism		Total Tourism Market (US\$)	Nature & Adventure-based Tourism	
		20% Share (US\$)	25% Share (US\$)		35% Share (US\$)	45% Share (US\$)
Global	\$1,246 billion	\$249 billion	\$311.5 billion	\$2,214 billion	\$775 billion	\$996 billion
Asia Pacific	\$377 billion	\$75.5 billion	\$94.3 billion	\$670 billion	\$234.5 billion	\$301.5 billion
Coral Triangle (CTI-CFF Countries)	\$98.7 billion	\$19.7 billion	\$ 24.7 billion	\$454.3 billion	\$159 billion	\$204.4 billion

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*2035 forecast is modelled on UN, WTTC and CTI-CFF Country data. Given the wide variety of variables, it should be taken as indicative only.

In terms of potential NABT products, the Coral Triangle region has arguably the greatest potential for developing new and unique NABT offerings & experiences of any comparable region in the world. The natural resource base is extremely significant (i.e. the natural habitats and environments that could provide the base Tourism products for NABT development), the level of current development of NABT as a sector is low, and the demand-driving potential of a well-managed Coral Triangle Sustainable Nature-based Tourism Brand is almost entirely untapped.

If you also consider that other comparable regions have been developing their NABT for a number of years (e.g. Central and South America, Australia and the Caribbean), so are, in the main, past their initial steep growth phases, then the overall pace and scale of potential growth for NABT in the Coral Triangle is second to none.²⁶

The existing governance structure of the CTI-CFF is also a considerable asset when it comes to exploring the potential for maximising the effectiveness and Return on Investment (ROI) of any investment in Sustainable NABT development in the Coral Triangle. That is not to say that the CTI-CFF governance structure is without its challenges and flaws – far from it – but having an existing structure for decision making across the Coral Triangle countries will make the necessary significant decisions with regards to how to develop and invest in a NABT Sector in the Coral Triangle much easier than if the structures had to be built from the ground up.

This governance structure should also lead to overall investment efficiencies, whether that be through the pooling of national Tourism resources at a supranational level, or the potential capacity sharing between the Coral Triangle countries with better developed Tourism infrastructure (Malaysia, Indonesia and the Philippines) and those where it is less developed (Timor Leste, the Solomon Islands and Papua New Guinea).

4 | The Opportunity for Investment in Sustainable NABT in the Coral Triangle | Continued

These likely investment efficiencies have already been allowed for and anticipated in the structure of the **‘Developing and Promoting Sustainable Nature-based Tourism in the Coral Triangle’** initiative itself, which has included a number of project outputs such as an overall CTI NABT Governance Framework and the creation of a CTI-CFF Sustainable Tourism Taskforce which are both designed to facilitate enhanced collaboration on NABT Development within the CTI-CFF.²⁷

In addition to this supply potential and investment efficiency, the other area of opportunity relates to the potential for any NABT investment to have ‘quadruple bottom line benefits’ on a significant number of Communities throughout the Coral Triangle (and potentially beyond). This kind of impact is referred to throughout this report, but, in brief, relates to the clear link between Community-led NABT and its’ potential to have a positive effect on broader Socio-Economic and Environmental outcomes beyond the Direct Economic Impact of a growing, thriving and sustainable NABT Sector. This is explored in more detail in Sections 5 and 6 of this report.

Due to this ‘quadruple bottom line’ effect, any investment in NABT in the Coral Triangle is estimated to have the potential to positively impact more than 80% of the 130 million people living within 10kms of the coastline by 2035 (i.e. 105 million people).²⁸ A growing NABT sector will not only provide these people with some additional income from Tourists, but will also help preserve the environment they rely on for their livelihoods, improve their overall standards of living, lift many of them above the poverty line and could also help them build some critical resilience to cope with the accelerating impacts of climate change. All this whilst protecting the culture and identity of the many unique, vibrant and disparate communities that currently exist in the Coral Triangle.

To start exploring these opportunities and how best to leverage them, this report first takes a closer look at a number of potential broader benefits that investing in Nature and Adventure-based Tourism could bring, before including these potential benefits as part of a comprehensive Return on Investment (ROI) analysis and Weighted Impact Assessment (WIA).

This combined ROI and WIA analysis is then supplemented by selected case studies that provide further insight into how some of these potential benefits could be encouraged by the right kind of targeted investment in Coral Triangle NABT. The case studies also highlight some of the potential pitfalls that will need to be avoided.

To conclude the report, a number of potential implications for the Coral Triangle of increased NABT investment are highlighted, before key data gaps are outlined to help identify any potential areas for further study.



SECTIONS 5 – 8

- 5 | OUTLINING THE POTENTIAL BENEFITS OF NABT
- 6 | AN ANALYSIS OF THE ROI OF INVESTMENT IN NABT VS. MASS TOURISM IN THE CORAL TRIANGLE
- 7 | CASE STUDIES OF NABT & MASS TOURISM DESTINATIONS
- 8 | INFORMATION GAPS AND POTENTIAL AREAS FOR FURTHER STUDY

NOTE

Much of the analysis on the following pages is based on research and analysis undertaken by others.

Due to the relatively recent focus on Sustainable Nature-based Tourism as a significant sector of Tourism by the UNWTO, WTTC, UNEP, OED, World Bank and others, there are significant gaps in the data available for analysis. This has led to some significant assumptions being made which mean any findings and conclusions contained in the following sections should be viewed as indicative rather than definitive.

Every attempt has been made to ensure the source data is as robust and credible as possible, but the author accepts that some of the data in this report is, to a limited degree, speculative.

Any errors or inaccurate conclusions included in this report because of the challenging nature of the data are wholly the fault of the author.

5 | OUTLINING THE POTENTIAL BENEFITS OF NABT

As has been noted in the preceeding sections, Nature and Adventure-based Tourism offers potential 'quadruple bottom line benefits'* to communities where it is developed in a suitably planned and structured way.²⁹

Developing NABT in this way means taking account of factors such as the Tourism supportive capacity of the area, the needs and aspirations of local communities, the natural resource base for NABT, the optimal types of Tourism this base could provide and how to avoid any of the negative impacts that Tourism Development can bring. It is very much the overall strategic approach to Coral Triangle Sustainable Tourism Development supported by this report.

When planned and developed 'thoughtfully', NABT can bring fairly immediate Direct Economic Benefits to the Communities and Governments involved, due to visitors (both Domestic and International) spending on any specific Tourism services provided in the area being frequented (e.g. airfares, accommodation, tours, site visits, equipment hire, guides, food & drink, entertainment). As will be seen in Section 5.1, the target type of Tourists for NABT will, at this base level, tend to spend considerably more within the local Community than Mass Tourists.

In addition to these Direct Economic Benefits, there are a broad range of Indirect Economic Benefits that NABT can also bring to an area. A number of these can also be provided by Mass Tourism in some cases, but, as will be seen in the ROI analysis, neither as broadly, nor to the same scale as can be provided by NABT.

A third area of potential benefits relates to the protective capacity NABT development can have on both local Communities, local Cultures and the Environment – as opposed to Mass Tourism's often detrimental effects across all these areas. This includes the potential for Tourism to play a role in increasing the protection and preservation of specific sites of Cultural and Historical importance.

The fourth and final area relates to a recently recognised area of significant potential benefit: the influence NABT development can have on improving the resilience and adaptive capacity of local communities to climate change.

Together these four categories of potential benefits make up the 'quadruple bottom line benefits' that NABT can provide, as referred to throughout this report and as expanded on in the remainder of this section.

© James Morgan | The Solomon Islands



* It should be noted that the term 'quadruple bottom line' is one used by the author in this report to summarise the multiple and interconnected potential benefits of NABT. It is not a widely-used term in either the Tourism Sector or other Economic Sectors.

5.1 Direct and Indirect Economic Benefits from Tourism

At its most basic level, Tourism is trade. For many developing countries, particularly LDCs, Tourism represents a major share of trade in services and will often form the main source of foreign exchange. In 2014, for example, LDCs earned US \$16.4 billion in exports from International Tourism, representing over 7% of their total exports.³⁰

In terms of the total Global Tourism Sector, Travel & Tourism generated US \$7.2 trillion in 2015 (9.8% of global GDP) and directly supported 284 million jobs. Its' overall growth rate was +2.8%, meaning it outpaced that of the global Economy (+2.3%) and a number of other major sectors such as Manufacturing and Retail.³¹

Within the overall sector, the growth in Nature-based and Adventure Tourism is often called out as the fastest growing Tourism segment. The combined annual growth rate of NABT is estimated to be between 10–30% by the UNWTO and WTTC (i.e. 3.5 to 11 times faster than overall sector growth), with its overall share of the world Tourism and travel market currently estimated at between 20–25% (US \$1.4 trillion to US \$1.8 trillion).³² By 2035 this share is conservatively forecast to grow to between 35–45% (US \$4.0 trillion to US \$6.5 trillion).³³

Looking specifically at the Coral Triangle region, these trends would indicate NABT could be contributing between US \$1.4 trillion–US \$1.9 trillion to GDP by 2035, with direct Tourism spend in the 6 CTI-CFF Countries of between US \$159–US \$204 billion as already outlined in Table 1 (page 15).³⁴

Together these forecasts of Economic Value capture both the potential Direct (forecast Tourism spend) and Indirect (contribution to GDP) Economic Benefits Tourism can bring. Both these areas of potential Economic Benefit will now be explored in more detail – particularly with regards to the different Economic Returns that can be achieved from Investments in NABT, as opposed to Mass (or Mainstream) Tourism.

5.1.1 Direct Economic Benefits from Tourism

Direct Economic Benefits (DEBs) refer to the various revenues a Community, Country or Region receives directly from Tourism. They include revenue from travel fares, income taxes from Tourism employees, visa fees, accommodation charges, site entrance fees and all the associated income from any Tourism services provided.³⁵

One immediate advantage that NABT has over Mass Tourism with regards to DEBs is the fact that Tourists visiting primarily for Nature and Adventure-based Tourism experiences generate greater Economic Value per person. This increased value is driven by their tendency to stay longer in the communities they visit (12–28 days vs. 7–14 for Mass Tourism),³⁶ actively seek out local Tourism providers for their activities and undertake a greater number of activities in general. This contrasts with the Mass Tourist who visits for a shorter time period, is often part of a travel package provided by a foreign operator, is much more likely to stay within a small area & undertakes fewer activities.



5.1.1 Direct Economic Benefit from Tourism | Continued

One detailed study by Tourism Research Australia quantified this additional value and calculated that International Nature and Adventure-based Tourists delivered between 160–165% more Direct Economic Value per trip vs. Mass Tourists (AUS \$5,898 per NABT trip compared to the average International (Mass) Tourist spend of AUS \$3,614 per trip). This significant additional value was then reinforced by the fact that NAB Tourists spent twice as long in the country (42 nights vs. 21 on average).³⁷

Australia also provides a good general example of the benefits of focusing overtly on Nature and Adventure-based Tourism for a prolonged period, with more than 75% of Domestic and International Tourists now recognised as traveling to or within Australia for NABT. Despite only being the 42nd largest global Tourism Market for Visitor Arrivals, Australia is the 11th largest for Tourism Receipts and 1st for spend per visitor (reflecting Tourism Australia's long-standing objective of driving value growth via NABT, rather than volume growth).³⁸

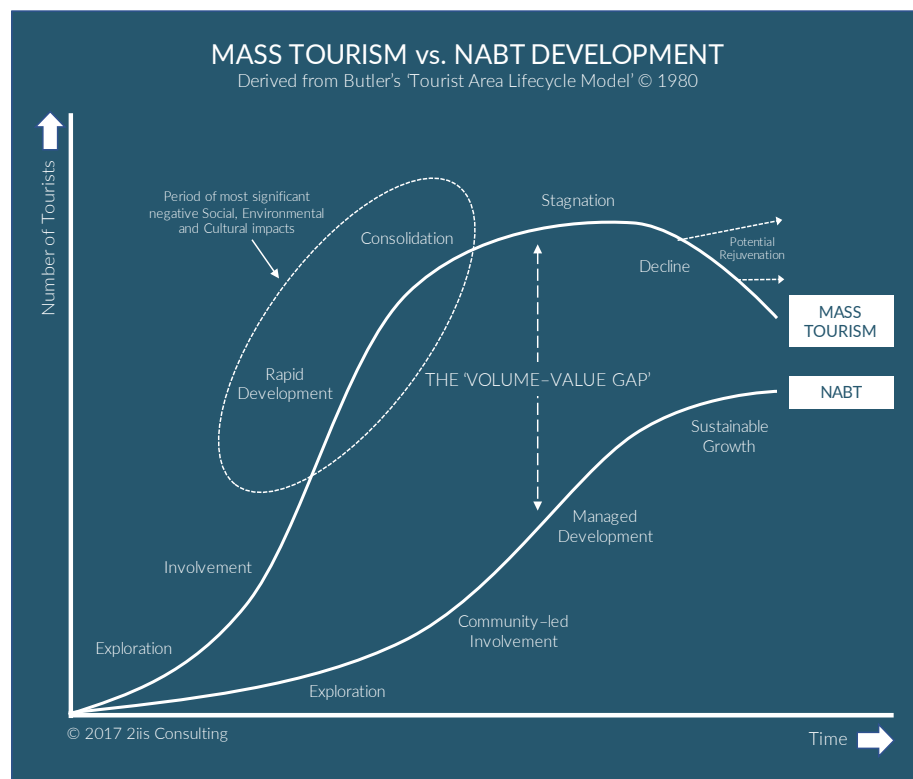
Another underlying structural factor when considering the Direct Economic Benefits of NABT vs Mass Tourism relates to the different Lifecycles these two segments of Tourism tend to follow (and the respective effects this can have on the Economy of a local Community).

Based on Butler's 'Tourist Area Lifecycle Model', Model 1 details the simplified Lifecycles of Mass Tourism and NABT.

The typical lifecycle of a **Mass Tourism Destination** sees it experience a short period of initial Exploration by Tourists, then limited Community Involvement in limited expansion, before Rapid Development occurs (often with high involvement from overseas Private Investors). A period of Consolidation is then experienced, before Stagnation of the location occurs as newer destinations become more fashionable, before its' Decline. The Rapid Development and Consolidation phases are often characterised by significant negative social, environmental and cultural impacts.³⁹

Model 1: Comparing Mass and NABT Tourism Lifecycles

2017 Model by 2iis, derived from Butler © 1980



A **Nature and Adventure-based Destinations**, on the other hand, has a much longer period of Exploration which tends to lead into a sustained period of Community-led Involvement in Tourism Development. Managed Development and Sustainable Growth then complete the journey towards maturity at which point Tourism Arrivals may well stabilise, but their value continues to grow as NAB Tourists are a much higher value segment overall.⁴⁰

The other element of the model of direct relevance is the 'Volume-Value Gap'; this relates to the fact that, although Tourism Numbers at well-managed NABT locations may never reach the levels attained by Mass Tourism Destinations, the location remains within its' 'Carrying Capacity' and so avoids the worst negative Social, Environmental and Cultural impacts that occur at Mass Tourism locations. At the same time, the Direct Economic value of each Tourist to the Community is significantly higher so, although Tourism numbers are lower, the higher value ascribed to each Tourist, coupled with the lower Socio-Economic and Environmental costs of servicing these kinds of Tourists, means that the location as whole will achieve a higher net value from Tourism, at a lower cost.⁴¹

Last, but certainly not least, Nature and Adventure-Based Tourism has the potential to keep growing and supporting the Community over a sustained period of time vs. the standard 'boom and bust' cycle more typical of Mass Tourism.

5.1.2 Indirect Economic Benefits from Tourism

Connected to, and sometimes overlapping with, Direct Economic Benefits, Indirect Economic Benefits (IEBs) refer to the revenues and income a Community can receive from activities that are undertaken in support of Tourism or come about as a result of Tourism Development in an area. They include expanded employment opportunities, better access to education, improved Tourism infrastructure that benefits the whole Community, more reliable and effective communications (including mobile and internet access) and a general diversification of the Economy.⁴²

The two most significant IEBs when it comes to NABT as opposed to Mass Tourism are better access to education and expanded employment opportunities. Due to the fact that NABT development is significantly more Community-focused (and therefore a greater proportion of the Industry locally owned) and its' lifecycle much more sustainable and long-term, the likelihood of any Indirect Economic Benefits having a more direct and sustained impact on the local Community is far greater.

With an estimated 60–100% of Tourism Revenues (both Direct and Indirect) remaining in the local Community at NABT destinations (vs. an estimated 35–90% being syphoned offshore from Mass Tourism locations), the potential for a proportion of those Revenues to be directly re-invested in the Community and for ongoing 'induced effects' to help grow the local Economy more broadly where NABT is the focus is also much greater.⁴³

The potential impact of those Tourism Revenues being directly invested back into Education provision is one obvious benefit, but so too is the tendency for Education levels to improve generally as the local population looks to provide products and services to the NAB Tourists (e.g. gaining an understanding of the Marine Ecology of their local coastline to be able to undertake tours in that area). A less clear measure, but one that anecdotal evidence supports, lies in the much higher engagement of NAB Tourists with the local populations of the areas they visit. This enhanced interaction leads to a general increase in knowledge transfer and, over the long-term, increased education levels.⁴⁴

NABT development also tends to lead to a greater breadth of employment opportunities as the Tourism demand is for a breadth of experiences that mean a wider range of more-niche products need to be developed. Given NABT development is also, generally, smaller in scale, it also has a much lower negative impact when it comes to displacing the traditional Economy and tends to lead to a diversification rather than a concentration of the Economy (i.e. NABT in addition to subsistence farming, cash crops and other local industries, rather than Mass Tourism replacing them).

Looking at one last IEB, given well-managed NABT development tends to avoid the uncontrolled development stage that often goes hand-in-hand with rapid Mass Tourism Growth, the upward pressure on the cost of living for the local population (e.g. increased land prices due to property speculation and rising food costs driven by Tourism demand), is also much more easily managed and, in some cases, avoided entirely.⁴⁵



5.2 Societal, Cultural & Heritage Benefits from Tourism

Of particular importance to the Coral Triangle given the diversity that exists in the region, there are a number of broader Societal, Cultural and Heritage benefits that Tourism can bring to communities. Some of the key ones are:

- 1) **Poverty Reduction and Improvements in Living Standards:** both NABT and Mass Tourism have the potential to reduce poverty and increase basic standards of living (access to clean water and improved sanitation for example), but given the higher proportion of Tourism income retained in the local Community with NABT, this segment of Tourism has a greater overall impact in this area.⁴⁶
- 2) **Cultural Protection:** Nature and Adventure-based Tourists come specifically to experience local Cultures – it is recognised as one of their key motivations for travel. This minimises their potential ‘erosive impact’, but also provides incentives for Cultural Practices to be preserved and shared with these visitors in a suitable way.⁴⁷
- 3) **Heritage Preservation and Renewal:** connected to the above, NAB Tourists are 6–10 times more likely to visit a Heritage Site than Mainstream Tourists; this leads directly to increased economic incentives to preserve and renovate Heritage sites in the Tourism Destination.⁴⁸
- 4) **Improving Access to Health Services:** this is, broadly, influenced equally by both Mass Tourism and NABT, although Mass Tourism can sometimes place short-term strains on the available health resources in LDCs.⁴⁹
- 5) **Reducing or helping control Rural–urban Migration:** both NABT & Mass Tourism have the capacity to provide employment in rural & remote areas, providing incentives for people to remain in those areas for local jobs.⁵⁰
- 6) **Enhancing Gender Equality:** there is strong evidence that Tourism Development is starting to have a positive impact on Gender Equality, driven in part by the UN’s ongoing ‘Women in Tourism Program’.⁵¹

Clearly Tourism Development can also bring negative Societal, Cultural & Heritage impacts. These are considerably more likely with Mass Tourism, driven primarily by the higher number of visitors involved, alongside the fact that they are much less inclined to be sensitive to (and interested in) local cultures. The rapid introduction of Tourism income, for example, often leads to inter and intra-Community tensions and Mass Tourism often leads to the introduction and/ or increased consumption of alcohol & drugs. A summary of the Negative Impacts of Tourism can be found in Section 5.6.

Because of the clear importance placed on retaining a strong cultural identity and preserving heritage in Communities right across the Coral Triangle, this area is particularly important when considering Tourism’s future direction in the region. For this reason a marginally higher weighting has been allocated to the Societal and Community Benefits Metric included in the Return on Investment modeling in Section 6.2.

5.3 Environmental/ Sustainability Benefits from Tourism

It should be stated upfront that all types of Tourism have some degree of negative impact on the environment in which the activity occurs – although the scale and degree of that impact varies widely.

The negative impacts of Mass Tourism are well-documented, with areas like Kuta Beach in Bali one current example of an area being negatively impacted by Tourism in the Coral Triangle (see Section 7.2.2, page 37).⁵²

The potential negative impacts of Tourism in general include high levels of water usage, waste generation and energy consumption, alongside the deterioration of natural and cultural sites. To give just one example, research suggests that Tourists tend to consume around 3 to 4 times more water/day than permanent residents.⁵³

Given the high levels of biodiversity in the Coral Triangle – and the vital supportive nature of this biodiversity for the rapidly growing local population – the risk profile for any Tourism Development is significantly higher than in less densely populated areas with a lower direct reliance on the natural environment for sustainable livelihoods. This makes the choices made by the CTI-CFF and 6 National Governments regarding the segments of Tourism focused on for development of particular importance.

It should come as no surprise that well-managed NABT operating under a strong Governance Structure has a much lower overall Environmental Footprint than Mass Tourism. And it's worth stressing that the strong Governance Structure mentioned here is an absolutely essential component of minimising the negative and maximising the positive potential impacts of Tourism – its' role in successful NABT development should not be under-estimated.

Looking at the relative Footprints of NABT & Mass Tourism, a 2012 Environmental Footprint Assessment (EFA) study compared the Nature-based Tourism in the Seychelles with more mainstream Tourism in Tunisia and estimated the footprint of Seychelle's Tourism as being less than 12% that of Tunisia (218,482 aggregated EFi vs 1,843,039 EFi).⁵⁴ Whilst this is one of the more extreme examples of the difference in environmental impact, it does give an indication of the potential upper range for this measure (and is made use of in the ROI analysis).*

In terms of the positive potential Environmental impacts that Tourism can have, the difference is even more marked. Whilst some Mass Tourism at exceptionally well-managed sites might have a relatively low negative impact, it rarely, if ever, has a net positive effect. This is contrasted with Nature and Adventure-based Tourism which, if visitor numbers are maintained within the carrying capacity of a location, can bring a broad range of benefits, including:

- 1) **Increased Economic Value from Protected Areas (e.g. Coral Triangle MPAs, see Appendix D) generated for local Communities, leading to greater understanding of the need to protect those areas & a financial incentive to do so.**
- 2) **Better waste management practises throughout the Community as NAB Tourists tend to demand higher standards.**
- 3) **Greater incentives to set aside land for Nature and Adventure-based Tourism (in addition to Protected Areas).**
- 4) **Increased Government Budgets for managing Protected Areas as fees can be charged to Tourists for access.**

The above 4 examples are by no means all the benefits that NABT can bring, but do provide a starting point for estimating the broad range of positive impacts on the environment that a Destination could experience. Along with the EFA statistics highlighted above they form the basis for the ROI modeling undertaken in Section 6.2.

** Appendix E includes the Gössling Model for Ecological Footprint Analysis used to assess the relative Impact of Tourism in the Seychelles/ Tunisia example cited above. It provides a good example of a methodology to assess a Tourism Development's impact.*

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© Changes in Longitude | Kuta Beach, Bali



5.4 Enhancing a Community's Climate Change Resilience through Tourism

An area where NABT holds one of the most striking advantage over Mass Tourism is that of its' potential to enhance a Community's overall resilience to the likely impacts of climate change.

There are a multitude of factors that support NABT's ability to build climate resilience, but the most significant are:

- 1) **Increased Economic Diversification of the Destination through NABT development:** NABT development is much less likely to overwhelm a Destination than rapid Mass Tourism growth, where Tourism can quickly become the dominant Economic Sector. This means NABT integrates much better with the existing economic base of a region and is more likely to enable a more diversified Economy – one characteristic increasingly seen as critical for climate change resilience.
- 2) **Lower overall impact of NABT on the Ecosystem that provides sustainable livelihoods to the Community:** probably the most obvious benefit, the lower overall environmental impact of well-managed NABT minimises the risk of the Ecosystem being unable to support the Community's food and base income needs under increasing climate change (and population) pressures.
- 3) **Overall NABT development encouraging and accelerating Community Education:** also referred to in Section 5.1.2, this relates to the impact NABT can have in improving education levels in a Community – in turn building adaptive capacity. Of particular relevance in the less developed Coral Triangle Countries (PNG, Solomon Islands and Timor Leste).
- 4) **'Travel Resilience' and Community engagement levels of NAB Tourists:** the target visitors for NABT Destinations are willing to travel to more inaccessible locations and are more likely to be involved in, and supportive of, a Community's efforts to build climate change resilience. They are also often the first to travel to areas affected by climate-change-enhanced natural disasters when they are made accessible again, thus assisting in recovery.

Given the potential for Tourism to play a role in enhancing climate change resilience remains a new area of study, the statistical basis for comparing NABT and Mass Tourism locations is almost non-existent. However, there is a growing body of anecdotal evidence that well-managed, environmentally sensitive and Community-led Nature and Adventure-based Tourism can play a role in helping support communities, particularly in Less Developed Countries (LDCs), to build their adaptive capacity to respond to climate change.

One relevant study that is exploring this area is a project led by CSIRO titled '**Building capacity for sustainable and responsible development in the Bismarck Sea, Papua New Guinea**'.⁵⁵ This project included work in West New Britain looking at the potential for Sustainable Tourism to become a key part of the Province's future economic growth, whilst also assisting in the diversification of the economic base to improve climate resilience.

Overall, the growing realisation that Community Climate Change Resilience needs to be considered when looking at Tourism Development, strongly supports a greater focus on NABT as opposed to Mass Tourism.



5.5 The 'Quadruple Bottom Line' of NABT

Despite a number of the potential benefits outlined in Sections 5.1–5.4 being applicable to all forms of Tourism, it is clear that, when comparing NABT with Mass Tourism, only Nature-based Tourism under a strong Governance System can deliver true 'Quadruple Bottom Line' benefits to the Community in which it is developed.

Saying this does not ignore the fact that NABT has some negative impacts – even when developed according to high ecological standards (e.g. following Global Sustainable Tourism Council Criteria).⁵⁶ But these impacts are much more likely to be minimised and managed effectively under a NABT-focused model than a Mass Tourism one.

However, it is when we look at the potential positive benefits NABT can bring to Communities that the intrinsic value this sector of Tourism can deliver becomes clear. As can be seen from the Sections above, this value extends from Direct & Indirect Economic Benefits, through Societal, Cultural & Heritage Benefits, across Environmental & Sustainability Benefits and even into the area of potentially enhancing a Community's overall adaptive capacity and resilience to climate change.⁵⁷

It is in these four inter-connected areas that NABT can have a positive influence to a much greater degree than Mass Tourism, whilst also being able to maintain that influence over a longer period of time.

And it is the fact that they are inter-related and that NABT operates across all of them to a greater or lesser degree that leads to the use of the term 'Quadruple Bottom Line Benefits' to describe how they work together to deliver significant combined benefits, whilst minimising social and environmental degradation and retaining the greatest proportion of direct economic benefit possible within the host Community.

It is also this area of potential inter-connected benefits from NABT or Mass Tourism that the ROI analysis on the following pages tries to quantify in as robust and clear a way as possible.



5.6 A Brief Summary of the Potential Negative Impacts of Tourism

Detail on the Global Socio-Economic Forces affecting Tourism, Emerging trends in Visitor Motivations & Behaviour and an in-depth look at the specific challenges with Mass and Mainstream Tourism Development were included in the 2015 'Nature-based Tourism in the Coral Triangle' Baseline Analysis, so are not repeated here (although certain sections are included within Appendix A of this report). However, given all Tourism Development, whether Mass or Nature-focused, has an impact on the location where it occurs, a brief summary of the main potential negative impacts Tourism Development could have in the Coral Triangle are highlighted below.

Key Potential Negative Impacts of Tourism Development

Whilst Mass Tourism clearly has a much greater potential negative impact on local communities, NABT development can also bring many of the same potential issues – just at a lower level overall. Some examples of the potential detrimental effects that Tourism can have include:

- 1) **Pressure on the 'carrying capacity' of local resources**
Unplanned growth of international, regional and domestic demand for Tourism experiences can put extreme pressure on an area and rapidly exceed the carrying capacity of local resources, utilities & existing infrastructure.
- 2) **Unplanned and unsustainable/ exploitative development of coastal areas**
The pressure described above often leads to poorly planned and under-regulated development of Tourism infrastructure, which has far-reaching negative impacts on local economies and communities.
- 3) **Cultural Degradation and Heritage Destruction**
Influxes of large volumes of people from outside an area inevitably affect local societies and their culture. Given the diversity of cultures and ethnic groups prevalent in the CTI-CFF countries (and the vulnerability of many Heritage Sites, the potential for long-term negative impacts on the various cultural groups and heritage of the region is high.
- 4) **Introduction or exacerbation of 'societal ills'**
Connected to cultural degradation, Tourism also often has other unwanted negative consequences, from the introduction or increased consumption of alcohol and drugs, to the exposure of local populations to conflicting attitudes.
- 5) **'Leakage' of Tourism's potential Economic Benefits away from local Communities**
Whilst Mass Tourism tends to attract a greater proportion of overseas or 'out-of-area' investment, if not controlled NABT can also attract high levels of external investment that can prevent local communities from receiving the full potential benefits of any Tourism Development.
- 6) **Direct Environmental Degradation**
Rapid expansion of Tourism infrastructure carries obvious risks to local environments.
- 7) **Pressure on already under-resourced Government structures**
Existing government and governance structures are often already under-resourced and the pressure of rapid Tourism Development, alongside other essential economic & societal priorities, can quickly overwhelm them.
- 8) **Pressure on the existing resources of human capital within the Tourism Industry**
One of the key elements of successful Tourism Development rests with the people working within the sector. With rapid Tourism Development, this human capital can quickly be overwhelmed, leading to both a rapid decline in the overall quality of the Tourism products/ experiences and significant reductions in the capacity for future planning.
- 9) **Increased Living Costs**
Rapid expansion, particularly with Mass Tourism, can put significant upwards pressure on local living costs.
- 10) **Potential for inter and intra-Community conflict**
Increasing Tourism revenues, competition for natural resources and outside pressure on local culture can lead to increased levels of tension within a Community and/or between neighbouring Communities.

Given the Coral Triangle countries have some of the highest population densities in the world (and also some of the fastest growing), all of these problems are then further exacerbated by the demands already placed on Ecosystems and Social structures simply by the volume of people seeking a path out of, sometimes extreme, poverty. Coupled with the fact that the Asia Pacific is forecast to be the fastest growing Tourism region globally, these potential negative impacts will clearly require careful management if Tourism growth is to support local Communities rather than damage them.

6 | AN ANALYSIS OF THE ROI OF INVESTMENT IN NABT VS. MASS TOURISM IN THE CORAL TRIANGLE

6.1 An Overview of the NABT and Mass Tourism Return on Investment Analysis

This report does not look to analyse all the broader benefits of NABT vs. Mass Tourism, but rather to supplement the overall findings detailed in the original '**Nature-based Tourism in the Coral Triangle**' Baseline Analysis with a more in-depth look at the relative ROI of Investments in NABT as opposed to Mass Tourism.

This is actually a relatively challenging exercise as, in spite of the significant forecast growth potential for NABT both in the Coral Triangle and globally, the data to support an analysis such as this is not readily available.

This means this analysis has necessarily veered away from being overly precise (the data is not robust enough to support such precision) and instead looks at ranges based on data points from a wide variety of sources. All these sources have been selected as being credible, but it should be noted that a relatively large number of assumptions have been made to close some of the gaps in data and allow for clear conclusions to be drawn.

Given the lack of breadth and depth with regards to robust quantitative data, qualitative measure have also been used to provide as realistic and relevant an analysis as possible. Again, this has been necessary to allow for clear and usable conclusions to be drawn.

This does, however, mean that the findings from the ROI analysis on the following pages should be viewed as indicative only – and it is strongly recommended that the ranges given for both NABT and Mass Tourism are used in any subsequent derivative works.

Having said all that, despite the challenging nature of the data, a number of clear and significant findings have been generated by analysing what data is available from the likes of the UNWTO, WTTC, UNEP and World Bank. Supplementing this data with the conclusions from a number of academic papers and insights from a review of selected Tourism case studies, has enabled a fairly clear and robust analysis of NABT and Mass Tourism to be undertaken – with a particular focus on exploring what this could mean for the communities of the Coral Triangle.

Overall a very clear picture of the relative Return on Investment (ROI) of NABT vs. Mass Tourism in the Coral Triangle – and the timescale over which Returns can be expected – has been uncovered, whilst at the same time identifying some of the key implications this could have for potential Private/ Community, Public/ Government and Multi-lateral Investors.



6.1 An Overview of the NABT and Mass Tourism ROI Analysis | Continued

The modeling used to create Table 2 on page 30 – **Comparative Return on Investment (ROI) of Nature & Adventure–Based vs. Mass Tourism** – was undertaken in May 2017 and based on over 50 separate data points and research sources. However, despite the complexity of the source data, the calculations used to provide the final comparative ROI metrics for NABT and Mass Tourism were actually relatively straightforward.

A fairly high degree of inaccuracy is accepted as being present in these calculations as the intent of the analysis is not to provide a precise statistical model, but rather to provide as realistic assessment as possible of the potential ranges of ROI for NABT and Mass Tourism, based on as broad a set of inputs as possible.

6.1.1 Key Assumptions behind the Tourism ROI Analysis

A number of assumptions have been made to allow for the following analysis of NABT and Mass Tourism ROI to be completed, with the seven most significant being:

- 1) **Timeframe for analysis:** given the large average disparity in speed of Investment Returns for Mass and NABT Destinations and the importance of longevity to ensure any Tourism Development supports the Community it is located in over the long-term, a 20-year timeframe has been used for the bulk of the ROI calculations.
- 2) **Location of Destination for Tourism:** whilst not always possible due to gaps in the available data, the location of the Tourism Destination is assumed to be within the Asia Pacific Region (and in the Coral Triangle wherever feasible) and to be in an area of Medium to High Conservation Value and/ or with significant potential for NABT.
- 3) **Sustainability of the Destination is a primary objective:** it is assumed that a well-managed Tourism Sector with ongoing sustainable growth rates and minimised impact on the local Community, broader society and environment is desirable. Metrics and measures are calculated with this seen as a primary objective.
- 4) **The Preservation of Culture and Heritage throughout the Coral Triangle is also critical:** given the ethnic and cultural diversity found within the CTI-CFF countries, preserving this, along with the Heritage found in the region, is also a key underlying objective. This was taken into consideration when weighting the metrics.
- 5) **Climate Change Impacts:** Climate Change is assumed to have an impact in line with the latest UNFCCC forecasts (world is projected to warm by a further 2.6°C to 4.8°C by 2100 under a likely scenario).⁵⁸
- 6) **UNWTO/ WTTC growth rates:** the data from the UNWTO, WTTC and others forecasts strong Tourism growth to 2050. This is viewed as possible, but assertive. More likely is that increasing global uncertainty will suppress these growth forecasts and lower-end growth rates have therefore been used, leading to a more conservative analysis.⁵⁹
- 7) **'Leakage' of Tourism's potential Economic Benefits:** one of the most significant impacts that can affect a local Community's ability to achieve a high ROI for Tourism (particularly Mass Tourism) is the proportion of revenue that is syphoned offshore to overseas investors or Tourism providers. It is difficult to make a direct comparison between the rate at which this can happen for NABT vs. Mass Tourism, so assumptions have been made that the ratio lies between 1:3 and 1:5 (i.e. Mass Tourism is likely to have between 3 to 5 times as much revenue being taken out of the local Economy than NABT).⁶⁰

Taken together, these assumptions influenced how the underlying ROI calculations were made. They also reinforced the previously identified need for ranges to be used to provide as realistic an assessment of the potential ROI as possible (and for a conservative approach to be taken to moderate any errors that could arise because of the breadth of these assumptions).

6.1.2 Notes on the ROI and Weighted Impact Measures

There are 14 separate ROI and, so called, 'Weighted Impact Measures' included in the ROI Summary Table on page 30. Together these Measures provide averages & summary ranges for the overall potential ROI of NABT and Mass Tourism in the Coral Triangle, as well as some insights into the key drivers of these comparative ROIs.

Given the breadth of Weighted Impact Measures used, the analysis also provides some insight into the broader benefits Nature and Adventure-based Tourism can bring a Community, beyond just Economic Returns.

Additional notes detailing the basis for the 5 ROI Metrics & 9 Weighted Impact Measures are included at the foot of the ROI Summary Table on the following page.

Please note that the most significant single figures detailed in Section 6 are included as ranges in both the Conclusions and Executive Summary of this report. It is recommended that those range figures are used rather than the single figures in this Section for any derivative works.

6.2 Estimating the Relative ROI of NABT vs. Mass Tourism | ROI Summary Table

Table 2: Comparative Return on Investment (ROI) of Nature and Adventure-Based vs. Mass Tourism⁶¹

Sources: UN Statistics Division, UNWTO, WTTC, OECD, TIES, UNEP and selected additional academic sources cited in this report.

TOURISM SEGMENTS	ROI MEASURES [20-Year Timeframe]					WEIGHTED IMPACT MEASURES Possible Range -10 to +10 [20-Year Timeframe]									OVERALL ROI [Weighted ROI Range Av] Weighted Adjusted Average ¹⁵
	Range ¹	Private/Community ROI ² Private Investment	Public ROI ³ Government Investment	Tourism Promotion ROI ⁴ Marketing Investment	Base ROI [Base ROI Range Av] Private, Public & TP Average ⁵	Lifecycle Weighting ⁶ Derived from Butler, 1980	Direct Economic Benefits ⁷	Indirect Economic Benefits ⁸	Societal & Community Benefits ⁹	Environmental Benefits Marzouki, Froger & Ballet ¹⁰	Climate Change Resilience ¹¹	'Green Premium Price Potential' ¹²	Sustainable Revenue Generation ¹³	Destination Investment & Maintenance ¹⁴	
Nature & Adventure-based Tourism Includes Nature (Marine & Terrestrial), Adventure, Niche/ 'Alternative', Cultural & Heritage-based Tourism.	High	17.85	14.40	18.30	16.85 [9.43]	8.20	6.30	6.70	9.20	8.75	5.60	5.30	8.80	4.10	28.64 [15.42]
	Low	3.10	2.30	0.65	2.02	2.70	3.45	1.50	-2.20	2.30	-0.50	0.20	0.25	-0.25	2.21
Mass Tourism Includes all forms of Mainstream & Traditional Tourism (including high volume Cruise Shipping).	High	15.55	12.30	15.80	14.55 [7.33]	4.15	6.15	2.30	1.10	2.10	2.20	0.60	5.20	3.70	19.00 [9.53]
	Low	-1.95	1.20	1.05	0.10	-3.60	2.75	-4.60	-6.30	-9.10	-2.65	0.00	-3.20	-6.70	0.06

NOTES ON THE ROI AND WEIGHTED IMPACT MEASURES

- Range [High/Low]:** given the varied and disparate nature of the source data for the various metrics, a high and low range is included to provide the most realistic estimate for each of the various measures included in the analysis.
- Private/Community ROI [Private Investment]:** this is a measure of the annual ROI that is generally accepted as being achievable over a 20-year period for private investment in an average Mass or NABT Tourism Development. Includes assessments of the CAGR for selected investments (e.g. Community-owned Hotels).
- Public ROI [Government Investment]:** a measure of the ROI that is viewed as desirable for Government-funded Tourism infrastructure in a more-developed/mature Tourism Market (High Range) and less-developed/immature Tourism Market (Low Range). Malaysia and the Solomon Islands could be considered as representative examples of these respective markets in the Coral Triangle.
- Tourism Promotion ROI [Marketing Investment]:** the ratio between Annual Tourism Marketing Spend (normally invested by a Tourism Promotion Authority) and Annual Visitor Spend in a given Tourism Market (could be a National, State/Province or Local Government Area Market).
- Base ROI [Average]:** the average of the Private, Public and Tourism ROI metrics; used as the base that the various weightings are then run against.
- Lifecycle Weighting [Derived from Butler, 1980]:** a weighting based on Butler's 'Tourism Area Lifecycle Model' that takes into account the potential longevity of the lifecycle of a Destination coupled with the overall value it has the potential to deliver to the local Community.
- Direct Economic Benefits:** this assesses the potential DEB for the local Community where the Tourism Development occurs. Has a 20-year timeframe to balance out the significantly different growth rates of Mass Tourism vs. NABT.
- Indirect Economic Benefits:** similar assessment criteria to the DEB Weighting, but looking to take into account the broader potential Economic impact on the Community. Also over a 20-year timeframe.
- Societal & Community Benefits:** takes into account the net overall impact of the Tourism Segment on the Community it operates in; includes Societal, Heritage and Community impacts. Particularly important for Tourism Development in the Coral Triangle.
- Environmental Benefits [Derived from Marzouki, Froger & Ballet, 2012]:** an assessment of Tourism's net overall environmental footprint taking into account the resources used for Tourism and level of potential environmental degradation; set against the potential positive 'protective effect' of Tourism.
- Climate Change Resilience:** takes into account the positive or negative impact the type of Tourism has on future climate change resilience.
- 'Green Premium Price Potential':** assesses the potential for a premium to be paid for a more sustainable Tourism Experience.
- Sustainable Revenue Generation:** a measure taking into account the potential for the Destination to deliver sustainable revenue for a Community over a 20+ year period (and the percentage of that revenue that remains in the Community).
- Destination Investment & Maintenance:** assesses the overall investment required to establish and then maintain a Tourism destination over a 20-year period. Allows for any 'Rejuvenation Investment' that may be required as outlined in the 'Tourism Area Lifecycle Model' on page 20 of this report.
- Overall ROI [Weighted Adjusted Average]:** comparative ROI Metric calculated using the 3 base ROI measures and 9 Weighted Impact Measures.

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Please note that the most significant single figures detailed in Section 6 are included as ranges in both the Conclusions and Executive Summary of this report. It is recommended that those range figures are used rather than the single figures in this Section for any derivative works.

6.2 Estimating the Relative ROI of NABT vs. Mass Tourism | Interpretation

Overall the ROI analysis identifies a clear long-term benefit of investing in NABT over Mass Tourism in areas of Medium to High Conservation Value or with significant potential for NABT.

Even at the Base ROI level (before any of the Weighted Impact Measures are taken into account) NABT has a higher Base ROI Range Average than Mass Tourism (9.4% vs. 7.3%).⁶² This indicates that any investment would deliver, on average, a 28–30% better return over a 20-year time period if invested in NABT vs. Mass Tourism (Table 3, below).

The Base ROI Averages for NABT range from a low of 2.02% to a high of 16.85%, vs. 0.10% to 14.55% for Mass Tourism (Table 3, below). The overall spread of potential ROI is almost identical for both kinds of Tourism, but both the lower and upper ranges are higher for NABT – with the upper range being almost 16% higher. Whilst it is not necessarily surprising that NABT can deliver higher returns in areas of high conservation value, a 15%+ premium is surprising at the upper level when none of the additional potential benefits have been taken into account.⁶³

If you then look at the Overall Weighted ROI, with all these potential additional benefits factored in, then the ROI for NABT jumps +64% to 15.42% in terms of a Weighted ROI Range Average, whilst Mass Tourism climbs +30% to 9.53%. This indicates that any investment would deliver, on average, a +62% better return over a 20-year time period if invested in NABT vs. Mass Tourism (Table 3, below). It also indicates that NABT delivers at least twice as many additional benefits (+62% vs. +29%) to Communities over a 20-year period than Mass Tourism.⁶⁴

The Weighted ROI Averages for NABT range from a low of 2.21% (+9.5% vs. Base ROI) to a high of 28.64% (+70%); vs. 0.06% (–40% vs. Base ROI) to 19.00% (+31%) for Mass Tourism (Table 2, above). The overall spread of potential ROI is significantly different under the weighted scenario, with a range of 26.4% for NABT and 18.4% for Mass Tourism (+43%), indicating a greater potential spread of returns for NABT (supported anecdotally by the observed growth in high-end Eco Resorts globally). As with the Base ROI, both the lower and upper ranges are higher for NABT – with the upper range being over 51% higher than Mass (vs. 16% in the Base scenario).⁶⁵

The dramatic increase of potential returns for NABT under the weighted scenario, to a potential return of almost 29% per annum vs. 19% for Mass, is a highly significant finding. Not only are the overall potential financial returns much higher, but NABT also provides additional benefits to a significant degree in almost all the impact categories that were included in the analysis. Looking at the average ranges of 14.5–16.5% for NABT (based on 15.42% Weighted ROI Range, Table 3) vs. 8.5–10.0% for Mass (9.53% in Table), this is also a significant difference indicating NABT has the potential to, on average, outperform Mass Tourism by 60–65% from an overall value point of view.⁶⁶

The low range figure of 2.21% for NABT (vs. 0.06% for Mass) is also interesting, given it indicates NABT has greater potential to deliver an adequate ROI even during a downturn in Tourism, or when financial conditions are tougher. This finding is supported by the anecdotal evidence which indicates that Nature and Adventure-based Tourists are a much more resilient group than Mainstream Tourists.

Table 3: Base and Weighted ROI Averages and Comparisons for NABT vs. Mass Tourism⁶⁷

Sources: UN Statistics Division, UNWTO, WTTC, OECD, TIES, UNEP and selected additional academic sources cited in this report.

TOURISM SEGMENTS	BASE ROI AVERAGES/COMPARISONS [20-Year Timeframe]				WEIGHTED ROI MEASURES AVERAGES/COMPARISON [20-Year Timeframe]				
	Range	Average ROI	Base ROI Range Average	Comparison NABT vs. MASS	Average Weighting	Applied Weighting (%)	Overall Weighted ROI	Weighted ROI Range Average	Comparison NABT vs. MASS
Nature & Adventure-based Tourism	High	16.85	9.43	28.78%	6.99	169.94%	28.64	15.42	61.84%
	Low	2.02	–	–	0.95	109.5%	2.21	–	–
Mass Tourism	High	14.55	7.33	–22.35%	3.06	130.56%	19.00	9.53	–38.21%
	Low	0.10	–	–	–3.71	62.89%	0.06	–	–

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Please note that the most significant single figures detailed in Section 6 are included as ranges in both the Conclusions and Executive Summary of this report. It is recommended that those range figures are used rather than the single figures in this Section for any derivative works.

6.2 Estimating the Relative ROI of NABT vs. Mass Tourism | Interpretation (Continued)

In looking beyond the overall Base and Weighted Average ROI measures, there are also some interesting findings within the 3 ROI Metrics that build the overall scores.

6.2.1 Comparison of Private, Public and Tourism Promotion ROI Measures

Looking at the 3 core ROI Measures (Private/Community, Public and Tourism Promotion), it is interesting to note that both NABT and Mass Tourism follow the same overall pattern, with Tourism Promotion delivering the highest potential ROI (18.30% for NABT and 15.80% for Mass), followed by Private/Community (17.85% vs. 15.55%) and then Public (14.40% vs. 12.30%). In all cases NABT delivers a higher potential return than Mass, but both have the potential to deliver strong returns in any given year.⁶⁸

At the lower end of potential ROI, Tourism Promotion performs noticeably poorer, with NABT delivering 0.65% for Tourism Promotion ROI, 2.30% for Public and 3.10% for Private/Community. Mass Tourism, on the other hand, has Private/Community at the lowest ROI (-2.30%), then Tourism Promotion at 1.05% and Public at 1.20%. NABT again performs stronger – although only slightly in terms of Public or Tourism Promotion Investments. Private is the slight outlier, with a greater risk to these Investments in Mass Tourism indicated by the only negative score in the Base ROI Analysis. (See Tables 2 & 3 above).

6.2.2 Comparison of Weighted Impact Measures | All Measures below range between -10 and +10.

Looking at the Weighted Impact Measures, NABT performs more than twice as strongly (6.99 vs. 3.04 for average weightings) and has 15 positive scores out of a possible 18 (83%), set against Mass Tourism's significantly lower success rate of 11/18 (61%). This supports the qualitative and anecdotal data and shows that NABT has the potential to positively impact Local Communities across all the potential Impact Measures, and is much less likely to have a negative impact than Mass Tourism.⁶⁹

Table 4: Comparison of Nature and Adventure-based Tourism Weighted Impact Measures

Sources: UN Statistics Division, UNWTO, WTTC, OECD, TIES, UNEP and selected additional academic sources cited in this report.

NATURE AND ADVENTURE-BASED TOURISM	#	GREATEST POTENTIAL FOR POSITIVE IMPACT	SCORE	#	LEAST POTENTIAL FOR POSITIVE IMPACT	SCORE
	1	Societal/ Community/ Heritage Benefits	9.20	1	Societal/ Community/ Heritage Benefits	-2.20
	2	Sustainable Revenue Generation	8.80	2	Destination Investment & Maintenance	-1.10
	3	Environmental Benefits/ Protection	8.75	3	Climate Change Resilience	-0.75
	4	Overall Lifecycle	8.20	4	'Green Premium Price Potential'	0.20
	5	Indirect Economic Benefits	6.70	5	Sustainable Revenue Generation	0.25
	6	Direct Economic Benefits	6.30	6	Indirect Economic Benefits	1.50
	7	Climate Change Resilience	5.60	7	Environmental Benefits/ Protection	2.30
	8	'Green Premium Price Potential'	5.30	8	Overall Lifecycle	2.70
	9	Destination Investment & Maintenance	4.10	9	Direct Economic Benefits	3.45
	-	AVERAGE SCORE (OUT OF 10)	6.99	-	AVERAGE SCORE (OUT OF 10)	0.95
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Reviewing the areas that NABT appears to have the greatest potential positive impact, Societal and Community Benefits actually rank 1st (9.20), followed by Sustainable Revenue Generation (8.80), Environmental Benefits/ Protection (8.75), Overall Lifecycle (8.20), Indirect Economic Benefits (6.70), interestingly ahead of Direct Economic Benefits (6.30), then Climate Change Resilience (5.60), 'Green Premium Price Potential' (5.30), and, lastly, Destination Investment & Maintenance (4.10). Only Societal and Community Benefits (-2.20), Destination Investment & Maintenance (-1.10) and Climate Change Resilience (-0.75) receive negative scores for the low-end weightings indicating these are the 3 areas that NABT has the greatest potential to have some kind of negative impact (or little positive impact) on a Destination of High Conservation Value. Table 4, above.

Please note that the most significant single figures detailed in Section 6 are included as ranges in both the Conclusions and Executive Summary of this report. It is recommended that those range figures are used rather than the single figures in this Section for any derivative works.

6.2.2 Comparison of Weighted Impact Measures | Continued

From a Mass Tourism point of view, the areas of greatest potential positive impact are, unsurprisingly, Direct Economic Benefits first (6.15, 6th for NABT), Sustainable Revenue Generation (5.20, also 2nd for NABT) and Overall Lifecycle (4.15, 4th). The 7 areas that Mass Tourism has the greatest potential to have some kind of negative impact on a Destination (or little positive impact) are: Environmental Degradation (–9.10), Destination Investment & Maintenance (–6.70, i.e. high cost of rejuvenation), Societal and Community Impact (–6.30), Indirect Economic Benefits (–4.60, i.e. often has few IEBs), Sustainable Revenue Generation (–3.20), and, lastly, Climate Change Resilience (–2.65). *Table 5, below.*

Table 5: Comparison of Mass Tourism Weighted Impact Measures

Sources: UN Statistics Division, UNWTO, WTTC, OECD, TIES, UNEP and selected additional academic sources cited in this report.

MASS TOURISM	#	GREATEST POTENTIAL FOR POSITIVE IMPACT	SCORE	#	LEAST POTENTIAL FOR POSITIVE IMPACT	SCORE
	1	Direct Economic Benefits	6.15	1	Environmental Benefits/ Protection	–9.10
	2	Sustainable Revenue Generation	5.20	2	Destination Investment & Maintenance	–6.70
	3	Overall Lifecycle	4.15	3	Societal/ Community/ Heritage Benefits	–6.30
	4	Destination Investment & Maintenance	3.70	4	Indirect Economic Benefits	–4.60
	5	Indirect Economic Benefits	2.30	5	Overall Lifecycle	–3.60
	6	Climate Change Resilience	2.20	6	Sustainable Revenue Generation	–3.20
	7	Environmental Benefits/ Protection	2.10	7	Climate Change Resilience	–2.65
	8	Societal/ Community/ Heritage Benefits	1.10	8	'Green Premium Price Potential'	0.00
	9	'Green Premium Price Potential'	0.60	9	Direct Economic Benefits	2.75
	–	AVERAGE SCORE (OUT OF 10)	3.06	–	AVERAGE SCORE (OUT OF 10)	–3.71
	© 2015 2iis Consulting					

Looking at these Weighted Impact Measures as a whole, the findings clearly indicate that NABT has the greater potential to have a long-lasting positive impact on a Community (average of all Weighted Impact Measures is 6.99 for NABT vs. 3.06 for Mass (*see Tables 4 & 5, above*)).

Of particular significance from the Coral Triangle point of view is the much greater potential for NABT to positively impact Societal/ Cultural/ Heritage preservation (9.20 for NABT vs. 1.10 for Mass), Environmental protection (8.75 for NABT vs. 2.10 for Mass) and a broader range of Indirect Economic Benefits outside of simple Direct Tourism Revenue (6.70 vs. 2.30). *Table 2, page 29.*

From an Overall Lifecycle point of view, NABT is also approximately twice as likely to become a sustainable economic driver for the area it is developed in (8.20 vs. 4.15), with the potential for an additional 'Green Premium' (5.30 vs. 0.60) and for helping build climate resilience (5.60 vs. 2.20) some useful additional potential 'Support Benefits' that NABT could bring to an area.

Lastly, the long-term Destination Infrastructure and Maintenance requirements are less onerous for NABT Destinations than Mass (2.6 for NABT vs. –1.50 on average) – mainly driven by the large 'rejuvenation investment' that Mass Tourism Destinations require to halt the usual decline in their lifecycle at some point.

As a final comment in this section, it is worth observing that to fully understand the interconnected nature of many of the above findings, it is necessary to better understand Tourism's Value Chain. Whilst it is not possible to include an in-depth look at this area within this report, an example of a Tourism Value Chain (as used by the UNWTO) is included in Appendix F for reference (*page 57*).

6.3 The Relative Rates of Return of NABT vs. Mass Tourism

Something that is included in the above ROI analysis in a number of ways are the Relative Rates of Return NABT or Mass Tourism destinations can deliver. In the analysis above, the Lifecycle Weighting, Sustainable Revenue Generation and Destination Investment & Maintenance measures all connect to the potential for a destination to develop sustainably and deliver a high ongoing Rate of Return. The brief look at the Tourism Area Lifecycle model in Section 5.1.1 also explored this area as one of importance to Coral Triangle Tourism Development.

This area is particularly important when looking at the Coral Triangle given one of the core underlying objectives of the CTI-CFF in looking at Tourism Development is to make the region ***'a renowned sustainable tourism destination with economic benefits flowing to communities, governments and private enterprise, providing a strong incentive to protect and sustain the region's natural environment.'***⁷⁰

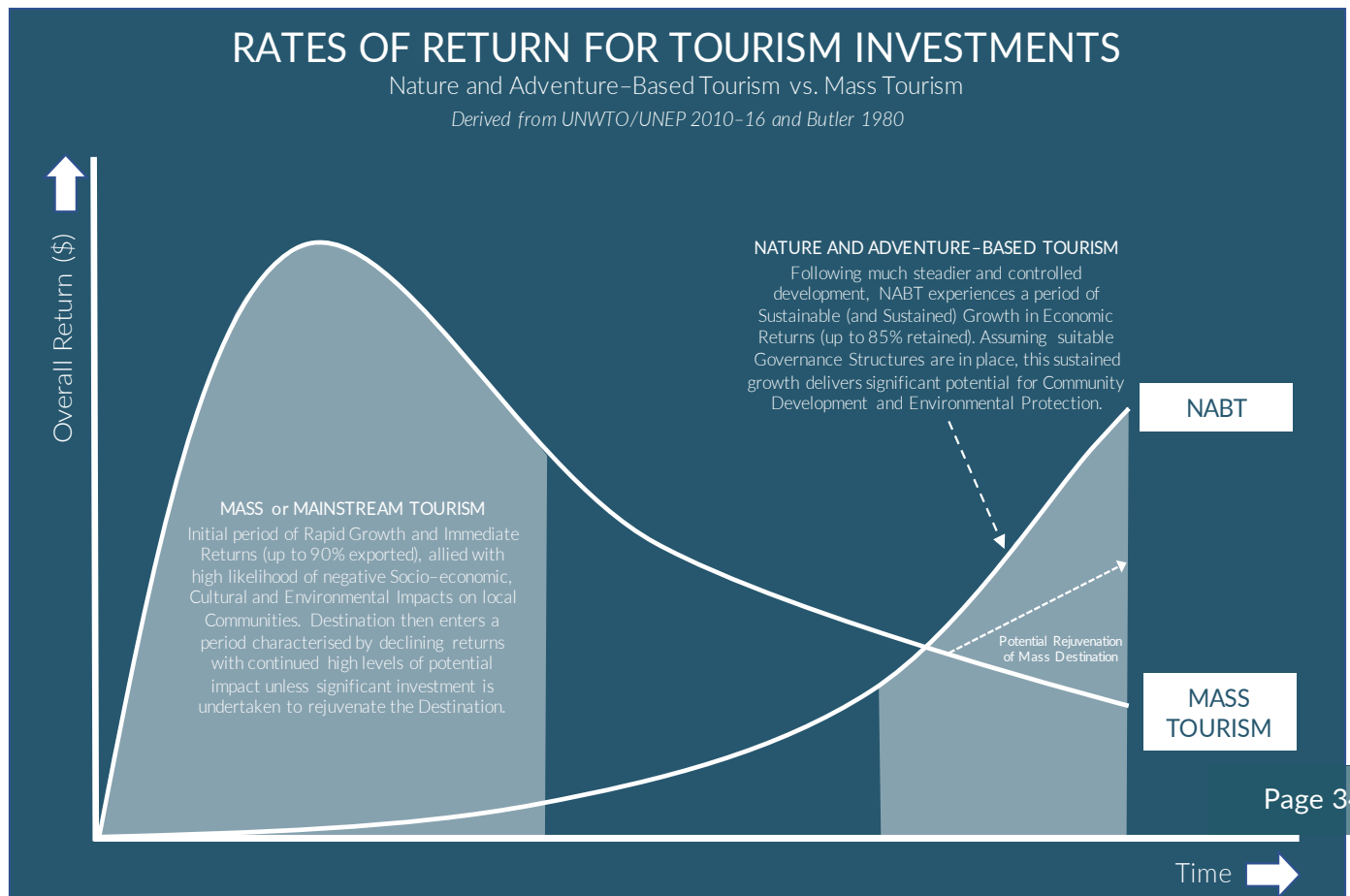
The broader initiative of which this analysis is a part is designed to start the long-term development of Coral Triangle Tourism in a way that fully supports local Communities and is as beneficial to as many people as possible.

For these reasons, amongst others, it is absolutely essential that the type of Tourism developed is sustainable and able to be managed within the carrying capacity of the Destinations selected for NABT development. The potential for NABT to deliver on this (and Mass Tourism's inability to do so) was discussed in some depth in the original Baseline Analysis.⁷¹ It is, however, worth briefly looking at this area again from the point of view of the relative Rates of Return of NABT vs. Mass Destinations.

Looking at the Model below, the standard Rates of Return for Mass Tourism and NABT are compared across a (roughly) 20-year time period. As can be seen, whilst the overall volume of Tourists may rise quickly with Mass Tourism, this is coupled with high potential negative impacts and followed by a relatively steep decline that usually requires significant investment to halt. NABT on the other hand, has a significantly longer development period, and whilst it may never reach the visitor volume levels achieved in the early growth phases of Mass Tourism, the growth is much more controlled and generally lower impact, and the potential for a Tourism Industry that grows at a sustainable rate over the long-term, delivering rising value (as oppose to volume) is much more likely.

Model 2: Comparing the Relative Rates of Return of NABT vs. Mass Tourism

Sources: UNWTO, UNEP, TIES, OECD and 2iis Modeling Data.



6.4 Some Tourism Development Implications for the Coral Triangle Region

Considering the above findings, it is worth outlining the potential implications for Tourism Development in the Coral Triangle – some of which were also considered in some depth in the original Baseline Analysis report.⁷²

To start with, the potential for Nature and Adventure-based in the Coral Triangle is very significant – and growing. The 2015 analysis identified a US \$204.4 billion economic opportunity for the Region as a whole, with the value in each country ranging from US \$210 million per year in Timor-Leste to almost US \$56 billion in Indonesia (in terms of NABT's potential contribution to each country's Economy by 2035.) See Table 6 below.

Table 6: Current and Forecast Value of Nature and Adventure-based Tourism in the Coral Triangle

Sources: UN Statistics Division, UN World Tourism Organisation, World Travel and Tourism Council, CTI-CFF Countries

REGION/ SCALE	Estimated Value in 2015			Adjusted Forecast to 2035*				
	Total Tourism Market (US\$)	Nature & Adventure- based Tourism		Total Tourism Market (US\$)	Nature & Adventure-based Tourism			
		20% Share (US\$)	25% Share (US\$)		Share (%)	Value (US \$)	Share (%)	Value (US \$)
Coral Triangle	\$98.7 billion	\$19.7 billion	\$ 24.7 billion	\$454.3 billion	35%	\$159 billion	45%	\$204.4 billion
Timor-Leste	\$57 million (Intl. only)	\$11.4 million	\$14.3 million	Est. \$300 million	70%	\$210 million	80%	\$240 million
Solomons	\$97.4 million	\$19.5 million	\$24.3 million	\$420 million	55%	\$231 million	65%	\$273 million
PNG	\$496 million	\$99.2 million	\$124 million	\$2.1 billion	60%	\$1.3 billion	70%	\$1.5 billion
Philippines	\$26.1 billion	\$5.22 billion	\$6.53 billion	\$53.9 billion	40%	\$21.6 billion	50%	\$27.0 billion
Indonesia	\$47 billion	\$9.4 billion	\$11.8 billion	\$212.1 billion	25%	\$53.0 billion	30%	\$63.6 billion
Malaysia	\$25 billion	\$5.0 billion	\$6.25 billion	\$185.5 billion	27.5%	\$46.4 billion	32.5%	\$55.7 billion

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* 2035 forecast is based on global average share estimates only and is modelled on UN, WTTC and CTI-CFF Country data. Given the wide variety of variables, it should be taken as indicative only.



6.4 Some Tourism Development Implications for the Coral Triangle Region | Continued

Looking at this forecast economic opportunity alongside the Return on Investment findings in Section 6.2, it is clearer than ever what a significant role well-managed Nature and Adventure-Based Tourism under a strong Governance System could play in the Coral Triangle's future.

To illustrate what this means a bit more clearly, extrapolating the US \$204.4 billion forecast Economic Value from Table 6 to also include the potential Social, Environmental and Cultural benefits outlined above (using the 7.16 average weighted ROI metric derived through the analysis), leads to a potential US \$1.46 trillion per annum in total socio-economic and environmental value from NABT for the Coral Triangle by 2035.⁷³

And this figure is at the conservative end of the scale; if you use the potential 45% share figure outlined as a feasible target in Section 5.1 as a stretch forecast, then US \$1.88 trillion per annum becomes a potential growth target that the CTI-CFF's longer-term Tourism Development plan could be built around.⁷⁴

In summary, the ROI Analysis and Weighted Impact Assessment indicate that investing in NABT at suitable sites throughout the Coral Triangle could deliver a potential US \$1.46–US \$1.88 trillion per annum in total Socio-Economic and Environmental value by 2035 at an average Weighted ROI of 14.5–16.5% (vs. 8.5–10.0% for Mass Tourism). The analysis also indicates that at sites of particularly High Conservation Value, or high potential for Nature and Adventure-based Tourism, ROI could reach as high as 29% for NABT (vs. 19% for Mass Tourism).

These ROI estimates indicate that Nature and Adventure-based Tourism could outperform Mass Tourism in the Coral Triangle by, on average, 60–65% over a 20-year period.⁷⁵

Based on the ROI of up to 29% and total value of US \$1.46–US \$1.88 trillion per annum for Coral Triangle NABT identified, the apparently robust business case initially outlined in early 2016 is strongly confirmed by this report.

As was mentioned at the start of this Section, all the findings contained in this report should be viewed as indicative rather than definitive – and this certainly holds true for the summary figures just given above.

However, even if only half of the forecast potential value outlined above becomes a reality by 2035, that US \$0.95 trillion will still have a transformative impact on more than 100 million people in local Communities right across the Coral Triangle.⁷⁶ A potential transformative impact that certainly seems worth fully pursuing.



7 | CASE STUDIES OF NABT & MASS TOURISM DESTINATIONS

A number of case studies were included in the original Baseline Analysis, but it is also worth briefly calling out some selected additional case studies of both Nature & Adventure-based and Mass Tourism in this report.

7.1 NABT Case Studies

The following represent a very small sample of NABT Developments and includes a resort that is often cited as one of the original Ecotourism ventures, one of the most successful long-term developments in Australia and a relatively new Eco Resort in the Coral Triangle.

7.1.1 Maho Bay Resorts, US Virgin Islands (1975–2012)

Maho Bay Resorts was started by Stanley Selengut in 1975 as a small 'tent-village' on 14 acres above Maho Bay in St. John, US Virgin Islands.

Winning the 1978 US Environmental Protection Award, it went on to become a multi-award winning Eco-resort of 114 units operating at close to 100% occupancy during the high season, and at significantly above the Caribbean's usual off-season occupancy rates. It was a highly profitable and sustainable enterprise for over 37 years.⁷⁷

It was sold to 'an environmentally oriented billionaire' in 2012 when the lease for the land on which it was sited was deemed to have increased in value to US \$32 million from under US \$20,000 because of the revenue and above average profitability it had consistently delivered.⁷⁸

7.1.2 Kangaroo Island, Australia (1997–Present)

In 20 years, Kangaroo Island has grown from a niche nature-lovers destination to one of the best known Nature-based Tourism Experiences in Australia.⁷⁹

The Island has developed a breadth of accommodation right up to the very top-end of the market (e.g. the Southern Ocean Lodge, an award-winning luxury Eco Retreat). It also has a broad range of Nature-based Experiences, as well as some trails for treks and mountain biking.⁸⁰

High quality local produce (food and wine) has been a recent focus to drive higher value returns from visitors.

7.1.3 Misool Eco Resort, Indonesia (2006–Present)

Located on a private island off West Papua, Misool Eco Resort is a collection of 9 luxury cottages, with the resort structured financially to provide a direct contribution to local marine conservation activities.

For its environmental efforts, Misool was highly commended by the 'Virgin Responsible Tourism Awards' in 2009 and received an 'Ocean Award' in 2011.⁸¹

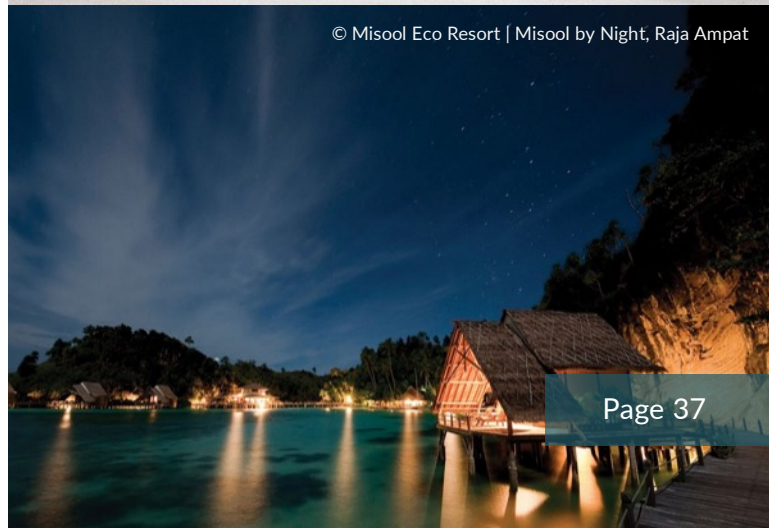
From a financial point of view, it delivers above average returns and is a good example of a high-return, low-impact Eco Resort (and worthy of further study).⁸²



© Uncommon Caribbean | Maho Bay, US Virgin Islands



© Tourism Australia | Kangaroo Island



© Misool Eco Resort | Misool by Night, Raja Ampat

7 | Case Studies of NABT & Mass Tourism Destinations

7.2 Mass Tourism Case Studies

The following looks at three case studies of Mass Tourism Destinations and the issues they can face. They have been selected with the impacts this kind of Tourism could have on the Coral Triangle in mind.

7.2.1 Benidorm, Spain (1980–Present)

Benidorm is a perfect case study of the lifecycle of a Mass Tourism destination as described in Section 5.1.1.

It started growing in the 1970s as European overseas travel boomed (particularly from the UK), then developed rapidly & experienced overcrowding, waste issues (including a typhoid outbreak from raw sewage in the sea), water shortages and environmental degradation (including significant beach loss).

It declined as rapidly as it grew and it is only following significant re-investment and a focus on more sustainable development that it returned to growth. This investment has included US \$20 million for a new sewage system and ongoing investment in beach replenishment due to the initial poorly planned Tourism Development that occurred too close to the foreshore in the 1970s and 1980s.⁸³

7.2.2 Bali, Indonesia (1973–Present)

Tourism in Bali initially developed in the 1970s with support from the UNDP & World Bank and focused briefly on the high-end traveller. However, this focus quickly switched to budget travellers, resulting in a rapid increase in visitor numbers from the mid-1980s.

This rapid increase led to a range of negative impacts: cultural degradation (particularly around Denpasar), overcrowding of Temples and Sacred Sites, rural-urban migration and, most significantly, poorly planned over-development of key Tourism locations.

This lack of planning resulted in an increase in pollution, localised flooding, destruction of coral reefs, loss of farmland to local food production, significant waste issues (most notoriously on Kuta Beach) and water scarcity due to the high demands of the Tourist Resorts.⁸⁴

7.2.3 Cayman Islands Cruise Shipping (1980–Present)

Cruise shipping is a growing segment and the Caribbean has over 1/3 of the global market, although this is declining.

Cruise shipping in the Caymans is a good case study of the segment globally, with the challenges of this kind of Mass Tourism for local Communities including: the low % of visitor spend onshore (less than 15% of expenditure), high demands for infrastructure (e.g. US \$190 million for a pier in George Town, which includes the planned removal of local reefs), the generation of high levels of waste and the potential for damage from anchorings and fuel leakages.⁸⁵



© Anton Hein | Benidorm Skyline, Spain



© Greg Goodman | Tanah Lot Temple, Bali



© The Conversation | Cruise Ship Anchor Damage, George Town, Grand Cayman

8 | INFORMATION GAPS

During the compiling of this report, various information gaps were identified and certain areas presented themselves as being worthy of further study. There were also some areas of analysis and fact finding that naturally fell outside the scope of this report. Additional information gaps were also detailed in the original Baseline Analysis Report.

8.1 Research and data on Tourism ROI (Mass and NABT) in the Coral Triangle

a) Comparative ROI analysis across the 6 CTI-CFF Countries

No data or research was found on the relative ROIs of Tourism in the CTI-CFF Countries during the writing of this report. Given the long-term potential for the Sustainable NABT project to affect the mix of Tourism in the region, this is a gap that should be addressed in the short to medium-term.

b) Base data collection and consistency

As identified as a significant issue for the 6 CTI-CFF countries in 2015/16, the base Tourism data available for analysis is inconsistent and varies widely in quality between countries. This is an area that should be considered by the CTI-CFF Sustainable Tourism Taskforce as it looks to build Tourism capacity across the Region.

8.2 Case Studies of Sustainable NABT Developments in the Coral Triangle

Whilst there are some limited examples of these (including via Tourism Awards at the CTI-CFF Regional Business Forums), there is an opportunity to create a centralised database of best practise in Sustainable NABT development across the Coral Triangle to provide a relevant resource for capacity building and knowledge transfer.

8.3 NABT as a tool for building Climate Change Resilience

Anecdotal evidence was found during the writing of this report of the potential for NABT to assist in building Community adaptive capacity and overall resilience to climate change. Robust data is not currently available – certainly not within the Coral Triangle – and the potential exists for more detailed exploration of this area.

8.4 Investment Required to Rejuvenate a Mass Tourism Destination

One of the challenges identified when looking at the standard Lifecycle of Mass Tourism Destinations, was the need to rejuvenate the destination to prevent its' decline. This has clear relevance when considering the relative returns on investment of Mass Tourism vs. NABT, but there is a general lack of research looking at the typical levels of investment that this can require. A study reviewing Mass Tourism locations that have undergone this rejuvenation process (e.g. Benidorm in Spain) would be beneficial.



SECTION 9

9 | CONCLUSIONS



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This report explores the potential benefits of investing in Nature and Adventure-based Tourism (NABT) as opposed to Mass Tourism in the Coral Triangle Region. It is a component of the **‘Developing and Promoting Sustainable Nature-based Tourism in the Coral Triangle’** initiative, a project that commenced in July 2015 with the support of the Australian Government.

It builds on the **‘Nature-based Marine Tourism in the Coral Triangle’** Baseline Analysis report published in December 2015 and supplements the broad analysis of the potential for NABT in the Coral Triangle contained in that document, with a detailed look at the Return on Investment (ROI) that could be achieved with targeted NABT investments in the Coral Triangle Region. It also takes a more detailed look at some of the specific Socio-Economic and Environmental benefits that could be delivered to the 6 CTI-CFF countries through developing NABT as opposed to Mass Tourism.

Overall, this latest report reinforces and provides additional detail on the clear long-term benefits of investing in NABT over Mass Tourism in areas of Medium to High Conservation Value, or with significant potential for NABT.

It finds that investing in NABT at suitable sites throughout the Coral Triangle could deliver a potential US \$1.46–US \$1.88 trillion per annum in total Socio-Economic and Environmental value by 2035 at an average Weighted ROI of 14.5–16.5% (vs. 8.5–10% for Mass Tourism). These average Weighted ROI figures indicate that NABT outperforms Mass Tourism by, on average, 60–65% over a 20-year period.

In looking at some of the potential implications of a greater level of investment in Nature and Adventure-based Tourism as opposed to Mass Tourism, there are a number of findings and conclusions that are of particular relevance to the Coral Triangle. Some of these were first highlighted in the 2015 Baseline Analysis Report and the following pages should be read in conjunction with the findings and conclusions contained within that report.

9.1 The Coral Triangle Region is uniquely positioned to leverage the strong forecast global growth in Nature and Adventure-based Tourism (NABT)

Located in the fastest growing Tourism Region in the World (Asia-Pacific) and with a uniquely exceptional natural resource base for Tourism, the Coral Triangle has an unparalleled opportunity to develop a Nature and Adventure-based Tourism segment with a forecast Direct Economic Value somewhere in the region of US \$120–US \$150 billion per annum by 2035. A focus on NABT also provides the 6 CTI-CFF countries with an opportunity to build a strong and differentiated competitive advantage in the global Tourism market.⁸⁶

In addition to the direct economic value first identified in 2015, this report explored the broader benefits NABT could deliver and found that a potential US \$1.46–US \$1.88 trillion per annum in total Socio-Economic and Environmental value could be generated by NABT in the Coral Triangle by 2035.⁸⁷

9.2 Whilst Tourism, particularly NABT, is forecast to grow, so are its impacts

Driven by the population growth rates, the rise in urbanisation and the growing middle-class, the Global Tourism Industry is forecast by the UN World Tourism Organisation (UNWTO) to continue its’ current growth trajectory well into the middle of this century.

Recognising this, the last 5 years has seen the United Nations focus more overtly on promoting Sustainable Tourism Development, with 2017 dubbed the *‘International Year of Sustainable Tourism for Development’* by the UN as one of the latest ways it is seeking to strengthen the significant potential role Tourism can play in helping achieve the Sustainable Development Goals (SDGs).

Nature and Adventure-based Tourism is set to experience particularly strong growth, with the UNWTO and WTTC predicting the combined annual growth rate of Nature-based and Adventure Tourism will remain at between 10–30% to 2035, with its overall share of the world Tourism and travel market increasing to between 35–45% (from 20–25% in 2016). The Coral Triangle has the potential for significantly higher growth rates than this, with NABT potentially making up between 30–80% share of its’ total Tourism Market in 20 years’ time.⁸⁸

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9.2 Whilst Tourism, particularly NABT, is forecast to grow, so are its impacts | Continued

Whilst this growth forecast brings potential positive Socio-Economic opportunities for developed and emerging countries around the world – including, to varying degrees, all of the CTI-CFF countries – it also brings with it potential significant, and increasingly prevalent, negative impacts.

As explored in this report, these impacts are not just Environmental; they also have the potential to directly affect the Social and Cultural fabric as well as the Economic performance of countries, often exacerbating the very problems that Tourism Development is intended to help solve.

9.3 The potential effects of these impacts vary significantly across different sectors of Tourism

Some of these variances were highlighted in the Baseline Analysis for NABT and Mass Tourism, but this report shows them in far greater detail.

Particularly when considering the kind of Tourism Development that is best suited to the Coral Triangle, the potential for NABT to provide strong, sustainable economic returns whilst also positively supporting the local Community (Socially, Culturally and Environmentally) was a clear and strong finding. It should be stressed though that all Tourism has some level of impact on the area it is developed in, with NABT no exception to this.

9.4 A clear and very significant opportunity for growing NABT in the Coral Triangle was identified in 2015

The overall growth opportunity was explored in detail in the 2015 'Nature-based Marine Tourism in the Coral Triangle' Baseline Analysis report. It forecast the overall direct economic value of NABT for the Coral Triangle countries combined as being in the region of US \$120–US \$150 billion per annum by 2035. This value ranged from US \$210 million per year in Timor-Leste, to over US \$55 billion in Indonesia in terms of Nature-based Tourism's potential direct contribution to each country's Economy by this date.⁸⁹

The full report & a summary of the findings can be downloaded from: <https://www.2iis.com.au/wwfcoraltriangle>.

9.5 This latest report supports and reinforces those findings, with the ROI analysis undertaken providing a more in-depth understanding of the advantages NABT can deliver over Mass Tourism

The 'Investing in Sustainable Nature and Adventure-based Tourism in the Coral Triangle' report supports all the findings of the original Baseline Analysis, whilst also allowing for an additional forecast of the total Socio-Economic and Environmental value that could be generated by NABT in the Coral Triangle by 2035.

This additional analysis identified that US \$1.46–US \$1.88 trillion per annum in total value could be generated by NABT in the Coral Triangle by 2035. This would mean the region holding a 20%+ share of global NABT.⁹⁰

In addition to the total value of NABT to the Communities of the Coral Triangle, the ROI analysis and Weighted Impact Assessment carried out provided a great deal of clarity about the specific benefits NABT can provide (and their relative importance) compared to Mass Tourism. The detailed findings of the analysis can be found in Section 6.

9.6 Whilst the Return on Investment (ROI) analysis and Weighted Impact Assessment is instructive, it should be viewed as indicative only

In analysing the ROI of NABT and Mass Tourism, the report seeks to provide indicative ranges rather than definitive forecasts. These ranges are based on 3 core ROI estimates (Private/ Community, Public and Tourism Promotion ROI), which are then weighted according to 9 Weighted Impact Measures that are seen as being of particular significance to the development of Tourism in the Coral Triangle.

Whilst every effort has been made to ensure the data included is robust, there will still be errors – particularly given certain NABT data is unavailable. Wherever possible, this was taken into account during the analysis and is the primary reason ranges have been used. It is also why it is strongly recommended that the overall results contained in this report are viewed as indicative rather than definitive.

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9.7 A 20-year Timeframe was adopted to allow for the significant disparities between the Lifecycle of Nature and Adventure-based Tourism vs. Mass Tourism

As well as the broader potential impacts, the lifecycles of NABT and Mass Tourism (Section 5.1.1) – and their relative rates of return (Section 6.3) – were also reviewed. This highlighted the clear differences both in terms of rate of development (NABT having a much steadier and more manageable initial growth phase) and also the respective sustainable revenue generation potential (much greater for NABT).

It also meant a 20-year Timeframe needed to be adopted for the analysis to even out these differences and to provide as directly comparable a dataset as possible. This Timeframe was also selected as it ties in closely with both the 2035 forecasts used in the original Baseline Analysis and also the need for long-term, sustainable Tourism Development identified by the CTI-CFF.

9.8 From an Overall ROI point of view, NABT significantly outperforms Mass Tourism

The Overall Weighted Return on Investment for NABT was calculated as ranging from 2.21% to 28.64% (vs. 0.06% to 19.00% for Mass Tourism), leading to an average Overall ROI of 14.5–16.5% (vs. 8.5–10% for Mass).⁹¹

This indicates that any investment would deliver, on average, a 60–65% better overall return over a 20-year time period if invested in NABT vs. Mass Tourism (figure includes all Socio-Economic & Environmental Benefits).

Table 6 below provides a summary of the key findings of the ROI and Weighted Impact Measures analysis.

An expanded version of this Table, including details of the methodology behind the analysis, can be found in Section 6.2 (pages 30–33), along with additional Tables outlining other key findings from the analysis.

Table 7: Summary of Comparative Return on Investment (ROI) for Nature & Adventure-Based and Mass Tourism⁹²

Sources: UN Statistics Division, UNWTO, WTTC, OECD, TIES, UNEP and selected additional academic sources cited in this report.

TOURISM SEGMENTS	ROI MEASURES [20-Year Timeframe]					WEIGHTED IMPACT MEASURES Possible Range -10 to +10 [20-Year Timeframe]										OVERALL ROI [Weighted ROI Range Av] Weighted Adjusted Average ¹⁵
	Range ¹	Private ROI ² Private Investment	Public ROI ³ Government Investment	Tourism Promotion ROI ⁴ Marketing Investment	Base ROI ⁵ [Base ROI Range Av] Private, Public & TP Average	Lifecycle Weighting ⁶ Derived from Butler, 1980	Direct Economic Benefits ⁷	Indirect Economic Benefits ⁸	Societal & Community Benefits ⁹	Environmental Benefits Marzouki, Froger & Ballet ¹⁰	Climate Change Resilience ¹¹	'Green Premium Price Potential' ¹²	Sustainable Revenue Generation ¹³	Destination Investment & Maintenance ¹⁴		
Nature & Adventure-based Tourism Includes Nature (Marine & Terrestrial), Adventure, Niche/ 'Alternative', Cultural & Heritage-based Tourism.	High	17.85	14.40	18.30	16.85 [9.43]	8.20	6.30	6.70	9.20	8.75	5.60	5.30	8.80	4.10	28.64 [15.42]	
	Low	3.10	2.30	0.65	2.02	2.70	3.45	1.50	-2.20	2.30	-0.50	0.20	0.25	-0.25	2.21	
Mass Tourism Includes all forms of Mainstream & Traditional Tourism (including high volume Cruise Shipping).	High	15.55	12.30	15.80	14.55 [7.33]	4.15	6.15	2.30	1.10	2.10	2.20	0.60	5.20	3.70	19.00 [9.53]	
	Low	-1.95	1.20	1.05	0.10	-3.60	2.75	-4.60	-6.30	-9.10	-2.65	0.00	-3.20	-6.70	0.06	

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9.9 Even at the Base ROI level, NABT offers a greater potential return than Mass Tourism

Before any 'Weighted Impact Measures' are taken into account, NABT was found to deliver a higher average 'Base ROI' than Mass Tourism ('Base ROI Range Average' of 9–10% vs. 7–8%).⁹³

This indicates that any investment would deliver, on average, a 28–30% better Direct Economic Return over a 20-year time period if invested in NABT vs. Mass Tourism (*See Section 6, pages 28–36, for the full ROI analysis*).

The Base ROI for NABT varied considerably, from 2.02% to 16.85% (vs. 0.10% to 14.55% for Mass Tourism). This reflects the breadth of types of Tourism Development included in the analysis, the different levels of Tourism Development in the CTI-CFF Countries and also the high degree of variability between the returns that can be gained from Private, Public and Tourism Promotion Investments.⁹⁴

The potential for NABT to outperform Mass Tourism by up to 29% over a 20-year period purely from an economic point of view is significant. This is approximately 1.5–2 times the rate anticipated prior to the analysis.

9.10 If you then factor in a range of potential additional benefits, the advantages of NABT move from significant to highly significant

Adding in all the potential Socio-Economic & Environmental benefits of Tourism (and possible negative impacts) to the analysis, leads to the Weighted Average ROI for NABT jumping +64% to 14.5–16.5% (vs. Mass at 8.5–10%).⁹⁵

This indicates that any investment would deliver, on average, a 60–65% better overall return over a 20-year time period if invested in NABT vs. Mass Tourism.

The Weighted ROI Averages for NABT range from a low of 2.21% to a high of 28.64% (vs. 0.06% to 19.00% for Mass Tourism). Establishing that NABT in the Coral Triangle could deliver a potential return of almost 29% per annum vs. 19% for Mass Tourism, is a highly significant finding.⁹⁶

The low range figure of 2.21% for NABT (vs. 0.06% for Mass) is also interesting, given it indicates NABT has greater potential to deliver an adequate ROI even when Tourism experiences a downturn or financial conditions are tougher. This finding is supported by anecdotal evidence gathered in both this report and the 2015 Baseline Analysis, which indicates that NAB Tourists are a much more resilient target group than Mainstream Tourists.

The overall potential return of up to 29% for NABT indicates very clearly that not only are the overall potential financial returns much higher, but that NABT can also provide broad and deep additional Socio-Economic, Cultural and Environmental benefits to the Coral Triangle Communities in which it is developed. This 4-way potential impact led to the term 'Quadruple Bottom Line Benefit' being used in this report.

9.11 The areas of greatest potential additional benefit for NABT closely match the CTI-CFF's focus areas for Tourism Development

The 9 Weighted Impact Measures included in Table 7, above, were ranked according to both greatest and least potential for positive benefit (*see Tables 4 & 5, Pages 32 & 33*). All Measures ranged between –10 and +10.

Unsurprisingly, NABT had a much higher overall potential than Mass Tourism for a broad range of additional benefits outside of the pure Economic returns available. What was striking, however, was how closely the benefits of NABT matched up with the CTI-CFF's identified priority areas for Tourism Development in the Coral Triangle.

Looking at the Weighted Impact Measures, NABT was found to perform more than twice as strongly on average as Mass Tourism (6.99 vs. 3.06) and had 15 positive scores out of a possible 18 (83%) vs. 11 (61%) for Mass Tourism.

Of particular significance from the Coral Triangle point of view is the much greater potential for NABT to positively impact Societal/ Cultural/ Heritage preservation (9.20 for NABT vs. 1.10 for Mass), Environmental protection (8.75 for NABT vs. 2.10 for Mass) and a broader range of Indirect Economic Benefits outside of simple Direct Tourism Revenue (6.70 vs. 2.30).

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9.11 The areas of greatest potential additional benefit for NABT closely match the focus areas of development for the CTI-CFF | Continued

From an Overall Lifecycle point of view, NABT is also approximately twice as likely to become a sustainable economic driver for the area it is developed in (8.20 vs. 4.15), with the potential for an additional 'Green Premium' (5.30 vs. 0.60) and for helping build climate resilience (5.60 vs. 2.20) some useful additional potential 'Support Benefits' that NABT could bring to an area.

Lastly, the long-term Destination Infrastructure and Maintenance requirements are less onerous for NABT Destinations than Mass (2.6 for NABT vs. -1.50 on average). This is mainly driven by the large 'rejuvenation investment' that Mass Tourism Destinations tend to require to halt the usual decline in their Lifecycle at some point.

Broadly speaking, the Weighted Impact Analysis summarised above strongly supports the findings of the original Baseline Analysis and confirms that NABT is far more likely than Mass Tourism to have significant, long-lasting positive impacts on a Community, whilst being much less likely to have any significant negative impacts.

9.12 There are still potential negative impacts to manage, but they are much less challenging for NABT

As clearly identified in the Baseline Analysis – and reinforced in this report – any Tourism Development has the potential to bring significant negative impacts as well as positive ones to a region.

In the Weighted Impact Assessment in Section 6.2.2, these negative impacts included detrimental Societal/Community & Heritage impacts (-6.30 for Mass vs. -2.20 for NABT), Environmental damage (much more significant with Mass Tourism at -9.10 vs. 2.30 for NABT), high Tourism infrastructure development and maintenance demands (-4.60 for Mass vs. -1.10 for NABT) and the potential for minimal direct and indirect economic benefits to be felt within the region (only significant for Mass Tourism at -4.60).

This last is particularly important as Community-led NABT encourages indirect economic benefits to be generated and kept within the Community, whereas Mass Tourism is much more likely to see those benefits go offshore.

Overall, NABT had far fewer potential negative impacts and the sustainable nature of its' Overall Lifecycle vs. Mass Tourism (and high potential Rate of Return) make these impacts much easier to manage. These areas were further explored in Sections 5.1 (Overall Tourism Lifecycle) and 6.3 (Relative Rates of Return of NABT vs. Mass).

See Section 5.6 for more detail on the potential Negative Impacts of Tourism.

9.13 Because of the gaps in available data, a relatively large number of assumptions were made

An analysis of this kind is challenging given the disparate and incomplete nature of the Tourism data available (particularly NABT data). This led to a relatively large number of assumptions being made to allow for as clear, robust and useful a set of conclusions as possible to be made.

These assumptions are included in full in Section 6.1.1 and detail on the workings behind the ROI and Weighted Impact Measure calculations can be found in Section 6.2 underneath the full table of findings (*Table 2, page 30*).

9.14 The case studies included in this report provide some tangible examples of how to exploit the opportunity and avoid some of the risks

6 case studies were explored in Section 7 (*pages 37–38*), with 3 looking at NABT (Maho Bay Resorts in the US Virgin Islands, Kangaroo Island in Australia & Misool Eco Resort in Indonesia) and 3 at Mass Tourism (Benidorm in Spain, Bali in Indonesia and Cruise Shipping in the Cayman Islands).

Whilst only reviewed briefly, they provide some interesting insights into the practical challenges that will be involved with accelerating NABT Development in the Coral Triangle. Misool Eco Resort and Bali in particular could be worth exploring in much greater detail given both are in the Coral Triangle Region. Undertaking a full ROI analysis on Misool Eco Resort in partnership with the owners could be one way to do this for example.

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9.15 The findings overall are significant, but critical gaps remain in the base data

Whilst the forecast potential ROI of up to 29% and total value of US \$1.46–US \$1.88 trillion per annum for NABT is clearly significant, a number of gaps were uncovered in the data available that affect the reliability of this forecast.

The 4 key areas that were identified as potential areas for further analysis are:

- 1) Research and data on Tourism ROI (Mass and NABT) in the Coral Triangle;
- 2) Case Studies of Sustainable NABT Developments in the Coral Triangle;
- 3) NABT as a tool for building Climate Change Resilience; and
- 4) Investment Required to Rejuvenate a Mass Tourism Destination.

See Section 8 (page 39) for more detail on these data gaps and other potential areas for further analysis.

9.16 All 6 Countries of the CTI–CFF can benefit significantly from targeted investments in NABT

As a final finding, it is worth emphasising that the potential for achieving high rates of ROI (and growth in general) exists in all the CTI–CFF Countries. Whilst the initial stages of **'Developing and Promoting Sustainable Nature-based Tourism in the Coral Triangle'** initiative have focused on catalysing NABT growth in Papua New Guinea, the Solomon Islands and Timor–Leste, the broader frameworks and methodologies being developed are designed to open up the opportunity for all 6 Coral Triangle Countries.

How to leverage the opportunity from here – continuing to build and share the business case

Taken together, the findings outlined above and detailed in the body of this report clearly support the broader conclusions drawn in the 2015 Baseline Analysis about the potential for Nature and Adventure-based Tourism to have a significant and far-reaching development impact in the Coral Triangle.

Based on the ROI of up to 29% and total value of US \$1.46–US \$1.88 trillion per annum for Coral Triangle NABT identified, the apparently robust business case initially outlined in early 2016 is strongly confirmed by this report.

The challenge now is to outline that strong business case for Coral Triangle NABT Development in as compelling a way as possible and then share it with potential investors – both Public and Private. This process has already commenced through the development of an Investment Prospectus for Coral Triangle NABT Development (initially in Papua New Guinea, the Solomon Islands and Timor–Leste), that will include the key findings from this report.

Following that, it will be up to the CTI–CFF Secretariat and individual Coral Triangle Countries to work out how best to open up the US \$1.88 trillion Coral Triangle NABT opportunity. An opportunity that this report encourages is fully explored as, even if only half of the forecast value becomes a reality, that US \$0.95 trillion will still have a transformative impact on more than 100 million people in local Communities right across the Coral Triangle.⁹⁷



SECTIONS 10–12

10 | ACKNOWLEDGEMENTS

11 | APPENDICES

12 | REFERENCES

10 | ACKNOWLEDGEMENTS

This report draws on a wide variety of publically available data and numerous information sources.

Particularly useful have been a number of reports published by:

The Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security (CTI-CFF); the six National CTI-CFF countries' Tourism Promotion Boards; Association of South East Asian Nations (ASEAN); Asian Development Bank (ADB); Australian Government Department of the Environment; Asia-Pacific Economic Cooperation (APEC); Christ et al; Christina Symko & Rob Harris; Commonwealth Scientific and Industrial Research Organisation (CSIRO); Coral Triangle Atlas; Coral Triangle Support Partnership; Daniel J. Stynes; David L. Edgell Snr; European Environment Agency; Higginbottom; Global Sustainable Tourism Council (GSTC); International Air Transport Association (IATA); International Institute for Environment and Development (IIED); Ivanov, S., & Ivanova, M.; Maria Osborne; Marzouki, Froger & Ballet; Pacific Asia Travel Association (PATA); Pearson; Richard W. Butler; Sarah Ann Wormald; Secretariat of the Pacific Regional Environment Programme (SPREP); South Australian Government; The International Ecotourism Society (TIES); The Nature Conservancy (TNC); The World Bank; Tourism Australia; Tourism Research Australia; United Nations Conference on Trade and Development (UNCTAD); United Nations Environment Program (UNEP); United Nations World Tourism Organisation (UNWTO); United Nations Statistics Division; UN Women; World Commission on Protected Areas; World Economic Forum (WEF); World Travel & Tourism Council (WTTC); and the World Wide Fund For Nature (WWF).

This report benefited from information provided by representatives of the six CTI-CFF countries: Indonesia, Malaysia, Papua New Guinea, the Philippines, Solomon Islands, and Timor-Leste.

A number of individuals also provided valuable comments and input to the report including Carl Solomon and Charlotte Prouse, Directors of Destination Marketing Store (DMS), Keith Richards, Director Raleo Ltd and Chair of the Consumer Panel of the Civil Aviation Authority and Johnny Langenheim, Owner of Spindrift Creative and curator of www.thecoraltriangle.com.

Jackie Thomas, Leader, WWF Coral Triangle Programme provided overall direction and supervision.

Report Imagery

Much of the imagery used in this report has been generously provided by James Morgan, a multi award-winning film director and photojournalist.

James has extensive experience working in the Coral Triangle region both independently and in collaboration with WWF. His in-depth photographic features have appeared in National Geographic, The Guardian, BBC, Sunday Times and many others. His images regularly lead campaigns for the World Wildlife Fund and USAID and are published and exhibited around the world.

To see more of his work, please visit www.jamesmorgan.co.uk.

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11 | APPENDICES

Appendix A: Selected Pages from the 'Nature-based Tourism in the Coral Triangle' Report

Source: Baseline Analysis completed by 2iis Consulting in December 2015 | <https://www.2iis.com.au/wwfcoraltriangle>

6.4 Which Type of Tourism Growth?

If international, domestic and intraregional Tourism forecasts for the region and sub-regions in which the Coral Triangle countries sit all appear to be strong in terms of both volume and value out to 2030, surely that inevitably leads to the improved economic, social and environmental outcomes for local communities identified by the UN as one of the greatest potential benefits of Tourism?

Unfortunately, on-the-ground experience, not only in the Southeast Asia and Pacific regions, but also from other parts of the world experiencing rapid Mass/ mainstream Tourism Development, shows us that this is not automatically the case – in fact the opposite is too often true.

Some Challenges with Mass and Mainstream Tourism Development

Some examples of the considerable challenges faced through rapidly expanding Mass Tourism include:

11) Overwhelming pressure on the existing carrying capacity of local resources

Rapid growth of international, regional and domestic demand for Tourism experiences can put extreme pressure on an area and rapidly exceed the carrying capacity of local resources, utilities and existing infrastructure.

12) Rapid unplanned and exploitative development of coastal areas

The pressure described above often leads to poorly planned and under-regulated development of Tourism infrastructure. This can broadly be categorised as a 'develop fast-clean up later' approach, which has obvious, far-reaching impacts on local economies and communities.

13) Extreme pressure on already under-resourced Government structures

Existing government and governance structures are often already under-resourced and the pressure of rapid Tourism Development, alongside other essential economic and societal priorities, can quickly overwhelm them. This not only has immediate impacts in terms of unplanned or poorly planned developments, but also creates considerable limitations to long-term planning whilst disrupting the, often considerable, efforts underway to build more sustainable Tourism structures.

14) Pressure on the existing resources of human capital within the Tourism industry

One of the key elements of successful Tourism Development rests with the people working within the sector. As with point 3 above, this human capital can quickly be overwhelmed, leading to both a rapid decline in the overall quality of the Tourism products/ experiences and significant reductions in the capacity for future planning.

15) 'Leakage' of Tourism's potential economic benefits

Because Mass Tourism tends to attract overseas or 'out-of-area' investment, local communities often never feel the full economic benefits as the profits are either syphoned offshore or, in some cases, go to local political elites rather than to local populations.

16) Cultural degradation

Influxes of large volumes of people from outside an area inevitably affect local societies and their culture. Given the diversity of cultures and ethnic groups prevalent in the CTI-CFF countries, the potential for long-term negative impacts on the various cultural groups is high.

17) Introduction or exacerbation of 'societal ills'

Connected to cultural degradation, Mass Tourism also often has other unwanted negative consequences, from the introduction or increased consumption of alcohol and drugs to the exposure of local populations to more mainstream attitudes (which could be as simple as teenage girls dressing in 'more revealing' clothing). This is particularly relevant to the Coral Triangle given the high proportions of different religious groups in CTI-CFF countries (e.g. Muslims in Malaysia and Indonesia).

6.4 Which Type of Tourism Growth?

Some Challenges with Mass and Mainstream Tourism Development (continued)

18) Direct environmental degradation

Rapid expansion of Tourism infrastructure carries obvious risks to local environments. Whilst good environmental controls might exist, because of some of the inter-related challenges described above, they are often not followed. This means the Tourism industry in certain areas can largely be unregulated and a significant gap opens up between formal policies and practical realities.

19) Higher overall economic and social cost to service each tourist

Finally, mainstream/ Mass Tourists not only spend less per person in the countries they visit (*see section 6.5*), they also provide a greater overall economic burden on the host country through factors like their higher overall infrastructure demands and additional policing costs given the more 'hedonistic' pursuits they tend to undertake. This increased economic cost is then further exacerbated by the increased social costs they also tend to impose as described above.

Given the Asian Coral Triangle countries have one of the highest human population densities in the world, all of these problems are then further exacerbated by the urgent demands already placed on ecosystems and social structures simply by the volume of people seeking a path out of, sometimes extreme, poverty.

Taken together, these issues present some significant and complex challenges for the future.

At the most basic level, it is without doubt true that many of the local communities in which Tourism Development has already occurred in the region are only receiving a fraction of the overall benefit that a more carefully managed and balanced Tourism industry could provide. And this current imbalance is only going to grow if current growth & development trajectories are maintained with no change in Tourism industry practices.

More sustainable models of Tourism do not, however, provide the answer to all of this on their own.

What they can provide is a more thoughtful and integrated approach to managing some of the complexity inherent in economic and social development that has a much greater chance of creating sustainable, long-term economic growth for local communities. As an added benefit, it can also help conserve the ecosystem on which that local Community (and in the case of the Coral Triangle, a proportion of the rest of the world via the importance of its fish stocks) tends to rely.

This does not mean the complete avoidance of Mass and more Mainstream Tourism; there is clearly a place and a need for a variety of Tourism models going into the future.

What it does mean is that countries and regions need to think carefully about the mix of Tourism they want to aspire to and start planning for this mix more comprehensively now.

At the theoretical level, Ivanov's SDEF Grid ('Scale of Tourism Development / Ecological Footprint') provides a useful starting point for developing a roadmap to a more sustainable overall Tourism industry in a country or region (*Table 3 overleaf*).⁹⁸

The SDEF grid outlines 2 potential additional Tourism definitions, 'Mass Ecotourism' and 'Eco Mass Tourism' that sit between the usual 'Ecotourism' and 'Mass Tourism' extremes. It then explores the overall economic, social and environmental impact of each type and looks at the potential sustainability change path for each type and what that might imply. For the Coral Triangle project, Nature-based Tourism will mainly sit within the 'Ecotourism' definition, but over time could clearly stretch into 'Mass Ecotourism', whilst also providing insights to help Mass Tourism move towards 'Eco Mass Tourism'.

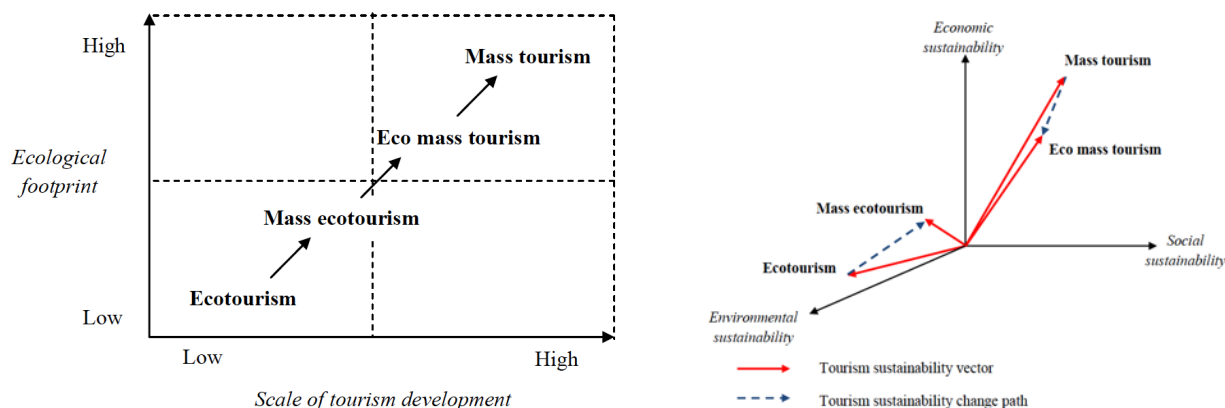
Exploring Tourism Development in this context, clearly opens up a pathway to creating a more balanced overall industry in the Coral Triangle over the mid to long-term.

6.4 Which Type of Tourism Growth?

Some Challenges with Mass and Mainstream Tourism Development (continued)

Graphic 3: Scale of Tourism Development/ Ecological Footprint (SDEF) Grid & Tourism Sustainability Vectors

Source: Ivanov, S., & Ivanova, M. (2013). *Mass Ecotourism vs. Eco Mass Tourism*.



Note: This is a very brief look at this area of research – as noted in Section 12, it is an area worthy of further study.

This 'balanced' approach to Tourism is a far from easy strategic and practical task. It requires the co-ordination and collaboration of a broad array of government departments, communities, businesses and other stakeholders. In the case of the Coral Triangle, regional complexities also need to be factored in.

It also requires a longer-term and more measured view that is often challenging for National Governments, given they often have more pressing priorities within short electoral cycles. Not least of these priorities from a Tourism perspective is a fairly constant drive for 'volume', often at the expense of other critical factors.

Having said that, the very structure of the CTI-CFF and its more mid to long-term focus could provide a more stable structure to start to explore this balanced and segmented approach.

Taking this approach, whilst not easy, will have a multitude of far-reaching benefits way beyond that of just addressing some of the 9 challenges outlined earlier in this section.

For a start, it has the potential to fully unlock some of the great economic and social development potential that Tourism clearly has for communities throughout the Coral Triangle.

And in the case of Nature-based Tourism, increasing the proportion of this segment of Tourism by even a few percentage points in a country can have a true triple (or even quadruple) impact on the bottom line: increased economic growth, accelerated societal development, long-term environmental protection and management, and increased resilience to the impacts of climate change.

As will be seen in the rest of this report, a great opportunity exists to start this journey towards a more balanced Tourism industry in the Coral Triangle. The potential scale, proportion and type of Nature-based Tourism varies in each country, but, whatever form it might take each country starts with that potential clearly ahead of it.

Section 7 explores each of the six CTI-CFF countries' potential for Nature-based Tourism growth, but, before that, a more detailed look at the overall scale of, and potential for, the global Nature and Adventure-based Tourism segment is needed.

6.5 Global Nature-based Tourism: fast-growing, high value & resilient

The overall opportunity for Nature-based Tourism

Nature-based Tourism is often called out as the fastest growing Tourism segment globally, has inherently higher-value per visitor than more mainstream forms of Tourism, and is notably more resilient to the periodic downturns that impact Tourism due to economic, societal, health or environmental reasons.

Underpinning all this is its much lower overall impact on the communities and environments of host countries and a real potential for it to help accelerate a country's development path over a sustained period of time.

With that in mind, it is surprising that there have not been more in-depth studies of the overall value and potential of Nature-based Tourism; or even just a greater volume of segmented data available from Tourism bodies like the UNWTO and WTTC, and development bodies like the World Bank and Asian Development Bank.

From the data that is available, however, the overall potential for nature-based, eco and/or adventure Tourism to help grow a country's Tourism sector, whilst simultaneously reducing the negative economic, environmental and societal impact of the more mainstream types of Tourism, is clearly significant.

Given the increasing pressures that many parts of the world are under from climate change, over-population and declining natural resources (to name just three), the potentially pivotal nature of Nature-based Tourism in addressing or preparing for some of these future risks is also apparent.

Over the past two decades, both Nature and Adventure-based Tourism have developed to be part of the fastest-growing segments within the Tourism industry. As far back as 2004, for example, Nature-based Tourism was estimated to be growing three times faster than the Tourism industry as a whole.⁹⁹

The combined annual growth rate of Nature-based and Adventure Tourism is estimated to be between 10–30% by the UNWTO and WTTC, with its overall share of the world Tourism and travel market currently estimated at between 20–25%.¹⁰⁰ By 2035 this share is conservatively forecast to grow to between 35–45%.¹⁰¹

Table 3: Current and Forecast Value of Nature-based and Adventure Tourism (2015 vs. 2035)

Sources: UN Statistics Division, UN World Tourism Organisation, World Travel and Tourism Council, CTI-CFF Countries

REGION/ SCALE	Estimated Value in 2015			Forecast to 2035*		
	Total Tourism Market (US\$)	Nature/ Adventure- Based Tourism		Total Tourism Market (US\$)	Nature-based & Adventure Tourism	
		20% Share (US\$)	25% Share (US\$)		35% Share (US\$)	45% Share (US\$)
Global	\$1,246 billion	\$249 billion	\$311.5 billion	\$2,214 billion	\$775 billion	\$996 billion
Asia Pacific	\$377 billion	\$75.5 billion	\$94.3 billion	\$670 billion	\$234.5 billion	\$301.5 billion
Coral Triangle (CTI-CFF Countries)	\$98.7 billion	\$19.7 billion	\$24.7 billion	\$454.3 billion	\$159 billion	\$204.4 billion

*2035 forecast is modelled on UN, WTTC and CTI-CFF Country data. Given the wide variety of variables, it should be taken as indicative only.

6.5 Global Nature-based Tourism: fast-growing, high value & resilient

The overall opportunity for Nature-based Tourism (continued)

Looking at the estimated current size of Nature and Adventure-based Tourism in Table 3 (above), it is clear that, as well as being a rapidly growing segment, this is already an established market – even if the exact numbers should be viewed with caution because of the current lack of segmented global data.

At somewhere between US \$19.7 billion–US \$24.6 billion in the Coral Triangle Countries, this places the size of the total Coral Triangle Nature/ Adventure-Based Tourism market as already equivalent to Malaysia's total domestic and international Tourism market's combined (estimated at US \$25 billion in 2013/14; *see Table 27 in section 7.2*).

Looking ahead to 2035, the upper estimated range of US \$204.4 billion would make the Nature/ Adventure-based Tourism sector twice the current size of all 6 CTI-CFI countries total international and domestic Tourism industries. To put it mildly, there is clearly potential available to be unlocked.

Alongside this total value is the increased economic value generated for the host country by each Nature-based Tourist – because they tend to stay longer and spend more. This means some of the challenges with Mass Tourism growth outlined in section 6.4 can be significantly mitigated.

Again, broad-based data is not readily available, but one credible study in 2009 by Tourism Research Australia (part of the Australian Government's Department of Resources, Energy & Tourism) found that an international Nature-based Tourist spent AUS \$5,898 per trip compared to the average international tourist spend of AUS \$3,614 per trip – a 63% increase. This is mainly attributable to the greater length of stay at 42 nights vs. 21 on average. Australia also commands a high proportion of Nature-based Tourists, at 64% of the total number of international visitors.¹⁰²

To put it even more mathematically bluntly, this means you can deliver the same economic return with approximately 40% less tourists at a Nature-based destination than a more traditional destination – without factoring in the additional social and environmental costs of more traditional Mass Tourism.

It should also be noted that this additional economic value does not factor in the extra social, environmental and cultural capital generated by the fact that Nature-based Tourists tend to travel with a much lighter social, ecological and cultural footprint.

A final area of significance with regards to Nature/Adventure-based Tourism is its overall 'resilience' to the traditional shocks that regularly cause downturns in the global Tourism industry (e.g. economic downturns, regional/ country instability, significant health scares, terrorism attacks).

Because of the demographics and underlying motivations of Nature/Adventure-based Tourists, they tend to be much more willing to travel independently, put up with a greater degree of hardship to reach a destination and generally take on more risk when it comes to travelling to 'less safe' destinations.

This means that they are more likely to see their travel plans through when more traditional tourists cancel, are often the first to travel to areas affected by natural or man-made disasters when they are made accessible again, and are much less put-off by heightened travel risks in general.

Again, this further reinforces the overall value in having a greater proportion of Nature-based and Adventure Tourists in any country's international (and domestic) tourist base.

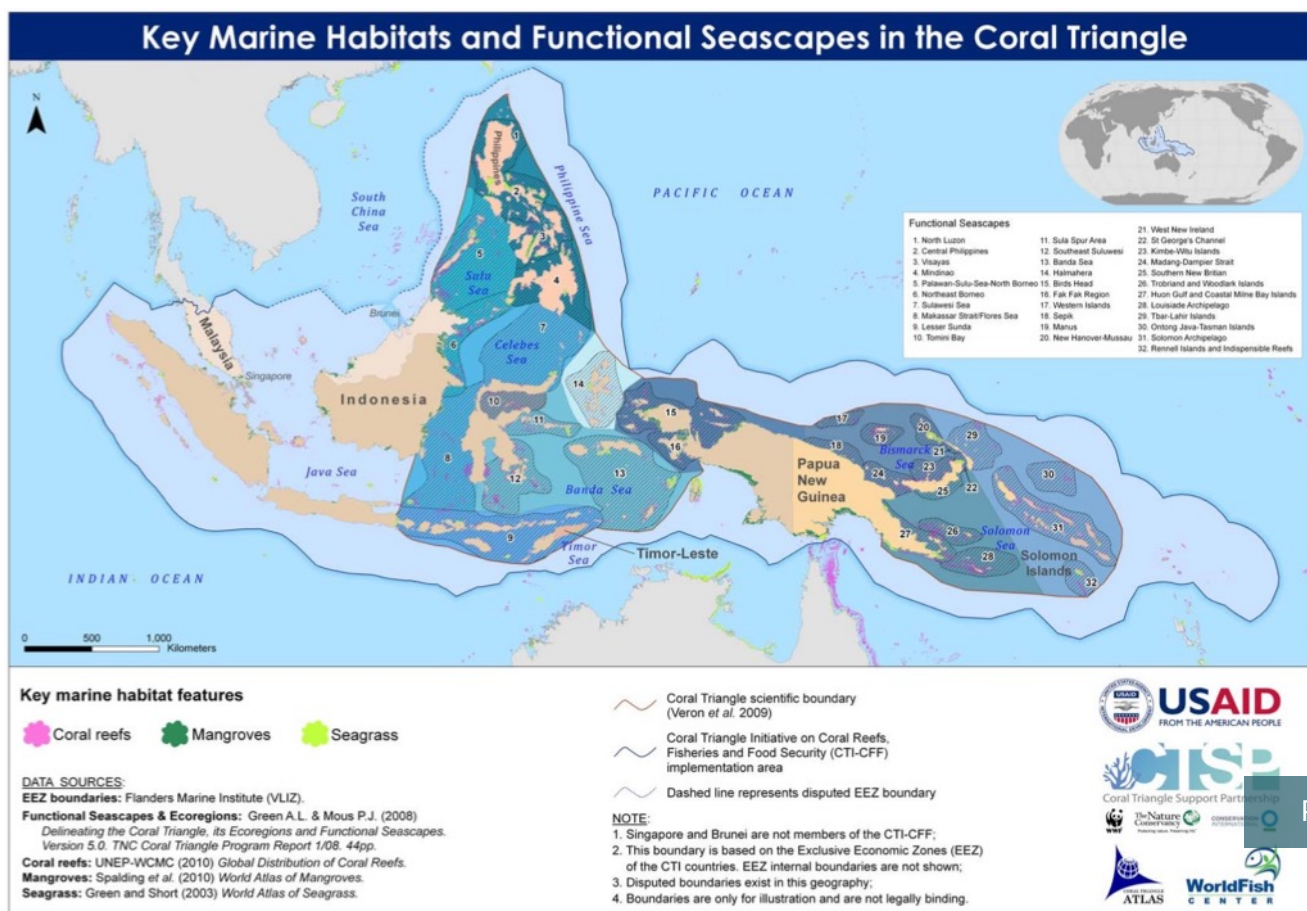
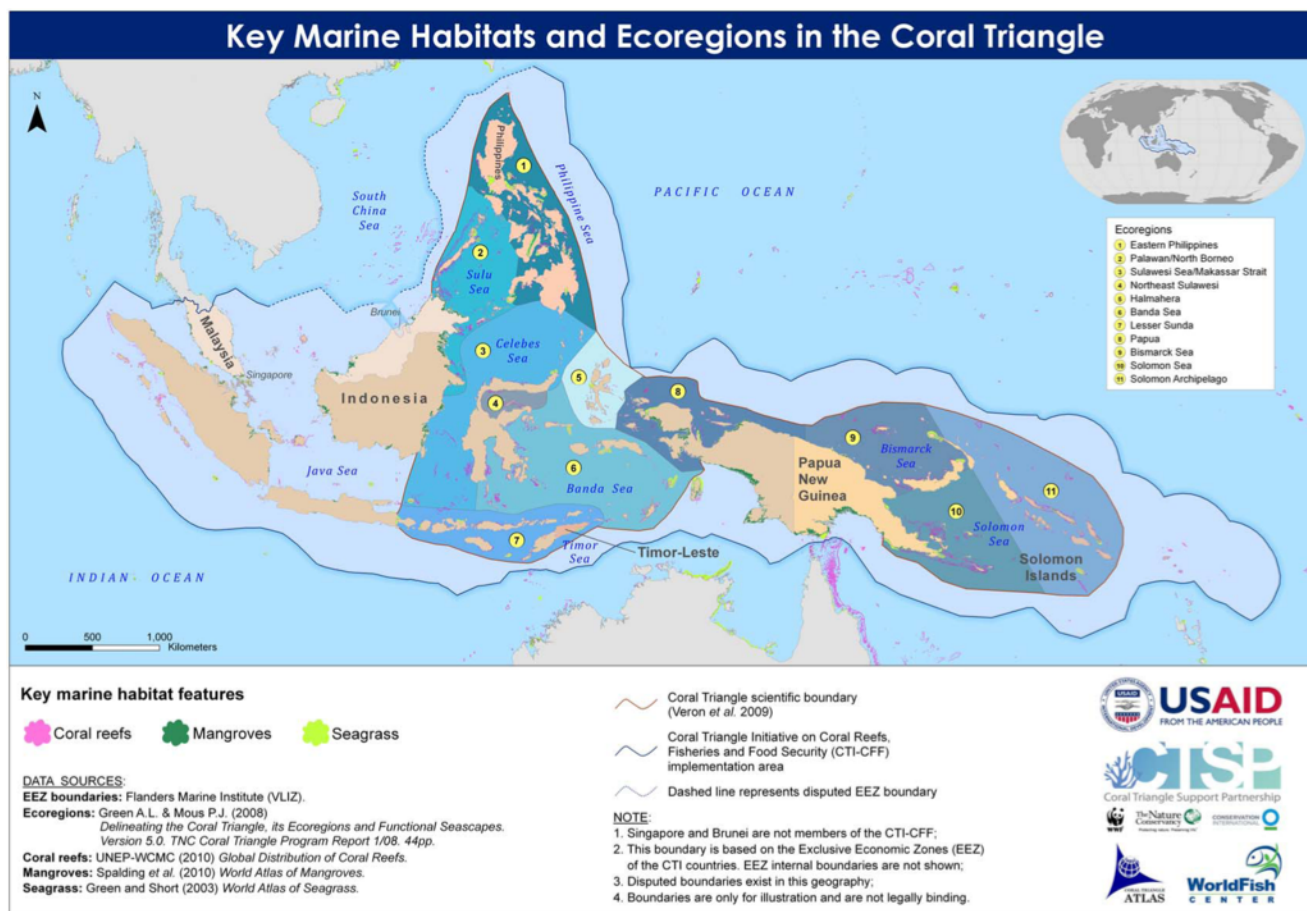
Appendix B: Definitions of Nature and Adventure-based Tourism & Related Terms

Sources: Various (specified in table below)

TERM	DEFINITION
Tourism	<p>'The sum of government and private sector activities that shape and serve the needs and manage the consequences of holiday, business and other travel'.</p> <p>(Pierce et al, 1998, cited in Higginbottom, 2004, p.2)</p>
Nature-based Tourism	<p>'The segment in the tourism market in which people travel with the primary purpose of visiting a natural destination.'</p> <p>(March 2003 Symposium "Tiger in the Forest: Sustainable Nature-based Tourism in Southeast Asia")</p>
Nature Tourism	<p>'Travel to unspoiled places to experience and enjoy nature'.</p> <p>(Honey, 2002, cited in Christ et al, 2003)</p>
Adventure Tourism	<p>'Nature tourism with a kick – nature tourism with a degree of risk taking and physical endurance'.</p> <p>(Honey, 2002, cited in Christ et al, 2003)</p>
Ecotourism	<p>"Traveling to relatively undisturbed or uncontaminated natural areas with the specific objective of studying, admiring, and enjoying the scenery and its wild plants and animals, as well as any existing cultural manifestations (both past and present) found in these areas'.</p> <p>(Ceballos-Lascurain, 1987, cited in Blamey, 2003)</p> <p>'Responsible travel to natural areas that conserves the environment and sustains the well-being of local people'.</p> <p>(Honey, 2002, cited in Christ et al, 2003)</p>
Wildlife Tourism	<p>'Based on encounters with non-domesticated (non-human) animals in either the animals' natural environment or in captivity. It includes activities historically classified as 'non-consumptive' ... as well as those that involve killing or capturing animals ...'</p> <p>(Higginbottom 2004, p.2)</p>
Sustainable Tourism	<p>'Seeks to minimize the negative footprint of Tourism Developments and at the same time contribute to conservation and Community development in the areas being developed'</p> <p>(Christ et al, 2003)</p> <p>Tourists people who "travel to and stay in places outside their usual environment for not more than one consecutive year for leisure, business and other purposes not related to the exercise of an activity remunerated from within the place visited'.</p> <p>(UNWTO, 1995)</p>

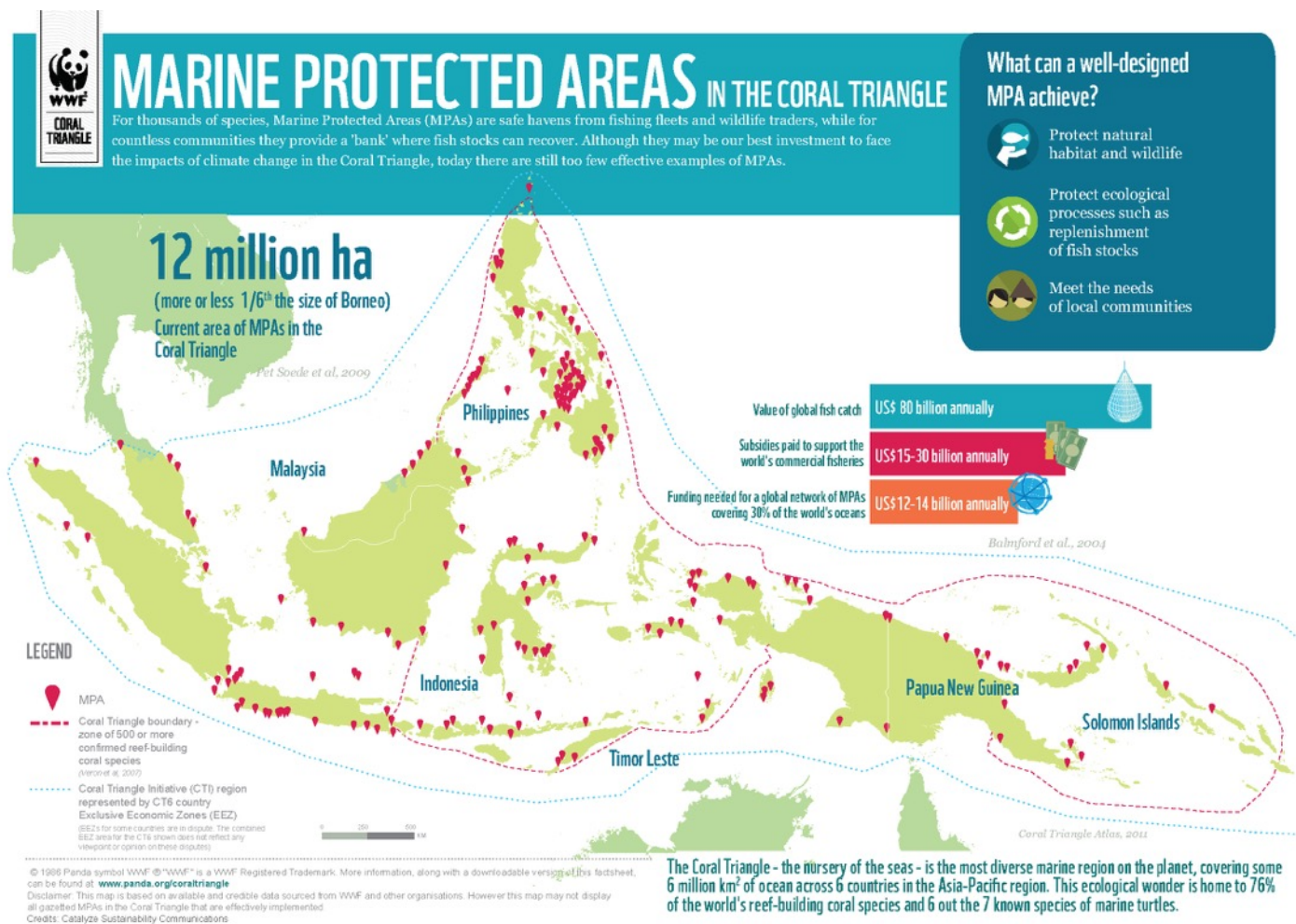
Appendix C: Maps of Coral Triangle Key Marine Habitats and Seascapes

Source: Coral Triangle Atlas

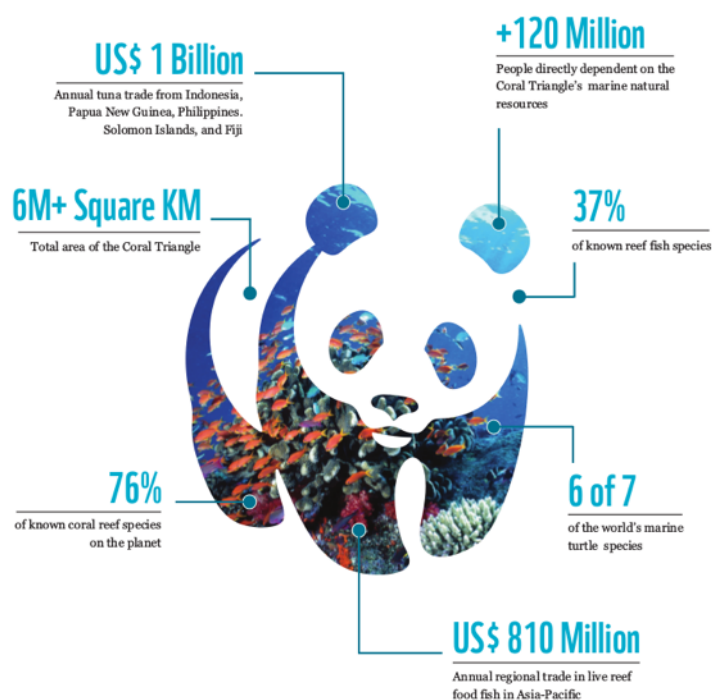


Appendix D: Marine Protected Areas & The Coral Triangle in Numbers

Source: World Wide Fund for Nature



THE CORAL TRIANGLE IN NUMBERS



Appendix E: Ecological Footprint Analysis as a Tool to Assess Tourism Sustainability

Source: Gössling, S.; Borgström-Hansson, C.; Hörstmeier, O.; Saggel, S.; Ecol. Econ. 2002, 43, 199–211.

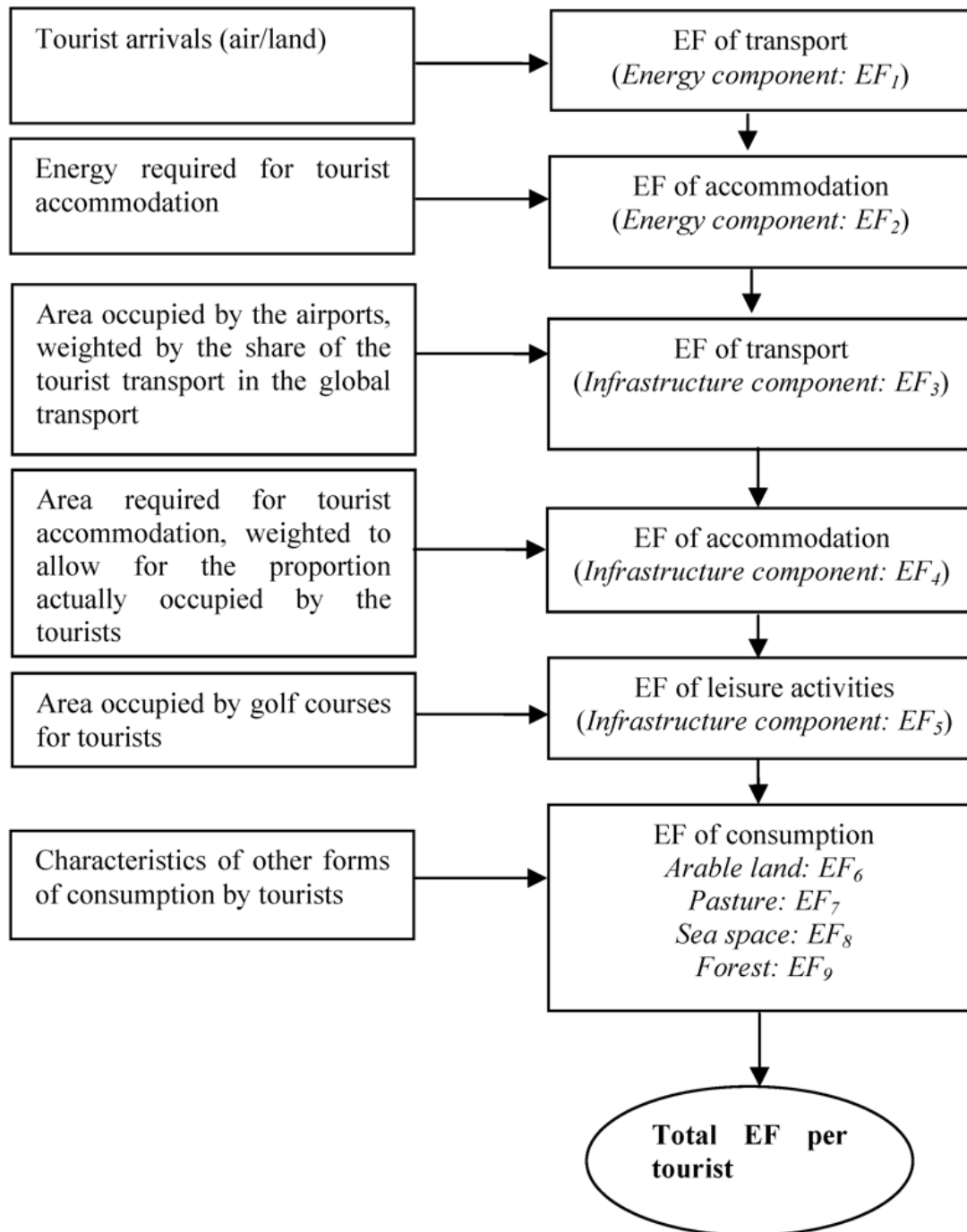


Table 1. Equivalence factors (based on relative biomass yield)

Area type	ef _i (global hectares per hectare) 2000
Fossil energy land (newly planted forest area needed to absorb emitted CO ₂ (ef ₁))	1.8
Built-up land (required for roads, buildings, etc.) (ef ₂)	3.2
Arable land (for growing crops) (ef ₃)	3.2
Pasture (for grazing animals) (ef ₄)	0.4
Sea space (for harvesting fish and other sea food) (ef ₅)	0.1
Forest area (for producing wood for furniture, paper, etc.) (ef ₆)	1.8

Appendix F: The Tourism Value Chain

Source: UNWTO, Sustainable Tourism for Development Guidebook. 2013.

Figure 4. Tourism Value Chain



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PROJECT PARTNERS & FUNDING

The Coral Triangle Initiative on Coral Reefs, Fisheries & Food Security (CTI-CFF)

The Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security (CTI-CFF) was established in 2009 to support the protection of the region's values and sustainable use of its marine resources. The CTI-CFF is a multilateral non-binding partnership agreement between 6 countries (Indonesia, Malaysia, Papua New Guinea, Philippines, Solomon Islands, and Timor-Leste).

A key challenge of the CTI-CFF is to ensure agreements that evolve at high levels deliver benefits to local economies and communities. To help achieve this, a key objective of the CTI-CFF is to encourage industries that depend on the Coral Triangle's resources, like Tourism, to start co-investing in the ocean's natural capital, thereby securing their business and supporting food and jobs for coastal societies.

The Australian Government (Department of Foreign Affairs and Trade)

The 'Developing and Promoting Sustainable Nature-based Tourism in the Coral Triangle' Project, of which this report is part of, is supported through funding from the Australian Government's Coral Triangle Initiative Support Program. Australia has been a partner of the Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security (CTI-CFF) since 2009.

The World Wide Fund for Nature in the Coral Triangle

WWF has been pioneering conservation in the Coral Triangle for more than two decades, collaborating with partners in the private sector, governmental agencies and civil society. By providing technical expertise and funding, and promoting innovative public-private partnerships, WWF is committed to safeguard the health of the region's natural resources and to secure the millions of livelihoods that depend upon them.

James Morgan

Much of the imagery used throughout this report is by James Morgan. James is an award-winning film director and photojournalist who has extensive experience working in the Coral Triangle region both independently and in collaboration with WWF. His in-depth photographic features have appeared in National Geographic, The Guardian, BBC, Sunday Times and many others. His images regularly lead campaigns for the World Wide Fund for Nature (WWF) and USAID, and are published and exhibited around the world.

To see more of his work, please visit www.jamesmorgan.co.uk.

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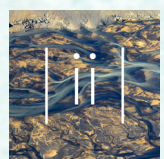
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Clients include Not-for-Profits, Social Enterprises, Governments, Community organisations & Academic Institutions.



**CORAL TRIANGLE
INITIATIVE**
ON CORAL REEFS, FISHERIES AND FOOD SECURITY



'It is my hope that by planting the seeds in developing the Coral Triangle as a sustainable marine tourism destination, future generations 100 years from now will stand amongst the shores of the Coral Triangle and be in awe of the legacy of a pristine coastal and marine environment that we will have left behind.'

U.S. Ambassador to Indonesia Robert Blake
4th CTI-CFF Regional Business Forum, August 27-29, 2015



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