# Can Tourism In Timor-Leste and Malaysian Sabah Afford Not To Be Sustainable?

# By Aiman Somoudi 51209621

(September 2012)

Research Report Presented to the Faculty of Graduate School of Asia Pacific Studies, Ritsumeikan Asia Pacific University, in Partial Fulfilment of the Requirements for the Degree of Master of Science in International Cooperation Policy

# **Certification Page**

I, Aiman Somoudi certify that this report is original and authentic

# Acknowledgements

Many thanks to Professor Malcolm Cooper, and Professor Peter Heck for their help developing the ideas behind this report and for their supervision during the work. Special thanks to Shane Penny and the team of Reef Check for their help. Special thanks to Sarah Harper for her detailed analytical role.

# Abstract

This paper's two focus states, Timor-Leste and Malaysian State of Sabah are isolated and plagued with poverty, which creates challenges and opportunities for sustainable tourism. While tourism could create many opportunities, the two focus states are aiming at exploiting the opportunities by attracting tourists, in order to generate enough revenues to overcome the challenges. However, tourism activities have an impact on the sensitive ecosystems of these islands if not managed carefully. This paper compares the activities of Timor-Leste and the Malaysian state of Sabah towards establishing a sustainable tourism economy. The paper's framework is based on the sustainable tourism as defined by the UN World Tourism Organization, developing the economic, social and environmental aspects of the system. Therefore, this paper compares the activities of Timor-Leste and Malaysia Sabah in the three areas using internationally recognized indicators. In the case of Timor-Leste current regulations and policies might not be tackling the most pressing issues in this weak developing economy. As a matter of fact, some of the policies might be directly linked to degradation of quality of life as indicated by the Multidimensional Poverty Index (UNDP). While the Malaysian state of Sabah might be on the way to achieving development goals in the economic, social and environmental areas; learning which strategies are best suited to the state came at great cost. Timor-Leste can possibly learn from the successes and shortcomings of tourism management in Sabah, in order to draft a better model for sustainable tourism management, targeting long term sustainable development, as opposed to short term imbalanced gains.

# Contents

(	Can Tourism In Timor-Leste and Malaysian Sabah Afford Not To	Be
Sustaina	ble?	I
C	Certification Page	II
A	Acknowledgements	. III
A	Abstract	. IV
(	Contents	V
I	ist of Tables & Figures	VII
A	Abbreviations	X
1	. Introduction	1
	1.1. Methodology	2
2	Sustainable Tourism Management	4
	2.1. Tourism	4
	2.2. Sustainability	5
	2.3. The Marine Ecosystem	7
	2.3.1. Coral Reefs	7
	2.4. Scuba Diving and Snorkelling Tourism	8
	2.5. Section Conclusion	. 10
3	Country Contexts	. 12
	3.1. Location	. 13
	3.1.1. Timor-Leste	. 14
	3.1.2. Malaysian Sabah	. 15
	3.2. MS and TL in the News	. 16
	3.2.1. Timor-Leste	. 17
	3.2.2. Sabah	. 18
	3.3. Natural Assets	. 18
	3.3.1. Coral Reef Triangle	. 19

	3.4.	International Tourist Arrivals in TL	21
	3.5.	International Tourist Arrivals in MS	22
	3.6.	Analysis	23
4.	P	Policies	25
	4.1.	Economic Policies	25
	4.1	1.1. Timor-Leste	26
	4.1	1.2. Sabah	29
	4.1	1.3. Analysis	32
	4.2.	Environmental Policies	35
	4.2	2.1. Reef Check Methodology	35
	4.2	2.2. Coral Reef Indicators	38
	4.2	2.3. Deforestration	42
	4.2	2.4. Analysis	43
	4.3.	Social Policies	44
	4.3	3.1. Major Social Indicators	44
	4.3	3.2. Palm Oil Plantations Social Impact in MS	49
	4.3	3.3. Analysis	50
5.	T	The Way Forward	53
	5.1.	The Strategic Development Plan of Timor-Leste	53
	5.2.	Sabah Development Corridor	54
	5.3.	Analysis	55
6.	C	Concluding Thoughts	57
7.	C	Conclusion	63
8.	R	References	I

# List of Tables & Figures

Figure 1 Industrial economies and the environment
Figure 2 Alternative route
Table 1 Recreational value of coral reefs in Hawaii in 2001 (US dollars)
(Ingram, 2010)
Table 2 the determinants of diver satisfaction in Sipadan (Musa, 2002)
Figure 3 TL and MS location and flight time estimates (Sabah Develoment
Corridor Blue Print, 2007)
Figure 4 Timor-Leste Overview (UN, 2008)
Figure 5 Sabah State Map (Sabah Develoment Corridor Blue Print, 2007) 15
Figure 6 Top ten most costly natural disasters in South East Asia 1990-2007
(Feng & Wang, 2011)
Figure 7 Pacific Ring of Fire (BBC, The Pacific 'Ring of Fire', Science and
Environment, 2009)
Figure 8 Malaysian Sabah (Musa, 2002)
Figure 9 Coral reef triangle (Wilkinson, 2008)
Table 3 Threat, reef dependence, adaptive capacity, and economic vulnerability
ratings by country or subnational region for the coral triangle region (Burke, Reytar
Spalding, & Perry, 2012)
Figure 10 Tourist Arrival Timor-Leste 2006-2010 (MINISTRY OF TOURISM
TRADE AND INDUSTRY OF TIMOR-LESTE, 2010)
Figure 11 MS international tourism receipts (Sabah Develoment Corridor Blue
Print, 2007)

Figure 12 MS International Visitor Arrival (Sabah Visitor Arrival by
Nationality, 2012)
Table 4 Real GDP growth comparison TL and Malaysia (IMF, World Economic
Outlook, April 2012)
Figure 13 Government expenditure and inflation in US\$ million (MoFTL, 2012
Table 5 Estimated Value of FDI Licenses Issued in Timor-Leste (Trade Inves
Timor-Leste, 2010)
Figure 14 Number of hotels in Timor-Leste 2001-2010 (MINISTRY OF
TOURISM TRADE AND INDUSTRY OF TIMOR-LESTE, 2010)
Table 6 Estimated Values of FDI Licenses Issued in Timor-Leste by Country o
Origin [TradeInvest Timor-Leste, 2010]
Figure 15 Distribution of employment in MS (Sabah Develoment Corridor Blue
Print, 2007)
Table 7 Selected CPI indicators Sabah (Monthly Statistical Bulletin Sabah
2009)
Figure 16 Investment by state 2011-2012 (MIDA, 2012)
Figure 17 Reef Check International
Figure 18 the Transect Line (Status of Coral Reefs in Malaysia, 2011) 36
Figure 19 Trumpet Triton attacking a Crown of Thorn star fish (Tellus
Consultants)
Figure 20 Incidence of impacts for K41 at 6m on 23/Jul/2011 (Penny, 2011) 38
Figure 21 Mean fish abundance for K41 at 3m on 23/Jul/2011 (Penny, 2011) . 39
Table 8 Marine protected areas (MPA) in South East Asia (SEA)

Figure 22 MPA's in Malaysia (Summary Report for MPA Malaysia, 2010) 41
Figure 23 Coral cover in Tunku Abdul Rahman Marine Park off Kota Kinabalu
(Environmental Indicator Report, Sabah, Malaysia, 2003)
Figure 24 State Expenditures TL (La'o Hamutuk)
Figure 25 Manufacturing wages and primary school enrolment in 2010 (MoFTL,
2012)
Table 9 TL MPI for 2011 (Human Development Report, 2011)
Figure 26 Unemployment rate trend (Sabah Develoment Corridor Blue Print
2008-2025, 2007)
Figure 27 Total poverty incidence by state 1990-2009 (%) (The Millennium
Development Goals at 2010, 2010)
Table 10 Primary School Completion Rate TL (World Development Indicators,
2012)
Figure 28 Under five and infant mortality rates by state, 1990 and 2007 (The
Millennium Development Goals at 2010, 2010)
Table 11 Mortality rate under 5 per 1,000 live births TL
Figure 29 Sabah Development Corridor vision and mission (Sabah Develoment
Corridor Blue Print 2007) 55

# **Abbreviations**

SIDSN: Small Island Developing State Network

UNWTO: United Nations World Tourism Organization

PADI: Professional Association of Diving Instructors

UNMA: United Nations Millennium Ecosystem Assessment

IMF: International Monetary Fund

TL-SLS: Timor-Leste Standard of Living Survey

FDI: Foreign Direct Investments

JV: Joint Venture

GoTL: Government of Timor-Leste

DEMA: Diving Equipment and Marketing Association

CTI: Coral Triangle Initiative

APEC: Asia Pacific Economic Cooperation

MPA: Marine Protected Area

SEA: South East Asia

SDC: Sabah Development Corridor

CC: Country Context

PF: Policy Factors

TL: Timor-Leste

MS: Malaysian Sabah

**GDP:** Gross Domestic Product

MIDA: Malaysian Investment Development Authority

FRETILIN: Revolutionary Front for an Independent East

Timor (Portuguese: Frente Revolucionária de Timor-Leste Independente)

TLDFA: TL Directorate of Fisheries and Aquaculture

COT: Crown of Thorn

RCM: Reef Check Malaysia

TLMoF: Timor-Leste Ministry of Finance

CPI: Consumer Price Index

SDP: Strategic development Plan

SRSG: Special Representative of the Secretary General

La'o Hamutuk: Timor-Leste Institute for Development Monitoring and Analysis

POP: Palm Oil Plantation

# 1. Introduction

The purpose of this paper is to examine the tourism management in Timor-Leste (TL) and the Malaysian state of Sabah (MS). MS has an established tourism market, while TL is a newly independent country with not much more than the finite oil resources, where tourism could serve as an instrument to develop the isolated but environmentally bio-diverse country. Linking policies of sustainable tourism management to favourable outcomes in MS with regards to long term development, might serve as a model for TL. The paper lists the factors tourists consider before making a trip to new destinations to establish the underlying similarities and differences between MS and TL with regard to attracting international tourists. This shows that TL has many similar factors to MS, making them suitable economies for comparing policy strategies. TL has far fewer tourist arrivals than MS at present but given its similarity with MS, a growth in numbers can be projected. This in turn gives learning from MS' policy choices increased importance. Then the paper uses indicators to compare how successful the different aspects of policies are in the three main areas of sustainable tourism development. This paper uses the United Nations World Tourism Organisation (UNWTO) definition of sustainable tourism as a reference to evaluate how sustainable tourism management is in the focus states and to set the framework. Sustainable tourism as defined by UNWTO develops the economy and the society while preserving the environment from damage. The paper starts firstly by explaining the scientific methodology of the paper, then setting the scene by introducing sustainability and the international tourism market. Because of the high importance of the marine ecosystem and scuba diving tourism in the focus states, the marine ecosystems and the scuba diving market are hereafter introduced. Secondly the paper examines the factors linked to sustainable tourism management in the three areas of sustainability. Finally the paper aims at drawing conclusions that would be useful when drafting polices for sustainable tourism management through linking favourable results to various policy approaches.

# 1.1. Methodology

This paper looks into sustainable tourism management in TL and MS and begins by examining the different factors that affect tourists' arrival decisions. Amongst the factors there are two main types, the first type is country context (CC) and the second group is Policy Factors (PF). The CC group refers to factors contributing to the current rate of visitors and local policies can't influence and include location factors (for example, availability of direct flights), natural assets (such as the state of coral reefs), and a history of negative media coverage. The PF refers to the factors that underpin a successful tourist destination and can be influenced by the policies for sustainable development that are under review in this paper. The PF group indicators that are identified and measured can be directly linked to policies in the three main areas of sustainability: economic, social and environmental. This paper uses internationally recognized indicators to link strategies to results in the two states. In the economic factors, indicators such as poverty, price level, GDP and inflation are used, because they affect the country and how tourists perceive the country to be a cheap or an expensive holiday destination with suitable services. In the environmental factors, due to the importance of coral reefs in the tourism economies of the two states, this paper focuses on the health of coral reefs as an indicator for environmental health, and Marine Protected Areas' (MPA) management indicators. In the social factors, indicators such as children under 5 years' mortality rates and primary school completion rates are used for assessment of social outcomes, because investors in tourist infrastructure (such as hotels and tour companies) require a healthy and skilled labour force (and how socially developed the destination is would affect tourists' decision). Followed by an analysis, recommendations are drawn as a result of the comparison, illustrating the link between results and practice in the area of sustainably managing tourism for development.

Wherever possible; comparable data from more than one source have been used for comparison and verification, such as the World Bank, United Nations agencies, national and international press sources and the countries' official sources.

# 2. Sustainable Tourism Management

Managing the expansion of the tourism sector requires not only tapping into the international tourism market to boost arrivals, but also preparing the regulations for managing tourism sustainably. In the quest to attract tourists across the long term, sustainability in tourism management requires policy that expedites a growing economy, healthy environment and developed society, while also protecting the economy, environment and society from the impact of increased tourist inflows. The marine ecosystem (especially coral reefs) is of particular concern in the focus states as marine tourism forms a significant portion of overall tourism. While tourism enhances revenue raising capacity as the marine ecosystems are increasingly used to attract tourists (for example scuba diving), tourism growth can endanger the marine ecosystems (for example increased demand for seafood might result in over fishing). In the following section, the concepts are introduced in order to establish a background for the work to follow in this paper.

#### 2.1. Tourism

"Tourism is directly responsible for 5% of the world's GDP ... and one of every 12 jobs." [UNWTO, 2012]

Tourism became one of the most internationally traded categories, generating more than US\$ 1 trillion in 2010 worldwide. In addition, tourist arrivals reached 980 million in January 2011 and are estimated to reach 1 billion in 2012. Internationally tourism suffered with the latest financial crisis, and is now growing back exceeding the levels of 2008. Furthermore, air transport and hospitality sectors internationally reported overall growth in the year 2011. (UNWTO, 2012)

According to the development plans for both states in focus (TL and MS), tourism is an area where Politician's and researchers alike identify potential for growth. So far the tourism contribution in both economies is growing. So far the tourism contribution in the MS economy is substantial and growing, while in the economy of TL, tourism has not yet been targeted as a national priority and makes a minor contribution to the economy compared with oil. TL might be able to tap into the niche eco-tourism market by presenting the country as a destination for eco-tourism in South East Asia with easy access from Australia, Singapore and Bali.

# 2.2. Sustainability

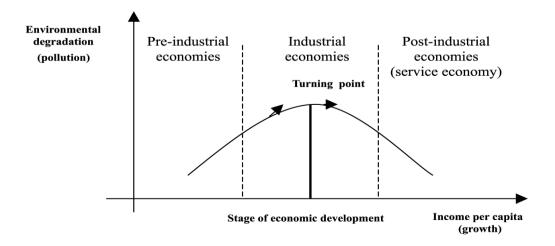
"When approached in a sustainable manner, tourism can help drive economic growth and alleviate poverty. In fact, tourism has proved to be one of the leading ways for least developed countries to increase their participation in the global economy."

United Nations Secretary-General, Ban Ki-moon

According to the United Nations Millennium Assessment (UNMA), a major change in policies, practice and institutions is required to reverse the degradation of the ecosystem while continuing to meet the increased human demand for resources.

(MillenniumEcosystemAssessment, 2005)

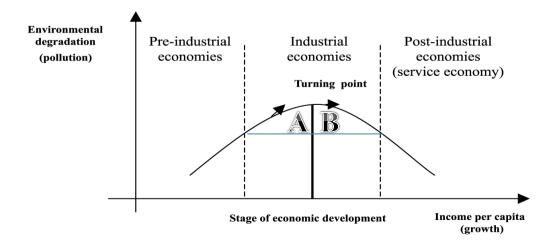
Although tourism has great potential, unsustainable tourism management practice can have a negative overall impact. Therefore, organizations such as the UN are advocates of sustainable methods to ensure a balance between all aspects of development and guarantee long lasting positive gains. According to the United Nations World Tourism Organization (UNWTO), sustainability takes into consideration the three pillars of environment, society and economy. Therefore, development made on one of the pillars without the others is deemed not to be sustainable. (UNWTO, 2012)



Source: Panayotou (1993)

Figure 1 Industrial economies and the environment

With reference to Figure 1 Industrial economies and the environment, the graph is known as the environmental Kuznet curve, representing the development of industrial economies and its relation to environmental degradation. Industrial economies strive to achieve economic development represented by growth in income per capita while the environment suffers from increased degradation as a result of the unregulated industrial processes. However, these economies reach a turning point when they realise that environmental degradation affects the economies' growth, therefore, impose regulations requiring investments to be made to preserve and clean the environment. In this case many end-of-pipe technologies are applied to abide by regulations but adding substantial costs to industrial processes. Developing economies on the beginning of their path for development do not have to follow the same path. An alternative route exists, with reference to Figure 2 Alternative route, developing economies have a choice. Following the new line achieves the same economic development without going through the same stages of environmental degradation (area A) and increased investments to clean the environment (area B).



Source: Panayotou (1993)

Figure 2 Alternative route

# 2.3. The Marine Ecosystem

"Without life in the ocean, there would be no life anywhere on Earth." (Marine Biodiversity—One Ocean, Many Worlds of Life, 2012)

The marine ecosystem occupies over 90 per cent of the habitable space on the planet, and 40 per cent of the world's population live within 100 kilometres of the coast. The services provided by the costal ecosystems are valued at nearly US\$ 26 billion annually. Due to commercial over-exploitation of the world seas, between 30 and 35 per cent of the global marine environment are estimated to have been destroyed. Rich countries have imported more than 80 per cent of commercial fish products, causing fish stock to decline and collapse and forcing 20 million people into undernourishment in the year 2000. (Marine Biodiversity—One Ocean, Many Worlds of Life, 2012)

#### 2.3.1. Coral Reefs

Over one million species, representing one third of all marine species live on coral reefs. Due to direct and indirect human impact, coral reefs around the world are dying. Global warming is causing coral bleaching around the world, which claimed 80

per cent of the surveyed coral reefs in the Caribbean and 40 per cent in many places had died by 2012. (Marine Biodiversity—One Ocean, Many Worlds of Life, 2012)

According to the "Status of the Coral Reefs of the World" report, 19 per cent of the coral reef original area has been lost, within the 10-20 coming years an additional 15 per cent are under threat of loss and 20 per cent are threatened to be lost within 20-40 years. (Wilkinson, 2008)

# 2.4. Scuba Diving and Snorkelling Tourism

Scuba diving is a strand of wildlife tourism that is growing rapidly around the world. Diving with specialized scuba gear such as regulators and air tanks is taught around the world by several organizations. Although not all scuba divers are licenced, official figures of licenced divers give an indicator of the size of the industry as most commercial operators require their customers to be certified before taking part in any type of scuba diving activities. The market of scuba diving is worth \$8 billion annually, as it stood in 2007 and was expected to have grown by 2.5 per cent by the year 2010. (CTO, 2008)

Table 1 Recreational value of coral reefs in Hawaii in 2001 (US dollars) (Ingram, 2010)

	Consumer	Value Added of	Value Added of	Multiplier	Total Value			
	Surplus	Direct	Indirect Expenditure	Effect	Added			
		Expenditure						
Snorkelers								
Residents	10,053,899	2,318,704	-	579,676	12,952,279			
US West	47,833,826	20,882,055	23,136,504	11,004,640	102,857,025			
US East	33,174,006	14,482,250	20,450,444	8,733,174	76,839,874			
Japan	13,340,508	5,823,854	2,189,058	2,003,228	23,356,648			
Canada	5,236,964	2,286,218	3,587,133	1,468,338	12,578,653			
Europe	3,809,326	1,662,977	2,246,766	977,436	8,696,505			
Other	11,782,791	5,143,826	6,794,101	2,984,482	26,705,200			
Subtotal	125,231,322	52,599,883	58,404,007	27,750,973	263,986,183			
	Scuba Divers							
Residents	3,450,231	5,137,088	-	1,284,272	9,871,591			
US West	1,588,179	3,152,878	3,545,777	1,674,664	9,961,498			
US East	1,101,444	2,186,603	3,134,126	1,330,182	7,752,355			
Japan	1,255,768	2,492,969	2,710,742	1,300,928	7,760,407			
Canada	173,878	345,185	549,745	223,733	1,292,541			
Europe	126,477	251,085	344,327	148,853	870,742			
Other	391,212	776,641	1,041,228	454,467	2,663,548			
Subtotal	8,087,190	14,342,448	11,325,946	6,417,099	40,172,682			
	•	Total Recre	ational Value					
Residents	13,504,130	7,455,792	-	1,863,948	22,823,870			
US West	49,422,006	24,034,932	26,682,281	12,679,303	112,818,522			
US East	34,275,450	16,668,853	23,584,570	10,063,356	84,592,229			
Japan	14,596,276	8,316,823	4,899,800	3,304,156	31,117,055			
Canada	5,410,842	2,631,403	4,136,878	1,692,070	13,871,193			
Europe	3,935,804	1,914,062	2,591,094	1,126,289	9,567,249			
Other	12,174,003	5,920,467	7,835,329	3,438,949	29,368,748			
Total	133,318,511	66,942,331	69,729,953	34,168,071	304,158,866			

Table 1 Recreational value of coral reefs in Hawaii in 2001 (US dollars), is an example of the size of the scuba diving and snorkelling market in Hawaii and the value in US dollars as it stood in the year 2001. As indicated, the scuba diving market has direct expenditures such as fees and gear rental and indirectly linked expenditures such as accommodation, food and beverages. In addition, snorkelling does not require special training and the gear is significantly cheaper to buy or rent, creating more economic value through the multiplier effect.

Table 2 the determinants of diver satisfaction in Sipadan (Musa, 2002)

SCUBA-diving attributes	Frequency					n	Mean
	VG	G	N	P	VP		
1. Marine life	223	70	19	0	0	312	1.35
2. Friendly/helpful staff	196	90	21	1	1	309	1.45
3. Good buddies	204	67	29	4	2	306	1.47
4. Water temperature	192	88	28	1	0	309	1.48
5. Easy dive access	191	72	35	7	1	306	1.55
6. Professional and efficient dive master	165	98	33	9	4	309	1.67
7. Efficient staff 8. Underwater geological	153	105	45	6	1	310	1.70
formation	117	124	61	4	2	308	1.86
9. Making friends	142	85	55	12	12	306	1.91
10. Coral reef	124	110	57	18	2	311	1.92

VG, Very good; G, good; N, Neutral; P, Poor; VP, Very poor

Scuba diving experience is a good example of an eco-tourism activity that is based on natural assets and does not require extensive infrastructure investments, except mechanisms for protection of coral reef and marine life. *Table 2 the determinants of diver satisfaction in Sipadan*, indicates the importance of marine life to scuba divers in Sipadan Island, MS, and serves as a guideline for what scuba divers look for in a diving location.(Musa, 2002)

# 2.5. Section Conclusion

In conclusion and with reference to the size of the international tourism market and the concept of sustainability (as identified by the UNWTO), managing sustainable tourism requires balanced management to develop the economic, social and environmental aspects of a system. A sustainable approach to tourism development ensures that the country develops with long term returns in mind, because the development of one aspect is not causing damage to the other two aspects of development. Many countries place the economy and/or society at the centre of development policy, but focussing on one area of development. Neglecting the other areas of development can cause a system breakdown or need for massive investments in

reversing the damage inflicted on the environment, as indicated in the environmental Kuznet curve diagrams above. The health of the marine ecosystem and coral reefs are indicators of the health of the overall environmental systems in a number of countries. In the focus states, the sea is the main source of food and income, hence preserving the marine ecosystem should be the main priority. In addition, activities such as scuba diving and snorkelling can be indicators of how much tourism is linked to marine environment and how degradation of marine life affects tourist arrivals. Activities such as scuba diving and snorkelling are an example of wildlife tourism that fits the niche eco-tourism market and is fast growing. Tapping into this market requires having the natural assets and investing in protecting the marine ecosystem of the island nation. However, if unregulated, these tourism activities that generate economic value might be the reason behind environmental degradation and future loss of value.

# 3. Country Contexts

This section provides an introduction to both states in focus (MS and TL), listing the CC factors in order to draw a picture of the current situation with relation to international tourists arrivals and how developed each destination is on the scale of international tourism. The factors are location, natural assets and the history of negative international media coverage for TL and MS. Similarities and differences are illustrated as these factors are important factors influencing tourist decisions. The latter factors are usually targeted by tourism marketing policies, which is out of the scope of this paper. This comparison illustrates the similarities between TL and MS, and that TL has potential to develop an elaborate sustainable tourism sector if TL implements policies that regulate tourism activities. As with increased tourist numbers there would be more need to protect the environment and the society from the negative aspects of unregulated economic growth.

# 3.1. Location



Figure 3 TL and MS location and flight time estimates (Sabah Develoment Corridor Blue Print, 2007)

The location is one of the main aspects affecting visitors' decisions and determines in part the climate, travel options, safety and cost of travel. Figure 3 TL and MS location and flight time estimates, illustrates the locations of Dili, TL and Kota Kinabalu, MS and the proximity of flights to hubs in the region. Both states are in the South East Asia (SEA) region within three to four hours flying time to Singapore. Therefore, both states are within close proximity to developed economies in the region such as Singapore and Australia, , which is an important aspect because tourists from these economies have more disposable income and might be willing to invest more in leisure activities such as scuba diving and tropical safaris.

#### 3.1.1. Timor-Leste

TL is a member of the Small Island Developing State Network (SIDSN) and is located in South East Asia near the northern coast of Australia's Northern Territories, as illustrated in *Figure 4 Timor-Leste Overview*. The country is linked with direct flights to Bali (Indonesia) approximately two hours flight time, Singapore approximately four hours, and Darwin (Australia) approximately one hour flight time. TL has been trying to increase connectivity to international destinations and is establishing a national airline called Air Timor to help better connect the island to the world.

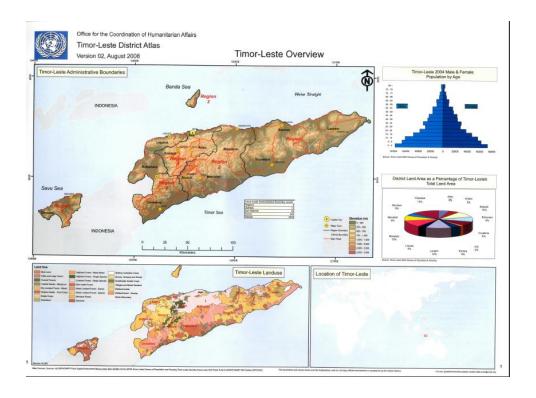


Figure 4 Timor-Leste Overview (UN, 2008)

Dili is the capital city, and is located on the north cost of the island operating the only functional international airport in the country, with 55% of urban population in the largest city in 2009. (IMF, World Economic Outlook, April 2012)

# 3.1.2. Malaysian Sabah

According to the Malaysian government, MS is the poorest Malaysian state and one of two Malaysian states on the Borneo Island, shared with Indonesia, Brunei, and Malaysia. MS is a member of the Malaysian federal union and has local and federal government roles and representations.



Figure 5 Sabah State Map (Sabah Develoment Corridor Blue Print, 2007)

To date MS is connected with direct flights to nine destinations, the Malaysian peninsula, the Philippines, Indonesia, Hong Kong, China, Taiwan, Singapore, South Korea and neighbouring Brunei. MS is connected to these destinations via the two national airlines, Malaysian Air and the budget Air Asia. In addition, the national airlines of the mentioned states fly directly to Kota Kinabalu (KK) airport providing better connections and competitive pricing. With reference to *Figure 5 Sabah State* 

*Map*, KK is the major urban hub with the main air and sea ports connecting the state to the world, hosts an industrial park and is the main regional growth centre (Sabah Develoment Corridor Blue Print, 2007).

# 3.2. MS and TL in the News

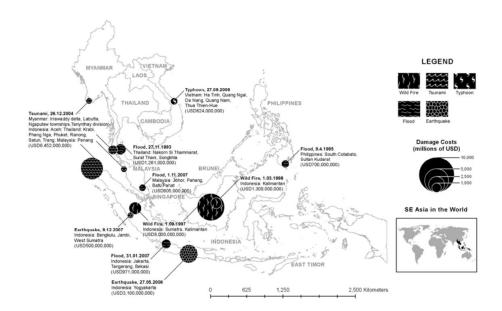


Figure 6 Top ten most costly natural disasters in South East Asia 1990-2007 (Feng & Wang, 2011)

When a tourist destination appears in the international headlines, the effects are long lasting and might change possible visitor's tourism destination decisions. TL and MS have a legacy of negative coverage in the media related to civil unrest and natural disasters. Such negative impact could have a long-lasting effect on tourists' willingness to visit these destinations. As illustrated in *Figure 6 Top ten most costly natural disasters in South East Asia 1990-2007*, MS and TL are in the region of major natural disasters of tsunamis, floods and earthquakes, which is referred to as the "Pacific Ring of Fire" as illustrated in *Figure 7 Pacific Ring of Fire*. In addition, MS and TL remain

prone to floods, which claim lives and properties and force people to abandon their homes every year (UN, 2008) and (Ayog, Bolong, & Zakaria, 2005).

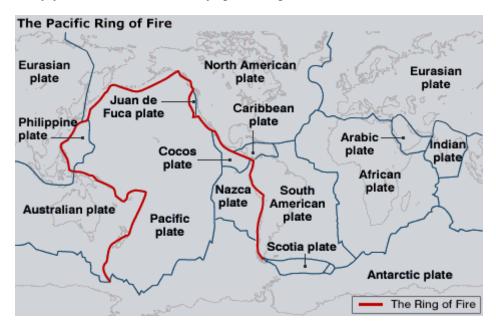


Figure 7 Pacific Ring of Fire (BBC, The Pacific 'Ring of Fire', Science and Environment, 2009)

#### 3.2.1. Timor-Leste

The eastern half of Timor island was colonised by Portugal until 1975, when the Indonesian forces claimed TL as part of Indonesia. Civil unrest claimed the lives of many civilians over the fight for power in the country. TL remained under Indonesian management until 1999, when TL became an independent nation with the help of international forces, under UN leadership. The country gained independence as a result of a referendum and was managed by the United Nations until 2002. (GoTL, 2012)

#### 3.2.2. Sabah



Figure 8 Malaysian Sabah (Musa, 2002)

MS had its share of western colonization and was leased and awarded according to treaties set by the dominant forces, which were the bases for several modern border disputes with neighbouring countries such as the Philippines, Indonesia and Brunei. (Salleh, Razall, & Jusoff, 2009)

Furthermore, MS had a share of the bad news coverage with the incidents of tourist kidnapping in 2001, terror warnings in 2003 and tsunami warning in 2005. (BBC, BBC Search, 2012)

# 3.3. Natural Assets

Both states enjoy a prime location within the coral reef triangle as identified by Status of Coral Reefs Report for the year 2008, with tropical climates and warm temperatures. In addition, both destinations could be associated with the wild image of the tropics.

# 3.3.1. Coral Reef Triangle

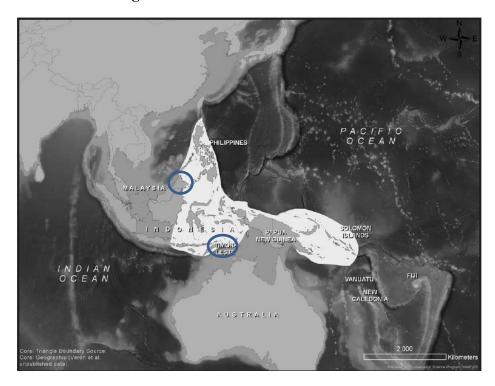


Figure 9 Coral reef triangle (Wilkinson, 2008)

Scuba diving tourists seek pristine reefs and biologically diverse habitats. The area between the Philippines, Indonesia, Papua New Guinea and Solomon Islands is famous in the diving circles for diversity and known as the "Coral Triangle". With reference to *Figure 9 Coral reef* the area illustrated in white colour highlights the coral triangle, representing only two per cent of the global ocean cover, yet, 75 per cent of all coral species, 35 per cent of all coral reefs in the world, the largest mangrove forest and 3000 fish species are found there. In addition, the triangle is a major route for many sea mammals, and a major nursery area. The annual value of the coral reefs in this region is estimated at US\$ 2.3 billion, and supports the livelihood of 120 million people. In the year 2007 the Coral Triangle Initiative (CTI) to conserve "Coral Reefs, Fisheries, and Food Security" was launched by the Indonesian President Susilo Bambang Yudhoyono, and includes TL, Malaysian Borneo, the Philippines, the Solomon Islands, Papua New

Guinea and the Exclusive Economic Zone of central and eastern Indonesia. The initiative was supported by the 21 leaders of the Asia Pacific Economic Cooperation (APEC) summit in Sydney. (Wilkinson, 2008).

Table 3 Threat, reef dependence, adaptive capacity, and economic vulnerability ratings by country or subnational region for the coral triangle region (Burke, Reytar, Spalding, & Perry, 2012)

Countries and Territories	Exposure to Threat of Degradation	Dependence on Reefs	Adaptive Capacity	Social and Economic Vulnerability
Brunei Darussalam	Medium	Medium	High	Low
Indonesia	High			Very High
Malaysia—Peninsular	Medium	Medium		Medium
Malaysia—Sabah	High			
Malaysia—Sarawak	Low	Medium		Medium
Papua New Guinea	Medium		Very Low	Very High
Philippines	Very High	Very High		Very High
Singapore	High	Medium	High	
Solomon Islands	Medium	Very High	Very Low	Very High
Timor-Leste	High	Medium	Very Low	Very High

With reference to *Table 3 Threat*, *reef dependence*, adaptive capacity, and economic vulnerability ratings by country or subnational region for the coral triangle region, and according to World Resource Institute, coral reefs in TL and MS have high exposure to threat of degradation. Furthermore, the social and economic vulnerabilities related are either high or very high, illustrating the link between coral protection and the socio-economic factors. (Burke, Reytar, Spalding, & Perry, 2012)

# 3.4. International Tourist Arrivals in TL

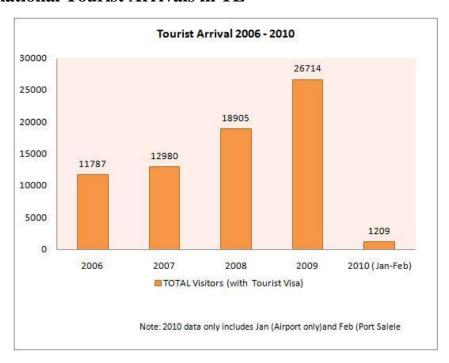


Figure 10 Tourist Arrival Timor-Leste 2006-2010 (MINISTRY OF TOURISM TRADE AND INDUSTRY OF TIMOR-LESTE, 2010)

The TL Government began promoting tourism in the country through events such as the peace marathon, the annual bike tour and the underwater photography competition hosted by the President of TL. As indicated in *Figure 10 Tourist Arrival Timor-Leste 2006-2010*, visitors arriving in the country's only airport (with tourist visa) numbers have been rising, by an average of 33 per cent over the past four years. In this context, it is noteworthy that TL has no other type of visa, therefore, entering the country with a tourist visa does not always mean that visa holders are tourists. (Timor-Leste Government Portal, 2010).

# 3.5. International Tourist Arrivals in MS

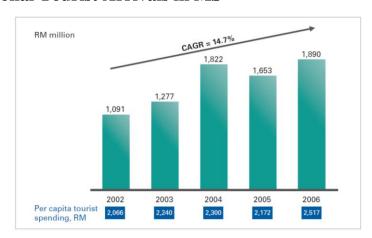


Figure 11 MS international tourism receipts (Sabah Develoment Corridor Blue Print, 2007)

The tourism sector is the third sector in size in MS and continues to grow in size and in share. Tourism had contributed 7.4 per cent to MS GDP by 2008 and is expected to have contributed 10 per cent for the period of 2008 until 2010. As a result of the international financial crisis, figures did not grow as expected. However, and as indicated in *Figure 12 MS International Visitor Arrival*, international tourist arrival numbers are increasing again. (Sabah Visitor Arrival by Nationality, 2012)

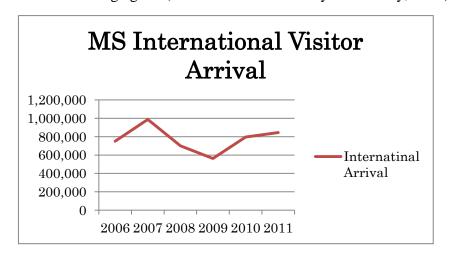


Figure 12 MS International Visitor Arrival (Sabah Visitor Arrival by Nationality, 2012)

# 3.6. Analysis

TL and MS are located in SEA and are within three to four hours flight time to major regional hubs such as Singapore. While MS has nine direct international air connections, TL has only has four direct international air connections. The difficulty of travel and lack of direct flight can be an important factor for international visitors' decisions. In addition, the location in SEA makes both states vulnerable to tsunamis and floods. Furthermore, TL had a long history of civil unrest, while MS had incidents of tourist kidnapping and terrorist attack warnings. Despite that, TL is strategically located in the Coral Triangle and the MS eastern shores enjoy the biodiversity and variety of marine life of the Coral Triangle. Hence, MS has an advantage with regard to ease of travel from and to the main urban centre KK. TL is also relatively disadvantaged as it has a longer and more intense history of negative international media coverage throughout the civil unrests. However, MS and TL might be comparably on par with regard to natural assets in the marine biodiversity region.

There are several certification bodies in the scuba diving market that are setting the standards for scuba diving education. The Professional Association of Diving Instructors (PADI) is estimated to have certified 70 per cent of divers annually. In an informal interview with Mr Carnadie, Regional Manager for PADI, he expressed interest in the scuba diving market in TL for several factors, most importantly natural assets and proximity to the northern Australian territories. Mr Carnadie noted the absence of diving shops in the northern territories due to bad diving related conditions and danger of crocodiles and added that additional flights with lower cost linking Darwin, Northern Territories and Dili might help the diving market grow even more. [Carnadie, 2010]. Diving figures were not available from any of the four scuba diving

operators in Dili or PADI Asia Pacific regional office. More effort to better connect TL and advertise the natural assets might prove beneficial for international tourist arrival figures, because TL has natural assets and a location that could be as attractive as MS, which successfully attracts high numbers of tourists.

# 4. Policies

In this section, the economic, social and environmental policies are described and internationally accepted indicators are used to attempt to establish a link between these policies and the associated changes in the respective areas in relation to sustainable tourism. This model of strategy could be helpful for TL to draft future policies in the event that the country decides to pursue the course of sustainable tourism development as a tool for country development, building on the successes and the shortcoming of MS strategies.

#### 4.1. Economic Policies

With reference to Table 4 Real GDP growth comparison TL and Malaysia, TL appears to have started slowly and then is booming from the year 2007 despite the international economic downturn. Malaysia as a whole follows a more stable trend and has been affected by the international financial crisis in 2009. In order to further analyse the state of the economy as a whole, additional indicators would be able to explain the whole picture related to the economic growth in TL and MS. Therefore, the economic policies section of the paper discusses indicators such as inflation rate, Foreign Direct Investments (FDI) and not only GDP growth rate. These indicators can affect international tourist decisions as well as investors in the tourist industry: higher GDP would signal a strongly developing economy, which would encourage investment in the tourism sector but higher inflation rates usually drive commodity prices higher than markets with lower inflation rates and affect the service market by increasing service prices and associated goods, which would repel tourists and investors. Additionally, the FDI state represents trust in the economy and how attractive for

business the country is, signalling to other investors the attractiveness of the economy. Therefore, these factors and indicators are listed for comparison between the two focus states.

Table 4 Real GDP growth comparison TL and Malaysia (IMF, World Economic Outlook, April 2012)

Real	2004	2005	2006	2007	2008	2009	2010	2011
GDP								
Growth								
Malaysia	6.8	5.3	5.8	6.5	4.8	-1.6	7.2	5.1
TL	4.4	6.5	-3.2	11.7	14.6	12.8	9.5	10.6

#### 4.1.1. Timor-Leste

TL is dependent on oil returns, which used to be mainly invested in US Treasury Bills, leaving very little room for expenditure in the local infrastructure, the oil revenues have increased five-fold over the last six years, coupled with more expenditure in the local market [IMF, 2009].

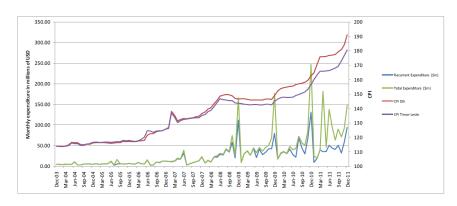


Figure 13 Government expenditure and inflation in US\$ million (MoFTL, 2012)

As illustrated in Figure 13 Government expenditure and inflation in US\$ million , there is a visible relation between increased government spending and inflation starting

from mid-2010, which has been additionally attributed to the international financial crisis in the major trading partners market. (MoFTL, 2012)

#### 4.1.1.1. Foreign Investments

The government introduced the first Foreign Direct Investments (FDI) law in 2005, with decreased taxes for FDI in the country. [Law on External Investment 2005, 2005]. *Table 5 Estimated Value of FDI Licenses Issued in Timor-Leste* indicates active FDI in the year 2006.

Table 5 Estimated Value of FDI Licenses Issued in Timor-Leste (Trade Invest Timor-Leste, 2010)

	2006	2007	2008	2009			
Sector/Activities:	Planned/	Planned/Intended FDI (in USD million)					
Hotel services	44.8	12.9	0.0	45.3			
Coffee	13.1	0.0	0.0	0.0			
Fishing & Industrial fishing	27.4	5.2	0.0	14.0			
	2006	2007	2008	2009			
Construction	3.7	3.4	0.0	9.7			
Real Estate & PropertyDev.	1.0	9.0	10.8	0.0			
Agro-Business (exclu. coffee)	10.4	0.0	0.2	0.0			
Plantation-Cane Sugar	0.0	0.0	100.0	0.0			
Wholesale-Retail-Import Trade	2.5	1.3	0.0	0.0			
Construction material	1.2	0.0	0.0	1.4			
Transportation	0.0	0.2	4.0	0.0			
Commercial Banking	5.6	0.0	0.0	0.0			
Others	50.5	12.3	3.4	15.1			
Totals	160.2	44.3	118.4	85.5			

However investments almost came to a complete stop with the exception of hotel services and reconstructing in the year 2009. Although, hotel and service industries were amongst the very few sectors that attracted foreign investment in TL, the ease of doing business in the country is ranked at 168 out of 183 countries reviewed by the World Bank (Economy Rankings, 2011). This might explain the situation with FDI

in TL with regards to hotel investments as indicated in Figure 14 Number of hotels in Timor-Leste 2001-2010.

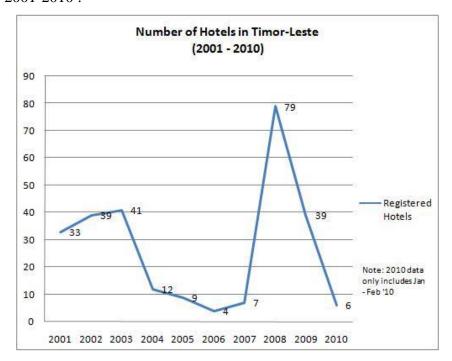


Figure 14 Number of hotels in Timor-Leste 2001-2010 (MINISTRY OF TOURISM TRADE AND INDUSTRY OF TIMOR-LESTE, 2010)

In addition, the presence of the UN mission in the country creates a parallel economy and attracts investments in the service sector. Nevertheless, the UN mission is scheduled to close down and leave TL by December 2012, which raises concerns about the investments made in the service sector if international tourist numbers don't replace the UN demand in the market.

As illustrated in *Table 6 Estimated Values of FDI Licenses Issued in Timor- Leste by Country of Origin*, most foreign investments are Australian in numbers and Indonesian in value, with only a very small portion of Portuguese investments, mainly in the communication, hotel and banking sectors.

Table 6 Estimated Values of FDI Licenses Issued in Timor-Leste by Country of Origin
[TradeInvest Timor-Leste, 2010]

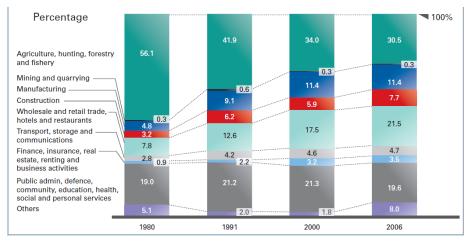
Origin	Number of Investments	<b>Estimated Value of Investment</b>
Indonesia	5	\$105,010,000.00
Australia	32	\$95,550,973.00
Timorese & other JV	12	\$80,777,553.00
Timorese	3	\$34,531,260.00
Republic of Korea	7	\$21,715,000.00
Portugal	6	\$9,616,036.00
Others & mixed JV`s	12	\$50,163,109.00

TL has to import almost everything for local consumption due to a lack of local produce. Virtually the only non-oil export is coffee with 30 per cent of the population involved in coffee growing, almost 67,000 households. (WorldBank, Diagnostic Trade Integration Study, 2010) Despite that, the government capital expenditure for the year 2010, of USD 217 million, has a 65 per cent share for road development and electricity, while tourism, justice and agricultural projects combined accounted for less than six per cent [Budget Book 1, 2010] According to The World Bank, coffee has great potential and is listed at the top of exports, but most investments were in the hotel services and only one investment was made in the coffee plantation in Ermera in 2006 [Trade Invest Timor-Leste, 2010]. The previous figures give an indicator of how investors find more value in the service sector, and if the government wanted to touch on the lives of the masses involved with coffee farming to diversify the economy, serious efforts to invest in the agriculture field require better focused methodology.

#### 4.1.2. Sabah

Sabah's main exports are palm oil, timber, cocoa beans and rubber (Monthly Statistical Bulletin Sabah, 2009). In 2005 the service sector had 48.9 per cent share of

MS GDP, providing the highest number of jobs, accounting for 53.3 per cent in 2006. As illustrated in *Figure 15 Distribution of employment in MS*, MS economy is changing to a service economy after it was dominantly an agricultural economy. (Sabah Develoment Corridor Blue Print, 2007) The diversification of MS economy and building a service economy could be interpreted as a positive sign, especially following the negative impact of Palm Oil Plantations (POP) (losing forest cover) and the associated social aspects with POPs as will be discussed later in the paper.



Source: Yearbook of Statistics, Sabah, 2006

Figure 15 Distribution of employment in MS (Sabah Develoment Corridor Blue Print, 2007)

With reference to inflation levels and the consumer price index, MS was affected by the international financial crisis and inflation rates in the whole of Malaysia went up by 5.4 per cent in 2008. However, inflation in 2010 went down to 1.7 per cent to similar levels to the pre-2008 trend. (World Development Indicators, 2012). With reference to *Table 7 Selected CPI indicators Sabah*, MS was less affected by the increase in prices, however the increase in food and non-alcoholic beverages may

indicate an area where a strategy change would be beneficial in the future especially when linking food security to poverty levels.

Table 7 Selected CPI indicators Sabah (Monthly Statistical Bulletin Sabah, 2009)

Period	Total	Health	Transpo	Commu	Recreati	Food &	Educat
			rt	nication	on &	nonalcoholic	ion
			11	meation	Culture	beverages	
Weight		1.0	11.7	3.6	3.8	36.0	2.2
1.							
·							
2006	103.7	101.3	112.9	98.5	99.6	103.8	102.0
2007	105.9	103.1	114.9	97.5	100.3	107.4	102.5
2008	112.3	106.2	114.9	96.7	101.6	117.8	103.4
• • • • • • • • • • • • • • • • • • • •	10-0	1010			101.5		1000
2008	107.9	104.9	115.2	97.1	101.6	111.4	102.8
Jan							
2009	113.9	108.2	116.5	96.4	102.0	123.8	104.6
Jan							
5 5521							

## **4.1.2.1.** Foreign investments

According to the World Bank, Malaysia as a whole is in the 18<sup>th</sup> rank over the world on the Ease of Doing Business Index (Economy Rankings, 2011).

Indicators from the employment market *Figure 15 Distribution of employment in MS*, and online government sources show a constant growth in the manufacturing and service fields. (DailyExpress, 2012) With reference to *Figure 16 Investment by state 2011-2012* investments continue to increase in MS ranking first amongst Malaysian states. (MIDA, 2012)

-

<sup>&</sup>lt;sup>1</sup> 2005=100

	January - March 2012					2011				
State	No.	Domestic Investment (USD)	Foreign Investment (USD)	Total Proposed Capital Investment (USD)	No.	Domestic Investment (USD)	Foreign Investment (USD)	Total Proposed Capital Investment (USD)		
Sabah	6	1,470,034,875	20,334,528	1,490,369,403	27	276,682,896	13,987,044	290,669,940		
Selangor	68	1,024,664,467	237,758,459	1,262,422,926	263	1,421,089,278	1,336,360,803	2,757,450,081		
Johor	36	149,694,799	508,470,047	658,164,847	188	1,038,143,264	1,039,020,599	2,077,163,863		
Terengganu	7	39,268,381	424,322,173	463,590,554	15	96,525,692	342,809,068	439,334,760		
Perak	10	17,203,697	310,041,717	327,245,415	30	282,314,282	28,381,252	310,695,534		
Pulau Pinang	19	77,988,115	208,145,958	286,134,073	109	618,422,468	2,254,137,364	2,872,559,832		
Sarawak	5	84,887,510	54,941,991	139,829,501	43	1,360,460,220	1,306,213,811	2,666,674,031		
Negeri Sembilan	5	88,077,036	48,991,368	137,068,404	38	495,618,403	1,367,287,949	1,862,906,352		
Pahang	4	25,279,153	74,942,346	100,221,499	25	648,043,805	310,308,373	958,352,178		
Melaka	8	11,943,169	17,549,485	29,492,654	39	539,567,606	837,005,442	1,376,573,048		
Kedah	10	10,709,329	16,756,631	27,465,961	42	44,249,947	1,891,402,534	1,935,652,481		
Kuala Lumpur	4	6,704,412	0	6,704,412	19	64,582,960	32,460,023	97,042,983		
Kelantan	2	1,321,173	0	1,321,173	5	28,372,422	12,192,743	40,565,165		
Perlis	-	-	-	-	3	6,407,104	946,372	7,353,476		
TOTAL	184	3,007,776,117	1,922,254,703	4,930,030,820	846	6,920,480,348	10,772,513,379	17,692,993,726		

Figure 16 Investment by state 2011-2012 (MIDA, 2012)

#### 4.1.3. Analysis

This section analyses the policies in place in the two economies, in light of the economic indicators presented, in an attempt to assess the effectiveness of economic policies.

Since independence TL (according to the government) has been prioritising building a basic infrastructure and tending to the basic needs of the people. According to the TL budget books, 2010 and 2011, the priorities are big ticket items including grand plans and an aim to boost GDP growth. Nevertheless, the budget composition suggests the government is neglecting social priorities and environmental priorities in addition to increasing recurrent expenditure in an economy already overwhelmed by rising inflation. The government announced that despite all the spending from the petroleum fund on the vastly debated power plans, US\$ 10 billion were still available by the end of April 2012. (GoTL, 2012)

"Ten-year anniversary and more than ten billion in Petroleum Fund marks new milestone for Gusmão Government's good governance structures in **management of Petroleum Sector"** (Ten-year anniversary and more than ten billion in Petroleum Fund, 2012)

According to the inflation analysis by the TLMoF the increased recurrent expenditure contributed to increased inflation and affected the local purchasing power. Due to the fact that TL uses the United States Dollar, the international increase in food prices and the deflation of the United States Dollar against the currencies of trade partners in the region drove inflation higher. According to the Timor-Leste Institute for Development Monitoring and Analysis (La'o Hamutuk) the government spending exceeds the Estimated Sustainable Income (ESI) policy that aim at setting the ceiling for total government spending in order to remain sustainable per the law. (GoTL, 2012) More than one billion USD, which represent almost one third of the public spending for the period 2009-2011, was invested in the heavy oil power project that neglects 80 per cent of the population directly living off agriculture. While investments in the power generation could benefit the economy and the "grand development plans" of the current government, direct investment that touches the lives of the masses involved in agriculture such as clean water and sanitation, might prove more beneficial in tackling degrading levels of life in TL. The country is 90 per cent dependant on oil returns and there are no signs of investments in sustainable income sources. (La'oHamutuk, 2011) Therefore, regardless of the increased spending and grand plans, the TL economy is not diversified and still relies on oil. TL might be making the same mistake MS made: relying on one sector; TL is focussing on developing downstream oil industries, despite its finite oil reserves. MS is now trying to diversify by transferring the economy from an oil-dependent one to a more diversified economy offering a balanced job market with investments in sustainable tourism and services.

Regardless of the "double digit" GDP growth, very few sectors are receiving most of the funds, and there is no evidence of any decrease of poverty in the society as a result of the spending, which might indicate a further division in the society and increase in poverty levels. The government of TL could be valuing quick political gains over investing in the alleviation of poverty and investment in non-oil sectors.

MS has come a long way from the poverty levels in 1990, and witnessed transformation in the economic sector from agriculture and fisheries to a more service based economy attracting local and foreign investments. MS is still the poorest Malaysian state, and the government policies have shortcomings regarding the setting of the minimum wage below the poverty level in the state. Although, development has been slow, GDP levels kept steadily rising alongside reductions in poverty rates and development in the social aspects. While the CPI was affected by the international trends, the inflation level in 2010 is back to a similar level as before 2008 and FDI is increasing. The economy has been affected by major incidents such as a tsunami in 2005 and the global financial crisis in 2009. Nevertheless, despite the setbacks, the economy in MS is on a steady rise, unlike the economy of TL that is booming with increased dependency on oil returns, threatening a major collapse to the system if oil prices fluctuate or if oil reserves are exhausted before the non-oil economy is developed. Planning to diversify the economy with focus on tourism could benefit TL immensely especially if well balanced with the society development and environmental protection.

#### 4.2. Environmental Policies

Coral reefs are the main source of food for most of the people on island nations and are the main asset in terms of supporting marine life, most notably fisheries. In addition, healthy coral reefs provide an attraction to tourists, being the base for superb bio diverse attractions. Additionally and according to the Reef Check organization, the coral reef around the world is under threat despite the high value linked to coral reefs, which -if managed well- are estimated to be USD 16 billion annually in Malaysia alone. Therefore, and in order to measure the effectiveness of the environmental policies in TL and MS, the coral reefs' state and marine protected areas' wellbeing indicators are of high value. To measure the marine ecosystem health the Reef Check methodology and indicators will be referenced in TL and MS. To further illustrate the methodologies of Reef Check, an introduction along with methodology explanation precedes the environmental indicators discussion.

## 4.2.1. Reef Check Methodology



Figure 17 Reef Check International

With reference to *Figure 17 Reef Check International*, Reef Check (RC) is non-profit organization that was established in 1996 and aims at empowering people to better protect reefs and oceans through education and protection programs. Reef Check Malaysia (RCM) is one of the many branches around the world that runs regular surveys of reefs in Malaysia. In TL Reef Check operates under the cooperation efforts between Charles Darwin University of Australia and TL Directorate of Fisheries and Aquaculture (TLDFA).

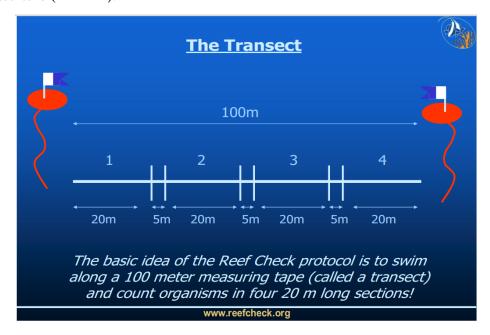


Figure 18 the Transect Line (Status of Coral Reefs in Malaysia, 2011)

RC methodology for surveying reefs consists of surveying the same sites year after year to establish comparative data over time for the fish, substrate, coral cover and coral damage. As indicated in *Figure 18 the Transect Line*, surveys are run over a 100 meters line in four 20 meter sections with five meters intervals in between. These efforts aim at building an international reef data base that would aid stakeholders and decision makers in MPAs to identify reasons behind degradations of coral cover and fish population health and establish protection mechanisms and regulations. RC aims at

involving local stakeholders and governments in the surveys and looks into the major fish species, coral cover, nutrient indicators, incidence to coral and substrate abundance. Collecting this information enables researchers to connect results to reasons, such as increased number of Crown of Thorn star fish (COT) which is one of the major issues affecting coral reefs around the world including MS and TL. COT feeds on coral reefs and could be linked to collection of Trumpet Triton for the high value of the shell for commercial purpose. With reference to Figure 19 Trumpet Triton attacking a Crown of Thorn star fish, Trumpet Triton is the natural predator of the COT, and with less predators around COT numbers are increasing and causing serious damage to coral reefs. Other indicators such as the increase in nutrient indicators in the surveyed sites would refer to either increased run of fertilizers and/or sewage, which in turn indicate the local strategy of dealing with fertilizer run off and/or general sanitation approach such as directing sewage to the sea without any or with minimal treatment. (Reef Check)



Figure 19 Trumpet Triton attacking a Crown of Thorn star fish (Tellus Consultants)

#### **4.2.2.** Coral Reef Indicators

Two main cites were monitored and surveyed in TL under the Reef Check initiative, Behau (K41 station) and Atauro island in the years 2004, 2005 and 2008. The coral cover at Atauro Island close to the capital Dili, was destroyed in large areas and large fish were rarely observed. In addition, fishermen are increasingly targeting smaller fish with dynamite, cyanide, damaging coral while spear fishing and with the "Acanthua" toxin tree branches. In comparison, Behau (K41 station), which is commonly used by scuba divers has no recently killed coral or bleached coral and commercial fishing was rarely witnessed. (Wilkinson, 2008)

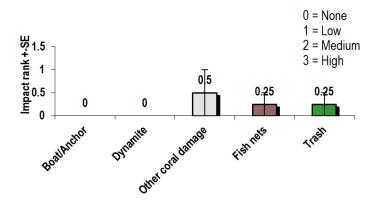


Figure 20 Incidence of impacts for K41 at 6m on 23/Jul/2011 (Penny, 2011)

With reference to Figure 20 Incidence of impacts for K41 at 6m on 23/Jul/2011 and Figure 21 Mean fish abundance for K41 at 3m on 23/Jul/2011, Behau (k41 station) was surveyed in 2011 under the Reef Check program, by employees from TLDFA, working in a team headed by Shane Penny from Charles Darwin University, Australia. The results were similar to earlier surveys as the coral cover did not suffer from significant bleaching or damage, but the fish population observed was very small. (Penny, 2011)

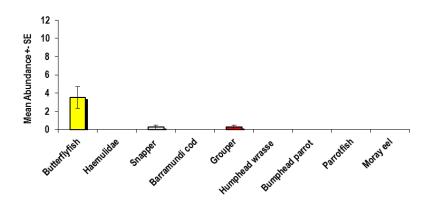


Figure 21 Mean fish abundance for K41 at 3m on 23/Jul/2011 (Penny, 2011)

According to La'o Hamutuk, environmental laws are basic and relaxed in TL, and the environmental "Basic Law" was introduced 0n the 20<sup>th</sup> of September 2011. (La'o Hamutuk)

Nevertheless and according to the TLSDP, the government would even make exceptions for investors and relax the laws even more "after evaluating business gains". (Gusmão, 2010) While the country continues to develop downstream oil economy in a country that is estimated to have oil for no more than 20 years, other sectors are diminishing and the main electricity generating station is heavy oil based, despite the possibility to have 100 per cent renewable power generation with staged and diversified investment (Martifer, 2010) or be completely hydro dependant with 100 per cent EU funding. (Norconsult, 2006)

With reference to *Table 8 Marine protected areas (MPA) in South East Asia* (SEA), TL has one MPA, but little is known about reef state. In comparison, MPAs in MS are managed by the state government and a lot more is known about the state of the fisheries and the coral. As a matter of fact, more MPAs are being considered in the MS, building on the success of the current and past MPAs. (Summary Report for MPA Malaysia, 2010).

Table 8 Marine protected areas (MPA) in South East Asia (SEA)

	BN	KH	ID	MY	MM	PH	SG	TH	TP	VN
Total number of actively managed MPAs	6	2	114	83	6	339	3	23	0	36
Total number of MPAs with coral reefs	3	1	38	43	2	294	2	16	1	4
Total number of MPAs established ≤5yrs	0	0	12	0	0	Unk	0	0	1	21
% of Reefs within MPAs	0	Unk	9%	7%	2%	1%	0	50%	Unk	11%
% of MPAs with good management rating	0	10%	<3%	16%	0	20–30%	50%	18%	0	8%

BN: Brunei; KH: Cambodia; ID: Indonesia; MY: Malaysia; MM: Myanmar; PH: Philippines; SG: Singapore; TH: Thailand; TP: East Timor; VN: Vietnam Unk = Unknown

This table summarises the status of MPAs in SEA (data extracted from 'Coral Reef MPAs of East Asia and Micronesia, 2007'.)

With reference to *Figure 22 MPA's in Malaysia*, the majority of the coral reefs are protected in MS, and with reference to *Table 8 Marine protected areas (MPA) in South East Asia (SEA)*, 16 per cent of the MPA's in Malaysia had a good management rating in the year 2008. (Wilkinson, 2008)

Nontheless, coral reefs had a major setback with the 2004 tsunami and recovery is estimated to take as long as 10 years. In addition, dynamite fishing is still an issue in MS regardless of the government efforts and the Malaysia Coral Reef Society (CoRal Malaysia). (Wilkinson, 2008)

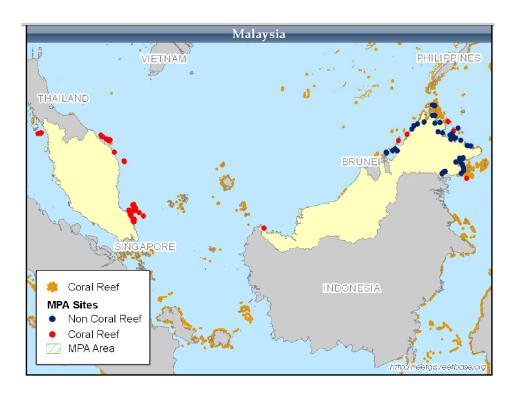


Figure 22 MPA's in Malaysia (Summary Report for MPA Malaysia, 2010)

Regardless of the increased MPAs, the coral reef quality suffered a major decline from the mid-80s. The decline in quality is largely attributed to major natural disasters such as the tropical storm Greg that hit the corals in 1996 and as a result of increased water temperature and bleaching. In addition, outbreaks of crown of thorns (COT) threaten the coral cover, which could be largely attributed to the over-fishing of the natural predator of the COT star fish (Trumpet Triton). With reference to *Figure 23 Coral cover in Tunku Abdul Rahman Marine Park off Kota Kinabalu*, coral cover is decreasing despite being in a MPA. In addition to the natural disasters, increased mangrove clearing in the area of Kota Kinabalu may have affected the quality of sea water, and fishing with explosives inflicts damage on the coral reefs. (Environmental Indicator Report, Sabah, Malaysia, 2003)

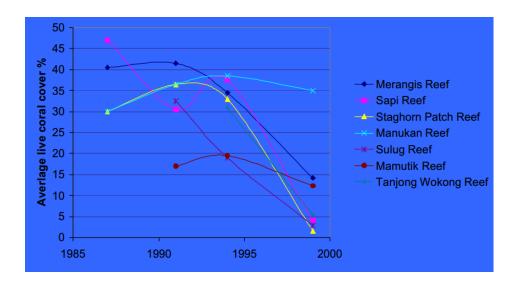


Figure 23 Coral cover in Tunku Abdul Rahman Marine Park off Kota Kinabalu (Environmental Indicator Report, Sabah, Malaysia, 2003)

According to Reef Check Malaysia (RCM), which has been surveying the reefs of Malaysia since 2007, Malasyian reefs are recovering from the 2010 bleaching event that is estimated to have killed five to six per cent of the Malaysian coral cover. The areas surveyed in 2011, however, showed a relatively high level of living coral of 42.57 per cent. Furthermore, surveyed areas showed that high valued marine life is either showing a slow recovery from past over-fishing, or could possibly indicate poaching inside the MPAs. In addition and among the main threats to coral cover in MS is fish bombing, sedimentation, alge over-growth, fishing pressure, and COT. (Status of Coral Reefs in Malaysia, 2011)

#### **4.2.3.** Deforestration

TL and MS have a mutual problem related to deforestation and the slash and burn methodology for creating agricultural land either for commercial purposes or because of increased demand for food due to human population growth. In the case of MS POPs dominate the exports and the crops, and occupy more than 15 per cent of MS

forest cover. POPs are found to support less biodiversity and create barriers between forests isolating animal communities (Bruhl & Eltz, 2010). In a different study POPs were found not to be comparable to rain forests in carbon storing above ground, fuelling the concerns about increased loss of carbon storage from conversion to POPs (Morel, et al., 2011).

However, MS restricts growth in the POPs and introduced guidelines for POPs and companies operating in this sector need to comply with the environmental and social risk mitigation measures before being licensed to operate in the state (Summary Report against RSPO MYNI Requirement for IOI Corporation Bhd, Pamol Estates, Sabah, 2008).

## 4.2.4. Analysis

Coral reefs in surveyed sites in TL were in a better condition where scuba divers regularly visited whereas reefs were damaged near major urban centres as a result of increased illegal fishing practice. Additionally, fish abundance of commercial fish species was very low near the major urban city of Dili. While the government of TL treats GDP indicators as a primary goal for most policies in the quest for economic development, MS shows signs of paying more attention to the health of the marine ecosystem challenging the damage inflicted by natural disasters and illegal fishing practice. In MS the coral reefs had many documented major setbacks as a result of natural disasters, such as bleaching and tsunamis and due to continued illegal fishing practice, regardless of increasing MPAs along the coasts of MS. The establishments of the MPAs in MS were not enough to protect the coral reef from natural disasters and illegal fishing practice. Therefore, TL could build on the experience of MS to pay more attention to the environment; declaring an area an MPA is not enough for

protection. Monitoring, and follow-ups with regulations and working with the local communities such as the work of Reef Check and establishing local organizations similar to the Malaysia Coral Reef Society would further involve local stakeholders and guarantee long lasting results. An example of this practice is the K41 site in Behau village TL, were the locals realized that scuba divers come for this attraction bringing business to the small village along the northern coast of TL, evidently surveys by RC documented that coral reefs were in a better state than the reefs between the city of Dili and the island of Atauro.

#### 4.3. Social Policies

The social aspect of policies is the third pillar of sustainability, as without a healthy and educated workforce, the service sector would collapse and foreign investors would probably seek alternative destinations where the conditions are more suitable for a profitable business practice. TL and MS are poor states and require development to enhance the daily livlihoods of the majority of their citizens. Social policies are needed to target the poor aiding them with health care and education, achieving economic gains without inflicting damage on the environment.

#### 4.3.1. Major Social Indicators

The social indicators in TL are linked to social policies that tend to vary greatly by which government is in power. Since the independence in 2002 TL had two main governments, the Revolutionary Front for an Independent East Timor (FRETILIN) and the AMP coalition of parties. While the FRETILIN government prioritises education, health and is perceived to be more sustainable with regards to expenditure from the Petroleum Fund, the current government lead by AMP coalition is in favour of spending

more money from the oil fund beyond the sustainable levels. Sustainable levels are defined by the TL Petroleum Fund law as "the maximum amount that can be appropriated from the Petroleum Fund in that Fiscal Year and leave sufficient resources in the Petroleum Fund for an amount of the equal real value to be appropriated in all later Fiscal Years." (La'o Hamutuk)

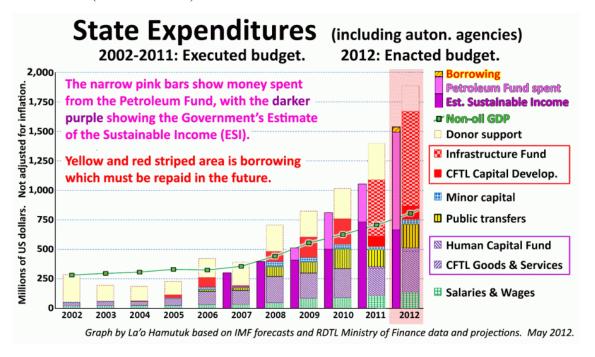


Figure 24 State Expenditures TL (La'o Hamutuk)

The current government might be prioritising quick gains on the GDP indicator over other aspects of social necesitites, such as health and education. *Figure 24 State Expenditures TL*, illustrates the significant growth of TL expenditures, which were mostly directed at electricity and downstream oil processing. (La'o Hamutuk)

With reference to Figure 25 Manufacturing wages and primary school enrolment in 2010, a comparision between average manufacturing wage in the year 2010 and the primary school enrollment indicates that wages in TL are a lot higher compared to other Asian countries and to the level of education. Furthermore, if

compared to primary school completion rate, the proportion would be even higher as the government of TL is possibly focusing on enrollement levels in primary schools as they show an increase, while completion rates are not reflecting a similar increase. This might be a discouraging factor to investors, further affecting employment rates and poverty levels. (MoFTL, 2012)

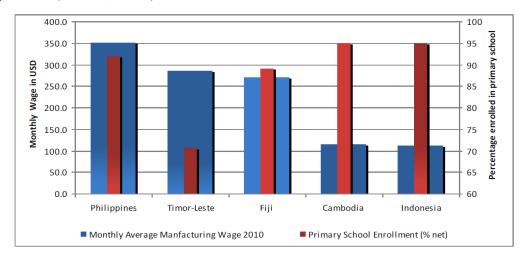


Figure 25 Manufacturing wages and primary school enrolment in 2010 (MoFTL, 2012)

#### 4.3.1.1. Poverty in TL and MS

TL's poverty prevalence rose 13.9 per cent between 2001 and 2007 to reach 49.9 per cent of the population living below the poverty line [Timor-Leste Standards of Living Survey, 2007]. Since then, poverty has decreased by 8.9 per cent relative to the pre-2006 levels which could largely be attributed to the effect of the crisis and the break of violence in 2006 that caused an increase spike in poverty levels [WorldBank, Poverty Note, 2010]. Despite the argument that the current government's strategy aims at reducing poverty levels, according to the UNDP Human Development Report for the year 2011, on the Multidimensional Poverty Index (MPI) (which detects the different aspects of deprivation in a single household for the year 2011) TL deprivation is/or

more than 50 per cent and people who are vulnerable to poverty are between 20 to 30 per cent as indicated in *Table 9 TL MPI for 2011*. (Human Development Report, 2011)

Table 9 TL MPI for 2011 (Human Development Report, 2011)

MPI value	Headcount	Intensity of	Population	Population	Population
	(%)	deprivation	vulnerable	in severe	below
		(%)	to	Poverty (%)	income
			Poverty (%)		poverty
					Line (%)
0.360	68.1	52.9	18.2	38.7	37.4

While the rest of Malaysia achieved the Millennium Development Goal of halving the 1990 incidence of poverty and reached 4 per cent in the year 2009, MS had an average decline of 1.6 per cent a year from 35 per cent in 1990, leaving MS as the poorest Malaysian state with a poverty rate of 19.7 per cent as of 2009 as indicated in *Figure 27 Total poverty incidence by state 1990-2009 (%)* (The Millennium Development Goals at 2010, 2010). Unemployment in MS was 5.6 in 2010 with a marginal decrease from 5.8 per cent in 2006. (Bernama, 2011) With reference to *Figure 26 Unemployment rate trend*, MS unemployment is higher than the Malaysian average of 3.1 per cent. (The Millennium Development Goals at 2010, 2010)

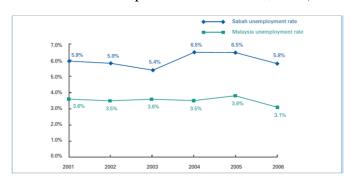


Figure 26 Unemployment rate trend (Sabah Develoment Corridor Blue Print 2008-2025, 2007)

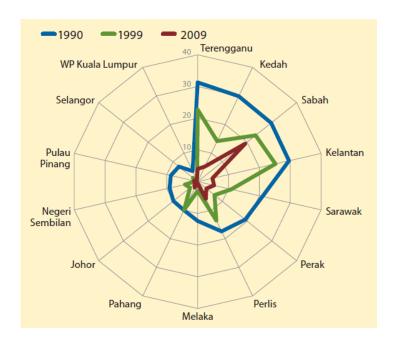


Figure 27 Total poverty incidence by state 1990-2009 (%) (The Millennium Development Goals at 2010, 2010)

#### 4.3.1.2. Education and health in TL and MS

In addition, and with reference to *Table 10 Primary School Completion Rate TL* while primary school completion rates in TL are declining, Malaysian primary school completion levels kept increasing to reach 99 per cent in 2005 (World Development Indicators, 2012).

Table 10 Primary School Completion Rate TL (World Development Indicators, 2012)

Year	2008	2009	2010
%	79	68	65

In the health sector mortality rates for under five year olds have been decreasing in MS to be the lowest in Malaysia in 2007, as referenced in *Figure 28 Under five and infant mortality rates by state*, 1990 and 2007 (The Millennium Development Goals at 2010, 2010).

	Under-five		Inf	ant
	1990	2007	1990	2007
Malaysia	16.8	7.9	13.1	6.2
Johor	16.6	7.1	13.4	5.9
Kedah	18.8	9.7	14.6	7.8
Kelantan	17.6	11.1	13.5	8.0
Melaka	13.8	9.6	11.1	7.8
Negeri Sembilan	15.6	8.0	12.7	6.2
Pahang	20.7	10.8	15.9	7.9
Perak	17.7	9.3	13.2	6.7
Perlis	20.7	9.7	16.9	7.4
Pulau Pinang	12.2	7.6	10.2	5.8
Sabaha	21.4	3.9	16.3	3.0
Sarawak	12.7	7.9	10.0	5.9
Selangor <sup>b</sup>	14.6	6.4	11.7	5.2
Terengganu	20.2	12.1	15.3	9.9
Kuala Lumpur	12.0	7.2	9.6	6.1

Figure 28 Under five and infant mortality rates by state, 1990 and 2007 (The Millennium Development Goals at 2010, 2010)

In TL there has been a steady decrease in mortality rates for children under five per 1000 births until the year 2010, when rates increased again as referenced in *Table 11*Mortality rate under 5 per 1,000 live births TL

Table 11 Mortality rate under 5 per 1,000 live births TL

Year	2008	2009	2010
Mortality rate, under-5 (per	62.3	58.5	80.5
1,000 live births)			

## 4.3.2. Palm Oil Plantations Social Impact in MS

In MS POPs dominate the exports and the crops, and occupy more than 15 per cent of the forest cover, in the process of generating such an outcome, there are severe environmental and social impacts that affected MS and several other states in SEA.

According to a report by *Friends of the Earth*, large scale POP found to have enormous negative social and environmental impacts causing hundreds of deaths and destroying the indigenous cultures, in addition to possibly being the most conflict filled economic sector in Malaysia, and is largely riddled with injustice. (Wakker, 2005)

In the quest of eradicating the negative impacts associated with POPs, MS requires companies to undergo an assessment before getting a certification for POPs' management in the state including environmental and social assessments (Summary Report against RSPO MYNI Requirement for IOI Corporation Bhd, Pamol Estates, Sabah, 2008). According to the Environmental Impact Assessment (EIA) Guidelines for POP development, Sabah, water supply management and joint ventures with the locals are amongst the key mitigation areas that are regulated by the governmental measures (EIA, Guidelines Oil Palm Plantation Development, 2002).

#### 4.3.3. Analysis

In the social area TL's indicators paint a negative picture to what seems to be an overall continuous degradation of living standards for citizens in the country. In the education area the focus on primary school enrolment is achieving results and improving figures. However, the higher rates of enrolment are followed by a lower primary school completion rate, which could indicate the lack of a holistic approach to tackle the shortcomings of the education system. This again might be an indicator of a shortcoming in policies' ability to strategically tackle social issues. In addition, changes in government have major impacts on policies and priorities, as indicated by fluctuations and the recent spikes in indicators, which could be minimized if different political leaders agree on the same long term development goals prioritising the basic rights of health and education for citizens. Power generation and downstream oil

developments should not take priority over health and education when planning for sustainable development, because an uneducated workforce is not going to operate the increasing infrastructure investments. That in turn might lead to creating an additional problem of importing a workforce to operate the major investments and might lead to pushing the TL citizens to migrate away or to increased social tensions.

While in MS poverty is still a problem, child mortality is the lowest in the country after having the highest rate in the whole of Malaysia in the year 1990. Social indicators in MS show slow and steady improvements regardless of the power transfer between parties in the local and federal governments, which indicates a focus on the basic priorities. POPs is the largest money generating sector on the island of Borneo, however and regardless of the economic temptations, MS is limiting expansion in POPs to guarantee mitigation of social and environmental impacts. This could serve as an indicator that the strategic policies in MS prioritises social and environmental aspects over plain economic quick gains with probable long term negative impact on the society and the environment.

Policies in MS are not perfect and there is always room for development, in recent news, the government was criticized for the minimum wage standard of RM800 for MS and Sarawak, while the Poverty Line Index (PLI) for MS is RM960 per month. (Lim, 2012). Setting the minimum wage below poverty levels could indicate that the government wishes to create more job opportinities, but is not serious about fighting poverty and might explain why the state has the highest levels of poverty in Malaysia. However, the case of POPs, might indicate that the government is willing to learn from past mistakes and limit social impacts as a result of economically driven decisions.

TL could benefit from the experience of MS in the case of POPs, were the sector caused a lot of environmental and social damage before the government of MS had to make additional investments and put extra effort into reversing the negative impact.

# 5. The Way Forward

# 5.1. The Strategic Development Plan of Timor-Leste

The main goals for the latest development plan 2011-2030 remain the same as the previous plan 2002-2020, aiming at reducing poverty and hunger and promoting education, services, roads and electricity. As a post conflict country TL also aims to promote national identity (Gusmão, 2010).

According to the TL Strategic Development Plan (SDP), the country will become by 2030 a middle income country through investments in the oil and tourism. The SDP as well emphasises the "Double Digit" growth the government was able to achieve through increased spending and argues that the ESI was calculated in a conservative way, so concerns about exceeding the sustainable levels of spending might be unwarranted.

The SDP discusses human and infrastructure development plans emphasizing plans to deliver power, build roads and ports. The SDP discusses the improvements of clean drinking water and sanitation access, but only at a later stage to roads and power development. Putting clean water access on the top of the priorities could prove very beneficial as the lack of access to clean drinking water in TL is linked to many diseases and child mortality.

TL aims at combating climate change by using irrigation and minimizing the effect of flooding by promoting agricultural development. Regardless of mentioning the tourism as a main priority, the SDP discusses promoting "high-end beach and ecotourism" after preparing the tourism infrastructure by building an eastern airport and leasing land for resort development. With these actions, TL is focusing on high-end

tourism, which needs to be though out carefully considering the possible negative impacts first.

# 5.2. Sabah Development Corridor

Sabah Development Corridor (SDC) is a government project that aims at enhancing the quality of life in MS. SDC consider seizing greater economic oportunities with balanced ditribution of economic growth in the state of Sabah. SDC operates while ensuring the environmental conservation to acheive sustainable development, under the theme "Harnessing Unity in Diversity for Welth Creation and Social Well-Being". With reference to *Figure 29 Sabah Development Corridor vision and mission*, the development is planned to be in seperate phases: phase one is to start in 2008 for two years until 2010 focusing of infrastructure, economy and poverty eradication, phase two is from 2011 until 2015 and will focus on "higher value-added activities", and in phase three from 2016 to 2025, MS would be an established destination for FDI in the region (Sabah Development Corridor Blue Print, 2007).

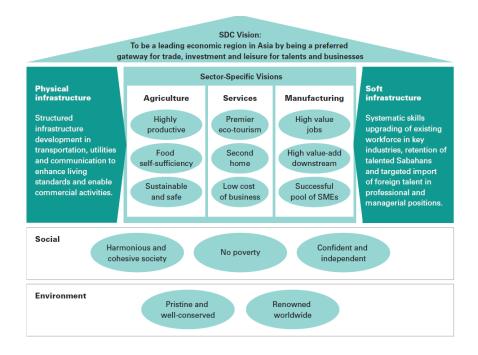


Figure 29 Sabah Development Corridor vision and mission (Sabah Develoment Corridor Blue Print, 2007)

# 5.3. Analysis

Until recently, conflict had a major influence on the life in TL, and the effects are clear on the country, the people and the government policies. Many studies attribute most of the current negative aspects to conflict and colonization. According to Francis Fukuyama, getting over the past and focusing on the future was one of the reasons that allowed Japan to achieve better economic standing than Germany after WWII.

The SDP was drafted under the same government that decided to exceed the ESI in pursuit of a double digit GDP. Therefore, the SDP explains how important double digit GDP growth is, despite concerns that "inequality might have worsened over the last few years" as commented by Finn Reske-Nielsen, in his capacity as Acting Special Representative of the Secretary General (SRSG) of the UN peace keeping mission in Timor Leste (UNMIT) (Reske-Nielsen, 2010).

According to La'o Hamutuk, the SDP has ambitiously set goals about developing human capital's health and education and the tourism sector, only by allocating massive funds for buildings, without any reference to investments in qualitative measures and to where the money would come from. In addition, and despite the positive way the SDP discussed environmental protection, current projects undermine the credibility of these claims. Furthermore, the abandoned rice fields across the country as a result to government's policy of subsidising imported rice negate the claimed agricultural developments and the planned "green revolution".

MS development plans not only focus equally on the three pillars of sustainable development but show equal developments and clear goals unlike TL where the policies talk about sustainability but without any tangible, measurable goals apart from the economic goal of GDP growth.

The development plans in MS prioritises tourism focusing on eco-adventure tourism, targeting long stays and "high-yield" visitors. It is noteworthy that the establishment of this sector with "luxury holiday villas and lifestyle activities" might put further pressure on the indigenous inhabitants of the state "Orang Asli". Under these plans, the original inhabitants might be forced to change their ways of life and adapt to the continuous loss of land for infrastructure development. Adding to past losses to POPs, further losses might worsen their already high levels of poverty. MS might get added value from the diversity of the inhabitants, and from not focusing on systemized "one size fits all" approach.

There are reasons to believe that TL might be targeting a specific group in development, and leaving out a broad section of the population. In comparison, the "Orang Asli" group in MS have the highest levels of poverty in Sabah and in Malaysia

resulting in a high poverty rate in the whole of Sabah and Malaysia. All 12 states managed to halve the poverty rates of 1990 except Sabah and not targeting all members of the society equally in development plans might be the reason.

# 6. Concluding Thoughts

Timor-Leste and Malaysian State of Sabah are isolated and plagued with poverty, which creates challenges and opportunities for sustainable tourism. Moreover, tourism activities have an impact on the sensitive ecosystems of these islands if not managed carefully. The framework is based on the sustainable tourism as defined by the UNWTO, developing the economic, social and environmental aspects of the system. Focussing on one area of development, neglecting the other areas, can cause a system breakdown or a need for massive investments in reversing the damage inflicted on the environment, as indicated in the environmental Kuznet curve diagrams.

The paper used the health of the marine ecosystem and coral reefs as indicators of the health of the overall environmental systems, because for the focus states the sea is the main source of food and income. Activities such as scuba diving and snorkelling are an example of wildlife tourism that fits the niche eco-tourism market and are growing rapidly. Tapping into this market requires having the natural assets and investing in protecting the marine ecosystem of the island nation. However, if unregulated, these tourism activities that generate economic value might be the reason behind environmental degradation and future loss of value.

TL and MS are located in SEA and are within three to four hours flight time to major regional hubs such as Singapore. MS has an advantage with regard to ease of travel from and to the main urban centre KK. TL is also relatively disadvantaged as it

had a longer and more intense history of negative international media coverage throughout the civil unrests. However, MS and TL might be on par with regard to natural assets in the marine biodiversity region. Diving figures were not available from any of the four scuba diving operators in Dili or PADI Asia Pacific regional office; however, TL does have natural assets and a location that could be as attractive as MS, which successfully attracts high numbers of tourists. Therefore, more effort to better connect TL and advertise the natural assets might prove beneficial for international tourist arrival figures.

Since independence TL (according to the government) has been prioritising building a basic infrastructure and tending to the basic needs of the people. According to the TL budget books, 2010 and 2011, the priorities are big ticket items and an aim to boost GDP growth. Nevertheless, the budget composition suggests the government is neglecting social priorities and environmental priorities in addition to increasing recurrent expenditure in an economy already overwhelmed by rising inflation.

More than one billion USD, which represents almost one third of the public spending for the period 2009-2011, was invested in the heavy oil power project that neglects 80 per cent of the population directly living off agriculture. While investments in the power generation could benefit the economy and the "grand development plans" of the current government, direct investment that touches the lives of the masses involved in agriculture such as clean water and sanitation, might prove more beneficial in tackling degrading levels of life in TL. The country is 90 per cent dependant on oil returns and there are no signs of investments in sustainable income sources (La'oHamutuk, 2011). Therefore, regardless of the increased spending and grand plans, the TL economy is not diversified and still relies on oil. TL might be making the same

mistake MS made: relying on one sector. MS is now trying to diversify by transferring the economy from an oil-dependent one to a more diversified economy offering a balanced job market with investments in sustainable tourism and services.

MS has come a long way from the poverty levels in 1990, and witnessed transformation in the economic sector from agriculture and fisheries to a more service based economy attracting local and foreign investments. MS is still the poorest Malaysian state, and the government policies have shortcomings regarding the setting of the minimum wage below the poverty level in the state. Although, development has been slow, GDP levels kept steadily rising alongside reductions in poverty rates and development in the social aspects. The economy has been affected by major incidents such as a tsunami in 2005 and the global financial crisis in 2009. Nevertheless, despite the setbacks, the economy in MS is on a steady rise, unlike the economy of TL that is booming with increased dependency on oil returns, threatening a major collapse to the system if oil prices fluctuate or if oil reserves are exhausted before the non-oil economy is developed. Planning to diversify the economy with focus on tourism could benefit TL immensely especially if well balanced with social development and environmental protection.

Coral reefs in the surveyed sites in TL were in a better condition where scuba divers regularly visited and brought business to the locals, which could be the reason why the local inhabitants preserved the area from damage. Additionally, fish abundance of commercial fish species was very low near the major urban city of Dili. In MS the coral reefs had many documented major setbacks as a result of natural disasters, such as bleaching and tsunamis and due to continued illegal fishing practice, regardless of increasing MPAs along the coasts of MS. The establishments of the MPAs in MS were

not enough to protect the coral reef from natural disasters and illegal fishing practice. Therefore, TL could build on the experience of MS and pay more attention to the environment; declaring an area an MPA is not enough for protection. Monitoring, and follow-ups with regulations and working with the local communities such as the work of Reef Check and establishing local organizations similar to the Malaysia Coral Reef Society would further involve local stakeholders and guarantee long lasting results. An example of this practice is the K41 site in Behau village TL, were the locals realized that scuba divers come for this attraction bringing business to the small village along the northern coast of TL, evidently surveys by Reef Check documented that coral reefs were in a better state than the reefs between the city of Dili and the island of Atauro.

In the social area TL's indicators paint a negative picture of what seems to be an overall continuous degradation of living standards for citizens in the country, regardless of the minor fall of poverty level in 2009 compared to 2007. In the education area the focus on primary school enrolment is achieving results and improving figures. However, the higher rates of enrolment are followed by a lower primary school completion rate, which could indicate the lack of a holistic approach to tackle the shortcomings of the education system. This again might be an indicator of a shortcoming in policies' ability to strategically tackle social issues. In addition, changes in government have major impacts on policies and priorities, as indicated by fluctuations and the recent spikes in indicators, which could be minimized if different political leaders agree on the same long-term development goals, prioritising the basic rights of health and education for citizens. Power generation and downstream oil developments should not take priority over health and education when planning for

sustainable development, because an uneducated workforce is not going to operate the increasing investments.

While in MS poverty is still a problem, child mortality is the lowest in the country after having the highest rate in the whole of Malaysia in the year 1990. Social indicators in MS show slow and steady improvements regardless of the power transfer between parties in the local and federal governments, which indicates a focus on the basic priorities. POPs is the largest money generating sector on the island of Borneo, however and regardless of the economic temptations, MS is limiting expansion in POPs to guarantee mitigation of negative social and environmental impacts. This could serve as an indicator that the strategic policies in MS prioritise social and environmental aspects over plain economic "quick gains" with probable long-term negative impacts on the society and the environment.

Policies in MS are not perfect and there is always room for development. Setting the minimum wage below poverty levels in MS could indicate that the government wishes to create more job opportinities, but is not serious about fighting poverty and might explain why the state has the highest levels of poverty in Malaysia. However, the case of POPs, might indicate that the government is willing to learn from past mistakes and limit social impacts as a result of economically driven decisions.

TL could benefit from the experience of MS in the case of POPs, were the sector caused a lot of environmental and social damage before the government of MS had to make additional investments and put extra effort into reversing the negative impact.

Until recently, conflict had a major influence on life in TL, and the effects are clear on the country, the people and the government policies. Many studies attribute most of the current negative aspects to conflict and colonization.

The TLSDP explains how important double digit GDP growth is, despite concerns that "inequality might have worsened over the last few years" as commented by Finn Reske-Nielsen, in his capacity as Acting Special Representative of the Secretary General (SRSG) of the UN in TL (Reske-Nielsen, 2010).

According to La'o Hamutuk, the SDP has ambitiously set goals about developing human capital's health and education and the tourism sector, only by allocating massive funds for buildings, without any reference to investments in qualitative measures and to where the money would come from. In addition, and despite the positive way the TLSDP discussed environmental protection, current projects undermine the credibility of these claims. Furthermore, the abandoned rice fields across the country as a result of the government's policy of subsidising imported rice negate the claimed agricultural developments and the planned "green revolution".

The development plans in MS prioritises tourism focusing on eco-adventure tourism, targeting long stays and "high-yield" visitors. It is noteworthy that the establishment of this sector with "luxury holiday villas and lifestyle activities" might put further pressure on the indigenous inhabitants of the state "Orang Asli". Under these plans, the original inhabitants might be forced to change their ways of life and adapt to the continuous loss of land for infrastructure development. Adding to past losses of land to POPs, further land loss might worsen their already high levels of poverty. MS might get added value from the diversity of the inhabitants, and from not focusing on a systemized "one size fits all" approach.

There are reasons to believe that TL might be targeting a specific group in development, and leaving out a broad section of the population. In comparison, the "Orang Asli" group in MS have the highest levels of poverty in Sabah and in Malaysia

resulting in a high poverty rate in the whole of Sabah and Malaysia. All 12 states managed to halve the poverty rates of 1990 except Sabah and not targeting all members of the society equally in development plans might be the reason.

TL might have great potential for sustainable tourism management, and oil returns could set the country for a promising future. In comparison to MS, TL might be making most of the mistakes MS made and is now investing so much in fixing. TL could learn to avoid these mistakes by adopting a sustainable policy for tourism management, incorporating all sections of the society and environment.

#### 7. Conclusion

This paper compared sustainable tourism management activities as defined by the UNWTO in the economic, social and environmental areas in Timor-Leste and the Malaysian state of Sabah. Sustainable tourism has potential to eradicate poverty from the two focus states; however, tourism activities have an impact on the sensitive ecosystems of these systems if not managed carefully. In the case of Timor-Leste current regulations and policies might not be tackling the most pressing issues in this weak developing economy. As a matter of fact, some of the policies might be directly linked to degradation of quality of life. While the Malaysian state of Sabah might be on the way to achieving development goals in the economic, social and environmental areas; learning which strategies are best suited to the state came at great cost. Timor-Leste can possibly learn from the successes and shortcomings of tourism management in Sabah, in order to draft a better model for sustainable tourism management, targeting long term sustainable development, as opposed to short term imbalanced gains.

## 8. References

- Agriculture Irrigation. (2000). Millennium Ecosystem Assessment.
- (2002). *EIA*, *Guidelines Oil Palm Plantation Development*. Kota Kinabalu: State Environmental Conservation Department (ECD), Sabah.
- (2003). Environmental Indicator Report, Sabah, Malaysia. Kota Kinabalu: The Environment Protection Department (EPD), Sabah, Malaysia.
- (2005). Law on External Investment 2005. Democratic Republic of Timor-Leste.
- (2007). Sabah Develoment Corridor Blue Print. Kota Kinabalu: Institute for Development Studies.
- (2007). Sabah Develoment Corridor Blue Print 2008-2025. Kota Kinabalu: Institute for Development Studies.
- (2007). Timor-Leste Standards of Living Survey. National Directorate of Statistics.
- (2008). Summary Report against RSPO MYNI Requirement for IOI Corporation Bhd, Pamol Estates, Sabah. Kuala Lumpur: SGS.
- (2009). Monthly Statistical Bulletin Sabah. Kota Kinabalu: Sabah Government Portal.
- Statistics. (2009~2010, Sep 20). Retrieved Sep 20, 2010, from Banking and Payments Authority: www.bpa.gov.tl
- (2010). Budget Book 1. Dili: GoTL.
- MINISTRY OF TOURISM TRADE AND INDUSTRY OF TIMOR-LESTE. (2010, May 26). Retrieved May 2012, 2012, from Statistics: http://www.mtci-timorleste.com/en/statistics/100526/statistics
- (2010). Summary Report for MPA Malaysia. Reef Base.

- (2010). *The Mellenium Development Goals at 2010*. Kuala Lumpur: the United Nations Country Team, Malaysia.
- (2010). *The Millennium Development Goals at 2010*. Kuala Lumpur: the United Nations Country Team, Malaysia.
- Timor-Leste Government Portal. (2010, Sep 13). Retrieved Sep 13, 2010, from http://timor-leste.gov.tl/?p=3827&lang=en&n=1
- (2010). Trade Invest Timor-Leste. Dili: GoTL, Ministry of Economy and Development.
- (2010). TradeInvest Timor-Leste. GoTL, Ministry of Economy and Development.
- (2010). Vision 21, Tourism Development in SEYCHELLES 2001-2010. Small Island Developing States Network.
- Economy Rankings. (2011, Jun). Retrieved Jun 05, 2012, from Doing Business: http://www.doingbusiness.org/rankings
- (2011). Human Development Report. UNDP.
- (2011). Status of Coral Reefs in Malaysia. Kuala Lumpur: Reef Check Malaysia.
- (2012). Budget Book 1. Dili: GoTL.
- (2012). *Marine Biodiversity—One Ocean, Many Worlds of Life*. Montreal: Secretariat of the Convention on Biological Diversity.
- (2012). Sabah Visitor Arrival by Nationality. Kota Kinabalu: Research Division For Sabah Tourism.
- (2012). Ten-year anniversary and more than ten billion in Petroleum Fund. Dili: GoTL.
- (2012). World Development Indicators. World Bank.
- Alkatiri, M. (2010, Sep). (D. D. Lusa, Interviewer)
- Ayog, J. L., Bolong, N., & Zakaria, I. (2005). *Human adaptation for survival against floods in Sabah*. Kota Kinabalu, Sabah: riversymposium.

- BBC. (2009, October 1). *The Pacific 'Ring of Fire', Science and Environment*. Retrieved Jun 12, 2012, from BBC News: http://news.bbc.co.uk/1/hi/8284372.stm
- BBC. (2010). Country Profile, East Timor. BBC.
- BBC. (2012, Jun 13). *BBC Search*. Retrieved Jun 13, 2012, from BBC News: http://www.bbc.co.uk/search/news/?q=sabah%2C%20malaysia&video=on&audio=on&text=on
- Berkmoes, R. V., Celest, B., Muhammad, C., Mark, E., Trent, H., Guyan, M., et al. (2009). *Indonesia* (9th Edition ed.). Lonely Planet Publications Pty Ltd.
- Bernama. (2011, Apr 27). Sabah's Unemployment Rate Stands at 5.6 percent in 2010.

  Retrieved Jun 05, 2012, from malaysian digest:

  http://www.malaysiandigest.com/news/21884-sabahs-unemployment-rate-stands-at-56-percent-in-2010.html
- Bruhl, C. A., & Eltz, T. (2010). Fuelling the biodiversity crisis. *Biodivers Conserv*, 19:519–529.
- Burke, L., Reytar, K., Spalding, M., & Perry, A. (2012). *Reefs at Risk Revisited in the Coral Triangle*. World Resource Institute.
- Carnadie, A. (2010, Sep 25). (A. Somoudi, Interviewer)
- Central Intelligence Agency, C. (2012, January 22). *The World Fact Book*. Retrieved January 22, 2012, from Central Intelligence Agency: https://www.cia.gov/library/publications/the-world-factbook
- Conservation, I. I. (2006). Demand Side Management, Best Practice Guide Book. UNDSEA, SOPAC, IIEC.
- Crook, M. (Dec 2008). East Timor kills Chinese power deal. *Asia Times Online*.

- CTO, C. T. (2008, Mar 14). *onecaribbean*. Retrieved May 16, 2012, from DivingCaribbeanNicheMarkets:
  - http://www.onecaribbean.org/content/files/DivingCaribbeanNicheMarkets.pdf
- DailyExpress. (2012, May 27). *Daily Express*. Retrieved Jun 14, 2012, from Why foreign investors keen: http://www.dailyexpress.com.my/news.cfm?NewsID=81641
- Feng, C.-C., & Wang, Y.-C. (2011). GIScience Research Challenges for Emergency

  Management in Southeast Asia. Singapore: Department of Geography, National
  University of Singapore.
- GoTL. (2012, May 17). *Government of Timor-Leste*. Retrieved May 17, 2012, from History: http://timor-leste.gov.tl/?p=29&lang=en
- Gusmão, H. E. (2010). *TIMOR-LESTE Strategic Development Plan*. Dili: Office of the Prime Minister.
- IMF. (2009). Article IV. IMF.
- IMF. (April 2012). World Economic Outlook. IMF.
- Ingram, T. (2010). Hearing on the Environmental and Economic Impacts of Ocean Acidification. DIVING EQUIPMENT AND MARKETING ASSOCIATION.
- La'o Hamutuk. (n.d.). Retrieved Jun 27, 2012, from The Timor-Leste Institute for Development Monitoring and Analysis:

  http://www.laohamutuk.org/econ/OGE12/10OJE2012En.htm#tasimane
- La'o Hamutuk. (2011). Annual Report Jan-Dec 2011. Dili: La'o Hamutuk.
- Lim, I. (2012, May 08). *Minimum wage still below Sabah-Sarawak poverty line, says Guan Eng.* Retrieved Jun 05, 2012, from THe Malaysian Insider:

- http://www.themalaysianinsider.com/malaysia/article/minimum-wage-still-below-sabah-sarawak-poverty-line-says-guan-eng/
- Maiden, M. (2010, Sep 17). Director General, EDTL. (A. Somoudi, Interviewer)
- Martifer. (2010). Electricity Plan for Timor-Leste Based on Renewable Energy. SEPE.
- MIDA. (2012). Malaysian Investment Development Authority. Kuala Lumpur: MIDA.
- MillenniumEcosystemAssessment. (2005). *Ecosystems and Human Well-being:*Synthesis. Washington, DC: Island Press.
- MoFTL. (2012). *Analysis of Inflation in Timor-Leste*. Dili: Ministry of Finance Timor-Leste.
- Morel, A. C., Saatchi, S. S., Malhi, Y., Berry, N. J., Banin, L., Burslem, D., et al. (2011). Estimating aboveground biomass in forest and oil palm plantation in Sabah. *Forest Ecology and Management*, 1786-1798.
- Morton, A., Callister, I., & Wade, N. (1996). Environmental Impacts of Seawater

  Distillation and Reverse Osmosis Processes. Brighton: Elsevier Science.
- Musa, G. (2002). Sipadan: a SCUBA-diving paradise. Tourism Geographies, 195-209.
- Norconsult. (2006). *Iralalaru, Laclo and Bacau Hydropower Projects Feasibility Study Final Report*. The Norwegian Water Resources and Energy Directorate (NVE).
- Penny, S. (2011). ReefCheck Results K41.
- Piedale, J. (2010, Feb). Director General, SEAS. (A. Somoudi, Interviewer)
- Reef Check. (n.d.). Retrieved Jun 26, 2012, from About Reef Check: http://reefcheck.org/about\_RC\_Reef/about\_us.php
- Reske-Nielsen, F. (2010). Summary of the Timor-Leste's Strategic Development Plan (2011-2030). Dili: UNMIT.

- Rosegrant, M. W., Ximing, C., & Cline, A. S. (2002). *Global Water Outlook to 2025*. IFPRI, IWMI.
- Salleh, A., Razall, c. H., & Jusoff, K. (2009). Malaysia's policy towards its 1963 2008 territorial disputes. *Journal of Law and Conflict Resolution*, 107-116.
- Santos, M. d. (2010, Sep 20). Director General, SEPE. (A. Somoudi, Interviewer)
- SEMANAL, T. (2010, Sep 08). Former Vice Prime Minister Mario Carrascalao Resignation Lette. Dili, Timor-Leste.
- Semb, S. I. (2010, Sep 27). Program Manager Senior Adviser, NDWRM. (A. Somoudi, Interviewer)
- Somoudi, A.
- Tellus Consultants. (n.d.). Retrieved jun 26, 2012, from Out of Control: http://www.tellusconsultants.com/Thread/ACANTH.HTM
- Tourism, M. o. (2010). *Statistical Report on Visitor Arrivals to Indonesia*. Ministry of Tourism, Indonesia.
- UN. (2008). Timor-Leste District Atlas. UN.
- UNCED. (1992). Fresh water: None for 1.2 billion people. *United Nations Chronicle Jun92*, Vol. 29 Issue 2, 60, 1p.
- UNWTO. (2012, Jan 16). International tourism to reach one billion in 2012. Madrid.
- Wakker, E. (2005). *Greasy Palms*. Friends of the Earth.
- Wilkinson, C. (2008). *Status of coral reefs of the world: 2008*. Townsville: Global Coral Reef Monitoring Network and Reef and Rainforest Research Centre.
- World Health Organization, W. (2011, September). *Air Quality and Health*. Retrieved Januaray 22, 2012, from World Health Organization: http://www.who.int/mediacentre/factsheets/fs313/en/index.html

WorldBank. (2010). Diagnostic Trade Integration Study. Dili: World Bank.

WorldBank. (2010). Poverty Note. World Bank.

WorldBank. (2011). *Transport in Timor-Leste*. Retrieved Jan 31, 2012, from The World Bank:

http://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/EASTASIAPA CIFICEXT/EXTEAPREGTOPTRANSPORT/0,,contentMDK:20767666~menu PK:2069366~pagePK:34004173~piPK:34003707~theSitePK:574066,00.html