



universität  
wien

# MASTERARBEIT / MASTER'S THESIS

Titel der Masterarbeit / Title of the Master's Thesis

## A Contextual Approach to Resource Curse: Case Study of Timor-Leste

verfasst von / submitted by

Riando Sembiring

angestrebter akademischer Grad / in partial fulfilment of the requirements for the degree of  
Master of Arts (MA)

Wien, 2017 / Vienna, 2017

Studienkennzahl lt. Studienblatt /  
degree programme code as it appears on  
the student record sheet:

A 066 589

Studienrichtung lt. Studienblatt /  
degree programme as it appears on  
the student record sheet:

Masterstudium Internationale Entwicklung

Betreut von / Supervisor:

ao. Univ.-Prof. Mag. Dr. Friedrich Edelmayer, MAS

## **ABSTRACT**

This Master's Thesis undertakes to examine the effect(s) of oil resources on socio-economic development – as proxied by the changes of the Human Development Index – using the contextual approach to the resource curse. In the case study of Timor-Leste, the discovery and exploitation of oil has not translated into improved human development indicators of the country. The Thesis identifies the oil-specific and non-oil-specific contextual variables, discovers that they interact in ways detrimental to the country's development, and thus accepts the hypothesis that the link between Timor-Leste's oil resources and its poor human development indicators cannot be comprehensively explained without taking into account the influence of the contextual variables. The Thesis also aligns itself with the views that the resource curse is not inevitable and that an over-reliance on natural resources may come at the expense of the human development.

Mit der kontextuellen Herangehensweise an den Ressourcenfluch verpflichtet sich diese Masterarbeit, die Auswirkungen der Ölressourcen auf die sozioökonomische Entwicklung – durch die Veränderungen des Human Development Indexes vertreten – zu untersuchen. In der Fallstudie von Timor-Leste schlägt sich die Entdeckung und Ausbeutung von Öl nicht in verbesserten Indikatoren für die menschliche Entwicklung nieder. Die Masterarbeit identifiziert die ölspezifischen und nicht-ölspezifischen Kontextvariablen, entdeckt die nachteilige Auswirkungen ihres Zusammenspiels in Bezug auf die Entwicklung des Landes und akzeptiert damit die Hypothese, dass eine Erklärung über die Verbindung zwischen Timor-Lestes Ölressourcen und seinen niedrigen menschlichen Entwicklungsindikatoren ohne die Berücksichtigung des Einflusses dieser Kontextvariablen nicht möglich ist. Die Masterarbeit

schließt sich auch den Ansichten an, dass der Ressourcenfluch nicht unvermeidlich ist und dass eine übermäßige Abhängigkeit von natürlichen Ressourcen auf Kosten der menschlichen Entwicklung kommen kann.

## TABLE OF CONTENTS

<b>Abstract .....</b>	<b>i</b>
<b>Table of Contents .....</b>	<b>iii</b>
<b>List of Tables .....</b>	<b>vi</b>
<b>List of Figures .....</b>	<b>vii</b>
<b>List of Maps .....</b>	<b>viii</b>
<b>List of Abbreviations .....</b>	<b>ix</b>

### Chapter 1

<b>INTRODUCTION .....</b>	<b>1</b>
1.1. Context-sensitive analysis of resource curse .....	1
1.2. Outlining the terms .....	3
1.3. Research question and hypothesis .....	7
1.4. Why Timor-Leste? .....	9
1.5. Methodology.....	10
1.5.1. Case study as a research method .....	10
1.5.2. Strengths of case study research.....	12
1.5.3. Limitations of case study research .....	14
1.5.4. Data collection .....	15
1.5.5. Organization of thesis .....	16

### Chapter 2

<b>RESOURCE CURSE: THEORETICAL AND EMPIRICAL REVIEW.....</b>	<b>18</b>
2.1. Reviewing the resource curse thesis.....	18
2.1.1. Phase I: The positive role of natural resources.....	19
2.1.2. Phase II: The emergence of Dutch Disease theory.....	20
2.1.3. Phase III: Establishing the resource curse thesis.....	22
2.1.4. Phase IV: The coinage of “resource curse” .....	23

2.1.5. Phase V: Empirical evidence of resource curse .....	25
2.1.6. Phase VI: Natural resources abundance and human development .....	27
2.2. Challenging the resource curse thesis .....	28
2.3. A more multi-dimensional perspective of resource curse.....	30
2.3.1. Rentier state theory.....	31
2.3.2. Contextualizing the approach .....	34

### Chapter 3

<b>THE CASE STUDY OF TIMOR-LESTE.....</b>	<b>37</b>
3.1. Discovery and exploitation of oil in the Timor Sea .....	37
3.2. The indicators for human development .....	40
3.3. Identification of the contextual variables .....	44

### Chapter 4

<b>ANALYSIS.....</b>	<b>45</b>
4.1. Domestic oil-specific contextual variables .....	45
4.1.1. Location of oil resources .....	45
4.1.2. Degree of abundance .....	46
4.1.3. Degree of dependence .....	47
4.1.4. Resource-sector management.....	48
4.1.5. Economic distortions.....	50
4.2. International oil-specific contextual variables.....	51
4.2.1. Oil-related geopolitics .....	51
4.2.2. External use of resource revenues .....	55
4.3. Domestic non-oil-specific contextual variables .....	59
4.3.1. Path toward independence .....	59
4.3.2. Demographic factors.....	63
4.3.3. Inter-group relations .....	65
4.3.4. Dynamics of the socio-economic development .....	66

4.3.5. Behavioral patterns of the elite.....	69
4.4. International non-oil-specific contextual variables .....	71
4.4.1. The 2008 global food price crisis .....	71
4.4.2. Relations with neighboring countries.....	75
4.5. Interplay of contextual variables .....	77

## **Chapter 5**

<b>CONCLUSION .....</b>	<b>81</b>
5.1. Thesis reiteration .....	81
5.2. Summary of findings .....	81

<b>BIBLIOGRAPHY .....</b>	<b>84</b>
---------------------------	-----------

## **List of Tables**

Table 1: Indicators of resource dependence and abundance .....	6
Table 2: Relevant situations for different research methods .....	11
Table 3: Summary of studies challenging the resource curse .....	29
Table 4: Matrix of Contextual Variables .....	35
Table 5: HDI values of Timor-Leste .....	41
Table 6: GDP growth (annual %) .....	43
Table 7: Matrix of Contextual Variables – Timor-Leste .....	44
Table 8: GDP in 2013 (US\$ million) .....	48
Table 9: Total revenue 2015-2021 (US\$ million) .....	48

## **List of Figures**

Figure 1: Evolution of the resource curse thesis .....	18
Figure 2: Interplay of contextual variables .....	35
Figure 3: HDI trend of Timor-Leste, 2000-2015 .....	41
Figure 4: Historic and planned withdrawals from the Petroleum Fund	50
Figure 5: A flowchart of possible outcomes .....	56
Figure 6: Tasi Mane project .....	57
Figure 7: Cost of Tasi Mane .....	58
Figure 8: Food price per barrel .....	73
Figure 9: Cushing, OK WTI Spot Price FOB per barrel .....	73



## List of Maps

Map 1: The Timor Gap and the JPDA .....	39
Map 2: The Timor Gap .....	45

## **List of Abbreviations**

ADB	Asian Development Bank
APODETI	Associação Popular Democrática Timorense
ASDT	Associação Social Democrática Timor
BBC	British Broadcasting Corporation
CAVR	Commission for Reception, Truth and Reconciliation in East Timor
CMATS	Treaty between Australia and the Democratic Republic of Timor-Leste on Certain Maritime Arrangements in the Timor Sea
CPI	Consumer Price Index
CTF	Commission on Truth and Friendship
ESF	Economic Stabilization Fund
ESI	Estimated Sustainable Income
FAO	Food and Agriculture Organization of the United Nations
GDP	Gross Domestic Product
GIGA	German Institute of Global and Area Studies
GDS	General Directorate of Statistics
GNP	Gross National Product
HDI	Human Development Index
HDR	Human Development Report
ICJ	International Court of Justice
IDMC	Internal Displacement Monitoring Centre
IFPRI	International Food Policy Research Institute
IMF	International Monetary Fund
INTERFET	International Force for East Timor
JPDA	Joint Petroleum Development Area
NGO	Non-Governmental Organization

OHCHR	Office of the United Nations High Commissioner for Human Rights
OPEC	Organization of the Petroleum Exporting Countries
PCA	Permanent Court of Arbitration
PF	Petroleum Fund
RDTL	República Democrática de Timor Leste
TCF	Trillion Cubic Feet
TGT	Timor Gap Treaty
TST	Timor Sea Treaty
UDT	União Democrática Timorese
UN	United Nations
UNCLOS	United Nations Convention on the Law of the Sea
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
UNTAET	United Nations Transitional Administration in East Timor
USD	United States Dollar

# Chapter 1

## INTRODUCTION

### 1.1. Context-sensitive analysis of resource curse

Conventional wisdom argues that endowment of abundant non-renewable natural resources should benefit a country. There are several advantages that these resources offer, particularly when the country is in a relatively weak state of economy when the resources are discovered. In the context of oil resources, Sachs (2006, p. 176) offers a useful summing-up of their benefits: first, the revenue from the extraction can boost real living standards by financing higher levels of public and private consumption. Second, the resource can finance higher level of investment, both directly (using the revenue from extraction) and indirectly (borrowing made possible by the revenue). Third, the revenue obviates a barrier to development (lack of fiscal resources) as it is accrued to the public sector and public budget. Due to price volatility of non-renewable resources such as oil, windfall gains from their rising prices can also relax two other traditional barriers: foreign exchange and domestic savings (Gelb, 1988, p. 7).

Realities of many developing countries seem to suggest otherwise, as these countries continue to experience low per capita income and poor development indicators despite having vast non-renewable natural resources at their disposal. This paradox has been coined as “resource curse” by Richard Auty (1993), as countries endowed with natural resources such as oil, gas, minerals tend to have poorer economic performance than countries without or with fewer natural resources. An emphasis here is that the thesis of resource curse attempts to explain this

paradox of plenty, and does not suggest that countries are better off without natural resources.

The phenomenon of the resource curse is well researched as scholars endeavor to find both empirical and theoretical evidence (or rebuttal) to confirm (or to refute) the linkage between non-renewable natural resources endowment and relatively poor performance of its custodian. There is a vast body of literature on this topic, but scholars generally agree that Jeffrey D. Sachs and Andrew M. Warner carried out one of the most comprehensive studies through their work, *Natural Resource Abundance and Economic Growth* (1995). In this seminal study, they examined 97 developing countries over a 19-year period and found that economies with a high ratio of natural resource exports to GDP in 1970 (the base year) tended to have low economic growth rates during the subsequent period 1971-1989, even after controlling for other variables considered important for economic growth such as initial per capita income, trade policy, and investment rates.

Despite vast literature and empirical evidence, Matthias Basedau (2005) is one of the scholars who cautions against viewing the existence of natural resources simply as a “curse”. The occurrence of a resource curse is not inevitable – it is only probable – and an effect analysis of these resources should hence take into account the “fairly dynamic and complex interplay of a number of contextual variables” (Basedau, 2005, p. 22). This argument constitutes a contextual approach to resource curse, which will be the theme of this Master’s Thesis.

A contextual approach is particularly useful in conducting a political economy analysis of the resource curse, as it takes into account the interplay of relevant political and other non-economic variables that

might contribute to a causal linkage between the resources and adverse socio-economic development of a particular country. It also captures the conceptual evolution of the theory. The resource curse thesis was initially constructed to analyze connections between non-renewable resources with economic problems such as the Dutch Disease and its associated symptoms: insufficient degree of diversification, extreme vulnerability towards external shocks, or poor performance of the non-leading (non-resource) economic sectors, such as agriculture and manufacture (Mähler, 2010, p. 8). In this respect, the connection can be considered as *direct effects* of a resource boom (Leite and Weidmann, 1999, pp. 8-9). More recently, Badeeb et al. (2017) observe that an increasing number of scholars have begun to investigate the political aspects of the resource curse, both as possible contributing factors or outcomes. These are *indirect effects* of a resource boom, as the latter induces rent-seeking behaviors and affects the institutional quality in an economy (Leite and Weidmann, 1999, pp. 8-9). In a broader scope, this Master's Thesis intends to conduct a political economy inquiry of the oil<sup>1</sup> resource curse in Timor-Leste.

## 1.2. Outlining the terms

The notion of **resource curse**, as coined by Richard Auty in 1993, is a thesis stipulating that favorable natural resource endowment may be less beneficial to countries at low- and mid-income levels of development than the conventional wisdom might suppose (Auty, 1993, p. 1). Natural resources are either renewable (e.g. timber, fresh water) or non-renewable (e.g. fossil fuels, mineral deposits). The type of natural

---

<sup>1</sup> Unless indicated otherwise, “oil” or “petroleum” in this study includes both raw natural gas and natural gas liquid.

resources whose revenue may adversely affect economic performances appears to be that associated with modern mining, hence **non-renewable natural resources**. These are resources that do not recover on a time scale close to the rate of consumption and generally offer no returns until they are extracted (Willebald et al., 2015, p. 1). Badeeb et al. (2017) cite studies by Manzano and Rigobon (2001), Leite and Wiedmann (1999), Isham et al. (2005) and Bulte et al. (2005), demonstrating that the curse is mainly limited to non-renewable natural resources. Auty (2015, p. 32) likewise contends that resource curse symptoms appear to be stronger in oil economy, in accordance with his categorization of natural resources into those with concentrated (point) rent (such as mineral and oil, which is potentially less beneficial for the economy) and those with dispersed (diffuse) rent usually associated with peasant farming.

The terms of **resource dependence** (in output) and **resource abundance** (in stock) are used interchangeably (sometimes misleadingly) in various debates of resource curse. The terms can be related, as abundance of natural resources in a particular country may lead to its dependence. Some studies investigate the effects of natural resources thesis from the aspect of their abundance, some others from their dependence. It is thus important to define and to delineate these two terms to avoid dubiety during the analysis of this study.

Resource dependence refers to *the degree to which economies have access to alternative sources of income other than resource extraction* (Willebald et al., 2015, p. 2), while resource abundance refers to *a country's estimated finite endowment of subsoil wealth or deposits of minerals, oil and gas* (Brunnschweiler and Bulte, as cited by Badeeb et al., 2017, p. 127). In terms of measurement, the former is usually quantified by estimated natural

resource capital per capita, while the latter by the ratio of natural resource exports relative to gross domestic product (GDP).

A reasonably acceptable hypothesis is that the effects of resource curse are likely to occur in the former case, while well-managed resource abundance accompanied by “good” political institutions may be favorable to particular countries.<sup>2</sup> In their study of the link between natural resources and conflict, Bassedau and Lay (2009, p. 760) maintain that dependence denotes the importance of resource income *relative* to other value-adding activities, while abundance or wealth denotes the *absolute* amount of resource rents available in per capita terms. Their study particularly demonstrates that it is crucial to differentiate between the two in examining the phenomenon of resource curse, as different conclusions may occur. They conclude that the paradox of plenty seems to happen in cases of resource dependence, but not in resource wealth. The reason is that when resource-dependent countries reach a certain threshold of per capita wealth, a mix of internal and external factors functions to spare these countries from conflicts. The internal factors include the countries’ capability to finance vast security apparatus and to afford generous distributional policies, while the external is protection from outside powers in the maintenance of security (ibid., p. 774).

Table 1 depicts frequently used indicators to measure the terms of resource dependence and resource abundance (Badeeb et al., 2017; Bassedau and Lay, 2009).

---

<sup>2</sup> See studies by Karl (2005), Gylfason and Zoega (2006), Mehlum (2006), Arezki and Nabli (2012), and Boschini et al. (2007).



**Table 1**  
**Indicators of resource dependence and abundance**

Terms	Indicators	Definition
<b>Resource dependence</b>	Primary exports over GDP	Oil exports/GDP
	Rents from natural resources over GDP	(Value of crude natural resource production at world prices – total cost of production)/GDP
	Share of natural capital in national wealth	Natural capital/sum of natural capital and perpetual inventory value of produced assets and “human resources”
<b>Resource abundance</b>	Subsoil wealth	Value of principal fuel and non-mineral stocks present in a country
	Oil wealth per capita	Absolute amount of resource rents/total population

Sources: Badeeb et al., 2017; Bassetau and Lay, 2009

Another relevant term is the **resource rents**, which is the windfall flow of revenue from the extraction and processing of non-renewable natural resources. Gelb’s research in 1988 was one of the earliest studies on the topic, as he established a resource curse thesis by identifying a link between the oil windfall gain and economic performance of a country during the oil shocks in the 1970s.

### 1.3. Research question and hypothesis

This Master's Thesis undertakes to examine the effect(s) of oil resources on socio-economic development in Timor-Leste, using a contextual approach to resource curse. This causal mechanism shall be observed by virtue of the following research question and sub-questions.

#### Main question:

How do the contextual variables of oil resources affect socio-economic development in Timor-Leste?

#### Sub-questions:

- a. What are the contextual variables in the case of Timor-Leste?
- b. How do the variables exert influence on each other, and how does the interplay affect socio-economic development in Timor-Leste?

The main hypothesis of this Master's Thesis is that while the factor of oil resources has a decisive effect on the socio-economic development in Timor-Leste, the link between the former and the latter cannot be comprehensively explained without taking into account the influence of contextual variables.

*Independent variable.* As explained above, it is important to distinguish between resource abundance and resource dependence, as to avoid uncertainty during later analysis. In this regard, the independent variable of my research question is Timor-Leste's oil resources, specifically the country's dependence on them.

*Dependent variable.* There are a variety of ways to measure socio-economic

development of a country, such as the GDP or life expectancy. For the purpose of this Master's Thesis, I will use the Human Development Index (HDI) as the proxies for socio-economic development. These indexes are regularly published by the United Nations Development Programme to assess the development of a country beyond figures of economic growth, as it summarizes average achievement in three key dimensions of human development: a long and healthy life, being knowledgeable and have a decent standard of living. As HDI puts numbers to how well the population of a given country is doing, it is also useful to assess the effectiveness of national government policy (UNDP, 2017).

The debate of using HDI vs. economic growth/income per capita proxies in measuring development is an enduring one. There is an argument that the disparity between human development levels with per capita income levels largely diminishes in a comparison between the HDI and the *logarithm* of gross national product per capita (GNP/N) (Kelley, 1991, p. 322). More recent studies, however, show that economic growth is weakly and insignificantly associated with the non-income HDI components (health and education), although the association is somewhat stronger with the income component (Dervis and Klugman, 2011, p. 78). Another study in 2010 found a strong correlation between resource wealth and non-income components of human development (viz. literacy and life expectancy) (Pineda and Rodriguez, 2010, p. 25). I argue, therefore, that the HDI constitutes a suitable proxy to gauge the socio-economic development of Timor-Leste, particularly to capture the performance of non-economic dimensions as affected by its oil resources and the interplay of its contextual variables. Furthermore, the HDI's readily available data allow easier comparison across multiple time periods or countries, and

improvement in health and education can arguably be associated with improvement in infrastructure.<sup>3</sup>

#### **1.4. Why Timor-Leste?**

All nations carry their own history and stories. In the case of Timor-Leste as a research subject, I discover that the country offers an opportunity to examine how its unique mixture of variables affects its oil-dominated economy. The discovery and exploitation of Timor-Leste's oil reserves started not long before its independence. Due to continued dominance of the oil sector in Timor-Leste's economy, it is reasonable to assume that oil revenue has largely financed the country's development from independence until the present time. The country is accordingly a suitable case to study the effect of oil resources, particularly from the perspective of oil dependence.

Over the years, Timor-Leste's oil-financed development does not seem to translate into improved HDI. Quite the contrary, the country's HDI appears to be stagnating, both in terms of its own value and relative to other countries within the same development bracket. To better identify and understand the linkage between these two variables, I will examine other contextual variables: oil-specific factors such as the properties of the oil resources, and non-oil-specific factors such as its specific historical, cultural, economic, demographic, and geopolitical conditions. This approach would then enable me to conduct a comprehensive political economy analysis on why Timor-Leste's oil resources affect the country the way they have.

---

<sup>3</sup> Dervis and Klugman's study further compiles selected criticisms (and responses thereof) of the HDI.

## **1.5. Methodology**

This section outlines the empirical methods used in the thesis and provides an overview of the data collection.

### **1.5.1. Case study as a research method**

Yin (2014, pp. 30-34) stipulates three conditions in choosing a particular research method: (a) the type of research question posed, (b) the extent of control a researcher has over actual behavioral events, and (c) the degree of focus on contemporary as opposed to entirely historical events. These conditions help researchers to choose from five primary research methods: experiments, surveys, archival analyses, history, and case studies, as depicted in Table 2 (Yin, 2014).

#### *Type of research question*

A research question that poses a “how” question requires an explanatory answer, and consequently the most suitable research methods are likely to be case study, history, or experiment. These methods offer researchers the ability to explain some circumstances and to identify linkages over a particular period (ibid., p. 31). A case study particularly provides the opportunity for the researchers to retain an outlook of holistic and real-world nature, which helps in explaining complex social phenomena (ibid., p. 27).

My research question asks a “how” question, specifically on how the contextual variables of Timor-Leste’s oil dependence affect the country’s socio-economic conditions. A sufficient answer will require me to

understand the phenomenon of resource curse, identify a linkage between Timor-Leste's oil dependence and how well the country is doing, and explain the effects of the contextual variables interplay on the linkage. Possible research methods will, therefore, be history, case study, or experiment.

**Table 2**  
**Relevant situations for different research methods**

<b>Method</b>	<b>Form of Research Question</b>	<b>Requires Control of Behavioral Events?</b>	<b>Focuses on Contemporary Events?</b>
<b>Experiment</b>	how, why?	yes	yes
<b>Survey</b>	who, what, where, how many, how much?	no	yes
<b>Archival Analysis</b>	who, what, where, how many, how much?	no	yes/no
<b>History</b>	how, why?	no	no
<b>Case Study</b>	how, why?	no	yes

Source: Yin, 2014

*Extent of control over behavioral events and degree of focus on contemporary as opposed to entirely historical events*

When researchers have no control over behavioral events, history is the preferred research method as it accommodates the necessity to deal with the “dead past” and impossibility of direct observations (ibid., p.

32). Conversely, the case study is more suitable when researchers examine contemporary events when behaviors cannot be manipulated.<sup>4</sup> An important point here is that historical methods can overlap with case studies when the events being investigated are recent or still ongoing. An advantage of the latter (case study) is that it has at its disposal more sources of data and evidence compared with the former (e.g. documents, interviews, observations).

I propose to investigate the phenomenon of resource curse in Timor-Leste by examining relevant contextual variables in the country. The events are thus contemporary and some are probably ongoing. As the researcher, I am not situated in a position to exert any influence over the behavior of these events. Furthermore, the history of Timor-Leste is particularly relevant in my contextual approach as it provides the context in which the natural resources come into play in affecting the socio-economic conditions of the country. A case study research, with a mix of history, would therefore be the most fitting methodology in my study.

### **1.5.2. Strengths of case study research**

Comparing case study research with other methods such as experiments or surveys, Bhattacharjee (2012, p. 93) argues that the former possesses unique strengths relative to the latter. First, case study research is useful for both theory building and theory testing, as it allows an emergence of interest as the research progresses. Second, research questions in a case study can be modified during the research process if the original are deemed less pertinent or salient. Third, case study research is useful to gain a “richer, more contextualized, and more

---

<sup>4</sup> In the event that behaviors can be manipulated, experiments would be the most suitable research method.

authentic interpretation” of the phenomenon investigated, as it is able to engage a wide range of contextual data. And fourth, case study research allows for multiple participants perspectives and multiple levels of analysis in studying the phenomenon. In the same vein, single case study is suited as a methodological framework allowing for great detail in the empirical investigation instead of a broader methodology of statistical nature (Basedau, 2005, p. 22).

There have been numerous single country studies that investigate the phenomenon of resource curse as well as lessons-learned on how to avoid it. Badeeb et al. (2017) list some of these studies: Papyrakis and Gerlagh (2007) for the United States; Pegg (2010) for Botswana; De Gregorio and Labbé (2011) for Chile; Gylfason (2011) for Norway, James and Aadland (2011) for the United States, Botswana and Mauritius; Loayza et al. (2013) for Peru; Parlee (2015) for Canada; Liu (2014) and Su et al. (2016) for China and Badeeb and Lean (2017) for Yemen. There have also been research and papers about resource curse in Timor-Leste, e.g. Mats Lundahl and Fredrik Sjöholm (2006); Anita Doraisami (2009); and Charles Scheiner (2015). At time of writing this thesis, it is my belief that there has not been a single country study about resource curse in Timor-Leste that in particular utilizes the contextual approach. My Master’s Thesis will, however, use an analysis technique that draws heavily on a series of context-sensitive studies conducted by researchers at the German Institute of Global and Area Studies (GIGA). They include Matthias Basedau’s analysis of Sub-Saharan Africa (2005), Miriam Shabafrouz’s analysis of Iran (2009) and Algeria (2010), as well as Annegret Mähler’s analyses of Venezuela (2009) and Nigeria (2010). Elias Ngwu and Anthony Ugwu’s (2015) study, which conducts a contextual analysis of Nigeria oil extraction, merits a mention.



### **1.5.3. Limitations of case study research**

One of the most frequent criticisms leveled at a case study method is that it is not rigorous enough, particularly when compared with other forms of inquiry such as a survey, an experiment, or a comparative study (Lijphart, 1971, p. 691; Yin, 2015, p. 37). Other oft-cited criticisms of case study research are that their findings are difficult to generalize, particularly when researchers deal with a single case (ibid., p. 38) that may be an aberrance or when the inferences are heavily contextualized (Bhattacharjee, 2012, p. 93); the case studies can be too long and result in enormous and unmanageable documents; their unclear comparative advantage vis-à-vis other methods; and the possibility of a confusion between case study research with the case studies method used in teaching (Yin, 2015, pp. 37-39). In order to cope with these concerns, researcher should exert him/herself to follow systematic procedures or not to allow ambiguous evidence to influence the direction of the findings and conclusions (ibid.). This approach will also allow the researcher to avoid an inherent tendency of case study methodology to be descriptive, anecdotal or to neglect theoretical reflections.

The lack of experimental control further renders the internal validity of references in case study research relatively weak, although this is a common problem with all methods, except experiments, that can be addressed using “natural controls” (Bathacherjee, 2012, p. 93). Lastly, the experience and integrative powers of the researcher play a prominent role whereas the findings could be seen as subjective (ibid.).

Having identified its strengths, limitations and challenges, I maintain that a case study method is applicable in Timor-Leste taking into account

the rich contextual variables the study intends to encapsulate. Timor-Leste has a unique history of colonialism, occupation, and UN-administered transitional administration that lends to a distinctive, post-conflict path toward independence and sovereignty that is different to other countries. The lack of its permanent maritime boundaries and the disputed revenue sharing with Australia over its oil resources are variables that merit a further investigation. The singularity of Timor-Leste's context should work to enrich the discussion on resource curse thesis.

#### **1.5.4. Data collection**

Yin (2015) lists numerous sources of information commonly used in case study research, ranging from documentation to life histories<sup>5</sup>. Out of these sources, I will primarily source my data from documentation and archival records.

Documentations (such as written reports of events, administrative documents, internal records, peer-reviewed studies or evaluations, news clippings) will be one of the main sources for this study. Their most important function is to provide theoretical framework, as well as to corroborate and support evidence from other sources. They offer the benefits of being stable (can be viewed repeatedly), unobtrusive (not created as a result of the case study), specific (with detailed and exact references), and broad (span of time and settings), although they can also be difficult to retrieve, have biased selectivity, and may have limited access (Yin, 2015, p. 103).

---

<sup>5</sup> See Chapter 4 in Yin (2015) for more information on sources of case study evidence and principles on data collection process.

Archival records such as statistical data by international organizations and national governments, organizational records, as well as maps and charts of certain locations are another useful source of data. In addition to the benefits similar to the ones offered by documentation, archival records can also be expected to be precise and quantitative. As most of these records were produced for a purpose and an audience outside the case study, it is important that the researcher appreciate their context and accuracy (ibid., p. 105).

A particularly useful source of data and analyses that will feature heavily in this study and thus merits a special mention is La'o Hamutuk ("Walking Together" in English), an independent non-governmental organization in Timor-Leste. Over the past 15 years, they have built a reputation, both nationally and internationally, for the quality of their reporting and analysis, which feature extensively in a large number of studies or papers concerning Timor-Leste.

#### **1.5.5. Organization of thesis**

The Master's Thesis is organized in five chapters as follows:

##### **Chapter 1 – Introduction**

The chapter begins by briefly introducing the contextual approach to resource curse. Next it explains the basic terms used and outlines the research questions and formulates the hypothesis to be investigated in later chapters. It identifies the rationale behind the choosing of Timor-Leste as a study case. The chapter ends by describing in detail the methodology of the study.

## Chapter 2 – Resource Curse: Theoretical and Empirical Review

The chapter reviews the theoretical framework and empirical studies of resource curse thesis. It first outlines the chronological evolution of the thesis, as it assumes an increasingly multi-dimensional perspective. The chapter ends by explaining the contextual approach to resource curse. The main purpose of this section is thus to provide an overview of the concept and to delineate the evolution of its approaches.

## Chapter 3 – The Case Study of Timor-Leste

The chapter begins by giving a brief chronology of the oil discovery and exploitation in the Timor Sea. Later, an overview of the country and the relevant economic and development indicators is offered. The remaining part of the chapter is dedicated to identify and formulate Timor-Leste's matrix of contextual variables. The chapter sets the stage for analysis in the next chapter.

## Chapter 4 – Analysis of Contextual Variables

The chapter is dedicated to analyzing in detail the contextual variables of Timor-Leste, which holds relevance to the linkage between oil resource dependence and the country's socio-economic performance. The chapter concludes by examining the interplay between these variables.

## Chapter 5 – Conclusion

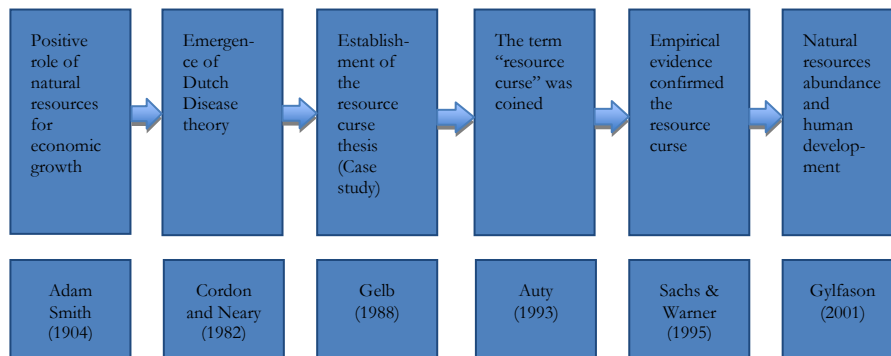
The final chapter sums up the findings of the study.

## Chapter 2

### RESOURCE CURSE: THEORETICAL AND EMPIRICAL REVIEW

#### 2.1. Reviewing the resource curse thesis

Since the late 1980s, the belief that natural resource (abundance or dependence) is harmful to economic performance has increasingly become the new conventional wisdom (Rosser, 2006, p. 7). Badeeb et al. (2017) critically organize the evolution of the resource curse literature into six different phases, as depicted in Figure 1.



**Figure 1:** Evolution of the resource curse thesis (Badeeb et al., 2017, with personal amendments).

I will review each phase of the literature evolution to gain an understanding of not only the original concept of the resource curse, but also other numerous studies that have attempted to enrich the discussion on how natural resources impact the well-being of countries.

### **2.1.1. Phase I: The positive role of natural resources**

The French political philosopher Jean Bodin (1576, reprinted 1962) encapsulated the potential hazard of natural riches when he offered the following behavioralist perspective:

“Men of fat and fertile soil, are most commonly effeminate and cowards; whereas contrariwise a barren country makes men temperate by necessity, and by consequence careful, vigilant, and industrious” (Bodin, 1962, as cited by Sachs and Warner, 1995).

From as early as the 18<sup>th</sup> century until the late 1980s, however, economists were inclined to see natural resources in a positive light. Adam Smith’s concept of “vent-for-surplus” suggests that unexploited resources can be used to generate wealth and economic growth by selling it to other countries (e.g.: international trade). The surplus would have remained idle without external trade, and the latter provides an outlet (vent) as the former (surplus) becomes available for exports, without sacrificing output for the domestic market (Willebald et al., 2015, p. 4). In Smith’s own words:

“It carries out that surplus part of the produce of their land and labour for which there is no demand among them, and brings back in return for it something else for which there is a demand. It gives a value to their superfluities, by exchanging them for something else, which may satisfy a part of their wants, and increase their enjoyments. By means of it the narrowness of the home market does not hinder the division of labour in any particular branch of art or manufacture from being carried to the highest perfection” (Smith, 1904, IV, I, 31).

A related phenomenon is the rapid economic growth of many countries in the last quarter of the 19<sup>th</sup> century and up to World War I, which was attributed to export-led industrial expansion in Western Europe and the United States. The New World provided much needed cheap natural resources for the industrializing European, made possible by flourishing international trade and technological advances in human transport (Willebald et al., 2015, p. 4). The so-called “staples theory” attempts to explain why some countries manage to develop their economy by expanding their export sectors in general, and natural resource in particular.

### **2.1.2. Phase II: The emergence of Dutch Disease theory**

The Dutch Disease was initially coined to describe the collapse of the Dutch manufacturing sector after the discovery of natural gas in 1959. Corden and Neary (1982, pp. 827-831) developed economic models to examine the effects of a resource boom within a framework of a dependent economy, in which two exogenously traded goods (the booming “energy” and the lagging/non-booming “manufactured”) and non-traded goods (“services”) coexist. The effects were differentiated into two, namely the “resource movement effect” and the “spending effect”. Resource movement effect occurs when the boom in the energy sector draws resources out of other sectors and triggers various adjustments in the rest of the economy, which includes the mechanism of “real exchange rate”, defined as the “relative price of non-traded to traded goods”. The resource shift from the lagging sector into the booming sector is called direct-deindustrialization. In the scenario that the energy sector employs relatively few resources that can be drawn from elsewhere in the economy, spending effect happens. The higher

real income from the boom triggers extra spending on services, brings about rising prices (appreciation of the real exchange rate) and eventually leads to further adjustments. The demand for labor on services grows at the expense of the lagging sector. The resource shift from the lagging sector into the service sector is called indirect-deindustrialization.

In their simplest model, which assumes that labor is the only factor moving between sectors of the economy, Corden and Neary found evidence of de-industrialization (*ibid.*, p. 841). The symptoms mentioned include a fall in manufacturing output and employment, a worsening in the balance of trade in manufacturing, and a decline in the real return to factors specific to the manufacturing sector. An appreciation of real exchange rate also occurs as the economy adjusts to the new post-boom equilibrium. In other models that allow inter-sectoral mobility of multiple production factors, it is possible to reverse these outcomes. These economic models are applicable in a resource boom not only in cases of technological improvement, but also of other sources of structural change, such as exogenous inflow of foreign capital into the energy sector (*ibid.*, p. 839).

A significant point among Corden and Neary's conclusions is that a decline of a country's manufacturing sector as a whole due to a resource boom is by no means inevitable, as the sector may in practice incorporate some non-traded goods sectors (*ibid.*, p. 842). Another note of importance is that Corden and Neary's study did not address issues related to the exchange rate policy, which is designed to protect the traded goods sector. An appreciation of the exchange rate is a symptom of the so-called Dutch Disease. Timor-Leste opts to use the US dollar as their currency for this particular reason, which is to mitigate the adverse effect of exchange rate volatility. Doraisami (2009, p. 166) notes that the



use of US dollar has indeed provided Timor-Leste with an “effective nominal anchor”, although it comes at the expense of independent monetary policy.

### **2.1.3. Phase III: Establishing the resource curse thesis**

Alan Gelb (1988) conducted a study on the medium-term management of windfall gain from rising oil prices during the first oil crisis in 1973 and the second oil crisis in 1979 and examined the reversals caused by changes in the terms of trade. Using case study methodology, Gelb examined the experience of six developing oil exporters – Algeria, Ecuador, Indonesia, Nigeria, Trinidad and Tobago, and Venezuela. The selection of these countries is the subject of Gelb’s study: to research the experience of countries that reaped windfall gain from rising oil prices and altogether benefited from the oil crises. Notwithstanding their varying political, economic and demographic situations, the countries share a number of important traits: (1) oil represents a large share of exports but a moderate portion of GDP, (2) oil income per capita is fairly low, and (3) compared to their estimated non-oil capital stocks, verified and low-cost oil reserves of these countries are high in value at average post-1973 prices. The reserves are, however, insufficient to finance development for more than another fifteen to twenty-five years unless real oil prices increase over an indefinitely long period (a secular trend) (Gelb, 1988, p. 5). Some of these countries were already producing oil during the oil crises, a particularly salient point, as the study did not consider the implications of the discovery and exploitation of oil resources to their economy.

Through his analysis, Gelb establishes a resource curse thesis by identifying a link between the oil windfall gain and economic

performance of a country. Specifically, he ascertained that “oil economies experienced a more serious deterioration in the efficiency of their domestic capital formation during the boom period of 1971–1983 than did non-oil economies”, and that the “cost of using oil windfalls can offset the gains from the windfalls themselves” (Badeeb et al., 2017, p. 124).

Gelb’s research is relevant to this study as it not only establishes a resource curse thesis through case study methodology, but also offers numerous real-life scenarios of how developing countries managed their oil resources income to finance their development. In addition, the case studies provide examples of longitudinal research as they compare the economic performance of countries before, during and after the oil shocks and the resulting windfall.

#### **2.1.4. Phase IV: The coinage of “resource curse”**

The term “resource curse” was first coined by Richard Auty in his 1993 book, *Sustaining development in mineral economies: The resource curse thesis*, to refer to a paradox where favorable natural resource endowment may be less beneficial to countries at low- and mid-income levels of development than the conventional wisdom presumes. Counterintuitively, these resource-rich countries may not only fail to benefit from their endowment, but it is also often the case that they perform worse than less well-endowed ones (Auty, 1993, p. 1).

Auty based his thesis on two pieces of evidence: the developing countries’ postwar industrialization path and the performance of the mineral-rich developing countries since the 1960s. As the first evidence, Auty mentioned (South) Korea and Taiwan as two resource-deficient

countries that have diversified their industry faster than other larger newly industrializing countries such as China, India, Brazil and Mexico. This is in contradiction with the usual logic that large country size benefits industrialization, due to factors such as: (i) a large domestic market (new entrants' barriers of economies of scale are overcome), (ii) a diverse resource base (foreign exchange needed to purchase capital goods for industrialization is generated), and (iii) the presence of complementary inputs that enable a broad array of industrial processes. For the second evidence, Auty contended that mineral economies – which comprise around one-quarter of all developing countries – experience inferior levels of economic growth and social welfare compared with non-mineral economies at a similar level of development. It also defies common logic since mineral resources – which include both hydrocarbon and hard mineral – furnish their proprietors with additional foreign exchange, government taxes and resource-based industrialization through processing of the raw resources into finished products (ibid., pp. 2-5).

Auty's study of the resource curse thesis focused on the performance of hard mineral producers and was intended to complement Gelb's prior study in 1988. Whereas Gelb examined the management of oil windfall gains from the oil shocks, Auty investigated the downturn in hard mineral market triggered by the oil shocks and the subsequent responses by the mineral producers. Similarly, Auty employed a case study methodology with an added measure of comparing countries to overcome doubt about the general applicability of his findings.

### 2.1.5. Phase V: Empirical evidence of resource curse

Jeffrey D. Sachs and Andrew M. Warner (1995) undertook one of the most comprehensive empirical studies on resource curse through their influential work, *Natural Resource Abundance and Economic Growth*, by examining 97 developing countries over a 19-year period. First, they investigated the cross-country growth record of these countries in 1970-1989 and found that economies with a high ratio of natural resource exports to GDP in 1970 (the base year) tended to have low growth rates during the subsequent period 1971-1989 (Sachs and Warner, 1995, pp. 8-11). The correlations remained empirically robust after controlling for other variables that might be pertinent to economic growth, such as economic openness (coded as SOPEN), investment (INV7089), bureaucratic quality (BUR), terms-of-trade index volatility (ITSD), and inequality ratio (INEQ). Except for the last two variables, all other variables demonstrated associations: there is a link between resource wealth and variables of openness, investment, and bureaucratic quality (ibid., p. 10).

Second, Sachs and Warner studied the inverse effects of natural resource dependence on these political and economic variables and presented various possible pathways for the researched countries. Resource dependence is defined as the ratio of primary product exports to GDP in the base year of 1970. There were several hypotheses tested (ibid., pp. 17-18):

Hypothesis I: High natural resource abundance leads to increased rent-seeking and corruption (deterioration of bureaucratic efficiency).

*Finding(s)*: Weak evidence of link between resource wealth and bureaucratic quality, although significant error exists in measurement (ibid., p. 19).

Hypothesis II: High resource wealth has encouraged developing countries to pursue protectionist, state-led development strategies as an effort to avoid the Dutch Disease.

*Finding(s)*: Stronger evidence for indirect effect of resource wealth on openness, as the symptoms of Dutch Disease provokes protectionist response aiming to promote industrialization. Oil-rich states constitute an exception, as the vast oil endowment presents no substantial pressure to develop a large industry sector (ibid., pp. 19-20).

Hypothesis III: Countries with higher natural resource abundance would have higher overall demand and higher relative prices of non-traded goods.

*Finding(s)*: Evidence that higher relative prices of investment goods depress investment demand, but little impact of natural resource abundance on relative investment prices (ibid., pp. 20-21).

Hypothesis IV: High resource abundance leads to increased aggregate demand that shifts labor away from high learning-by-doing sectors and thus depresses growth in labor productivity.

*Finding(s)*: Modest support to the view that the dynamic Dutch Disease effects on labor productivity are quantitatively important, with possible measurement errors (ibid., p. 21).

#### **2.1.6. Phase VI: Natural resources abundance and human development**

Gylfason (2001) carried out a study to examine the channels of transmission from abundant natural resources to stunted economic development: the Dutch Disease, rent-seeking, overconfidence and neglect of education (Gylfason, 2001, p. 850). First, as explained above, the abundance of natural resources often leads to an overvaluation of the national currency, which is a symptom of the Dutch Disease. Second, countries rich with natural resources are predisposed to disruptive rent-seeking behavior that may give rise to corruption, economic inefficiency and social inequity. Third, these riches may instill a false sense of security among both the population and policy makers. And fourth, economies relying too heavily on natural resources may inadvertently or deliberately neglect the development of their human resources.

The examination of the fourth channel of transmission was a significant contribution to the resource curse thesis, which had heretofore mainly focused on negative *economic* aspects of natural resources abundance. To support his argument, Gylfason used statistics from 1997, such as that the OPEC countries only had 57% of secondary school registration compared with 64% for the world as a whole, or that the former spent less than 4% of their GNP on education on average compared with almost 5% for the latter (ibid., p. 851). He concluded that natural resources abundance is likely to inhibit economic growth by, among others, “weakening public and private incentives to accumulate

human capital”, and emphasized the importance of education and training as an engine of growth, as “more and better education tends to shift comparative advantage away from primary production towards manufacturing and services, and thus to accelerate learning by doing and growth” (ibid., pp. 855-856). Willebald et al. (2015, p. 12) describe such an occurrence as the “crowding out of human capital by abundant natural capital”. The link of natural resources–human development marks a theoretical starting point of this Master’s Thesis, as I set out to examine the effects of oil resources on human development in Timor-Leste.

## **2.2. Challenging the resource curse thesis**

Widespread acceptance of the resource curse thesis notwithstanding, success stories of resource-rich countries such as Norway and Botswana serve as outliers to its universality. It is useful in this regard to briefly summarize the dissenting opinions attempting to refute or at least to challenge the resource curse. In doing so, many scholars have criticized Sachs and Warner’s influential empirical study, particularly in the aspects of its measurement and time samples. Sachs and Warner’s measurement of the resource exports to GDP ratio is seen as endogenous and their cross-sectional regressions of growth on dependence is said to suffer from third factors, such as economic policies and institutions that will affect both sides of the regressions (Brunnschweiler and Bulte, 2008, as cited by Badeeb et al., 2017). With regard to their time sample and the use of 1970 as the baseline, Alexeev and Conrad (2009, as cited by Badeeb et al., 2017) argue that it is prone to misinterpretation of data as commercial exploitation in the majority of oil-exporting states began before 1950. Manzano and Rigobon (1995) contend that Sachs and Warner’s model may represent more of a reflection of the global oil price

shocks in 1973 and 1979 and their aftermath, and less of “an inherent tendency for natural-resource countries to suffer reduced growth” (Badeeb et al., 2017, p. 130). Indeed, a study by Lederman and Maloney in 2007 (as cited by Auty, 2015, p. 29) holds that two decades of statistical research – triggered by Sachs and Warner study – have failed to provide a definitive explanation for the resource curse and to settle the debate over its very existence.

Table 3 (Badeeb et al., 2017) tabulates the critical summary of these studies and how they challenge the resource curse thesis.

**Table 3**  
**Summary of studies challenging the resource curse**

<b>Authors</b>	<b>Studies and findings</b>
<b>Lederman and Maloney (2007)</b>	Using cross-section and panel sample, they found no evidence that variables of primary exports negatively affect growth
<b>Brunnschweiler and Bulte (2008)</b>	Examining 60 countries from five regions, they found that resource dependence does not affect growth and resource abundance positively affects growth and institutional quality
<b>Alexeev and Conrad (2009)</b>	Examining OPEC members and major non-OPEC oil producers, they discovered that the effect of large oil and other mineral resources endowment on long-term economic growth has been positive
<b>Cavalcanti et al. (2011)</b>	Examining 53 oil exporting and importing countries, they found that



---

	oil abundance has a positive effect on both income levels and economic growth
<b>Boyce and Emery (2011)</b>	Reviewing panel data for US states, they found that the resource curse can only be determined by an investigation of the correlation between resource abundance and income levels, and that this relationship is positive
<b>James (2015)</b>	Examining 111 resource producing countries, he found that in all growth periods, the relationship between resource dependence and economic growth in resource production sectors is non-negative

---

Source: Badeeb et al., 2017

Similarly, Rosser (2006, pp. 10-12) enumerates a number of reasons to treat the notion of a resource curse with caution. One that is particularly provoking is that despite evidence of *correlation* between natural resource abundance and various development outcomes, they are not evidence of *causation* that runs from the former to the latter. It may be the case that the causal linkage is *reversed*, or that a correlation is precipitated by an unidentified *third variable*.

### 2.3. A more multi-dimensional perspective of resource curse

The above-referenced studies – both for and against the resource curse thesis – lend credence to the notion that the resource curse is more of a possibility and less of inevitability. Furthermore, the summary of literature evolution discloses the development of the resource curse

thesis. Initially, the thesis was concerned solely about the relationship between natural resources and economic performance. It has often led to a reductionist approach, as researchers attribute development performance solely to factors such as size and nature of natural resource endowment (ibid., pp. 7-8). Later, more works focused on non-economic consequences of natural resources (e.g.: human development, civil war, political regimes) emerged, and the resource curse thesis has become seen as a multi-dimensional phenomenon as researchers look for key political and social factors that enable (or prevent) utilization of natural resources for the development of countries (ibid., p. 8; Ngwu and Ugwu, 2015, p. 423). Ross (1999, p. 307) sums up the necessity for political consideration of resource curse with the following remarks:

“Yet to explain (...) the resource curse (...) we must also explain why governments fail to take corrective action. Governments play an exceptionally large role in the resource sectors of almost all developing countries and, at least in theory, have the policy tools to mitigate (...) hardships [of resource-rich economies]”.

In order to facilitate the theoretical impasse (possibility vs. inevitability) and the increasingly multi-dimensional nature of the thesis, I now turn to rentier state theory and the contextual approach to resource curse.

### **2.3.1. Rentier state theory**

Hossein Mahdavy first introduced the term “rentier states” in 1970 to explain the socio-political and socio-economic development of Middle Eastern countries that receive a large income from oil and gas resources. They are defined as “countries that receive on a regular basis substantial amounts of external rent”, while “external rents” are defined as “rentals

paid by foreign individuals, concerns or governments to individuals, concerns or governments of a given country” (Mahdavy, 1970, p. 428). The core argument of the theory is that when governments gain most of their revenues from external rent (such as oil rent), they are freed from having to levy domestic taxes, to expand the local economy, and eventually become less accountable to their society (Ngwu and Ugwu, 2015). To be classified as a rentier, a state should exhibit the following four characteristics (Beblawi, as cited by Ngwu and Ugwu, 2015, p. 425):

1. The rentier economy, of which the state is a subset, should be predominated by rent situations.
2. The origin of the rent must be external to the economy. The ‘external’ here denotes ownership and control of the rent-generating resources. In this sense, oil resources controlled by foreign companies (which in turn pay ‘oil rents’ to the government) are considered as external.
3. In a rentier state, only a few are engaged in the generation of rent, while the majority is involved in its distribution and consumption.
4. The government must be the principal recipient of the external rent in the economy.

A closer look at Timor-Leste reveals that it satisfies all of Beblawi’s characteristics of a rentier state. Its economy is dominated by rent revenue from exploitation of oil to the extent that it is heavily oil-dependent. All of its oil sources are being managed by multinational companies, which in turn pay oil rents to the government. In this understanding, the rent origin is therefore external to Timor-Leste’s economy. Only a very small portion of Timor-Leste’s population is engaged in the oil production, while the rest merely consumes or redistributes the rent. And lastly, the Timor-Leste government is the

principle and sole recipient of the oil revenue, which diminishes the need for taxation. Data from the World Bank and PricewaterhouseCoopers in 2014 indicate that Timor-Leste has the third-lowest total tax rate in the world, which is one-quarter of the global average (Scheiner, 2015, p. 4).

The rentier state theory is originally postulated as a state-centered explanation on how oil dependence may lead to authoritarian regimes or lack of governmental accountability. The rentier state theory is also salient in studies investigating the link between natural resources and conflict, as the concept of “rentier peace” maintains that resource rent can be used to preserve stability by buying off opposition or suppressing armed rebellion (Basedau and Lay, 2009, p. 758). By and large, it is considered as the most prominent political explanation to explain the phenomenon of resource curse (Ngwu and Ugwu, 2015, p. 422), although the rentier peace concept can also be seen as a conceptual contradiction to resource curse due to the former’s positive views of resource rent. The applicability of rentier state theory, in this case, is however limited. Its fixation on rent, for example, fails to take into account a number of contextual variables that might have helped to explain the contradiction between oil endowment and development challenges (*ibid.*). Basedau and Lay (2009, p. 774) also challenged the rentier state theory’s theoretical prediction of weak state institutions, as they discovered no evidence of patronage and clientelism system in oil-rich state institutions compared with their oil-poor counterparts. Lastly, the rentier state theory, just like conventional thesis of resource curse, tends to neglect the outlier that authoritarianism and conflicts do occur in resource-poor countries.

### 2.3.2. Contextualizing the approach

Having established that the rentier state theory is insufficient for a political economy analysis of Timor-Leste, I turn to the contextual approach. Basedau (2005) cautions against viewing the existence of natural resources simply as a “curse”, as there are important empirical, methodological and theoretical considerations suggesting, “natural resources alone are less detrimental as frequently perceived”. For example, despite studies in resource-rich countries in sub-Saharan Africa validating that these countries are more likely to suffer from civil wars, the degree of probability is probably not as significant as expected. To aptly quote Ross (2003): “...for every resource rich country that has suffered from violent conflict, two or three have avoided it” (Basedau and Lay, 2009, p. 758). Basedau argues, therefore, that natural resources affect countries differently, and the resource curse does not inevitably materialize but is merely a probability.

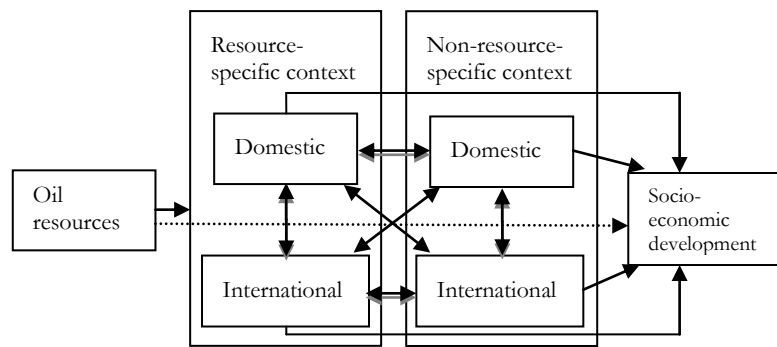
Accordingly, Basedau suggests that analyzing the effects of natural resources to a country’s well-being should take into account the dynamics and complex interplay of a number of contextual variables, which are divided into country-specific conditions and resource-specific conditions. Basedau and GIGA researchers develop a matrix of central contextual factors that can be used to analyze potential relationship between resources and a dependent variable of choosing, as seen in Table 4 (Basedau, 2005; Mähler, 2010).

**Table 4**  
**Matrix of Contextual Variables**

Scope	Resource-specific	Non-resource-specific
<b>Domestic</b>	Variable I, II, etc.	Variable I, II, etc.
<b>International</b>	Variable I, II, etc.	Variable I, II, etc.

Source: Basedau, 2005; Mähler, 2010

The variables are understood to be dynamic and not independent from each other, as depicted in Figure 2 (Shabafrouz, 2009).



**Figure 2:** Interplay of contextual variables (Shabafrouz, 2009, with personal amendments).

A contextual approach is particularly fitting to the objective of this study, which is to conduct a political economy analysis of the resource curse. The theory has initially been constructed to analyze linkages between abundant non-renewable natural resources with economic problems such as the Dutch Disease effects, insufficient degree of diversification, extreme vulnerability towards external shocks, or poor performance of the non-leading (non-resource) economic sectors such as the agricultural and manufacturing (Mähler, 2010, p. 8). In the case of

Timor-Leste, such an approach enables the researcher to address the way external environments of geopolitics and geoeconomics affect development outcomes in Timor-Leste (Rosser, 2006, p. 22). Additionally, it resolves the problem of an overly deterministic perspective that consigns most of the resource-rich countries into a relatively undifferentiated basket of economic performance and political pathologies (ibid.). By exploring the dynamics underpinning the variation in development outcomes, the approach also addresses the political feasibility of any recommendation it might produce.

## Chapter 3

### THE CASE STUDY OF TIMOR-LESTE

#### 3.1. Discovery and exploitation of oil

Timor-Leste<sup>6</sup> is a state in Maritime Southeast Asia with a population of approximately 1,2 million people. It became one of the youngest countries in the world when sovereignty was transferred in 2002 from the UN Transitional Administration in East Timor (UNTAET). Previously, it was a colony of Portugal for almost three centuries<sup>7</sup> and, upon an invasion, a province of Indonesia from 1975-1999.<sup>8</sup> The greater part of present-day Timor-Leste is located in the eastern region of the Timor Island, while the western region constitutes part of the Indonesian Province of East Nusa Tenggara.

Exploration of East Timor's offshore oil reserves began as early as 1956 by an Australia-based company, Timor Oil Ltd (LH, 2002, p. 8). In 1972, Australia and Indonesia signed treaties to map out their permanent seabed boundaries in the Timor Sea, to which both countries are littoral states. Portugal as the colonial master of then Portuguese Timor was not involved in the negotiations and did not accept the agreement, and a 480-kilometer-wide gap in the seabed of the sea was thus created: the Timor Gap. The gap lies at the heart of the current maritime boundary dispute between Timor-Leste and Australia, which could also potentially involve Indonesia.

---

<sup>6</sup> The official name of the country is the Democratic Republic of Timor-Leste. Throughout the study, the names "Timor-Leste", "East Timor" or "Portuguese Timor" may appear interchangeably, and they demonstrate different historical namings of the same entity.

<sup>7</sup> It was then known as Portuguese Timor.

<sup>8</sup> The formal name was the Indonesian Province of East Timor (*Timor Timur*).



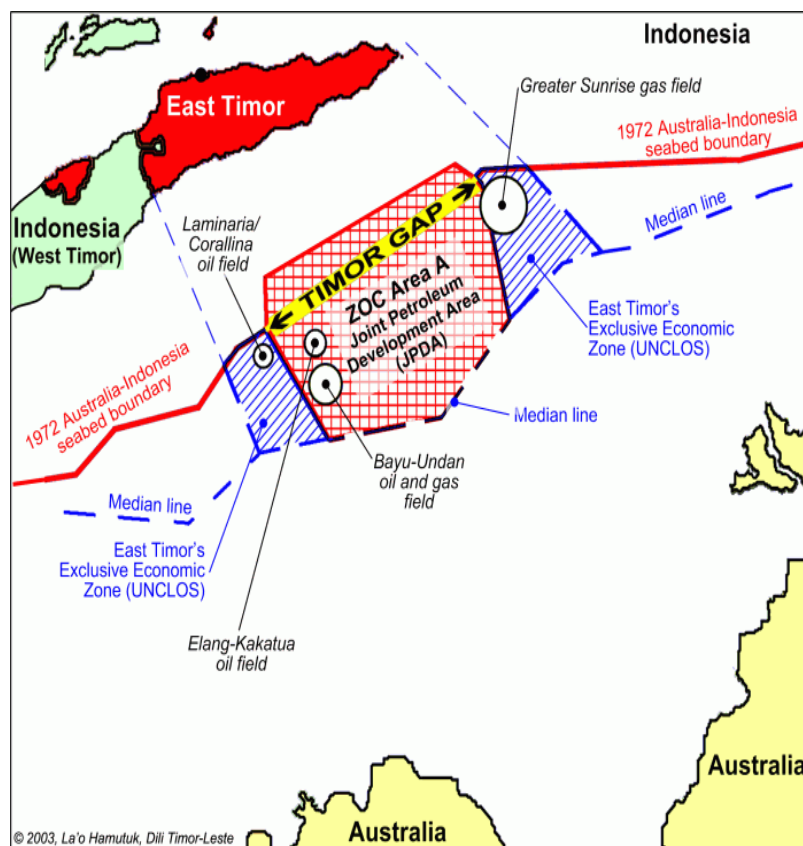
In 1974, the Sunrise gas field – later became part of the Greater Sunrise fields – was discovered. It has not been commercially processed until today. After Indonesia claimed sovereignty over East Timor in 1975-1976, it began negotiations with Australia to resolve issues arising from overlapping claims in the Timor Sea and the resources contained therein. The two countries subsequently agreed in 1989 to bind themselves in the Timor Gap Treaty (TGT), which provided for the joint exploitation of petroleum resources in the area and a 50:50 revenue split. The treaty was seen as a “creative and effective means of enabling Indonesia and Australia to retain their juridical positions on sovereignty over the seabed while, at the same time, establishing a regime under which petroleum production could go forward with revenue shared between the states” (Triggs, 2002, p. 41). The TGT held a symbolic significance, as it was the only legal international document that recognized Indonesia’s authority over East Timor. Portugal immediately protested against the TGT and initiated lawsuit against Australia in the International Court of Justice.<sup>9</sup>

In 2002, the newly independent Timor-Leste signed the Timor Sea Treaty (TST) with Australia. The TST carried over the terms of the TGT while putting Timor-Leste in place of Indonesia vis-à-vis Australia. It provided for joint exploration, development and exploitation of petroleum resources in an agreed area – the Joint Petroleum Development Area (JPDA) – in the Timor Gap. It also modified the petroleum revenue sharing from 50:50 into 90:10 in favor of Timor-Leste. The two countries later signed the Sunrise International Unitization Agreement on 6 March 2003, which guided the exploitation of the Greater Sunrise fields as a single entity for tax and revenue

---

<sup>9</sup> In 1995, the ICJ decided that it could not rule on the Portugal v. Australia case, because its jurisdiction did not receive the consent of a party to the case (Indonesia). Please see <http://www.icj-cij.org/en/case/84> for more details.

purposes. The fields straddle the border between the JPDA and the Australian territorial waters as determined by the 1972 Australia-Indonesia seabed boundary agreement. In 2006, they signed yet another agreement, the CMATS<sup>10</sup>, which amended the revenue sharing from the Greater Sunrise to a 50:50 ratio between Australia and East Timor. These three agreements governed the exploitation and development of oil in the Timor Gap and the JPDA, as depicted below in Map 1 (LH, 2003).



**Map 1:** The Timor Gap and the JPDA (LH, 2003, p. 2).

<sup>10</sup> Formally known as the Agreement between the Government of Australia and the Government of the Democratic Republic of Timor-Leste on Certain Maritime Arrangements in the Timor Sea.

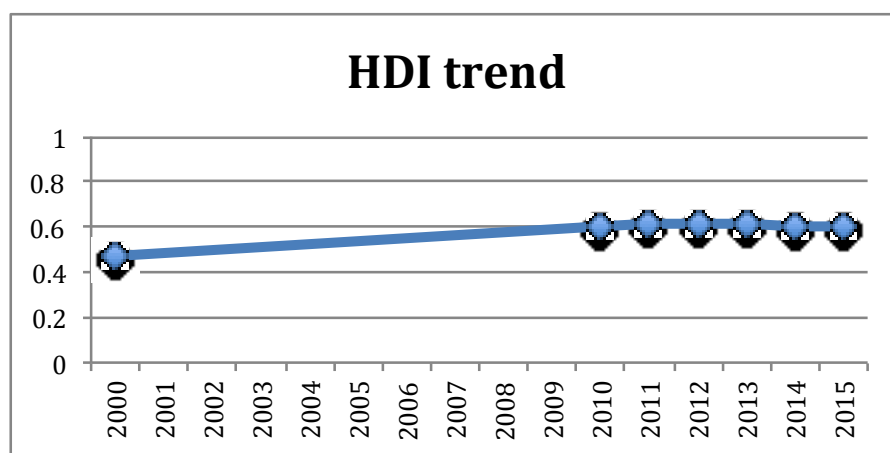
### 3.2. The indicators for human development

Upon independence in 2002, Timor-Leste immediately gained the dubious honor of being “the poorest country in Asia”, with an annual gross domestic product per capita of just \$478 and a life expectancy of 57 years (UN News Service Station, 2002a). Rice and maize were the staple foods, and most of the population depended on subsistence farming. In 2005, Timor-Leste had an HDI of 0.513 which was ranked 140<sup>th</sup> among 177 countries (UNDP, 2005, p. 221). About a decade later, annual GDP per capita jumped to \$1,134.43, and life expectancy at birth climbed to 68.5 years (World Bank data, 2015). Consequently, the UNDP Human Development Report 2016 calculated Timor-Leste’s HDI for the year of 2015 as 0.605, which put the country in the category of medium human development (ranked 133<sup>rd</sup> out of 188 countries and territories) (UNDP, 2016). At first glance, the HDI seems to be improving. To put these latest HDI figures into perspective, however, Timor-Leste’s value of 0.605 was below the average of 0.631 for countries in the medium human development group and below the average of 0.720 for countries in East Asia and the Pacific (ibid.). Table 5 (UNDP HDR, 2016) depicts the HDI of Timor-Leste from 2000 until 2015 and the average annual growth in two spans of time, 2000-2010 and 2010-2015. The year 2000 is selected as the base year for the following two reasons: first, the year marks the earliest HDI data ever published by the UNDP for Timor-Leste. Second, before the transfer of sovereignty in 2002, Timor-Leste seceded from Indonesia through a referendum in 1999. Wedged between the two watersheds, the year of 2000 fits the need to have a base year in analyzing Timor-Leste’s HDI progress. Figure 3 (UNDP HDR, 2016) portrays the trend of Timor-Leste’s HDI.

**Table 5**  
**HDI values of Timor-Leste**

Year		HDI value
2000 (base year)		0.470
2010		0.607
2011		0.618
2012		0.620
2013		0.612
2014		0.603
2015		0.605
Average annual	2000-2010	2.57
growth (%)	2010-2015	-0.03

Source: UNDP HDR, 2016



**Figure 3:** HDI trend of Timor-Leste, 2000-2015 (UNDP HDR, 2016).

The above figures and trends reveal a worrying fact: oil-driven development for more than one decade has not been able to improve the

quality of Timor-Leste's human resources significantly. The average annual growth shows that the HDI does not only stagnate, it has also actually been on the decline for the last six years of available data (2010-2015). The same UNDP report further disclosed that 64.3 percent of the country's population was multidimensionally poor while an additional 21.4 percent lived near multidimensional poverty (ibid.). More than half of the country's population lives below the international poverty line (US\$1.35/day), and about 50% of the population is illiterate (HDR 2014, cited by Robie, 2015). Moreover, most households continue to depend on subsistence farming, and the formal economy, both public and private, employs less than a third of the working age population (Robie, 2015, p. 214). Today, Timor-Leste still finds itself among the UN-designated list of Least Developed Countries (UNCTAD, 2016).

Contradictorily, empirical studies have identified positive correlations between natural resources and human development. In 2010, José Pineda and Francisco Rodriguez wrote a research paper for the UNDP, in which they investigated the linkage between natural resource abundance and human development from 1970 to 2005, as proxied by the changes in the HDI. They concluded that there is a positive and significant correlation between the two variables, as the resource abundance affects the HDI positively (Pineda and Rodriguez, 2010, p. 25). Breaking down the findings, they further found a positive correlation between the resource wealth and the GDP growth and even a stronger one between the resources and the non-income components of human development (viz. literacy and life expectancy). However, results from a particular region – Latin America – indicated a significantly smaller impact of natural resources on human development. Pineda and Rodriguez attributed the deviation to “possible existence of institutional

features in the region that interact with natural resources in a detrimental way” (ibid., p. 26).

I argue that these ‘institutional features’ that differentiated Latin America are the quintessential contextual variables, which should have been taken into account to comprehend how the natural resource wealth contextually affects human development. Pineda and Rodriguez assert as much, when they say: “Key challenges in the literature involve disentangling the effect of natural resources from those of other factors which may be correlated with resource abundance but independently affect growth, distinguishing between the direct role that natural resources may play in affecting progress and the way in which it may interact with other determinants, and identifying exogenous sources of variation in resource abundance” (ibid., p. 1). Moreover, an examination of Timor-Leste’s GDP growth for the last period (2010-2015) reveals the same worrying trend as depicted in Table 6 (World Bank).

**Table 6**  
**GDP growth (annual %)**

<b>Year</b>	<b>Value</b>
<b>2010</b>	10.42
<b>2011</b>	8.06
<b>2012</b>	5.79
<b>2013</b>	2.87
<b>2014</b>	5.86
<b>2015</b>	4.30
<b>Average annual</b>	2000-2010 2.57
<b>growth (%)</b>	2010-2015 -1.22

Source: World Bank, with personal amendments

Pineda and Rodriguez's observation, in essence, is acknowledging the importance of identifying contextual variables – as well as their possible interplay – which is pertinent to resource and growth. Only then the researcher is well situated to understand why different contexts lead to different effects of resources (wealth or abundance). I will now turn to the task of identifying the contextual variables of Timor-Leste.

### 3.3. Identification of the contextual variables

Using a matrix developed by GIGA, I identify and select the oil-specific and non-oil-specific contextual variables of Timor-Leste, both in domestic and international scope. The former include conditions which are directly linked to Timor-Leste's oil resource and its external context and the latter include a broad range of variables that can be indirectly linked to oil resources or are independent of them. The variables are listed in Table 7 below (Mähler 2010, with personal amendments).

**Table 7**  
**Matrix of Contextual Variables – Timor-Leste**

Scope	Oil-specific Contextual Variables	Non-oil-specific Contextual Variables
Domestic	<ul style="list-style-type: none"> <li>• Location of oil resources</li> <li>• Degree of abundance</li> <li>• Degree of dependence</li> <li>• Resource-sector management</li> <li>• Economic distortions</li> </ul>	<ul style="list-style-type: none"> <li>• Path toward independence</li> <li>• Demographic factors</li> <li>• Inter-group relations</li> <li>• Dynamics of socio-economic development</li> <li>• Behavioral patterns of the elite</li> </ul>
International	<ul style="list-style-type: none"> <li>• Oil-related geopolitics</li> <li>• External use of resource revenues</li> </ul>	<ul style="list-style-type: none"> <li>• The 2008 global food price crisis</li> <li>• Relations with neighboring countries</li> </ul>

Source: Mähler, 2010, with personal amendments

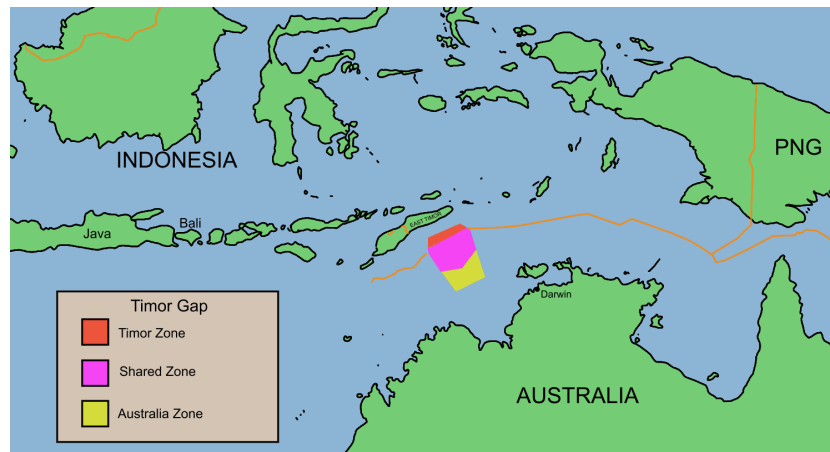
## Chapter 4

### ANALYSIS

#### 4.1. Domestic oil-specific contextual variables

##### 4.1.1. Location of oil resources

Timor-Leste is endowed with both on- and offshore deposits of oil, but onshore sites are not yet developed, and all of Timor-Leste's current petroleum revenue comes from the Timor Gap exploitation in the Timor Sea (Map 2).



**Map 2:** The Timor Gap, Wikipedia, 2017.

As Timor-Leste is not currently engaged in exploration and exploitation activities of the oil reserves, the location variable holds relatively little relevance to the technicality of extraction from the country's point of view. Further analysis will, however, reveal that the



resource location in a disputed territory leads to oil-related geopolitics that influences the effects of the resources.

#### **4.1.2. Degree of abundance**

The Timor Sea is estimated to contain reserves of five billion barrels of oil and 50 trillion feet of liquid natural gas, making it the 23<sup>rd</sup> largest oil field in the world (Ishizuka, 2004, p. 277). Exploration of oil reserves in the Timor Sea started in 1991 when contracts were awarded to a number of oil companies. Phillips Petroleum Company (later became ConocoPhillips) discovered the first oil field – Elang Kakatua – in 1994, and it started generating oil revenues in 1998. Current oil revenues come from exploitation activities at Kitan and Bayu-Undan fields, the latter being the largest petroleum project in the Timor Gap still in operation. The potential wealth of the Bayu-Undan is around 3.4 trillion cubic feet (TCF) of gas, with estimated revenue of the full 17-year lifetime benefit to be between US\$ 2.5 and 3 billion (Mercer, 2004, p. 296).

Other major fields are the Sunrise and Troubador oil fields (together known as the Greater Sunrise fields), which are located approximately 150 kilometers southeast of Timor-Leste and 450 kilometers northwest of Darwin, Australia. Their estimated endowment of 5 trillion cubic feet of gas could be worth as much as US\$ 8.5 billion (Evans, 2016b), making the fields the largest of Timor-Leste's petroleum fields identified to date (Drysdale, 2008, p. 156).

The oil wealth is however not as large as it may initially appear. The Greater Sunrise fields have not been commercially processed yet due to an ongoing legal dispute between Timor-Leste and Australia that creates uncertainty for the oil companies. According to calculations by La'o

Hamutuk (2015a, p. 1), more than 75% of the non-renewable oil reserves of the Bayu-Undan and the smaller Kitan fields have been irreversibly extracted. The NGO further noted that these fields would no longer be profitable to operate in 2020, and the likelihood of finding another field as large as Bayu-Undan or Greater Sunrise is remote (*ibid.*, pp. 2-5). Excluding future possible revenues from the Greater Sunrise, their projections indicate that the so-called Petroleum Fund (hereafter the “PF”) could be entirely empty by 2025, with severe implications for financing of public sectors and activities (*ibid.*, p. 4). As of 2015, the oil fields in the Timor Gap have contributed approximately US\$ 20.7 billion into Timor-Leste through the PF, which is a sovereign wealth fund established in 2005 to manage Timor-Leste’s all petroleum revenue (RDTL PF Annual Report, 2015, p. 7).

#### **4.1.3. Degree of dependence**

Timor-Leste is considered as one of the most oil-dependent countries in the world, and oil rent makes up the bulk of its economy. Its dependence on oil is observable through various telltale indicators. The majority of Timor-Leste’s most recent budget – US\$ 1.3 billion in 2017 – is being financed by the PF. La’o Hamutuk noted that 73% of Timor-Leste revenue in 2014 came from converting oil wealth into cash, and another 20% was from investment returns on oil income received in earlier years (LH, 2015a, p. 1). In terms of expenditure, the PF financed 87.3%, 89.82%, and 88.5% of public expenditure in 2010, 2011, 2013, respectively (RDTL, Ministry of Finance, 2013, as cited by Neves, n.d.). The oil dependence is further observable through the small size of its non-oil economic sectors and the dominance of oil rents in national revenue (Table 8 and Table 9).

**Table 8**  
**GDP in 2013 (US\$ million)**

Total GDP	\$5,596	100%
GDP from petroleum sector	\$4,276	76%
Non-oil GDP	\$1,319	24%
<i>Of which are productive GDP (agriculture and manufacture)</i>	\$265	5%

Source: RDTL GDS 2015, as cited by Scheiner, 2015

**Table 9**  
**Total revenue 2015-2021 (US\$ million)**

	2015	2016	2017	2018	2019	2020	2021
	Actual	Project.	Project.				
<b>Total revenues</b>	1,127.5	1,261.3	1,312.6	1,126	1,106.6	958.7	1,062.6
<b>Oil revenues</b>	957.5	1,063.5	1,106.3	906.7	873.3	710.7	799.3
<b>%</b>	84.92	84.31	84.28	80.52	78.91	74.13	75.22

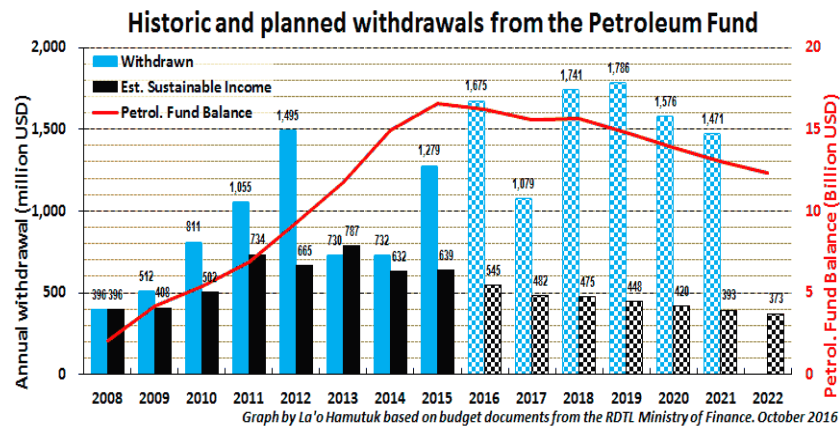
Source: RDTL, Ministry of Finance, 2017

#### 4.1.4. Resource-sector management

The Bayu-Undan and Kitan fields, which started production in 2004 and 2011, respectively, furnish the oil revenue for Timor-Leste. The managing oil companies typically split the revenue into four different sections: (1) those allocated to cover operating costs and as corporate profit, (2) those disbursed as taxes to the Timor-Leste's PF, (3) those disbursed as taxes to the Australian government, and (4) those disbursed as royalties. The royalties are further divided between Timor-Leste and

Australia, the former going directly into the PF, which is an account of the Timor-Leste's Ministry of Finance in the country's Central Bank. Overall management of the PF falls within the responsibility of the Ministry of Finance (in other words, the government of Timor-Leste), which has the authority to set investment policies, strategies, and guidelines as well as to exercise oversight of the fund.

Transfers to state budgets and investments constitute the outflow of the PF. Forty percent of the PF is invested in the global market, mostly in US government bonds, and the returns are re-deposited into the PF (Scheiner, 2015, p. 5). The objective is to achieve a 3% real return that offsets inflation and government withdrawals, and in effect preserves the sustainability of the Fund (RD'TL PF Annual Report, 2015, p. 8). As a guideline for how much money Timor-Leste should spend from the PF each year, a number (the Estimated Sustainable Income/ESI) is calculated and set. The Petroleum Fund Law of 2005 defines ESI as "the maximum amount that can be appropriated from the PF in that Fiscal Year and leave sufficient resources in the PF for an amount of the equal real value to be appropriated in all later Fiscal Years". At the end of 2015, the balance of the PF was US\$ 16.218 billion, which was a decrease from the previous year's balance of US\$ 16.539 billion (*ibid.*, p. 6). In a submission to Timor-Leste's parliament, La'o Hamutuk warned that the government's plan to withdraw almost four times ESI every year between 2018 and 2021 would leave the PF balance with only US\$ 13 billion in 2021 (LH, 2016a, p. 5) (See Figure 4). Juxtaposing the oil revenue, the ESI, actual withdrawals, and Timor-Leste's population, La'o Hamutuk calculates that oil dollars available for development will fall rapidly, and it can only be remedied by vigorously developing non-oil sectors (*ibid.*, p. 7).



**Figure 4:** Historic and planned withdrawals from the Petroleum Fund (La'o Hamutuk, 2017, p. 5).

#### 4.1.5. Economic distortions

Timor-Leste's oil dependence manifests itself in a Dutch Disease symptom: indirect-deindustrialization (Cordon and Neary, 1982). As previously elaborated, it happens when a resource boom triggers a spending effect in an economy where the energy sector employs relatively few resources that can be drawn from elsewhere in the economy, such as in the case of Timor-Leste. The resource income drives service spending upwards and inflates the real exchange rate, leading to rising prices. Timor-Leste's use of US dollars currency mitigates some of these effects but is unable to stop the resource shift into the service sector, which comes at the expense of lagging sectors such as agriculture and manufacturing. Consequently, these already small sectors are shrinking further (they shrank by 13% from 2007 to 2013) (RDTL GDS 2015, as cited by Scheiner, 2015, p. 2).

In most cases, spending would help an economy to grow. In Timor-Leste, however, the absence of local products compels the buying

population to turn to imports. As a result, the country has been running a negative balance of trade. In 2013, the deficit was -US\$ 497 million for non-oil goods and -US\$ 1,458 million for services. To further aggravate things, export of goods consisted of mostly coffee (easily affected by the weather and the global market) and export of services was mainly ‘travel’ – tickets on foreign airlines sold in Timor-Leste (Scheiner, 2015, p. 3).

## **4.2. International oil-specific contextual variables**

### **4.2.1. Oil-related geopolitics**

Out of the three agreements governing the exploitation and development of oil in the Timor Gap and the JPDA – the TST, the Sunrise International Unitization Agreement, and the CMATS – none settles the question of maritime boundary between Timor-Leste and Australia. Quite the contrary, the CMATS established a moratorium on a permanent maritime boundary and on proceedings relating to maritime boundaries for 50 years or five years after exploitation of the Greater Sunrise field ceases, whichever occurs earlier (CMATS, Article 4: Moratorium). The question of the maritime border, therefore, has long been a contentious issue between the two countries. On 11 April 2016, pursuant to Article 298 and Annex V of the United Nations Convention on the Law of the Sea (UNCLOS), Timor-Leste initiated compulsory conciliation proceedings at the Permanent Court of Arbitration (PCA) against Australia, concerning “the interpretation and application of Articles 74 and 83 of UNCLOS for the delimitation of the exclusive economic zone and the continental shelf between Timor-Leste and Australia including the establishment of the permanent maritime

boundaries between the two States”.<sup>11</sup> In September 2016, the Conciliation Commission established under the PCA issued its Decision on Competence, by which it decided that it has the competence to rule on the matter. Following the Decision, the governments of Timor-Leste and Australia made a joint statement on 9 January 2017 that confirmed the cessation of the CMATS and their commitment to negotiate permanent maritime boundaries (PCA, 2017a). The CMATS consequently ceased to be in force on 10 April 2017, three months after formal notification of cessation initiated by Timor-Leste.

The willingness of Australia to meet Timor-Leste’s longtime demand for a maritime boundaries negotiation marks a significant reversal of its previous position. In March 2002, two months before the UN transferred authority to the Timor-Leste government, Australia withdrew from the maritime boundary dispute resolution processes of UNCLOS and the International Court of Justice, citing its preference of direct negotiations over litigation or arbitration (LH, 2005). The unilateral withdrawal has left Timor-Leste with no legally binding mechanisms to settle its border dispute with Australia (Hood, 2005, p. 240). A decisive factor in Australia’s recent turnaround is likely to be the Commission’s Decision on Competence. By ruling that it has the competence and it is not precluded to rule on the conciliation, the Commission has given a preliminary procedural victory to Timor-Leste. No one can envisage the final ruling, but it is probable that Australia wants to avoid ending up like China in another high-profile arbitration case under the UNCLOS initiated by the Philippines regarding the South China Sea. In that particular case, both the decisions on jurisdiction/admissibility as well as

---

<sup>11</sup> Notification Instituting Conciliation under Section 2 of Annex V of UNCLOS, para. 5, as cited in the Decision on Competence, para. 2.

the final ruling were in favor of the claimant (the Philippines) and significantly weakened China's legal argument in the South China Sea.<sup>12</sup>

From the perspective of Timor-Leste, it remains to be seen whether the probable establishment of permanent maritime boundaries would lead to immediate benefits. The country's high-ranked officials seem to believe so, as they have been making statements that reveal the magnitude – as well as the desperation – the country attaches to its maritime boundaries settlement. During the conciliation proceedings in The Hague, Minister Hermenegildo Pereira of Timor-Leste linked the issue to the question of development by stating that “Today we face an enormous challenge to provide our young people with the education, healthcare and jobs they deserve. Our desire to bring stability and certainty to our maritime areas is very much a matter of practical necessity for the sustainable development of our young nation” (PCA, 2016, p. 51). In an interview with *Forbes*, Timor-Leste's government spokesperson stated that the country “is striving for the delimitation of maritime boundaries [...and that] every decision is attached to the process” (Evans, 2016a). Future permanent maritime boundaries putting the Greater Sunrise inside Timor-Leste's territory is hoped to give the country more benefits and control, by processing the resources at yet-to-be-built facilities at home.

At least two arguments are suggesting that it may not necessarily be the case, at least in the short term. First, on account of another joint statement by the governments of Timor-Leste and Australia on 24 January 2017, the TST and its supporting regulatory framework will remain in force in its original form until a final delimitation of maritime boundaries has come into effect (PCA, 2017b). When read together, the

---

<sup>12</sup> See “The South China Sea Arbitration (The Republic of Philippines v. The People's Republic of China)” at the Permanent Court of Arbitration, The Hague.



TST and the Sunrise International Unitization Agreement prescribe 20.1% of the Greater Sunrise as lying within the JPDA and 79.9% within Australia's territory. Taking into account the 90:10 revenue sharing ratio prevailing in the JPDA, Timor-Leste will end up with only 18.1% of the future revenue from the Greater Sunrise. As the oil companies currently halt their operations in the fields due to legal uncertainty anyway, these numbers run the risk of ending up as hypothetical figures without real significance while the boundary negotiation continues.

Second, negotiations on maritime boundaries will likely be settled under international law by the principle of equidistance, a legal concept stipulating that a nation's maritime boundaries should not exceed a median line equidistant from the shores of neighboring nation-states.<sup>13</sup> An analysis by Stephen Grenville (2016) from the Lowy Institute for International Policy indicates that any shifting of the equidistance line in the Timor Sea will have to involve another littoral state: Indonesia. Establishing a median line that still respects the 1972 Indonesia-Australia seabed boundary will give Timor-Leste 100% of the JPDA but relatively unchanged portion of the Greater Sunrise (see Map 2). If Timor-Leste desires for more of these fields, the proposed equidistance line might encroach on Indonesia's territory (Hendrapati, 2015, p. 85) and open up the possibility of another protracted negotiation on new maritime boundaries between the three countries. In line with Grenville's argument, the website [www.hydrographer.org](http://www.hydrographer.org) formulates a flowchart of possible outcomes from the current conciliation process indicating Indonesia's crucial role in any shift of maritime boundaries between Timor-Leste and Australia (Figure 5).

---

<sup>13</sup> Article 15 ("Delimitation of the territorial sea between States with opposite or adjacent coasts") of the UNCLOS.

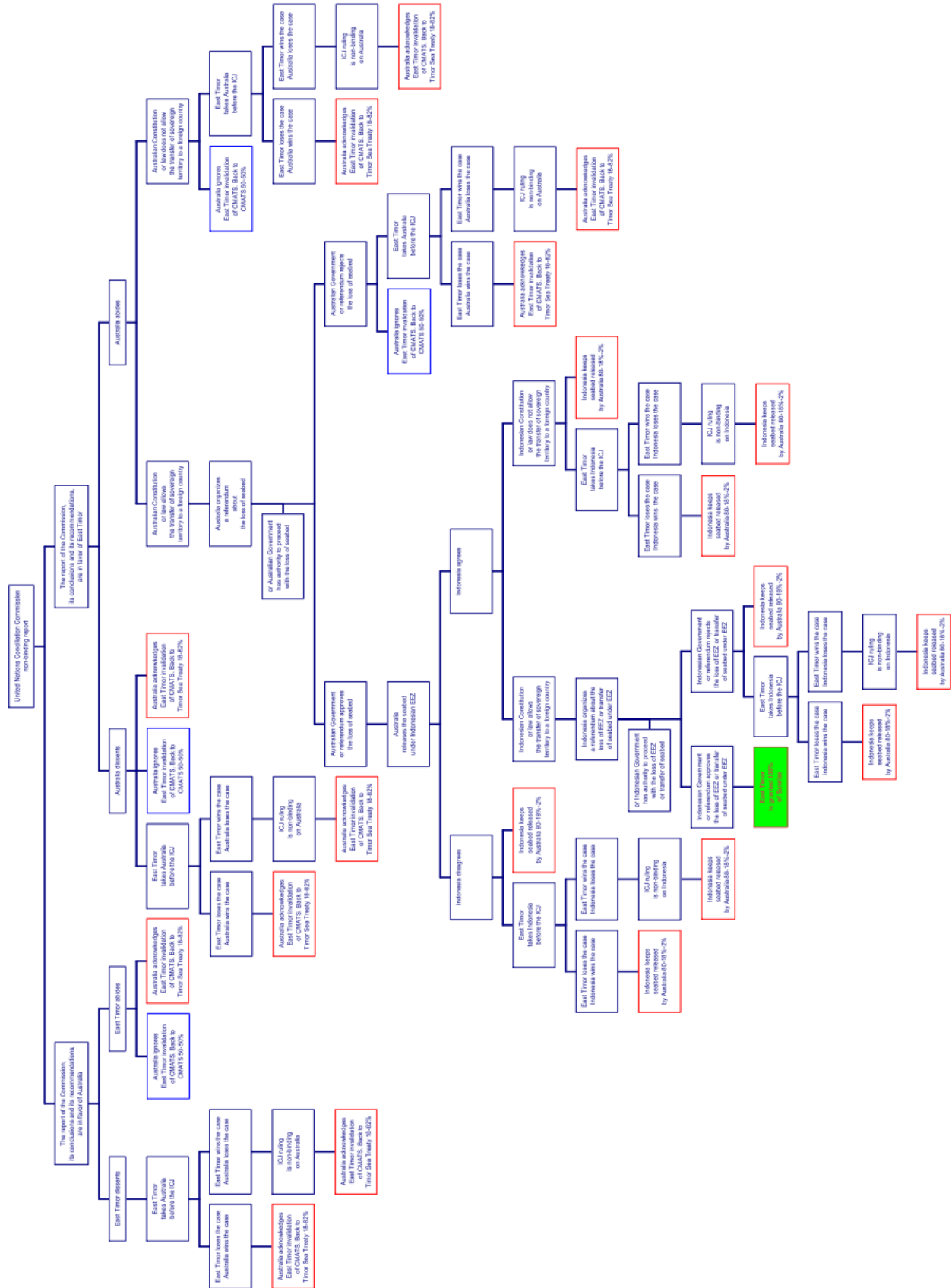
#### 4.2.2. External use of resource revenues

The government of Timor-Leste has been spending their oil-generated money both to support their claim over the Greater Sunrise fields and to anticipate the scenario that they will control future exploitation and management of the resources. A Forbes article reported that the government awarded a US\$ 625,000 contract to an Australian-registered company, Baystreet Partnership, for a public relations campaign relating to the maritime boundary (Evans, 2016b). The same article claimed that Timor-Leste budgeted an amount of US\$ 14 million (including US\$ 5 million for overseas travel) for legal services in 2016, while US\$ 12.3 million (including US\$ 3.7 million for overseas travel) has been earmarked for 2017 (ibid.). As early as 2011, La'o Hamutuk (2015b) expressed concern over US\$ 12.4 million of fund that was being spent on research and studies related to the possible establishment of an onshore petroleum plant in Timor-Leste.<sup>14</sup> The project was accused of being pointless, as the companies operating the Greater Sunrise field at the time (Woodside Australia, ConocoPhillips USA, Royal Dutch Shell UK/Netherlands, and Osaka Gas Japan) preferred the more commercially viable options of expanding existing facilities in Darwin or building an innovative mid-sea floating gas plant.

---

<sup>14</sup> This included a Timor-Leste's government-commissioned study by the consulting firm, Poten & Partners, to do a comparative benefit study between floating gas plant v. onshore facilities in Timor-Leste. The study concluded that the socio-economic benefits of the latter for Timor-Leste are minimal.

**Figure 5:** A flowchart of possible outcomes (Hydrographer, 2016)



The establishment of an onshore oil processing plant and its supporting infrastructures has been the focus of Timor-Leste's development plan since 2011, irrespective of different developmental approaches taken by successive governments.<sup>15</sup> As Figure 6 shows, the so-called Tasi Mane corridor will be built along the southwest coast of the country to “bring petroleum development to (...) shores and provide a direct economic dividend from petroleum industry activities” (RDTL, 2011, p. 138). The ambitious, multi-year project will entail the creation of three clusters: a supply base in Suai, a refinery in Betano, and a plant in Beaco. The government plans to build airports to support each of the clusters and a 152-km highway to connect Suai to Beaco. A proposed pipeline will enable transportation of oil from the offshore fields to the onshore facilities.

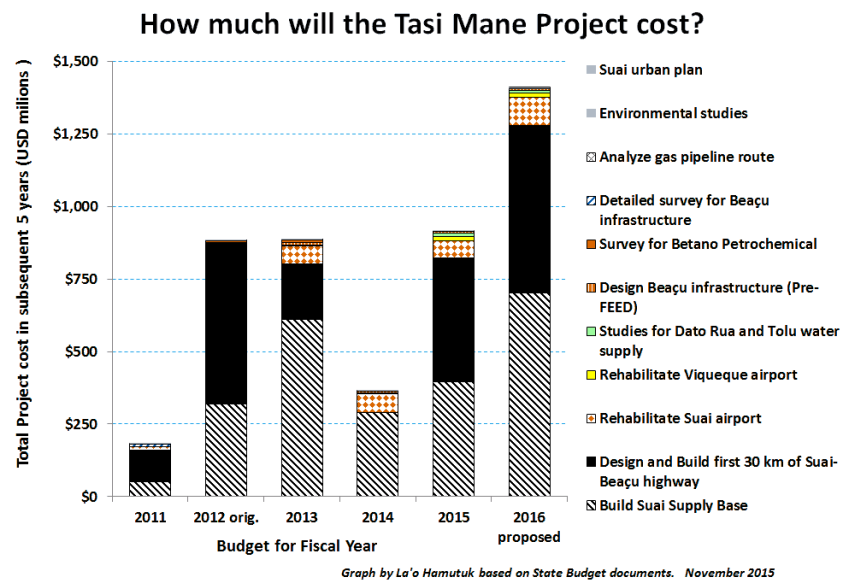


**Figure 6:** Tasi Mane project (RDTL, 2011, p. 138).

Figure 7 (LH, 2016b) estimates the cost of the Tasi Mane based on the state budget allocations for the project. In 2016 state budget, a total amount of US\$ 1.4 billion was allocated for Tasi Mane for 2016-2020,

<sup>15</sup> See Section 4.3.4 on “Dynamics of socio-economic development”.

US\$ 97 million of which to be spent in that particular year. The total figure marked an increase of 150% of the 2013 figure.



**Figure 7:** Cost of Tasi Mane (Lao Hamutuk, 2016b).

All these figures and the feasibility of Tasi Mane as the cornerstone of Timor-Leste's development are contingent on the commercialization of the Greater Sunrise, which in turn is contingent on favorable arrangements between Timor-Leste, the multinational oil companies, Australia, and possibly Indonesia. The funds allocated to the project have already dwarfed the monies for other development sectors. For example, as La'o Hamutuk noted, the US\$ 781 million allocated in the 2014 state budget to the airport and supply base is more than five times the amount allocated for agriculture, education, or water and sanitation (Scambary, 2015, p. 302).

Money spent on the maritime boundary campaign and the Tasi Mane project constitute an external use of the resource revenue, as nearly all of

these funds have been going to non-Timorese. Most contracts – including legal services – have been awarded to foreign entities, companies or their local brokers, and the construction activities have mostly employed skilled foreign workers as the locals took on menial jobs such as driving trucks or working as manual laborers (Evans, 2016b; LH, 2016b; Cryan, 2015, p. 11).

### **4.3. Domestic non-oil-specific contextual variables**

#### **4.3.1. Path toward independence**

A conventional approach views Timor-Leste's modern history in two broad sections: the Indonesian occupation (1975–1999) and everything else that comes after (Kammen, 2016, p. 20). For the purpose of my analysis, I assume a somewhat more holistic – albeit not less simplistic – view by arranging its contemporary history into three phases: Portuguese colonialism, Indonesia's occupation, and the UN-administered transitional administration. It is the combination of all three phases that produces a unique path toward independence and sovereignty that is different to other countries in the region.

The Portuguese, who arrived in 1515 and established a small military settlement in the region, marked the beginning of a colonial involvement. By the end of the 19<sup>th</sup> century, the Portuguese have impacted the colony to the extent that they “disrupted all those components of the indigenous political, social and economic structures that were seen as a barrier to a systematic exploitation” (Taylor 1999, as cited in Neupert and Lopes, 2006, p. 5). The Portuguese, however, yielded some degree of authority by using traditional power holders as proxies. Portuguese control was briefly interrupted when the Japanese

occupied Dili during World War II but was quickly resumed with the defeat of Japan in the War, and Portugal began limited investments in the region. By the end of the colonial period, only 5% of the population was literate (UNDP, 2002, as cited in Neupert and Lopes, 2006, p. 5).

The Carnation Revolution that took place in Lisbon in April 1974 presented an immediate opportunity for the decolonization of Portuguese Timor. The local elites hastily organized themselves into three major political parties: the initially pro-Portuguese Democratic Union of Timorese (*União Democrática Timorense*/UDT), radical nationalist Timorese Social Democratic Association (*Associação Social Democrática Timor*/ASDT), which later changed its name into the Revolutionary Front for an Independent East Timor (*Frente Revolucionária do Timor-Leste Independente*/Fretilin), and the smaller pro-integration with Indonesia, Timorese Popular Democratic Association (*Associação Popular Democrática Timorense*/APODETI). Choices over these political vehicles were determined by “long-standing local rivalries, connections to prominent national figures, and the new ideas about rights and self-determination” (Kammen, 2016, p. 121). Unfamiliar with the concept of statehood, the elites soon got embroiled in violent conflicts in which Fretilin prevailed and became the de facto government of the territory. The Portuguese colonial order was thus shattered (ibid., pp. 125-128).

Under the pretext that Fretilin was a communist party, Indonesia with the support of the United States launched an invasion of Timor-Leste in December 1975, and the region was subsumed as the Indonesian Province of East Timor (*Provinsi Timor Timur*). The subsequent period of 1975 to 1999 was pronounced by Jakarta’s attempt to consolidate its rule in Timor and armed resistance movement waged by Falintil, the armed wing of Fretilin. The Commission for Reception,

Truth and Reconciliation in East Timor / CAVR<sup>16</sup> estimated that a minimum number of conflict-related 102,800 deaths occurred in 1974-1999 (CAVR, 2005, p. 44). In 1999, the Timorese voted for independence from Indonesia and the following violence displaced hundreds of thousands of people.

As an intervention, the United Nations dispatched an Australia-led peacekeeping mission, the International Force for East Timor (INTERFET), to restore law and order. Under its resolution 1272 on 25 October 1999, the UN Security Council later established UNTAET and sanctioned the latter to exercise all legislative and executive authority in the country. During 1999-2002, the UNTAET was the de facto authority that provided the interim civil administration and the peacekeeping mission in East Timor.

Upon Timor-Leste's independence in 2002, major news outlets were quick to paint the country as a success story of a UN intervention. BBC called it "(...) a relative success story. An impoverished, war-torn country has, in 13 years, become a fairly stable small state with promising economic growth prospects" (BBC News, 2002). The Australian ran a headline of "East Timor hailed a UN success" (The Australian, 2002). On the eve of Timor-Leste's independence day, then UN Secretary-General Kofi Annan declared that the partnership between the people of East Timor and the UN had laid the "foundations for a prosperous and democratic future" (UN News Service Section, 2002b).

In essence, the brief period of UN intervention prior to 2002 can be seen as an Australia-led, UN-sanctioned liberal democratic post-conflict

---

<sup>16</sup> The CAVR was an independent truth commission established in East Timor in 2001 under the UNTAET, which was charged to investigate human rights violations in 1974-1999.



state-building program, where the onus of achieving security and development was put on the state-in-waiting of Timor-Leste. During the UNTAET administration, many modern state institutions, including the National Parliament, the Council of Ministers, local government structures, the police service and the defense force, were established. Brown (2009, p. 149) surmises that the country was consequently approached as a state without a political community that needed to be built 'from scratch' – a case of "tabula rasa". This top-down approach created a mismatch between the internationally accepted narratives (such as democracy, human rights or anti-colonialism) with the local community governance system, despite the importance of the latter to shape social order and to bridge the local community and government (ibid., p. 151).

The unique multi-phase path toward independence leaves a distinctive legacy in Timor-Leste. First, the recurrence of mass violence throughout its contemporary history is such that it has been seen as a leitmotif of the country's history (Kammen, 2016, p. 4). Attributing all Timor-Leste's problems to violence would be a reductionist view, but as later sections explain, the legacy of mass violence continues to manifest itself in ways detrimental to the country's development.

Second, the arduous struggle for independence leaves a particular sense of sovereignty to the Timorese, which influences the country's worldview and policies. Right after its independence and in response to the signing of the TST, nine East Timorese community groups issued a statement in 2003 that: "Timor Leste's independence process is not complete until Australia and Timor-Leste's agree on boundaries in the Timor Sea ...[we urge Australia] to negotiate maritime boundaries ... [and] revenues should be held in trust until a [sic] interim boundary is

agreed to” (Anderson, 2003, p. 124). The framing of maritime boundaries within the narratives of independence, nationalism and sovereignty continues until today. The formal website of the Timor-Leste’s Maritime Boundary Office states: “After centuries of colonial rule and a quarter-century of occupation, Timor-Leste is now a proudly independent nation. But the struggle for sovereignty continues. Since the restoration of independence in 2002, Timor-Leste’s maritime boundaries with its neighbors have remained undefined” (RD’TL Maritime Boundary Office, 2017). And the linkage between nationalism and oil is unveiled as those opposed to the Tasi Mane project are being branded as ‘anti-nationalist, aligned with outside interests and of undermining the state for political or economic gain’ (Cryan, 2015, p. 5).

#### **4.3.2. Demographic factors**

Neupert and Lopes (2006, p. 10) identified a number of socio-demographic stress factors in Timor-Leste, two thereof are relevant to this discussion: a) a high ratio of teenagers and young adults (“the youth bulge”) and few employment opportunities, and b) rapid urbanization in Dili fueled by natural population growth and high in-migration rates, and its socio-economic repercussions.

The first factor is the youth bulge represented by the fact that more than 60% of Timor-Leste’s population is under the age of twenty-five. The bulge could represent either a demographic bonus to economic growth or a demographic tax to social and political stability (ibid., p. 11). In Timor-Leste, the latter seems to be the case as oil-driven development is unable to create employment to the young people (ibid., p. 20). Ishizuka (2004, p. 281) estimates that the petroleum development projects in the Timor Sea benefit foreigners (Australians) more than the

East Timorese. The number of employment created in Australia by the oil projects in the Timor Sea (including the now-defunct Greater Sunrise fields) and the processing facility in the Australian Northern Territory is estimated to be more than 20,000 jobs. By comparison, at most fewer than 100 jobs are created for East Timorese. Aggregate data indicate that only 0.1% of Timorese work at the petroleum sector, and according to the International Monetary Fund: “The oil and gas sector is the mainstay of the economy [...] However [...] the sector directly accounts for virtually no on-shore employment. Its economic impact is entirely via government spending” (IMF 2013, as cited by Scheiner, 2015, p. 4).

The strong patriarchy in the East Timorese society exacerbates the sense of exclusion felt by the young people. In general, due to the predominance of senior men, young people carry little authority or status and are relatively excluded from ‘state’ political processes (Brown, 2009, p. 155). Due to Timor-Leste’s very high fertility and population growth rate – 7.0 children per woman and 3.2 percent, respectively, count as one of the highest in the world – the bulging youth population will continue to be a major challenge in the country’s development.

The second factor is the rapid urbanization in Dili described as an overurbanization, a situation in which a city harbors more residents than its economy and infrastructures are able to sustain (Doan and Kasarda, 1988, as cited in Neupert and Lopes, 2006, p. 12). It leads to realities such as urban marginality, informal housing (slums/squatter settlements), informal employment, collapse of urban services, and problems with sustainable urban environments in the capital (ibid.).

#### 4.3.3. Inter-group relations

There is a perception of identity divide between the East (Lorosae) and the West (Loromonu) in Timor-Leste. An estimate puts a figure of 30-40% of the population for the East, and 50-70% for the West (IDMC, 2008, p. 29). As each part comprises a mix of ethnicities, languages, and cultural identities, the division is rather geographic and somewhat political than ethnical. The divide has often been blamed as a driving factor behind some of the recent conflicts in the country. A case in point, a crisis occurred in 2006 as a faction of Timor-Leste's military deserted and rebelled against the government. The ensuing violence displaced around 100,000 people. The crisis was said to have its origin in a dispute within the military when soldiers from the western part of the country claimed discrimination in favor of soldiers from the eastern part. In his initial address to the nation, President Xanana Gusmão gave credence to this claim by making a reference to the "east-west divide" (OHCHR, 2006, p. 22). A later inquiry by the UN maintained that such a divide is likely a simplification and should be examined within the context of "poorly defined national identity" (ibid., pp. 20-21).

Harrington (2007, as cited in IDMC, 2008, p. 29), however, alleges that the international community was oblivious to pre-existing internal disputes, as violence along east-west lines has been noted as early as the 1940s. In the same vein, Engel (2006, p. 9) argues that the division indeed has historical roots in economic rivalries between the east and the west, as well as the resistance movement against Indonesia that was mainly fought in the east. The demographic analysis by Neupert and Lopes (2006) acknowledges the east-west rivalry, although they conclude that there is no substantial difference in the relevant socio-economic characteristics between the eastern and western parts of Timor-Leste.

Etymologically, there are stereotypical words such as *firaku* to describe easterners and *kaladi* to westerners, which are considered to come from the Portuguese language (IDMC, 2008, p. 29). Whatever the origin, perception of shared beliefs and shared common ‘enemy’ is likely to persist, and east-west group identifications have become ingrained in Timorese culture, particularly in Dili where the groups come to close contact with each other (ibid., p. 30). Consequently, there is always a risk that politicization of the identities leads to open communal conflicts detrimental to the country’s development.

#### **4.3.4. Dynamics of the socio-economic development**

Timor-Leste’s path of economic development can be summarized as a challenge to make use of its oil revenues to expand non-oil economic sectors, in order to produce economic development and poverty alleviation (Rasiah et al., 2014, p. 119). Upon independence, the subsistence agriculture and the fishing sector were the dominant sectors of Timor-Leste’s economic structure. In 2004, 70.9 percent of the labor force was engaged in subsistence activities and only 10.9 percent in formal or modern sectors (government, industry, construction, commerce, services) (Neupert and Lopes, 2006, p. 14). The high absorption by the subsistence sector notwithstanding, it is not being perceived as a safety net, and most of the labor force is, therefore, eager to leave and move into the formal/modern sectors, which so far has been unable to absorb the shifting labor force.

Timor-Leste’s development approach is another factor of importance. A ‘human-centered’ development approach typically puts emphasis on sectors that directly improve human capabilities such as education and health. This type of approach has been successfully

pursued by several resource-poor countries, such as Japan or Singapore, to such an extent that they today boast very high levels of HDI. In the case of Timor-Leste, the human-centered development approach has relatively taken a backseat from the time of Indonesia's rule until the post-independence era today. During its rule, the central government in Jakarta put emphasis on infrastructure as they extensively built roads, schools and other infrastructures and attempted to develop non-agricultural economic sectors.<sup>17</sup> Most of the infrastructures, however, were destroyed in the violence following the 1999 referendum when the majority of the population opted for independence from Indonesia. The re-establishment of national institutions was then the focus of the UN administration in 1999-2002, although Brunnstrom (2003) criticized the arrival of numerous UN agencies, international organizations, donor agencies, and NGOs during this particular period as an 'invasion'.

Upon independence, the newly established government of Timor-Leste espoused a mixed development approach by formulating the National Development Plan 2002, a 'hybrid' document that combined necessary emphasis on state institutional building, a strong focus on creating enabling environment for private economic activity, and some human development emphases by way of participation, education, women and rural development (Anderson, 2010, pp. 28-30). The subsequent Fretilin-dominated government was more partial towards human development with key heterodox policies in agriculture, finance, education and health. However, the political crisis in 2006<sup>18</sup> ushered in pressure by the IMF for the government to take stronger measures to support private sector-led growth, which included private investment in agriculture, fisheries and tourism (Anderson, 2010, p. 33). The AMP

---

<sup>17</sup> The focus on infrastructure could also be seen as an attempt by Jakarta to support the military deployment and movement in the province.

<sup>18</sup> See Section 4.3.3 on 'Inter-group relations'.

(Parliamentary Majority Alliance) coalition government, which was in power in 2007-2010, pursued a more liberal economy approach, made possible by the increasing revenue from the PF. Ballooning state budgets and the PF withdrawal above the ESI were the features of this period, as the government sought money to finance infrastructures needed for foreign investors. The development approach in this period was thus market economy, with a strong commitment to infrastructure. Big projects were planned and sub-contracted, and rent-seeking behavior in a competition to secure contracts was triggered (elaborated in later section). The education and health sector consequently suffered, with money allocated and the relative spending fell steadily from 2005 to 2010 (ibid., p. 35). The government later published the Strategic Development Plan 2011-2030, which utilizes strong language on human development language but still regards private investment as the key element in the petroleum sector, telecommunications and agriculture (ibid., p. 36). In the latest state budget – for the year 2017 – education spending continues its decline since 2014, although the health sector receives a little more compared to 2016 (LH, 2017).

Development approaches that neglect human capital, intentionally or not, are also reflected in the way the government sets about its Tasi Mane project. Meabh Cryan (2015) studied the socio-economic impacts of the government's land expropriation needed for the Suai cluster of the Tasi Mane. In the Timor-Leste society, land possession is not only an essential for livelihood,<sup>19</sup> but also a necessary token for sense of self. In pursuing an infrastructure-focused development approach in dealing with the landowners or settlers, the government carried out resettlement or compensation programs without adequate transparency, inclusion or impact assessment. Poorly planned and executed resettlement programs

---

<sup>19</sup> The majority of the population still depends on subsistence farming.

compromised access to fresh water, health services, schools, common property and means of living. Deficiently communicated compensation with confusingly different schemes may lead to inequality and even conflicts. In this scenario, it was relatively easy to quantify tangible impacts such as unemployment and landlessness, but the real hazard were the long-term consequences of lost social capital through social disarticulation (Cryan, 2015, p. 11). In sum, the land acquisitions risk triggering inequality, marginalization, social disarticulation and impoverishment among the local community (ibid., p. 12). In the long term, all the indicators of human development (quality life, knowledge, and decent standard of living) are being compromised.

#### **4.3.5. Behavioral patterns of the elite**

During the last decades of the Portuguese rule, the landowning mestizo families dominated the political scene of the territory. The decolonization process presented an opportunity for statehood, but the long-feuding elite families not familiar with the concept continued their (often violent) competition through the establishment of major political parties. After sovereignty had been restored to Timor-Leste in 2002, an elite class consisting primarily of former freedom fighters and resistance leaders was firmly established.

Up till present days, these guerilla and clandestine leaders continue to wield enormous authority and enjoy high respect in the society, to the point of being accorded with honorary sacred status (Scambary, 2015, p. 289). Xanana Gusmão, the founding father and first president of the country, was a leader of resistance during the Indonesian rule. In 2012, Taur Matan Ruak, former commander of the resistance movement and chief of the armed forces, won the election and became the president of



Timor-Leste. Five years later, yet another former guerrilla leader, Francisco Guterres, won the presidential election in 2017.

As the dominant part of the elite class, the veterans are complicit in rent-seeking behavior in oil revenue-funded government projects or contracts. The government awarded the veterans with large contracts through single-source procurement processes that were in contravention of the law (Scambary, 2015, p. 295). An important observation in this regard concerns Indonesia's legacy of *proyek* (project), which is "the disbursement of state funds through questionable development projects, allocated as illicit income to figures with the right political connections" (ibid., p. 287). Scambary notes that the influx of oil rents is the factor that enables the *proyek* culture to become more pervasive in Timor-Leste, and hence underpins the whole network of patrons and clients. He also notes that the combination of Timor-Leste's dependence on oil revenues and the powerful lobby of the veterans fulfills yet another trait of a clientelist state, that is the lack of a developed home-grown private sector and the presence of entrenched pressure groups (ibid., p. 288).

As the sole recipient, the Timor-Leste's government decides the management of the oil revenue. A political economy analysis of the resource-sector management reveals a nexus of patronage and clientelism.<sup>20</sup> The windfall from the oil revenue enables the government to appease and co-opt important constituents that keep the former in power. In the context of Timor-Leste, with its long history of conflict and violent resistance movement, the veterans or former leaders of various armed guerilla groups embody these influential elites (Barma, 2014, p. 265).

---

<sup>20</sup> Scambary's (2015) briefly explained the fine difference between the two terms.

In the eve of 2012 election, the Timor-Leste's government announced a plan to pay the pension of veterans in the form of cash transfers of US\$ 85 million (ibid.). That year, the government spent a total amount of US\$ 234 million or 13 percent of the 2012 budget on cash transfers to groups such as veterans, senior citizens and vulnerable households, where, by comparison, a much smaller amount of US\$ 153 million was spent on health and education (ibid.). The World Bank later concluded that such a disproportionate budget outlay ratio (veterans, who make up only 1% of the population, consumed around 60% of the total social assistance budget) had “no discernable [sic] impact” on Timor-Leste's poverty rate (Scambary, 2015, p. 295).

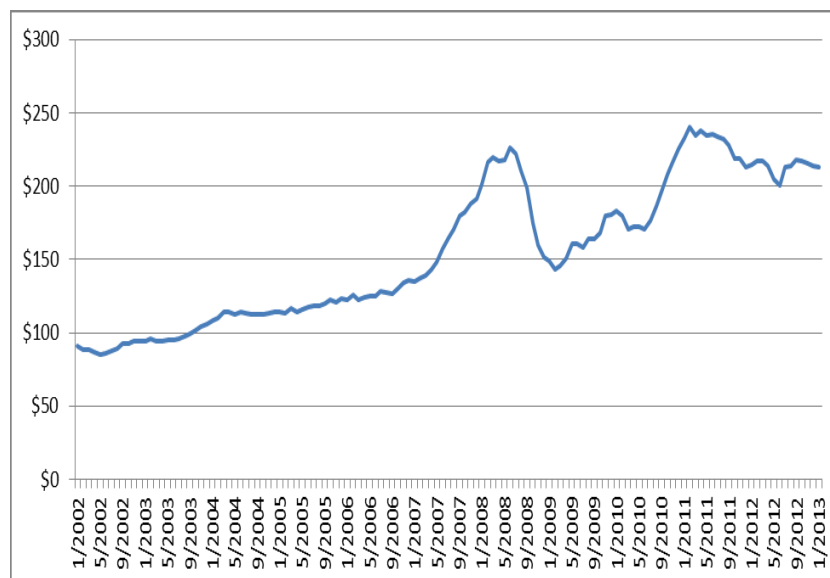
#### **4.4. International non-oil-specific contextual variables**

##### **4.4.1. The 2008 global food price crisis**

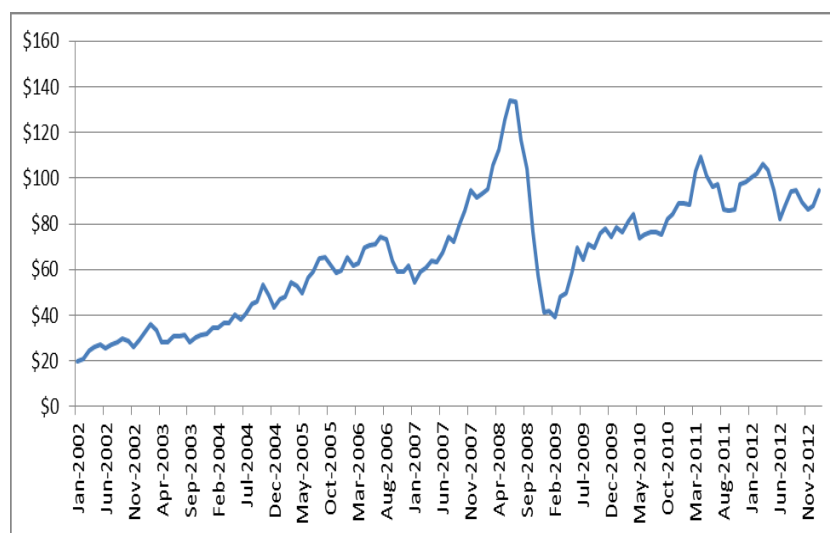
The global food price crisis in 2008 was triggered by a dramatic increase of food prices on international markets between 2006 and 2008, particularly those of rice, wheat and maize. According to figures from the Food and Agriculture Organization (FAO) of the United Nations, the international price surge significantly affected domestic prices although a number of countries were spared from this transmission. On average across countries, domestic prices of rice, wheat and maize were each about 40 percent higher in July 2008 (after inflation adjustment) than they were in January 2007 (FAO, 2011, p. 21). Using annual averages, inflation-adjusted domestic prices in 2008 were on average 28, 26 and 26 percent higher for rice, wheat and maize, respectively, than in 2007 (ibid.).

The social impacts of the high food price crisis were severely felt in many developing and low-income countries in Africa, Asia, the Middle East, Latin America, and the Caribbean. According to a report from the United Nations, the impacts included massive public protests, hunger and malnutrition, reduction of the standard of living, increase of the poverty rate, and particularly scaling down of household spending on healthcare and children's education (UN, 2011, pp. 62-66). Even in developed countries, there were spikes in chronic mild undernutrition among the poor and other social groups, as data from the United States, for example, showed that the number of people living in food-insecure households jumped from 36.2 million in 2007 to 49.1 million in 2008 (ibid., p. 66).

The rising food prices were correlated with oil prices, as shown by comparison of Figure 8 and Figure 9 below. In June 2008, both the food and crude oil price peaked at US\$ 226/barrel and US\$ 134/barrel, respectively, with the latter especially drove cost escalations in the agriculture sector, such as those for fertilizers and food transportation. The role of oil prices as a primary driver – along with a host of other factors – for rising food prices was also documented in a research published by the International Food Policy Research Institute (IFPRI) (Headey and Fan, 2010).



**Figure 8:** Food price per barrel (personal work, using data from FAO, 2017).



**Figure 9:** Cushing, OK WTI Spot Price FOB per barrel (personal work, using data from EIA, 2017)

In Timor-Leste, the oil price surge initially benefited the country as the government revenue from crude oil exports rose to more than triple the value of GDP in 2007 (ADB, 2008, p. 13). However, the concurrent food price crisis negatively affected Timor-Leste, an importer of staples that had already been experiencing perennial food insecurity and shortage. In March 2008, the Consumer Price Index (CPI) was almost 20% higher than the previous two years with a negative impact on poverty in urban areas with high unemployment (IDMC, 2008, p. 39). The usual scenario that high food prices should have benefited agricultural producers was also canceled out by the prevalence of subsistence-based farming (ibid.). In the face of the food crisis, the government in 2008 set aside US\$ 240 million to create an 'Economic Stabilization Fund' (ESF) to subsidize food imports (LH, 2008a). The money for this newly established fund came from withdrawal of the Petroleum Fund that was in excess of the ESI (UNDP, 2011, p. 53). The ESF was however eventually ruled to be unconstitutional and illegal in November 2008 by a court in Timor-Leste, as it violated both the Constitution and the Petroleum Fund Law (LH, 2008b). It is a classic example of how oil windfalls might lead to shortsighted and stopgap policies, which arguably would not have been effective in any case to make a real impact on Timor-Leste's food insecurity, one of the country's perennial developmental challenges. In the wake of the food crisis, the UNDP anthropometric data in 2009-2010 indicated that the country had 58 percent of children under age five who were stunted, and 19 percent who were wasted. The nutritional indicators for women were also very poor, as 29% of women were malnourished during the same period (UNDP, 2011, p. 52). More recent statistics from 2015 did not reveal significant improvements, as 57.7 percent of children were stunted and 18.9 percent were wasted. Timor-Leste's stunting prevalence was

such that it was ranked bottom of 132 surveyed countries (IFPRI, 2016, pp. 120-121). Poor nutrition levels among children have long-lasting impacts that could continue well into adulthood.

#### **4.4.2. Relations with neighboring countries**

After its bitter separation from Indonesia, Timor-Leste has mainly maintained a cordial relationship with its immediate neighbor. Both countries opened embassies in each other's capitals, and they maintain relatively open land borders despite pending matters on their delineation (Kompas, 2017). In order to investigate acts of violence after the referendum for independence in 1999, the two countries jointly established the so-called the Indonesia–Timor-Leste Commission on Truth and Friendship (CTF) in August 2005. The United Nations has previously stated its refusal to cooperate with the CTF due to the Commission's terms of reference that included possible amnesties for serious crimes, including crimes against humanity (IDMC, 2008, p. 58). In a clear sign of mutual wish to maintain cordial bilateral relations, however, both countries have been expressing their strong support for the CTF. The final report of the CTF was presented in 2008 to the presidents of both nations and was endorsed by then Indonesian President Susilo Bambang Yudhoyono, which signified "Indonesia's first official recognition that its state institutions had systematically violated human rights in East Timor" (Hayner, 2010, p. 65). Shortly afterwards, President Jose Ramos-Horta of Timor-Leste expressed his wish for the United Nations to drop its investigation into the 1999 referendum violence and stated that "Our position is keeping good ties with Indonesia" (Reuters, 2008).

By comparison, Timor-Leste's relations with Australia are surprisingly less straightforward as the narratives of 'oil and dispute over maritime boundaries' compete with those of 'development partners'. On the one hand, oil has long been an important factor in Australia's policies vis-à-vis East Timor. One historic example would be the signing of the TGT by then Australian Foreign Affairs Minister Gareth Evans and his Indonesian counterpart Ali Alatas in 1989, as it signified Australia's acceptance of Indonesia's rule over East Timor for the sake of the oil treaty. After East Timor became an independent country, the oil narrative – particularly the disputed revenue sharing over lack of maritime boundaries – continued to color the bilateral tension.

On the other hand, Australia is an active provider of development assistance to East Timor. During its time under Indonesia's rule, East Timor first became the recipient of AusAID-channeled aid in 1989 (LH, 2002, p. 1). AusAID projects throughout those years were however described as reflections of Jakarta's preferences, and not of East Timor's requests (Anderson, 2003, p. 115). Today, in terms of trade, Australia is the sixth biggest main exports destination and fifth biggest source of imports for Timor-Leste.

An analysis of the bilateral relations between Timor-Leste and Australia reveals a dependence of the former on the latter. Such dependency is not uncommon in international relations, particularly in the context of relations between smaller and bigger countries. Timor-Leste, however, is very dependent on its oil revenues, both from its existing sources and future ones such as the Greater Sunrise fields. Both of these sources are linked to Australia, by virtue of the former's processing in Australia and lack of maritime boundaries that preclude commercialization of the latter.

#### **4.5. Interplay of contextual variables**

Decades of oil exploration and exploitation in the Timor Sea have not translated into significant improvement of Timor-Leste's socio-economic (human) development. On the contrary, the Human Development Index of the country seems to be worsening and falling behind other countries in the region. Rather than simply attributing the decline to a resource curse, viz. establishing a direct link between oil resources and the HDI, I postulate that it is the country's contextual variables and their interplay that negatively influence the effect of oil on its development.

In the previous section, I exhaustively determined and analyzed the contextual variables of Timor-Leste, both oil-specific and non-oil-specific ones. The analysis constitutes an answer to the sub-question: "What are the contextual variables in the case of Timor-Leste?" In order to answer the sub-question: "How do the variables exert influence on each other, and how does the interplay affect socio-economic development in Timor-Leste?", an interplay analysis is required.

In terms of oil abundance, Timor-Leste faces a real possibility of expending all of its existing oil reserves by 2020 and being unable to exploit the Greater Sunrise fields. Combined with the variables of Timor-Leste's high dependence on oil revenues as well as its unsustainable resource sector management (past and planned withdrawals in excess of the ESI of the Petroleum Fund), it is plausible that Timor-Leste's development will face grave financing challenge in the immediate future unless non-oil sectors are vigorously and immediately developed. The analysis of economic distortions variable, however, reveals that sectors such as agriculture and manufacturing are shrinking



due to an indirect-deindustrialization symptom induced by the oil dependence.

The inability of Timor-Leste to make use of the Greater Sunrise fields – despite its vast reserve – is directly linked with the geopolitics of the region. Disputes between Timor-Leste and Australia over permanent maritime boundaries created an atmosphere that was not conducive to oil exploitation activities in the Greater Sunrise, and it is unlikely that this will change anytime soon as the delimitation of permanent boundaries may need to involve Indonesia. Despite the uncertainty, the Timor-Leste government continues to allocate financial resources for the scenario that they will control the Greater Sunrise fields. Funds have been allocated to public campaigns and legal proceedings, but they are small compared to the allocation of public funds to the Tasi Mane mega project. A previous analysis determined that the Tasi Mane budget dwarfed monies allocated to sectors more beneficial to human development such as education. The interplay of these oil-specific contextual variables has thus ensured that much of Timor-Leste's limited development funds have been going to economic sectors that are particularly non-productive for the human development.

In terms of domestic non-oil-specific contextual variables, the unique path to independence leaves a legacy of mass violence and a particular sense of sovereignty. It is reductionist to ascribe mass violence exclusively to Timor-Leste, but the country's demographic factors (the youth bulge and overurbanization) and a tense inter-group relationship interacted and contributed to the eruption of violence in 2006. The repercussions of the violence are still felt until present day and include the still ongoing effort to resettle the displaced population and the eventual negative impact towards the country's HDI. The HDI is further

aggravated by development policies that have traditionally (by design) or contextually (under pressure from the IMF after the 2006 conflict) neglected a human-centered approach, and the rent-seeking behavior of the elites that was detrimental to development.

Internationally, the global food price crisis in 2008 severely affected Timor-Leste, which was already a food importer with perennial problems of food shortages. The food price hike was closely related to the rise of the oil price, and the effect of the crisis on Timor-Leste was thus complex. Initially, Timor-Leste benefited from the rising oil price and attempted to use the windfalls to hedge against the food insecurity by establishing the so-called ESF. The stopgap measure was deemed illegal, and it is not known whether the government managed to pursue other policy measures in place of the scrapped ESF to alleviate the effect of the food price crisis. The relatively stagnant levels of malnutrition of children from the time of post-crisis until today demonstrate nonetheless that the problem of food insecurity remains in the country, and will continue to be harmful to Timor-Leste's HDI.

The last contextual variable – Timor-Leste's complex relations with Australia – is an important factor that is neutral in value by itself. However, its interface with the variables of oil location (in a disputed area), degree of abundance (Greater Sunrise fields are not being exploited due to the dispute), and geopolitics (maritime boundaries and the Indonesia factor) lead to a situation where Timor-Leste's development is too dependent on Australia.

A particular strength of the contextual variables approach is that it recognizes that each study case has circumstances that are unique not only by themselves but particularly because of the interaction taking

place within them. It is possible to find any of the contextual variables in Table 6 in countries other than Timor-Leste; it is, however, unlikely that those variables interact and negatively affect development the way they do in the context of Timor-Leste. The thesis has thus attempted to analyze the coalescence of the Timor-Leste's history, demography, political economy and geopolitics into a web of interplay that in the end affects how the oil resource curse takes place in the country. It has also provided an answer to its main research question, that is "How do the contextual variables of oil resources affect socio-economic development in Timor-Leste?"

## Chapter 5

### CONCLUSION

#### 5.1. Thesis reiteration

The thesis undertakes to examine the causal mechanism between oil resources and the socio-economic development, specifically the Human Development Index, using a contextual approach to the resource curse. The main hypothesis is that while the factor of oil resources has a detrimental effect on the HDI of Timor-Leste, the link between the former and the latter cannot be comprehensively explained without taking into account the influence of contextual variables. The following research questions are asked:

*Main question:* How do the contextual variables of oil resources affect socio-economic development in Timor-Leste?

*Sub-question a:* What are the contextual variables in the case of Timor-Leste?

*Sub-question b:* How do the variables exert influence on each other, and how does the interplay affect socio-economic development in Timor-Leste?

#### 5.2. Summary of findings

The thesis begins its analysis by identifying the contextual variables and thus giving an answer to sub-question a. The domestic oil-specific contextual variables are the location of Timor-Leste's oil resources, the degree of its abundance and dependence, the resource-sector management, and the economic distortions. The international oil-specific variables are the oil-related geopolitics and the external use of resource

revenues. The domestic non-oil-specific contextual variables are the Timor-Leste's path toward independence, its demographic factors, its inter-group relations, its dynamics of socio-economic development, and the behavioral patterns of its elites. The international non-oil-specific contextual variables are the 2008 global food price crisis and Timor-Leste's relations with its neighbors, notably Australia.

The thesis afterwards analyzes the interplay between these variables in order to answer sub-question b. It discovers that the domestic oil-specific variables interact with each other in a way that will eventually limit the funds available for Timor-Leste's overall development. The interface of the international oil-specific variables determines that the already limited funds are being spent on sectors that are non-productive for human development. The non-oil-specific factors amalgamate domestically into a mix of internal characteristics that negatively affect the HDI. Lastly, the international non-oil-specific factors aggravate the development of Timor-Leste both directly (worsening food insecurity) and indirectly (unfavorable dependence on Australia).

Having answered the sub-questions, the thesis can now respond to the main research question by establishing that it is the coalescence of Timor-Leste's oil resources, history, demography, political economy and geopolitics and its web of interplay that have in the end explained the adverse effects of oil towards Timor-Leste's development. The country factually possesses oil resources and experiences poor human development indicators, but the supposed resource curse and the link between the two components cannot be established and examined without bringing the contextual variables into the analysis. The hypothesis is thus accepted.

With regards to the contribution to the resource curse literature, the thesis aligns itself with the view that non-renewable resources do not necessarily and inevitably trigger poor socio-economic performance in a country; it is the country's domestic and international factors that will ultimately determine whether the resources are beneficial or detrimental to its development. It has also supported the arguments of the crowding out of human capital by abundant natural capital (Willebald et al, 2015) and the fourth channel of transmission from natural resources to a stunted economic development as suggested by Gylfason (2001): economies relying too heavily on natural resources may inadvertently or deliberately neglect the development of their human resources.

### **Bibliography**

Anderson, T. (2003). Aid, Trade and Oil: Australia's Second Betrayal of East Timor. *Journal of Australian Political Economy*, 52 (52), pp. 114-127.

Anderson, T. (2010). The Petroleum Fund and Development Strategy in Timor Leste. A Report for Timor Leste's Petroleum Fund Consultative Council – DRAFT.

Asian Development Bank (ADB). (2008). *Living with High Prices: A Policy Brief*. Manila: Asian Development Bank.

Auty, R. (1993). *Sustaining development in mineral economies: The resource curse thesis*. 1st ed. London: Routledge, pp. 1-12.

Auty, R. (2015). From resource curse to rent curse: A theoretical perspective. In: M. Badia-Miró, V. Pinilla and H. Willebald, ed., *Natural Resources and Economic Growth*, 1st ed. [online] London and New York: Taylor and Francis, pp.26-53. Available at: <http://www.myilibrary.com.uaccess.univie.ac.at?ID=789206> [Accessed 28 April 2017].

Badeeb, R., Lean, H. and Clark, J. (2017). The evolution of the natural resource curse thesis: A critical literature survey. *Resources Policy*, 51, pp. 123-134.

Barma, N. (2014). The Rentier State at Work: Comparative Experiences of the Resource Curse in East Asia and the Pacific. *Asia & the Pacific Policy Studies*, 1(2), pp. 257-272.

Basedau, M. (2005). Context Matters - Rethinking the Resource Curse in Sub-Saharan Africa. *GIGA Working Paper No 1*, pp.1-46. Available at SSRN: <https://ssrn.com/abstract=906983> or <http://dx.doi.org/10.2139/ssrn.906983> [Accessed 17 July 2017].

Basedau, M. and Lay, J. (2009). Resource curse or rentier peace?: The ambiguous effects of oil wealth and oil dependence on violent conflict. *Journal of Peace Research*, 46(6), pp. 757-776.

BBC News. (2002). East Timor: UN ends peacekeeping mission - BBC News. [online] Available at: <http://www.bbc.com/news/world-asia-20873267> [Accessed 23 May 2017].

Bhattacharjee, A. (2012). *Social Science Research: Principles, Methods, and Practices*. Textbooks Collection. Book 3.

Brown, M. (2009). Security, development and the nation-building agenda – East Timor. *Conflict, Security & Development*, 9(2), pp. 141-164.

Brunnstrom, C. (2003). Another Invasion: Lessons from International Support to East Timorese NGOs. *Development in Practice*, 13(4), pp. 310-321.

Commission for Reception, Truth and Reconciliation in East Timor (CAVR). 2005. *Chega! The Report of the Commission for Reception, Truth and Reconciliation Timor-Leste: Executive Summary*, p. 44.

Corden, W. and Neary, J. (1982). Booming Sector and De-Industrialisation in a Small Open Economy. *The Economic Journal*, 92(368), pp. 825-848.

Cryan, M. (2015). Dispossession and Impoverishment in Timor-Leste: Potential Impacts of the Suai Supply Base. *SSGM Discussion Paper*, 2015(15), pp. 1-15.

Dervis, K. and Klugman, J. (2011). Measuring human progress: the contribution of the Human Development Index and related indices. *Revue d'économie politique*, 121(1), pp. 73-92.

Doraisami, A. (2009). Fiscal Policy Challenges in Timor Leste — Is the Resources Curse on the Horizon?. *ASEAN Economic Bulletin*, 26(2), pp. 164-173.

Drysdale, J. (2008). Five Principles for the Management of Natural Resource Revenue: the Case of Timor-Leste's Petroleum Revenue. *Journal of Energy & Natural Resources Law*, 26(1), pp. 151-174.

Engel, R. (2006). The Crisis in Timor-Leste: Restoring National Unity through State Institutions, Culture, and Civil Society. *FRIDE Working Paper No 25*. Available at <http://www.ces.uc.pt/nucleos/nep/media/pdfs/WPrebeccaEngelTimor.pdf>. [Accessed 23 May 2017].

Evans, D. (2016a). *East Timor is Going for Broke as Oil Runs Out*. [online] Forbes.com. Available at <https://www.forbes.com/sites/damonevans/2016/12/07/east-timor-is-going-for-broke-as-oil-runs-out/#6cab52ab1a84> [Accessed 12 June 2017].



Evans, D. (2016b). *East Timor's Gas Dream Is Doomed, ConocoPhillips And Woodside Have Failed*. [online] Forbes.com. Available at: <https://www.forbes.com/sites/damonevans/2016/12/12/east-timors-gas-dream-is-doomed/#1bae369d6f43> [Accessed 6 June 2017].

Food and Agriculture Organization of the United Nations (FAO). (2011). *The State of Food Insecurity in the World: How does international price volatility affect domestic economies and food security?*. [online] Rome: FAO, Lessons from the world food crisis of 2006-08, pp. 21-31. Available at: <http://www.fao.org/docrep/014/i2330e/i2330e04.pdf> [Accessed 5 July 2017].

Food and Agriculture Organization of the United Nations (FAO). (2017). *Monthly food price indices*. [online] Available at: [http://www.fao.org/fileadmin/templates/worldfood/Reports\\_and\\_docs/Food\\_price\\_indices\\_data.xls](http://www.fao.org/fileadmin/templates/worldfood/Reports_and_docs/Food_price_indices_data.xls) [Accessed 17 July 2017].

Gelb, A. (1988). *Oil windfalls: Blessing or curse?*. 1st ed. New York: Oxford University Press, pp. 3-13.

Grenville, S. (2016). *East Timor border: Be careful what you wish for*. [online] The Lowy Institute Interpreter. Available at <https://www.loyyinstitute.org/the-interpreter/east-timor-border-be-careful-what-you-wish> [Accessed 12 June 2017].

Gylfason, T. (2001). Natural resources, education, and economic development. *European Economic Review*, 45(4-6), pp. 847-859.

Hayner, P. (2010). *Unspeakable Truths: Transitional Justice and the Challenge of Truth Commissions*. 2nd ed. London: Routledge, p. 65.

Headey, D. and Fan, S. (2010). *Reflections on the global food crisis*. Washington, D.C.: International Food Policy Research Institute.

Hendrapati, M. (2015). Maritime Expansion and Delimitation After the Timor Gap Treaty. *Indonesia Law Review*, 5(1), p. 69.

Hood, A. (2005). Australia Adrift: The Timor Sea Oil & Gas Dispute. *The Brown Journal of World Affairs*, 12(1), pp. 239-254.

Hydrographer. (2016). *United Nations Conciliation Commission, July 2016. A Flowchart of Possible Outcomes*. [online] Available at: <http://www.hydrographer.org/conciliation.html> [Accessed 25 July 2017].

Internal Displacement Monitoring Centre (IDMC). (2008). *Timor-Leste: IDPs returning home, but to ongoing poverty and lack of access to basic services*. Geneva: Internal Displacement Monitoring Centre.

International Food Policy Research Institute (IFPRI). (2016). *Global Nutrition Report 2016: From Promise to Impact: Ending Malnutrition by 2030*. Washington, DC.

Ishizuka, K. (2004). Australia's policy towards East Timor. *The Round Table*, 93(374), pp. 271-285.

Kammen, D. (2016). *Three centuries of conflict in East Timor*. 1st ed. Singapore: NUS Press.

Kelley, A. (1991). The Human Development Index: "Handle with Care". *Population and Development Review*, 17(2), pp. 315-324.

Kompas. (2017). *Atasi Sengketa Wilayah, Indonesia-Timor Leste Bentuk Tim Khusus* - Kompas.com (Indonesian). [online] Available at: <http://nasional.kompas.com/read/2017/02/13/17420051/atasi.sengketa.wilayah.indonesia-timor.leste.bentuk.tim.khusus> [Accessed 16 June 2017].

La'o Hamutuk (LH). (2002). Analyzing Australian Assistance to East Timor. *The La'o Hamutuk Bulletin*, 3(8), pp. 1-16. Available at: <http://www.laohamutuk.org/Bulletin/2002/Dec/lhbl3n8e.pdf> [Accessed 16 June 2017].

La'o Hamutuk (LH). (2005). *Oil in Timor-Leste*. Dili: La'o Hamutuk, pp. 1-17.

La'o Hamutuk (LH). (2008a). *RDTL doubles 2008 budget in mid-year*. [online] Available at: <https://www.laohamutuk.org/econ/MYBU08/RDTLMYBU08.htm> [Accessed 8 July 2017].

La'o Hamutuk (LH). (2008b). *Appeals Court invalidates State Budget*. [online] Available at: <http://www.laohamutuk.org/econ/MYBU08/BudgetRuledUnconstitutional08.htm> [Accessed 8 July 2017].

La'o Hamutuk (LH). (2015a). *Timor-Leste's oil and gas are going fast*. [online] Dili: La'o Hamutuk - Timor-Leste Institute for Development Monitoring and Analysis, pp.1-5. Available at:

<http://laohamutuk.blogspot.com/2015/04/timor-lestes-oil-and-gas-are-going-fast.html> [Accessed 23 February 2017].

La'o Hamutuk (LH). (2015b). *Greater Sunrise 2010-2015*. [online] Available at: <https://www.laohamutuk.org/Oil/Sunrise/10Sunrise.htm> [Accessed 12 June 2017].

La'o Hamutuk (LH). (2016a). *Submission to Timor-Leste National Parliament from La'o Hamutuk on the Proposed General State Budget for 2017*. Dili: La'o Hamutuk, pp. 1-19.

La'o Hamutuk (LH). (2016b). *South Coast Petroleum Infrastructure Project*. [online] Available at: <https://www.laohamutuk.org/Oil/TasiMane/11TasiMane.htm#pace> [Accessed 14 June 2017].

La'o Hamutuk (LH). (2017). *2017 General State Budget*. [online] Available at: <https://www.laohamutuk.org/econ/OGE17/16OGE17.htm> [Accessed 13 June 2017].

Leite, C. and Weidmann, J. (1999). Does Mother Nature Corrupt?: Natural Resources, Corruption, and Economic Growth. *IMF Working Papers*, 99(85), pp. 1-34.

Lijphart, A. (1971). Comparative Politics and the Comparative Method. *American Political Science Review*, 65(3), pp. 682-693.

Lundahl, M. and Sjöholm, F. (2008). The oil resources of Timor-Leste: curse or blessing?. *The Pacific Review*, 21(1), pp. 67-86.

Mahdavy, H. (1970). The Patterns and Problems of Economic Development in Rentier States. In: M. Cook, ed., *Studies in the Economic History of the Middle East*. London: Oxford University Press, pp. 428-467.

Mähler, A. (2009). Oil in Venezuela: Triggering Violence or Ensuring Stability? A Context-sensitive Analysis of the Ambivalent Impact of Resource Abundance. *Giga Working Paper No. 112*.

Mähler, A. (2010). Nigeria: A Prime Example of the Resource Curse? Revisiting the Oil-Violence Link in the Niger Delta. *GIGA Working Paper No. 120*, pp. 1-37. Available at SSRN: <https://ssrn.com/abstract=1541940> or <http://dx.doi.org/10.2139/ssrn.1541940> [Accessed 16 July 2017].

Mercer, D. (2004). Dividing Up the Spoils: Australia, East Timor and the Timor Sea. *Space and Polity*, 8(3), pp. 289-308.

Neupert R. and Lopes, S. (2006). *The Demographic Component of the Crisis in Timor-Leste*.

Neves, G. (n.d.). Timor-Leste: The Political Economy of a Rentier State.

Ngwu, E. and Ugwu, A. (2015). Rentierism and the Natural Resource Curse: A Contextual Analysis of Nigeria. *Journal of Social Sciences and Humanities*, 1(4), pp. 422-433.

Office of the United Nations High Commissioner for Human Rights (OHCHR). (2006). *Report of the United Nations Independent Special Commission of Inquiry for Timor-Leste*. Geneva: Office of the UN High Commissioner for Human Rights.

PCA. (2016). *Conciliation between the Democratic Republic of Timor-Leste and the Commonwealth of Australia*. Opening Session 29 August 2016. The Hague: Permanent Court of Arbitration. Available at <https://pcacases.com/web/sendAttach/1889> [Accessed 16 June 2017].

PCA. (2017a). *Conciliation between the Democratic Republic of Timor-Leste and the Commonwealth of Australia*. Trilateral Joint Statement 9 January 2017. The Hague: Permanent Court of Arbitration. Available at <https://pcacases.com/web/sendAttach/2049> [Accessed 12 June 2017]

PCA. (2017b). *Conciliation between the Democratic Republic of Timor-Leste and the Commonwealth of Australia*. Trilateral Joint Statement 24 January 2017. The Hague: Permanent Court of Arbitration. Available at <https://pcacases.com/web/sendAttach/2053> [Accessed 14 June 2017]

Pineda, J. and Rodriguez, F. (2010). Curse or blessing? Natural resources and human development. *UNDP Human Development Research Paper*, 2010(04), pp. 1-32.

Rasiah, R., Vinanchiarachi, J., and Vadakkepat, P. (2014). Catching-up from way behind: How Timor-Leste can avoid the Dutch Disease?. *Institutions and Economies*, 6(1), pp. 119-148.

RDTL. (2011). *Timor-Leste Strategic Development Plan 2011-2030*. Dili: Democratic Republic of Timor-Leste.

RDTL Maritime Boundary Office. (2017). *Maritime Boundary Office*. Dili: Maritime Boundary Office, Democratic Republic of Timor-Leste. [online] Available at: <http://www.gfm.tl/> [Accessed 22 June 2017].

RDTL, Ministry of Finance. (2015). *Petroleum Fund Annual Report Financial Year 2015*. Dili: Ministry of Finance, Democratic Republic of Timor-Leste, p. 7.

RDTL, Ministry of Finance. (2017). *State Budget 2017*. Dili: Ministry of Finance, Democratic Republic of Timor-Leste.

Reuters. (2008). *E. Timor president asks U.N. to drop violence probe*. Available at: <http://www.reuters.com/article/idINIndia-35933120081013> [Accessed 9 July 2017].

Robie, D. (2015). La'o Hamutuk and Timor-Leste's development challenges: A case study in human rights and collaborative journalism. *Media Asia*, 42(3-4), pp. 209-224.

Ross, M. (1999). The Political Economy of the Resource Curse. *World Politics*, 51(02), pp. 297-322.

Rosser, A. (2006). The Political Economy of the Resource Curse: A Literature Survey. *IDS Working Paper*, (268), pp. 1-34.

Sachs, J. (2006). Chapter 7: How to handle the macroeconomics of oil wealth?. *Initiative for Policy Dialogue Working Paper Series*, pp. 174-197.

Sachs, J. and Warner, A.M. (1995). Natural Resources Abundance and economic growth. National bureau for Economic Research. NBER, (*Working Paper* 5398).

Scambary, J. (2015). In Search of White Elephants: The Political Economy of Resource Income Expenditure in East Timor. *Critical Asian Studies*, 47(2), pp. 283-308.

Scheiner, C. (2015). Can the Petroleum Fund Exorcise the Resource Curse from Timor-Leste?. [online] Dili: *La'o Hamutuk*, pp. 1-19. Available at: <https://www.laohamutuk.org/econ/exor/ScheinerFundExorciseCursejun2015en.pdf> [Accessed 24 February 2017].

Shabafrouz, M. (2009). Iran's Oil Wealth: Treasure and Trouble for the Shah's Regime. A Context-Sensitive Analysis of the Ambivalent Impact of Resource Abundance. *GIGA Working Paper No. 113*.

Shabafrouz, M. (2010). Oil and the Eruption of the Algerian Civil War: A Context-Sensitive Analysis of the Ambivalent Impact of Resource Abundance. *GIGA Working Paper No. 118*.

Smith, A. (1904). *An Inquiry into the Nature and Causes of the Wealth of Nations*. Edwin Cannan, ed. 1904. Library of Economics and Liberty. Available at <http://www.econlib.org/library/Smith/smWN12.html> [Accessed 26 April 2017].

The Australian. (2002). *East Timor hailed a UN success*. [online] Available at: <http://www.theaustralian.com.au/news/latest-news/east-timor-hailed-a-un-success/news-story/cac79dff97743afbf1a202b38e7797ff> [Accessed 23 May 2017].

Treaty Between Australia and The Democratic Republic of Timor-Leste on Certain Maritime Arrangements in the Timor Sea (CMATS). *Article 4*. [online] Available at: <http://www.austlii.edu.au/au/other/dfat/treaties/2007/12.html> [Accessed 9 July 2017].

Triggs, G. (2002). Proposed Timor Sea Arrangements between Australia and the East Timor Transitional Administration. *Journal of Energy & Natural Resources Law*, 20(1), pp. 40-49.

United Nations (UN). (2011). *The Global Social Crisis: Report on the World Social Situation 2011*. [online] New York: United Nations, Chapter IV: The global food crises, pp. 61-74. Available at: <http://www.un.org/esa/socdev/rwss/docs/2011/rwss2011.pdf> [Accessed 5 July 2017].

United Nations Conference on Trade and Development (UNCTAD). (2016). *The LDC Report 2016. The Least Developed Countries*. [online] UNCTAD. Available at: [http://unctad.org/en/PublicationsLibrary/ldc2016\\_en.pdf](http://unctad.org/en/PublicationsLibrary/ldc2016_en.pdf) [Accessed 3 May 2017].

United Nations Development Programme (UNDP). (2005). *International cooperation at a crossroads: Aid, trade and security in an unequal world*. UNDP Human Development Report 2005.

United Nations Development Programme (UNDP). (2011). *Timor-Leste: Managing Natural Resources for Human Development – Developing the Non-Oil Economy to Achieve the MDGs*. Human Development Report 2011. [online] UN Development Programme. Available at:

<https://www.laohamutuk.org/econ/HDI10/TLHDR2011En.pdf>  
[Accessed 5 July 2017].

United Nations Development Programme (UNDP). (2016). *Briefing note for countries on the 2016 Human Development Report: Timor-Leste*. UNDP Human Development Report 2016. [online] UN Development Programme. Available at: [http://hdr.undp.org/sites/all/themes/hdr\\_theme/country-notes/TLS.pdf](http://hdr.undp.org/sites/all/themes/hdr_theme/country-notes/TLS.pdf) [Accessed 9 May 2017].

United Nations Development Programme (UNDP). (2017). *Human Development Index (HDI) | Human Development Reports*. [online] Available at: <http://hdr.undp.org/en/content/human-development-index-hdi> [Accessed 20 May 2017].

United States Energy Information Administration (EIA). (2017). *Crude oil*. [online] Available at: [http://www.eia.gov/dnav/pet/pet\\_pri\\_spt\\_s1\\_m.htm](http://www.eia.gov/dnav/pet/pet_pri_spt_s1_m.htm) [Accessed 17 July 2017].

UN News Service Section. (2002a). *UN News - East Timor poorest country in Asia, UN development agency reports*. [online] Available at: <http://www.un.org/apps/news/story.asp?NewsID=3738&Cr=&Cr1=#.WRGVn7uGORE> [Accessed 9 May 2017].

UN News Service Section (2002b). *'The United Nations will stay ... Your friends will continue to help', says Secretary-General in salute to independent East Timor*. [online] Available at: <https://www.un.org/press/en/2002/sgsm8243.doc.htm> [Accessed 23 May 2017].

Wikipedia. (2017). *Timor Gap*. [online] Available at: [https://en.wikipedia.org/wiki/Timor\\_Gap](https://en.wikipedia.org/wiki/Timor_Gap) [Accessed 7 July 2017].

Willebald, H., Badia-Miró, M. and Pinilla, V. (2015). Natural resources and economic development - what can we learn from history?. In: M. Badia-Miró, V. Pinilla and H. Willebald, ed., *Natural Resources and Economic Growth*, 1st ed. [online] London and New York: Taylor and Francis, pp. 1-25. Available at: <http://www.myilibrary.com.uaccess.univie.ac.at?ID=789206> [Accessed 28 April 2017].

World Bank. (2017). *GDP growth (annual %)* | Data. [online] Available at:

<http://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?end=2015&locations=TL&start=2000&view=chart> [Accessed 7 July 2017].

Yin, R. (2014). *Case study research*. 1st ed. London: Sage Publication.