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巴拿馬整體發展之替代性未來

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ALTERNATIVE FUTURES FOR PANAMA'S SYSTEMATIC

DEVELOPMENT

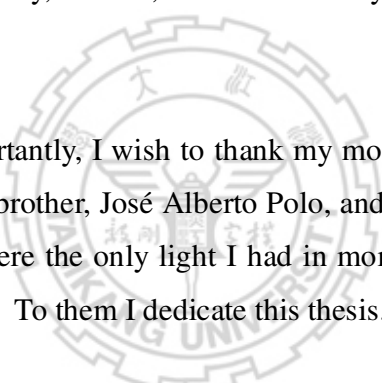Student: José Augusto Polo Lin

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論文題要內容：

　　本研究目的擬提供巴拿馬政府政策、國際合作關係及社會運動者，以未來學思考角度探索及提供多元替代性未來類型。挑戰現今經濟發展條律，邁向系統化發展。本研究之系統化發展由經濟、人力及永續發展所組成。其中，本研究爰用未來學方法論中的因素層級分析法分析（Causal Layered Analysis）作爲後結構組織架構，開創多元替代性未來。因素層級分析中包含巴拿馬文化議題，和經濟發展世界觀之影響概念，對巴拿馬達成系統化發展的直接影響，經由因素層級分析後，藉由雙變數情節分析法的應用，產生替代性未來。其替代性未來情境分析結果有四，第一爲風險中的巴拿馬；第二爲衰退的巴拿馬；第三爲過時的巴拿馬及第四巴拿馬新文化。CLA 建構出情境分析，提供更易了解及深層的巴拿馬替代性未來所可能面對的未來。

　　本研究所展示的巴拿馬系統化發展之結果，是需長期按部就班的規劃完成，最後本研究也提供未來學研究所需使用的批判準則及價值，以提供作爲參考。

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Abstract:

The main purpose of this research is to influence governmental policy, corporate and civil society leaders in Panama to explore different types of alternative futures using the futures thinking approach to challenge the current economic development paradigm and move towards systematic development. In this research systematic development consists of economic, human and sustainable development. Futures studies methodologies such as Causal Layered Analysis (CLA) are introduced in this study as a poststructural framework capable of opening divergent of alternative futures for Panama. The CLA analysis concluded that Panama's cultural issues, and the effects of the worldviews of the economic development concept have a direct impact in Panama's achievement of systematic development. After this CLA analysis, the double variable scenario with a CLA incasting method was applied to create alternative futures. The first alternative future was Panama rises, the second one was Panama's decline, the third one was Panama old and the fourth one was Panama's new culture. A CLA incasting in each scenario provided a better understanding of the deep stories behind each alternative future Panama could face in a future.

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CHAPTER 1
INTRODUCTION AND PROBLEM BACKGROUND

1 Introduction

Chapter 1 introduces the argument that through the use of alternative futures thinking, Panama's society will be able to achieve systematic development. It will start by focusing development as an image capable of providing Panama's policy-makers, corporate and civil society leader's alternatives to develop Panama in a systematic way. This systematic development will consist of economic, human and sustainable development. This chapter also gives an overview of Panamanian leaders, on how to manage the development concept from an economic, human, and also sustainable perspective. Futures studies methodologies such as Causal Layered Analysis (CLA) are introduced in this study as a poststructural framework capable of opening alternative futures. The function of scenarios will be to create alternative futures and also to forecast these alternatives for creating new possibilities with renewed perspectives of the world. Definitions of concepts and key terms are clarified for the better understanding of this investigation.

1.1 Purpose of study

This research aims to influence governmental policy, corporate and civil society leaders in Panama to explore different types of alternative futures in the development area that will lead to systematic development. Applying futures studies methodologies such as CLA with its poststructural deep framework and also scenarios with its wide-range of possibilities will create different alternative futures. Therefore, futures' thinking with its systematic approach is essential for Panama to achieve systematic development. In resume futures studies will:

- Use the futures thinking approach in Panama to challenge the current economic development paradigm and move towards systematic development.
- Initiate a future process in Panama that includes citizens, government, corporate and community leaders, and educators.
- Bring a cultural and social change in Panama by enhancing flexibility of thought, enhancing the view of the long-term and keeping Panama vision driven.
- Using scenarios and methods such as CLA to understand more effectively the alternatives that Panama faces nowadays.

The purpose of this study is also a way for Panama leaders to continue working on development projects such as the Millennium Project and also The Plan Puebla Panama. Most importantly The Plan Puebla Panama is a regional strategy impelled by Central America and Mexico which fundamental aim is to:

- Empower economic and social development
- Reduce poverty
- Increase quality of life
- Bring new opportunities of growth

It, by means of the facilitation of management and execution of diverse oriented projects to improve the connectivity and competitiveness of the region, to foment economic and social development, environmental responsibility, and to generate new sources of work. This effort is oriented to 65.6 million inhabitants who integrate Latin America, 28 million in the southeastern region of Mexico (Guerrero, Puebla, Veracruz, Oaxaca, Chiapas, Tabasco, Logwood, Yucatan, Quintana Roo and Chiapas) and 37 million in Central America (Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica and Panama). Plan Puebla Panama will create a common bond in history, culture, traditions and values share in a same geographic space with renewed aspirations and common goals. The efforts of The Plan Puebla Panama are oriented to benefit the traditionally marginalized populations (Instituto Nacional de Electrificacion, 2003, Introduccion section, para. 3).

Finally, for a closer understanding of this research and its methodology, basic knowledge about Panama (specifically culture) and futures studies maybe required. Another objective pursued in this research is to find a way to change Panama's society paradigms from dependent to an independent country mindset. So the question should be 'Can futures studies develop alternative images of the future to enhance the capacity to create new futures?'

1.2   Statement of problem

In this section important facts are going to be addressed so as to introduce the reader to the core concepts and worldviews of Panama actual situation. Since the beginning of the capitalist era in the 15th century, the world has adopted the economic model to achieve development. This is the model most capitalized countries are using nowadays to be economically prosperous (Britannica, 2007). Concerning to Latin America, there are some countries that are trying to go against the wave of capitalism but in a much-disguised way. For example there is Venezuela. In Venezuela President Hugo Chavez has created an anti-capitalism policy against the number one capitalist country 'The United States'. He argues that Venezuela and Latin American countries do not need to rely on capitalism for development. The main ideas of Chavez thoughts are that the combination of Marxism-socialism will be the gate for Venezuela and Latin America countries to achieve independent development. Supporting the stated above, following there is a speech of Venezuela President Hugo Chavez when he won for third time the presidential elections in January 10 of 2007:

> I swear in front of the constitution... I swear for my people and I swear for my mother country that I will not give rest to my arm, nor rest to my soul, I will give my days and my nights and my whole life to the construction of a social Venezuela, the construction of a new political system, of a new social system, of a new economic system, I swear for Christ, the greatest Socialist of history, I swear for everything... Mother Country, socialism or death, I swear (Cuba Encuentro, 2007, Internacional section, para. 2)

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However, what is really happening in Venezuela is that along with socialism, there has been a decline in human rights. The United States with its report on human rights practice released on the year 2006 concerning to Venezuela's issue expressed the following:

> Politicization of the judiciary, restrictions on the media, and harassment of the political opposition in Venezuela continued to characterize the human rights situation during the year. The government used the justice system selectively against the political opposition and implementation of a 2004 media law threatened to limit press freedom. The following human rights problems were reported: unlawful killings of criminal suspects, torture and abuse of detainees, harsh prison conditions including violence, unlawful taking of private property including failure to make property restitution in such cases, illegal wiretapping and searches of private homes and businesses, official intimidation and attacks on the independent media, the political opposition, labor unions, courts, the Catholic Church, missionary groups, and human rights groups, violence and discrimination against women, abuse of children, discrimination against persons with disabilities, and inadequate protection of the rights of indigenous people and trafficking in persons. (United States Department of State, 2006, Bureau of Democracy, Human Rights, and Labor section, para. 4)

It is important to state that although President Hugo Chavez proclaims that Venezuela is a democratic country, political leaders do not dare to confront this ethical issue (La Prensa, 2007, Farandula section, para. 3). Therefore, it is important to point out that the loss of rights is not an excuse for an alternative path to development 'ends not justify the means'.

In these moments the Panama's concerning to economic development lacks of future thinking approach and also human-sustainable bases. As in February 1 2008 at the UNICEF's (United Nations Children's Fund) Executive Board meeting, Panamanian First Lady, "Ms. Fernandez de Torrijos pointed out that disabled people living in her region lack access to socio-economic development" (Okafor, 2008, session news section, para.6). These comments made by Panama's First Lady where due to the many poor and extreme poor people that the country has although it's recently progress in economic development. For example, in Panama approximately 4 of each 10 people live in total poverty (37.2%) and, of the total of the population the 16,7%, that is, 511.800 Panamanians are in situation

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of extreme poverty (Ministerio de Economia y Finanzas, Principales Resultados section, 2005, para. 1). It is estimated that the minimum redistributive effort to eradicate the total poverty in Panama, would mean to directly transfer to the poor 3,7% of the Gross Internal Product, which is $448 millions annually (US dollars). Of another part, so that the people in condition of extreme poverty can achieve the condition of non-extreme poverty, the minimum redistributive effort would be in the order of $104 millions annually (US dollars), which this group of people would achieve a level of equal annual consumption to the value of the minimum food basket (Ministerio de Economia y Finanzas, 2005, Brecha de Pobreza section, para.1). The children of Panama, minors of 6 years, are the most affected by the poverty. Three of each ten are in extreme poverty and more than half in situation of total poverty (Ministerio de Economia y Finanzas, 2005, Incidencia de la Pobreza por Grupos de Edad section, para. 1). As it has been mentioned above, economic development in Panama has not been able to address issues of human rights, sustainability and equity. With poverty and extreme poverty being more embedded in Panama is hard to say that development has happened at all levels. It also needs to work with sustainable and human development (in whatever order), to act as a systematic development model for Panama leaders and policy-makers to follow.

Being clear in the concepts of human and sustainable development is important for the understanding of this research. Human development is a "development that not only creates economic development but also distributes benefits in an equitably way" (Programa de las Naciones Unidas para el Desarrollo, 2002, p. 49). The terminology of sustainable development appears, later, in 1987, in the World-wide Development document that World Bank publishes which establishes the necessity to tie the economic development to the surroundings (atmosphere) and the quality of life of the human beings. There is also sustainable development when the needs of the present can be put together without compromising the ability of future generations to meet their own needs (United Nations, 2007). It is important to emphasize in the sustainable development concept, that it does not only encompasses environmental aspects, but also the social cohesion between economic development and human development, which is represented in a better way at Figure 1.1 as

a way to link these three types of development (economic, human and sustainable). This model is characterized by a gradual convergence of the three circles, indicating a holistic and co-coordinated approach that fully integrates economy, environment and society (Dooris, 1999).

Architect and futurist, Phillip Daffara states that the "development of our cities needs to be implemented with new thinking, facilitating the human progression of its citizens" (2004, p. 424). Nowadays, Panama as a country has not found the link to put it all together by not functioning as systematic structure. Specifically in Panama's case, the systematic development model still has not developed at a local and regional government levels. Therefore, the need of systematic development paradigm, inherently but also not explicitly has to embrace futures thinking integrating economic, human and sustainable principles by "referring to both present and future generations motivated by a real concern for long-term well being of humanity" (Kelly, Sirr, Ratcliffe, 2004, p. 88).

Figure 1.1

Sustainable – Economy – Society
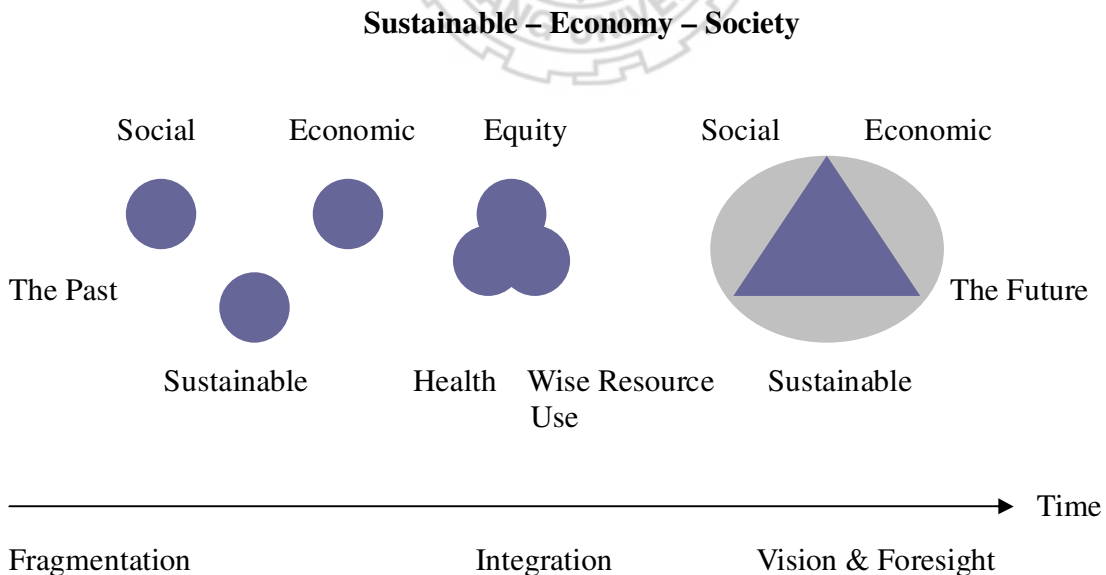
Source: Saunders, 2002, Home section

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Figure 1.1 proposes a systematic model for Panama to follow. Actually the social, economic and sustainable factors in Panama are functioning as independent model. But with the assistance of futures thinking, in this case vision and foresight, and integration will occur enhancing equity, health and wise resource use will be a result of this union that will function as a one systemic model. Finally, the junction of the three circles indicates a systematic approach of integration that is sustainable and also future-oriented.

This research is based on formulated premises and assumptions derived from previous research, field experience at Panama (as a citizen, student and former-employee), information provided by Panama's government and also The United Nations. It is important to mention that for Panama, The United Nations role is to support the execution of projects that contribute to improve the standards of life of the Panamanians by means of the consultant's office, the technical support and the construction of national capacities (Programa de las Naciones Unidas para el Desarrollo, 2008, Inicio section, para. 6).

Finally, through the development of this thesis there are some critics concerning futures studies as a discipline for the development of a paradigm and for making Panama move towards systematic development. The reason of this constructive criticism is to be realistic in the fact that futures studies nowadays and neither in a short-term process have the ability or power to influence Panama in any aspects of its society. It is important to point out from the beginning of this thesis that the intention is to make sure for Panama's society, leaders and policy-makers that this is a long-term process of 20 years or more for systematic development with its futures studies approach starts to have a real impact on Panama.

1.3   Panama: Brief background to the study area

Panama is situated on an isthmus, connecting north and South America. Panama is located at the north with Costa Rica and at the south with Colombia. It covers 78,200 square kilometers, making Panama third largest country in Central America. According to

the last census in year 2005, "Panama's population conforms 3,228,186 inhabitants" (Contraloria General de la Republica, 2004, Situacion Demografica section, para. 1). Mostly of Panama's inhabitants are from mestizo origins.

Originally the isthmus was habitated by Native American Indians whose presence stretched back over 11,000 years. The origins Panama's name derives from a cacique name, meaning "land or place of butterflies" (Sosa and Arce, 1911, Nociones Preliminares section, para. 9).

In 1502 the Spanish explorer Rodrigo de Bastidas disembarked on the territory and the following year Cristobal Columbus vindicated Panama in name of Spain. Later in "1508 the Spanish crown decided to conquer the territories from Central America to Venezuela" (Instituto Panameño de Turismo, 2006, History section, para. 1).

In history Panama has passed through two important periods of development. First it was the Portobelo period that was from year one 1606 until 1730. This was one of the most important cities of the Spanish America, because of its special conditions, geographic location and its annual fair of commerce between Spain and their colonies of central and South America (Sosa and Arce, 1911, Capitulo IV section, para. 6).

The second period was after 173 years. Panama's economic situation started to grow thanks to the United States decision to build one of the eight marvelous of the world 'The Panama Canal'. This action of the United States in Panama territory brought growth to the country for almost nine years.

Along history Panama has been known as a country of service and commerce for America and the world. That is why nowadays; Panama's systematic development perspectives are very promising. Mega projects of constructions, harbor expansion, high projects of public investments, electrical inter-connection and the expansion of the Panama

Canal puts Panama in the spotlight to see if their society is really capable to adapt and apply alternatives ways of futures that without a doubt will led them to better chances of success in the future.

Finally, it is important to mention that Panama nowadays is passing through its third development phase, although this is still is not a fact. In the words of The World Bank, Panama's actual situation is as following:

In recent years Panama's economy has experienced an economic boom, with growth in real gross domestic product (GDP) averaging over 7.5 percent from 2004-2006. Today, the Panamanian economy is among the fastest growing and best managed in Latin America. The future is also bright for this small nation of approximately 3.5 million. The Panamanians' decision to expand the Panama Canal, combined with the conclusion of a free trade agreement with the United States, is expected to boost and extend economic expansion for some time. This presents an historic opportunity to make progress in reducing persistent poverty and inequality. (2008, Panama Country Brief section, para. 1)

1.4   The research questions

The research questions will be based on the initial issue outlined in this chapter. Futures studies is the core theoretical framework in which the research questions where addressed. These where formulated as following:

- Can systematic development become a fundamental image of the future for Panamanian government, corporate and civil society leaders?
- What are the futures of Panama and what are the impacts of its future systematic development?

1.5   Brief description of methodology

To analyze and evaluate with critical thought the research questions, two main methods are selected for this study. The first method is Causal Layered Analysis (CLA). CLA is offered as a new research theory and method based on the poststructural theoretical framework. As a theory it seeks to integrate empiricist, interpretive, critical, and action learning modes of knowing (Inayatullah, 2004, p.1). CLA is an exceptional and systematic tool that catches the real essence of futures studies relying on each layer, as one gets deeper and deeper into the problem. Knowing the core concept of CLA, one can notice the unique ability CLA has to adapt almost to any kind of situation or problem. As Dator states, "CLA has been the most important contribution to futures studies for the last fourteen years" (2002). So for the purpose of this study CLA will be used as a method for knowing the deep core structural realities to later create alternative futures for Panama. Later, to explore the inner analysis of CLA the four quadrant mapping method developed by Richard Slaughter and Ken Wilber will give CLA a stronger base to explain Panama's actual lack of systematic development and its consequences. Then following CLA is the scenario methodology. One of the best scenarios developers in our times, Peter Schwartz, defines scenarios as "a tool for ordering one's perceptions about alternative futures environments in which today's decisions might play out" (1996, p. 817). From the beginning of the 1980's scenarios started becoming important for the development of strategically sustainable futures and a range of variations in this process (Kelly et al., 2004, p. 84). This scenario method will be used to map Panama's alternative futures that will open up a range of possibilities for a whole new world for Panama's future.

1.6   Significance of the investigation

The significance of this study will give Panamanian governmental, corporate and civil society leaders the opportunity to know about futures studies as a new emerging discipline that is towards the well being of society. Hopefully this model will function, as the starting point for Panama's governmental, private, social leaders and policy-makers to

develop the ideal image of future scenarios models, which will be useful for the private and public sector as an alternative for improving Panama's actual situation.

Through the futures studies approach Panama will be able to achieve systematic development in the long-term process. This research will provide different types of approaches within the context of the discipline of futures studies for Panama policy-makers, corporate and civil society leaders. That is why this research is positive in different types of ways. First, systematic development is not adopted as the main model for Panama's development process, at least futures studies can start be known by Panamanian policy-makers and leaders as a serious discipline of study that can achieve many positive things in the future. The second way is that Panamanians can accept and understand futures studies by adopting the model of systematic development with its futures studies approach. All these are a quick example of alternative futures that would be clarified and sustained along the development of this research.

Finally, this study will be the starting point for Panamanian and Latin American policy-makers, corporate and civil society leaders to adopt the systematic development model using the futures studies approach. Although there is very little research on how futures studies can be used to settle a development model, key Panamanian policy-makers and also future studies by working together have a great chance prove that it can be done in the long-term process. These would motivate and incentive people to do more research in futures studies and also on systematic development.

1.7   Definitions of key terms and concepts

In this section a number of key terms will be defined and clarify inside the parameters of this study. The **alternative futures** term refers the concerned on how "one particular future has emerged as a universal future and what new futures might follow this historical pattern or dramatically transform it" (Inayatullah, 2004, p. 63).

The term **development** refers to "the process of social change which has as its goal of improvement in the quality of life of all or the majority of the people without doing violence to the natural and cultural environment in which they exist" (Dissanayake, 1981, p. 217).

The term **economic development** refers "increases in total or per capita income or output". It can also be defined in terms of creating the potential for growth (Flammang, 1979, p. 48). Economic development is also defined as "the means to 'carry out a nation's development goals' and to promote economic growth, equity and national self-reliance (Staudt, 1991, pp. 9-28). Robinson defines economic development "to include not only growth but also social and cultural changes which occur in de development process" (1972, p. 54). These definitions and more can be used for the purpose of this research. The reason is because the economic development term has so many definitions that are required for the better understanding of this study to narrow it and make it easier to the reader to understand the purpose of this investigation.

The term **economic growth** refers to "the increase in aggregate product, either total or per capita, without reference to changes in the structure of the economy or in the social cultural value systems" (Robinson, 1972, p. 54). Basically this term is used to compare and measure in a monetary way, mostly quantity rather than quality.

Foresight is a skill that enables us to anticipate many of the risks and opportunities that could confront us in the future. It can also help us to develop worthwhile and achievable long-term goals, along with reasonable strategies for attaining them (Cornish, 2004, p. xi).

The term **image** "originally meant a visual representation of reality-either physically (as in a picture or photograph) or in the imagination (as in literature or in music)" (O'Sullivan, Hartley, Saunders, Montgomery and Fiske, 1994, p. 144).

The term **image of the future** refers to condensed and crystallized expectations prevailing among peoples in certain periods and developed into systematic projections toward the future (Polak, 1976, p. 11).

Futures studies is the "systematic study of possible, probable and preferable futures including, and of the worldviews and myths that underlie each future" (Inayatullah, 2005a, p. 1).

Poststructuralism in this study has a futures studies approach, which specifically is "not focused on predicting a particular event or of interpretation so as to better understand, but one of making units of analysis" (Inayatullah, 2004, p. 6).

The meaning of the term **scenario** in this study refers to a futures studies "tool for ordering one's perception about alternative futures environments in which today's decisions might play out" (Schwartz, 1996, p. 817).

The concept of **sustainable development** refers to the development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (United Nations, 2007). This concept fit precisely in this study because of its future orientation.

The term **systematic** refers to a system as a whole, where social, economic, cultural and environmental factors function as one.

1.8   Brief outline of chapters

Chapter 1 outlines the main purpose of this study, problem, significance, and research questions.

Chapter 2 provides the literature review foundations for sustaining this study. The topics of the literature review are as following: alternative futures thinking, development concepts (systematic, economic, human and sustainable), systematic development futures concepts, and futures text.

Chapter 3 contains the research methodology for the purpose of this research. The main methods used Causal Layered Analysis (CLA) and double variable scenarios. It is important to mention that CLA will be introduced within the context of poststructuralism.

Chapter 4 provides the analysis of all the data gathered together along de development of the thesis. The data will be analyzed using the CLA and the double variable scenario methods. It is important to mention that CLA section will be supported by the four quadrant method. Finally, chapter 5 contains the discussions and recommendations that based on this academic research, Panamanian government, corporate and social leaders will need to follow for the creation of action plans for it's society systematic development in the long-term process.

1.9   Limitations of the investigation

The most important limitation of this investigation was the access to information regarding to futures studies in Latin American, specifically Panama. There was limited information in Panama regarding to any knowledge or research in the futures studies discipline. Not being able to be physically in the country that this research is based on, was also another limitation, but not as critical as the one's described above. However, doing this type of futures research for Panama becomes an important initiative that will create a

network of cooperation between Panama and other countries that uses the futures studies approach for the wellbeing of humanity.

1.10   Summary

This chapter gave an overall review of Panama, in the creation of future images for enhancing alternatives systematic development futures. The problematic situation discussed in this chapter was the search of Panamanian government, corporate and social leaders to rely only on economic development as a one-way path type of development; not taking into account other alternatives of development models, especially systematic development as a key model for a countries success. There is also the problematic of Panamanian government, corporate and civil society leaders and policy-makers not been able to create conscious images of other alternatives for development, in this case systematic development. In the following chapters the methodologies that will be used for knowing the deep core issues of Panama's actual systematic development situation and also to open up a wide range of alternative scenarios will be based on the futures studies framework. These methodologies will be CLA and scenarios. Key definition terms and limitations of the study where describe in this chapter. The following chapters where also briefly summarized.

The following chapter introduces the literature review in which alternative futures thinking framework, development concepts (economic, systematic, human and sustainable) will be compared to others professionals/academic work for sustaining this investigation. There is also an analysis futures text applying futures thinking in Ireland for achieving systematic development. Finally in the last section, there is a brief summary and explanation about of Panama and Latin America futures text.

CHAPTER 2
LITERATURE REVIEW

2   Introduction

This chapter is structured in three sections. Section I reviews the concepts about alternative futures thinking. It outlines the basic needs of futures thinking for creating alternative futures. This section sets the future strategy for the creation of new futures for Panama's systematic development. It also does a review on different types of perspectives of alternative futures and images of the future explaining its importance as an approach to open new possibilities for Panama's future success.

Section II reviews different types of theories in the development field. It explains how different kind of people understands and applies development concepts such as: systematic development, economic development, human development and sustainable development. Following it clarifies the definition and terms of each concept suitable for this study.

Section III introduces systematic development futures text based on futures thinking. The reason to introduce this research into this study is to prove that systematic development can be accomplished based on futures thinking. This research academically applies the same theories of economic, human and sustainable development integration for a country to achieve systematic development. Of course, this is all based on the futures thinking approach. This research was done in Ireland, therefore in a direct way it does not has to do with Panama or the Latin American region. In this section it is important to focus the attention on what is being study, which is the integration of economic, human and sustainable development to achieve systematic development, based on the futures thinking approach. That is why it is important to state that this research done in Ireland has two main objectives for the purpose of this study:

1. Demonstrate and justify that what is being study in this investigation; other countries have already done research.

2. Suggest to Panamanian policy-makers and leaders that the futures thinking approach is a realistic alternative option for a country that wants to apply the systematic development model in a long-term future.

Section IV, is the last section of this chapter. In this section there is a summary of one of the few reports done until this day in the futures studies discipline, about Panama's vision for year 2020. The objective of this report was to develop alternative futures relying on development key elements for Panama leaders and policy-makers that will have direct effect on competitive advantages in its society. Finally, this section concludes with a Latin American futures text, which explains the initiatives since the 1970's of Latin American to apply scenarios with a futures thinking approach to create alternatives for development in a systematic manner.

2.1 Section I: Alternative futures research

2.1.1 Introduction: A brief background to futures thinking

The main reason for studying futures is to understand and later to reveal the alternatives and choices, which give rise to choices (Slaughter and Bussey, 2005, p.19). As for futurist like Sohail Inayatullah and Wendell Bell, their main duty is to explore alternative futures like the possible, probable and preferable (Bell, 1997, p. 73). For Alvin Toffler, futurists try to create "new alternatives images of the future-visionary explorations of the possible, systematic investigation of the probable, and moral evaluation of the preferable" (1978, pp. ix-xi). Therefore, thinking and imagining alternatives has become a main agenda for futures thinking to develop systematic choices. For Panama's case the hidden potential of linking the futures thinking approach with sustainability, human and economic changes will be key aspect to achieve systematic development.

Futures thinking in recent decades have evolved from establishing a vision to a preferred future, to later identify the trends, choices and issues to be addressed in achieving that future. The importance of futures thinking is that search choices, alternatives, consequences and assumptions that will support the reveal of driving forces that will enhance actions in the present, that later will be consider or not to be incorporated for sustainable futures plans (Kelly et al., 2004, p. 82).

One of the essentials of futures studies is that creates images which reveal alternatives for pursuing plenty type of choices that will depend on commitments, priorities and values which will be the guide to the process of decision-making (Slaughter and Bussey, 2005, p. 1). Therefore, Inayatullah's resumes the uses of futures studies in five categories:

- **Educational:** the purpose of understanding the future is to develop a conceptual map, to be able to understand theories, methods and values.
- **Strategic:** through scenario planning it can be used to make better decisions.
- **Capacity building:** is developing the internal and external capacity to adapt to alternative futures.
- **Memetic change:** the future developed is the one preferred.
- **Microvita change:** is about spiritual change (2003, pp. 67-68).

Following, according to Amara, the principal objectives of futures studies are describe as following:

> First, to identify and examine alternative futures. …The second objective it to characterize the degree of uncertainty associated with each possibility or alternative future. … The third objective is to identify key areas, which are precursors or warnings of particular futures. … Fourth we want to examine a variety of if … then sequences. … A fifth objective is to acquire an understanding of the underlying processes of change. … Finally, the sixth objective is to sharpen our knowledge and understanding of our preferences. (Amara, 1978, p. 42)

For Inayatullah "futures studies has moved from external forces influencing the future-astrology and prophecy-to structure (historical patterns of change, of the rise and fall of nations and systems) and agency (the study and creation of preferred images of the future" (2005a, p. 1). According to Masini, future thinking in terms of developing visions, futurists required to search and listen to the seeds of change in the process of history, and of relying on values for building of future projects (2006, p. 1168). "Futures thinking is a means of enhancing creative policy research and development and is becoming increasingly important because many developments, particularly those that affect the development of people, economic base, are extremely long-term processes" (Kelly et al., 2004, p. 83). Futures studies is a field that only people with pure values towards society can succeed in creating the best alternatives to follow. The futurist ideal, but not obligation is to work for a political and social order within which futures studies can be carried out, within the limits of respect for human dignity and the protection of human rights (Bell, 1996, p. 74).

When it comes to futures studies, it is said that it is a systematic discipline. The reason is because futures studies gathers parameters of disciplines from a diversity group of people with different kind of interest and backgrounds (Slaughter and Bussey, 2005, p. 29). As shown on Table 2.1, futures studies covers plenty of fields and disciplines for managing change

Table 2.1

The Futures Field: Tools for Managing Change

Future	Prediction	Trend Extrapolation
Research (Major knowledge focus) ↕	Economic and technical forecasting	Social indicators Social Forecasting Technical Assessment
	Systems analysis	Global and societal modeling Long cycle research Simulation of change processes
	Management science	Issues management Decision and risk/benefit analysis Policy analysis
Futures Studies (Synthesis, criticism and communication)	Scenario writing	Ethnographic futures research Cross-impact analysis Delphic surveys
	Comparative surveys and critique of futures issues	Digests, indexes, overviews of Problems and dimensions changes
↕	Futures education	Professional training and development Curriculum innovation and course Development. Interdisciplinary
	Speculative writing	Social imaging processes Creation and falsification of images Exploration of the trans-rational
↕	Networking	Global communication Social innovation Green politics
Futures Movement (Stimulating, reconceptualizing and possibly leading change)	Theory and practice of alternative lifestyles	Alternative technology Reconstruction of community New age cultures and values
	Humanistic and transpersonal psychology	Future imaging workshops Despair and empowerment work Psychodrama Psychosynthesis

Source: Slaughter and Bussey, 2005, p. 29

Finally, citing Jim Dator concept about the core dimensions of futures studies is the most realistic approach among its field:

> Finally, instead of predicting the future, futures studies helps people envision and invent the future not as though one were creating an inevitable blueprint, but in order to give a sense of direction and control (not the reality of such) on the assumption that soon after you start heading towards your preferred future, you will experience new things, develop new ideas, about a new preferred future, and want to discard the old one. The image of the preferred future which futures studies helps you create assumes—almost demands—such flexibility (this in another way differs from the old positivistic idea of a science of the future) (Dator, 1992).

2.1.2 Inayatullah's four approaches to futures on research

To find the way on how futures studies can create alternative futures, Inayatullah states that by "deconstructing the future will create epistemological spaces that will enable the formation of alternative futures" (2004, p. 55).

For Inayatullah the empirical, the interpretive, the critical, and the action learning are the four approaches to research futures (2007, p. 42). These approaches are detail in Table 2.2, about how they function in the development of alternative futures.

Table 2.2

Four Research Approaches to the Future

Research approaches to the future	Description
The empirical	In this approach, the issue is: What are the trends of the future demands.
The interpretive	In the interpretive, less important is the external data, more significant are the meanings that actors personally and collectively give to the data.
The critical	In this approach, borrowed from poststructuralism, what is important is: What is not said when we forecast the future? What are the problematic categories?
Action learning	This is an iterative process of integrating empirical, interpretive and critical and doing something about it – changing the world through action and reflection

Source: Inayatullah, 2007, p. 42

It should be emphasized that the approaches futures studies methods are using to develop alternative futures are a secure way to get the correct answer and also to ask new questions. Being an approach is a support for creating different kind of options in all kind of situations. As Inayatullah states:

The critical futures approach may seem esoteric, or impractical, to some. However what should be more practical than investigating how the present and the future have come to be authoritatively created? That is, of course, if one is interested in truly creating and alternative future or alternative futures. (2004, p. 80)

2.1.3 Definition of alternative futures

Alternative futures can be seen in different kind of perspectives. Some futurists prefer to define it as a management business option for obtaining results. One of the role of futurist is "not only place the present in a larger perspective; they also attempt to design novel solutions, alternatives to the present" (Inayatullah, 1999, p. 21). Berger with his definition of alternative futures defines the term more precisely:

Alternative future scenario modeling provides a way for policy makers and stakeholders to explore the long-term impacts of different management strategies. These models produce representations of possible future outcomes based on different drivers of change. Once the alternative representations are generated analysts can evaluate and compare them using appropriate metrics or models. (2006, p. 1)

These results provide decision makers with information on the impact of policy options, or give the community a broader perspective on potential future outcomes (Schoonenboom, 1995, p. 15).

Another point of view futurist have concerning to alternative futures is that they should be more systematic and at the same time adaptable to any type of situations. That is why it "should be more concerned with how one particular future has emerged as a universal future and what new futures might follow this historical pattern or dramatically transform it" (Inayatullah, 2004, p. 63). Following, of relevance is Inayatullah's concept regarding to alternative futures:

In this way, what emerges is not one future, but a range of alternative futures, or more specifically, alternative images of the future. Thus, the future, instead of being certain, as most decision makers would like it to be, become uncertain. At the institutional level, instead of fewer policy choices to be made, more policy choices become available. However, there are a variety of ways to constitute 'alternative futures' which speak to the problem of diversity in decision-making. (2004, p. 63)

One of the roles of futures studies in society is to provide alternative images of the future. With the help of images of the future an individual or a society group will know the path, which they need to follow in a future (Morrow, 2007, p. 59).

2.1.4   Function of alternative futures

Why alternative futures are important and what are the applications to concrete real-world development futures? Lowry and Kim response to this question by stating that should be recognize the possibility of alternative futures, to imagine narratives of changes linking current conditions to these futures images and to think about positive and negative aspects of future conditions (2003, p. 19). Inayatullah points out the effects produced by multiple choices of the future as following:

Moreover, given the centrality of the term alternative within alternative futures thinking, the future suddenly becomes negotiable, open, and even unpredictable. An alternative futures approach creates the possibility of a world wherein the elite are not at the top – politically, economically, culturally and more importantly epistemologically. It should not be a surprise, then, that administrators, bureaucrats and executive officers of states and nations would resist alternative futures – except when constructed as minor deviations would present; moreover, one might expect when constructed as minor deviations form the present; moreover, one might expect a greater openness to alternative futures thinking. (2004, p. 68)

When people addressed to future they do it in an uncertain way as if it was a normal thing to do (it could be said that is an automatic reaction of the human-being). Some other people do it in alternatives ways, specifically images. Boulding refers to the term image as

"it includes conceptions of the represented object in the past and future as well as present: In short, images have associated memories and expectations" (1995, p. 113). Therefore, images of the future are a condensed and crystallized expectations prevailing among peoples in certain periods and developed into systematic projections toward the future (Polak, 1976, p. 11). Images of the future can also be defined as a non-realistic imaginary thinking.

Hicks and Holden state that images and cultural change have a direct effect on all society levels. It is important to know about how hopes and future uncertainty levels affects a group of people or individuals and if they are prepared to do (1995, p. 4). For Slaughter "that importance of the future and images of the future plays an important role in a persons life (1996, p. 103). Polak's six principles of images of the future will explain the reason why is a natural thing for people the dynamic of future human images:

- images of the future are always aristocratic in origin;
- the propagation of images is partly driven by the rational and intellectual; a much larger part is emotional, aesthetic, and spiritual;
- image-effect: describes the relationship between the projected future (whether positive or negative) and the actual future as it passes into history;
- self-elimination of images: images are eliminated over time in a natural way through the historical process of succession of images, and through the dialectical changes they themselves provoke;
- the periodic adaptation to time-change through self-correction, renewal, and change on the part of images of the figure in the continuous interplay of challenge and response; and
- the loss of the capacity for adequate self-correction and timely renewal of images of the future. For the first time in three thousand years of Western civilization there has been a massive loss of capacity, or even will, for renewal images of the future (Polak, 1973, pp. 13-14).

Concepts and views regarding to images of the future are quite different. If Inayatullah, Polak, Hicks, Holden, Slaughter and numerous authors argue that images of the future are part of a human life, then every one of us is capable of creating different alternative futures. But it depends on the way humans believe in their images that the space for creating alternative futures will be open; that will be the key point to assure success or failure.

Finally Ellul states, "that a society that lacks a living image of the future is condemned to disappear. On the other hand, the efforts of some intellectuals to provide such an image will scarcely be enough to save a society" (1976, p. 25). This is the reason why Panama's government, corporate and civil society leaders need to define development as the core future image that surely will bring hope to its society. Fortunately there are some people that can get prepared in these issues, and there are other people that already have these special gifts to imagine the best alternatives for the future.

2.2   Section II: Development concepts
2.2.1   A brief background of development

After World War II the economies affected by the war where making big efforts to rebuild as rapidly as possible while developing countries tried to initiate the economic development. Developed countries where determined to reach capitalist economies and to get rich by economic expansion. Development was the main goal of all and it is no wonder that an atmosphere of development theory monopolized the attention of the economists (Sen, 1979, p. 8). As one can notice, development constitutes a huge practice motivation. Indeed, this concept should have received a natural fundamentally practice orientation. But it has not happened this way; in great part the actual modern developments. Its connection with the public policies is often very remote (1979, p. 8). These implications leave "more than a billion people around the world in acute poverty and the earth's population likely to double in the next 40 years" (Furtado, Belt and Jammi, 1999, p. 1).

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There are other definitions about development, but most likely are inclined in the economic part. For example Schumpeter defines the term development as the "distinction phenomenon, entirely foreign to what may be observed in the circular flow or in the tendency towards equilibrium" (1961). Meier and Rauch traditionally measure development in per capita income (2000, p. 5). Focusing only on the material part (mostly GNP) Adelman and Morris resume economic development factors by modern pioneers of development economics essays (Rosenstein-Rodan, Chenery, Hirshman, Leibenstein, Scitovsky and Streeten) and the neoclassical development theorists (Bhagwati and Krueger). Their only objective was the increasing of GNP by applying these important development key factors:

- Systematic factors of production from a low-productivity
- Traditional technology
- Decreasing returns, mostly primary sector to a high-productivity
- Modern increasing returns, mostly industrial sector (2007, Development Theories Contrasted section, para. 1).

To criticize these materialistic factors is a way to prove that through development history the core concept of most societies relies on materialistic growing. That is why the development concept is only thought only as a quantification assessment (e.g. GNP) instead of a human value assessment. There should be a balance between the material, human and also spiritual to break paradigms so it can be possible to find the connection to enhance futures systematic possibilities of success.

2.2.2 Systematic development

Sometimes the word development, development economics and economic development is misunderstood, mostly because the lack of knowledge in the field. Development 'advances seven hundreds of definitions'. Systematic development is "constructed as a process of enlarging people's choices; of enhancing 'participatory

democratic process' and the ability of people to have a say in the decisions that shape their lives" (Staudt, 1991, pp. 9-28). Another simple definition of systematic development is the upward movement of the entire system (Myrdal, 1957, p. 1869). They key concept in the definition is 'entire system' (in this case involves economic, sustainable and human development). That is why systematic development is an area of economics that involves plenty of disciplines. As Harry Truman addressed this concept in a very detail way in his first speech as President of the United States on 20 January 1949:

> The Truman doctrine initiated a new era in the understanding of management of world affairs, particularly those concerning the less economically accomplished countries of the world. The intent was quite ambitious; to bring about conditions necessary to replicate the world over the features that characterized the 'advanced' societies of the time – high levels of industrialization and urbanization, technicalization of agriculture, rapid growth of material production and living standards, and the widespread adoption of modern education and culture values. (Escobar, 1995, pp. 3-4)

Systematic development should be look as one of the path to ensure a good life in our times and also in the future. With the integration of all disciplines and fields, everyone needs to be prepared for any kind of situation and also the unexpected. Society needs also to find numerous possibilities for researching and answering all different questions and critics. Some of the objectives of systematic development should be describe as follows:

1. Removal of poverty and malnutrition
2. Increase live expectancy
3. Access to sanitation, clean water and health services
4. Reduction of infant mortality
5. Increase access to knowledge and schooling (Debraj, 1998, pp. 8-9)

The focus of systematic development should be concerned with the achievement of a better life, and this analysis has to include the nature of the life that people succeed in living (Sen, 1988, p. 15).

2.2.3 Economic development

Recently society has seen economic development as the most important and unique way to reduce poverty and raise living standards (Furtado et al., 1999, p. 1). So from the beginning, pioneers that started dealing and studying the term 'economic development' understood the concept as a "growth process that requires systematic reallocation" (Adelman and Morris, 2007, Development Theories Contrasted section, para. 1).

Economic development is defined as "the means to 'carry out a nation's development goals' and to promote economic growth, equity and national self-reliance" (Staudt, 1991, pp. 9-28). It also helps a nation by providing sense of direction, taking control of their situations, specifying goals and creating ways to fulfill them (Molitor, 2007, p. 3). For The World Bank economic development is "qualitative change and restructuring in a country's economy in connection with technological and social progress" (2005, Glossary section, para. 18). These definitions "imply that it will require economic development to achieve minimal standards for everyone to live in good conditions" (Furtado et al., 1999, p. 1).

Kahn brings the attention to the key factors in economic development by finding the balance between the political and the non-political, between the old and the new, and the importance of human versus material resources (1979, p. 332). In turn, by citing Sen the key factors for economic development are expressed in the following terms:

1. Supply food
2. Clothing
3. Educational facilities
4. Medical services
5. Housing and more (1988, p. 12).

Sarkar also shares the same thought as Sen, by thinking that economic development vision requires basic life need like: shelter, food, clothes, health, education and most importantly the chances for men and women to gain physical security to pursue intellectual and spiritual development (Inayatullah, 1999, p. 23).

As mentioned earlier understanding the term of economic development has lead to the enhancement of different types of goals (mostly monetary ones). A requisite for Raffaele is that for achieving economic development it requires a rise per capita output (1971, p. 21). Cameron defines economic development as the sustainable increase of the total product goods and services that take place in a society (1998). Debraj states that universally development is not just about income, although income (economic wealth, more generally) has a great deal to do with it. (1998, p. 8). Finally Sarkar definition of economic development is for people to develop themselves intellectually and spiritually (Inayatullah, 1999, p. 30). It is important for a society to start thinking about economic development as a systematic concept that has to do with the wealth and sustainability of society. Which means that economic development is evolving towards the human value part, needing of other types of development (human, sustainable, political and more) that fits into today's Panama's reality. Surely this will prepare Panama's society for tomorrow's unknown future.

2.2.4 Human development

Human development is a development that not only creates economic development but also distributes benefits in an equitably way. Human development is conformed by norms, organizations, traditions, attitudes and values that promote unity in a determined society. (De Vylder, 1995). Also "human development is a process of enlarging people's choices. Enlarging people's choices is achieved by expanding human capabilities and functioning's" (United Nations, 2005). Therefore, human development is when the improved changes in the economic and political systems reach specific persons, and in a reply, these persons assume commitment in supporting economic development also the democracy development (Marmolejo, 2000).

The United Nations is one of the organizations that support human development to reach every corner of the world. When the United Nations is promoting human development they usually emphasize in four principal aspects:

- **Human rights:** Human development leads to the realization of human rights— economic, social, cultural, civil and political.

- **Collective wellbeing:** Individual rights, choices and opportunities cannot, however, be unlimited. One person's freedom can constrain or violate the freedom of many others. As the reaction to the excessive individualism of the free market shows, there is a need for socially responsible forms of development. Individual and collective wellbeing are intertwined, and human development requires strong social cohesion and equitable distribution of the benefits of progress to avoid tension between the two. And the power of collective action is an essential driving force in the pursuit of human development.

- **Equity:** Concerns for equity take centre stage in the human development perspective. The notion of equity is most often applied to wealth or income. But human development emphasizes equity in basic capabilities and opportunities for all—equity in access to education, in health, in political rights.

- **Sustainability:** Sustainability means meeting the needs of present generations without compromising the abilities and opportunities of future generations. It thus implies both intragenerational and intergenerational equity. Sustainability is an important dimension of human development. Human development is a process of enlarging people's choices. But such enhancement must be for both present and future generations without sacrificing one for the other (United Nations, 1998, Current Global Concern section, para. 2).

Finally, there will be a reciprocal dynamic system between human, economic and sustainable development, in which people trust and support the system, whenever they perceive the fruits of development and social relations are build, on confidence bases, credibility, social participation and solidarity.

2.2.5 Sustainable development

When it comes to sustainable development it implies the understanding of long-term quality of life and socio-economic development; but most importantly the future is the most important concern (Kelly et al., 2004, p. 80). For several years professionals in the sustainable field, but specially economist have been trying to incorporate in economic development the sustainable part that is missing from this concept. The sustainable development concept came to fame when The World Commission on Environment and Development made a report on this concept in 1987 (Holmberg and Sandbrook, 1992, p. 20). Later it became to be a global issue when the "Norwegian Prime Minister, Gro Harlem Brundtland, open the 1988 World Conference on the Changing Atmosphere with the call for economic growth and environmental protection go hand-in-hand around the world" (Engel, 1990, p. 1). After this conference people started to get concerned by the fact that economic development was only going in straight line without taking on account the ethical values about the world society.

The United Nations states that, for sustained economic growth to reduce long-term poverty, it depends on capital accumulation and technological advance (2006, p. 28). Therefore, one of the ways of achieving it is by essentially putting the physical limits into the scale of economy (Van Den Berg and Hofkes, 1998, p. 13).

Although some definitions about sustainable development concerns environment such as Robert sustains that "sustainability happens when we as a Society create long-term stable physical relationship with the 'whole' environment within we reside" (2003, p. 424). For the purpose of this research the definition will be towards ethics and equality. The definition that suits better this study is the one given by the United Nations. For the United Nations sustainable development "meets the needs of the present without compromising the ability of future generations to meet their own needs" (United Nations, 2007). The Organization for Economic Cooperation and Development (OECD) defines in a similar way. For the OECD sustainable development is the development that "implies a broad view of

human welfare, a long term perspective about the consequences of today's activities, and global co-operation to reach viable solutions" (UN, 2007).

Regarding to what was just explained above, it is important to point out that there is no typically conventional single definition for sustainable development. "The tenuous nature of the concept, coupled with its increasing importance in international and national policies has led to a wide variety of definitions" (Kelly et al., 2004, p. 80). That is why until this day sustainable development remains a concept spontaneously understood by many but still very difficult to express in material or operational terms (Lele, 1991, p. 607).

Sustainable development is a new concept that is starting to develop step by step. The multi-dimensional approach of sustainable development is a combination of different aspects as maintaining natural capital, environmental protection, achieving economic prosperity for the security of future generations (Kelly et al., 2004, p. 80). A key aspect on sustainable development is that creates democratization, accountability and interaction that go against usual paradigms of a countries local government. These aspects will open opportunities for Panama's policy-makers and later this will have an effect on its society to create successful participatory structures with political viability for the future. That is why in a certainly way, sustainable development will be the mechanism that will guide society to achieve systematic development. Finally, due to its moral-value concepts is hard to give a correct answer or definition about what is really sustainable development. But what is for sure is that in an ethical and moral matter "sustainable development is a true ethic for human being on planet earth" (Engel, 1998, p. 10).

2.3   Section III: Systematic development futures concepts

2.3.1   Ireland systematic development futures text

Although this real-life case does not has to do with the Latin American region, neither Panama, it has to do with specifically to what is being studied in this research that is the integration of economic, human and sustainable development using futures thinking to achieve systematic development in Panama.

The United Nations held a conference on 1992 on environment and development on which Ireland was one of the 150 nations, which authorized the Agenda 21. "The Agenda 21 is a comprehensive plan of action to be taken globally, nationally and locally by organizations of the United Nations System, Governments, and Major Groups in every area in which human impacts on the environment" (United Nations, 2004, Documents section, para. 1). It is estimated that almost two thirds of the Agenda 21 actions requires direct involvement of local governments (Keatinge, 1993). In Ireland, sustainable development first started at the municipality level because it encourages a more proactive role by the communities for enhancing collective action with social responsibility. For Ireland to start building the paths for sustainable futures, sustainability indicators where implemented as a vital tool to assisting local authorities at all levels.

In Ireland case to start the process of linking futures thinking with sustainable development to become a complete systematic development, they started doing the following:

1. **Set the strategic question:** In this first step they linked the prospective process with the strategic question by using planned conversations with key actors who where members of the general public (Kelly et al., 2004, p. 84). This helped enhanced democratic vision over the community about what the local authority represents. For a sustainable city success it requires the community to be educated and directly involved in the planning process (Maser, 1997). Therefore, the strategic

conversations where a vital tool to support government, policy makers and organizations to develop more sustainable policy decisions. The key part of scenarios relies on the different point of view, mainly from outsiders that stimulate the developing of alternate mindsets, strategic conversations that open systematic strategic plans (Barnett, 1992).

2. **Identify the driving forces of change:** A combination of scenario building, interviews, questioners, brainstorming workshops, and the analysis of driving forces of change was the practice the academy used to identify the drivers of change which they classified as following:

   - **Environmental:** The need to arrest environmental degradation and ecological imbalance.
   - **Societal:** The need for equity in the quality of life among present-day populations and the need to avoid impoverishment of future generations.
   - **Economic:** The need to ensure that economic growth is not considered in isolation from social and environmental considerations. (Kelly et al., 2004, p. 85).

   Driving forces help to examine the interconnectivity and interrelationships between the different types of drivers by helping understanding the richness and complexity of the local sustainable development that the local government can only achieve it.

3. **Determine the main issues and trends:** To avoid erroneous forecasting in identifying trends the extrapolating past and current trends were removed from the agenda. They stated that the more forward forecasters try to predict the future, more mistakes the forecast gets (MacKay and McKiernan, 2003, pp. 161-179). That is why the use the prospective approach with the scenario method, which helped get people to be concerned about the issue. The prospective process in a qualitative manner support and add positive meaning to the creation of comprehensive and integrated strategies (Kelly et al., 2004, p. 86).

4. **Establish scenario logics:** The academy stated that the "scenario logic is crucial for to the development of scenarios" (Kelly et al., 2004, p. 86). Scenarios overlays a

story that provides overarching reasons to specific forces to behave as they do (Schnaars and Ziamou, 2001, pp. 25-31). At this stage the scenario logic facilitates the creation of alternative assumptions with different strategies about the future.

5. **Create different scenarios:** At this stage the scenario process emphasized on the construction of mental models outside the participants familiar surroundings to allow a new and original thinking. Each of the scenarios had a beginning, middle and end, with a title and indicators of change. For the scenarios not to be bureaucratic they focused it on strategic planning that facilitated the organizational culture with moral values and mental models.

6. **Produce of prospective:** The academy by applying prospective focused primary on describing a particular preferred future. The prospective covers the concepts of preactivity (understanding) and proactivity (influencing), whereas foresight concerns itself mostly with preactivity but the proactivity is missing (Godet, 2001, pp. 3-22). "Prospective compromises not only the study of the future, and an evaluating of alternative outcomes against given policy reasons, but also influence the future and shape it according to society's wishes" (Kelly et al., 2004, p. 87).

7. **Move to strategic planning:** In this last stage the strategic prospective applied anticipation to real action plans. In one way, it provides a bridge between strategic thinking and planning which were traditionally and deliberately, mutually exclusive (Ratcliffe, 2003).

In conclusion the paradigm of systematic development essentially but not clearly embraces futures thinking. In this case the futures thinking approach gave local authorities the chance to foresight in the long-term process into strategic planning at local levels. For this particularly case, through the futures thinking approach it is possible to build a strong platform framework for Panama policy-makers and leaders to develop fundamental strategic planning at local levels which will have a major role for working towards sustainable development for future generations. So finally, this is an appropriate real-life example for Panama leaders and policy-makers to see futures thinking as a realistic and applicable discipline towards the achievement of systematic development.

2.4   Section IV: Panama and Latin America futures concepts

2.4.1   Panama futures texts

The vision plan for the year 2000 is one of the few projects on futures studies, which the United Nations in conjunction with the Panamanian government developed to create alternative futures for Panama that will have direct effect on competitive advantages in education, health, employment and productivity (Programa de las Naciones Unidas para el Desarrollo, 1998, p. 10). This was an approach to enhance a systematic effort for Panama to achieve economic development. The plan consisted on four key elements for achieving this goal:

1. **Auto-determination:** development of citizen participation.
2. **Economic development:** development of an economy with social equity and sustainability.
3. **Ethics and equity:** raise the population quality life.
4. **Sustainability:** social responsibility (PNUD, 1998, p. 11).

This vision has as a central concern that is eliminating from the Panamanian society the social problems, in the field of health, education and professional capacitating and housing by giving Panama society a vision to develop alternative futures (Programa de las Naciones Unidas para el Desarrollo, 1998, p. 42). Although this vision was not a concrete image of the future, at least it was the correct path follow. First, it needed to start with an image and later established the goals (visions) for opening up the path to the creation of alternative futures.

In resume, the opportunities of economic development in this intend of futures text for Panama would be incomplete without a concrete systematic development future image that will enhance the creation of alternative futures for Panama's society in a equitable and sustainable way.

2.4.2 Latin America futures text

The first Latin America futures research started with the efforts of the United States and Europe to create scenarios and images of the futures for the region. It was not until 1969, in the Inter-American congress held on Lima, Peru that these efforts begun to concretize in real life projects. The main topic of this congress was "America in the year 2000' "and the five volumes with the proceedings of that congress constitute one of the earliest regional attempts to being exploring future development options in a more or less systematic manner" (Sagasti, 2004, p. 18).

Later at the early 1970's the Latin American region was trying to construct several 'National Projects' for delineating visions for the long-term development for the countries in the Latin American region. For example in Argentina, Angel Monti wrote "National Project: Reason and Design (Monti, 1972), and a group led by Hector Ciapuscio at the Universidad de Tucuman proposed 'Guidelines for a new National Project" (Sagasti, 2004, p. 18). These two projects where focused on the long-term development of the Argentina as a response to the social and political instability that the country was facing due to military dictatorship on the region.

During the 1980's there were several groups in Colombia, Argentina, Mexico, Brazil and Chile that where constantly involved in long-range planning studies. These studies mostly engaged alternative scenarios for the development of their countries and the whole region. The problem in these long-range planning studies was the lack of connection between the actual situation and the government policy making on development strategies.

Although there were plenty of efforts for futures research in Latin America during the 1970's and 1980's, the social problems that the region was facing specially during the whole 1980 period was devastating for any kind of efforts in this field. Dictatorship regimes where all over Latin America and instability were the daily problem for the entire region. Efforts for any kind of development where turn down by the government and no one had

the right to express their thoughts and ideas regarding to politics. This whole situation began to have stability at the beginning of the 1990's when dictatorships where transformed into democratic government in the entire region (except Cuba). Organization started to emerge like The Andean Community; The Economic Commission for Latin America and the Caribbean (ECLAC), The Latin American Economic System (SELA), The Inter-American Development Bank and the Latin American Vice-Presidency of The World Bank produced several studies on options and strategies for Latin American development (Sagasti, 2004, p. 19). It is important to emphasize that this studies where focused on the systematic development of the Latin American region, which include global security, cultural trends, environmental and prospects for the country.

2.5   Summary

This chapter reviewed the relevant literature on alternative futures thinking that will fulfill the objectives of this investigation. Following, it reviewed the different point of views concerning to they types of development in this study. But most importantly there is strong evidence about using the futures thinking approach to achieve systematic development. This study is a starting point for futures thinking to be known as a systematic approach for developed and developing to assure different ways of development. Although there was a strong effort in the Latin American region for the future research focused in the systematic development of the region, these efforts where mostly developed in South American countries rather than in Central American countries. At least there is evidence of the use of futures research to create images of the future in the systematic development field for Latin America. There is also the creation of scenarios for creating better opportunities for Latin America to find the link between systematic development as an image of the future and also alternative futures.

Following in chapter 3 there is the theoretical analysis of the methodology applied in this research. Causal Layered Analysis (CLA) and scenarios will work as futures thinking tools for creating the alternative futures Panama needs to achieve systematic development. CLA will function as tool to search and analyze the core issues of Panama's system to later transform it in opportunities. Later scenarios will open up different alternatives for Panama's future by given them options and better chances to success in this globalize world.

CHAPTER 3
METHODOLOGY

3 Introduction

This chapter is divided into three sections, given an overview of the methodology used in this research. In section I are the theoretical approaches of Causal Layered Analysis (CLA) explaining its origins in poststructuralism. It is demonstrated that for understanding and applying in depth CLA, basic knowledge of poststructuralism, especially aspects of Foucault's work in genealogy and archetypes are important for setting CLA bases in a micro and macro-perspective.

At section II there is a brief history of CLA justifying its application in this research and also explaining its layers, functions, characteristics, and benefits are sketched out. To illustrate how CLA works, there is one case of study, which is summarized to understand this methodology.

In section III scenarios are briefly described as the methodology following CLA analysis. It mentions scenarios background history, definition, types, applications and critiques. There is also a real life case of scenario study, done in Latin American.

3.1 Section I: Theoretical Approach of Causal Layered Analysis
3.1.1 Introduction

Causal Layered Analysis (CLA) is a systematic method of futures studies that emerges largely from poststructuralism. The approach of poststructuralism "is not focused on predicting a particular event, or of interpretation so as to better understand, but one of making units of analysis" (Inayatullah, 2004, p. 6). This means that, CLA main task due to the poststructural approach is to question the undefined future.

3.1.2 Poststructuralism

Poststructuralism started as a social movement against the foundations and limitations of structuralism (Littlejohn, 1996, p. 99). It could be argued that started with Frederic Jameson in what he called "the crisis of history itself" (Jameson, 1975, p.198). Later, this movement got stronger with Derrida's earliest essays, specially 'Force and Signification', dating from 1963, but already in the 1959 paper, 'Genesis and Structure and Phenomenology', where the affirmation that" (Bennington and Young, 1987, pp. 7-8):

> It is always something like an opening which will frustrate the structuralist project. What I can never understand, in a structure, is that by means of which it is not closed. (Derrida, 1978, p. 160)

Poststructuralism started at Paris, being part of the social and political events. To mention some important works in this field, there is Deleuze and Guattari's (1977) schizoanalytic politics, Lacan's (1997) engendering of psychoanalysis, Foucault's (1978), Derrida's (1985) politics of difference sexual politics, Kristeva and Irigaray's (see Moi 1987) feminist theories (Lemert, 1994, p. 267). In 1976, Michael Foucault summarized the importance of the poststructuralist movement as following:

> …For the last then or fifteen years, the immense and proliferating criticizability of things, institutions, practices, and discourse; a sort of general feeling ground was crumbling beneath our feet, especially in places where it seemed most familiar, most solid, and closest to us, to our bodies, to our everyday gestures. But alongside this crumbling and the astonishing efficacy of discontinuous, particular, and local critiques, the facts were also revealing something…beneath this whole thematic, through it and even within it, we have seen what might be called the insurrection of subjugated knowledge's. (Foucault, 1976)

Without a doubt, the most important social thinker who had a very remarkable influence in poststructuralism (also in Sohail Inayatullah Causal Layered Analysis method) was Michael Foucault. Although Foucault did not consider himself as a sociologist, his deep thoughts and unique ideas make him established a new type of social science

discipline. "Foucault's refusal of systematic theory is thus the poststructuralist's rejection of reason as the center of being. And Foucault gives up much to maintain that stance" (Poster, 1989, p. 115). Foucault insists that his books are only tools for the revolutionary deconstruction of the established apparatus (Morris and Patton, 1979, p. 57). The only systematic principle for this anti-systematic writer is his denial of system, denial of reason, and necessarily denial of authorship (Bouchard, 1977, pp. 38-133). Foucault's poststructuralism was an effort to go against traditional thinking and to start building the roots of deconstruction and epistemology. Thanks to Foucault genealogy and deconstruction, Inayatullah could create a multi-layered methodology that could be theorized inside Foucault's framework. (2004, p. 4).

Poststructuralism is a term difficult to understand. The first reason is because it rejects of distinct reaction to structuralism (Derrida, 1983, pp. 271-276). Second, few people have willingly accepted the label 'poststructuralist'; rather, they have been labeled as such by others. Therefore, no one has felt compelled to construct a 'manifesto' of poststructuralist.

Poststructuralism has been defined as a method that goes beyond the system breaking all kind of normal patterns within a structure (Harrison, 2001, pp. 122-135). Poststructuralism names a theory, or a group of theories concerning the relationship between human beings, the world, and the practice of making the reproducing meanings (Belsey, 2002, p. 5). For Bennington and Young post-structuralism is to be suspicious of the apparent ease with which this 'decentring' of the subject and author is carried out, though it has its greatest effect on the text itself (1987, p. 1). This will put away the attention of the author's point of view, helping the reader to examine other sources of meaning. For Foucault poststructuralism is an "articulation of the said and the unsaid" (Hawthorne, 1998, p. 180). For O'Sullivan "poststructuralism is concerned with the external structures (social processes, class, gender, ethnic divisions, historical changes) that make meaning possible than was the early version, which was mostly concerned with internal textual structures" (1994, p. 304). Most importantly is Inayatullah's poststructuralism definition with futures

studies approach that is the appropriate one for this study as he defines it as:

> The poststructural approach attempts to make problematic trend or events given to us in the futures literature and not only to discern their class basis as in conventional neo-Marxian critical research. The issue is not only what are other events/trends that could have been put forth, but how an issue has been constructed as an event or trend in the first place as well as the "cost" of that particular social construction - what paradigm is privileged by the nomination of a trend or event as such. (2005b, pp. 3-4)

In summary poststructuralism main idea is to go against totality, to be witness of the unpresentable, to be different and save the honor and loyalty of the name (Lyotard, 1979, p. 82). Poststructuralism then "proposes that the distinctions we make are not necessarily given by the world around us, but are instead produced by the symbolizing systems we learn" (Belsey, 2002, p. 7)

3.2   Section II: Method of Analysis: Causal Layered Analysis
3.2.1   Introduction

The methodology used in this study, Causal Layered Analysis (CLA) is a futures studies method developed by Sohail Inayatullah that helps to find the roots of systematic problems. Through CLA scenarios develops social transformation on different kind of levels (Inayatullah, 2004). As already state in the previous section, CLA can bee seen as an effort to use poststructuralism, not just as an epistemological framework, but as a "research method, to conduct inquiry into the nature of past, present and future" (Inayatullah, 2005a, p. 51)

3.2.2   Justification of method of analysis

The most important reason why using CLA in this study is because as a method, it really goes into the roots of problem and situation to later break the common paradigms and views regarding to previous thoughts. So afterwards this whole thinking analysis, different

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options and ideas come to your mind for creating images of alternative futures.

This study sustains that a systematic development connection between economic, sustainable and human development are the alternative developments futures Panama needs to enhance for achieving economic development. CLA being a systematic method fits into Panama's society vision of creating alternative futures by multi-layering the problematic from all kinds of point of views.

In this study CLA function as the pillar for Panama's systematic development futures. Its main purpose is to dig into Panama's society issues to later set the bases for alternative systematic development futures. This only could happen with CLA because this method is "less concerned with predicting the future and more with opening up the present and past to create alternative futures" (Inayatullah, 2005b, p. 1). Although CLA in indirect way shows a panoramic of the future with the help of past events, scenarios will be the key player in the forecasting and alternative field.

In summary a resume of other key points sustaining the use of CLA in this study:

- It gives depths reasons and also the explanations of what is really happening in the present, thanks to the past
- It helps search for solutions in the present and later in the future.
- It also "provides questioners an opportunity to delayer or layer an existing issue or future actions" (Russo, 2003, p. 80).

3.2.3 Causal Layered Analysis Multiple-Layers

CLA is design to investigate multiple levels of consciousness and understanding in a fitting analysis multi-layered construction (Hambel, 2005, p. 78). CLA consists on four layers to the analysis:

1. At the first level is the litany. In this level everyone has the ability to identify the problems, trends, issues and situations in a very simple way. This is the level where everyone sees only the superficial part and does not require lots of analysis and thinking. "But seen the superficial part helps create a feeling of helplessness (what can I do?), or apathy (nothing can be done!), or projected action (why do not they can readily create a politics of fear" (Inayatullah, 2004, p. 12).

2. At the second level is the system. Mostly has to do with everything, from social concerns to economic and political factors. Therefore, the "role of the state and other actors and interests is often explored at this level" (Inayatullah, 2005a, p. 56). That is why sometimes in this level everything gets paralyzed. Who like to be questioned by its work? Who is willing to accept its role in society to be the cause of problem? Who likes to be question by its power? At this level in real life, is where everything is stopped and no ones dare to go deeper, so afterwards the truth can be revealed.

3. This third level of worldview/discourse analysis "represents our interaction with our society and what it represents" (Russo, 2003, p. 76). One of the tasks in the level is to "find deeper social, linguistic, and cultural processes that are actor invariant (not dependent on who the actors are) and to some extent system-invariant (Inayatullah, 2004, p. 12). Later, the other task is to analysis the role of the actors questioned in the system level (second level). That is why this "generates the tools needed to deconstruct the first and second levels" (Slaughter and Bussey, 2005, p. 181).

4. This level of myth and metaphor is more concerned with the emotional part of the human being rather than the academic. It is the unconscious part that rather than to think is going to feel and shape issues, problems, situations and more. This will help create images of the future by "touching the heart instead of reading the head" (Inayatullah, 2005a, p. 56). At this level is where you find the core concepts of questioning.

The importance of CLA is that "at each level, analysis that can be undertaken to draw out the relevant facts, value system and myths. This allows for the teasing out of issues and ideas, especially those which appear contentious at the litany level" (Morrow, 2007, p. 61). "The key point is to understand the kinds of questions that need to be asked in order to engage with the different levels" (Slaughter and Bussey, 2005, p. 183).

3.2.4 Causal Layered Analysis Characteristics

Basically what makes CLA different from other methods is that consist on layers and its more concerned with the deep approach rather than superficial. A very simple way to see its characteristics and social reality is to be viewed as an iceberg. In Figure 3.1, with the surface that we see representing a very small and limited amount of an extended real (Slaughter and Bussey, 2005, p. 181).

Figure 3.1

A Layered (CLA) View of 'the problem'
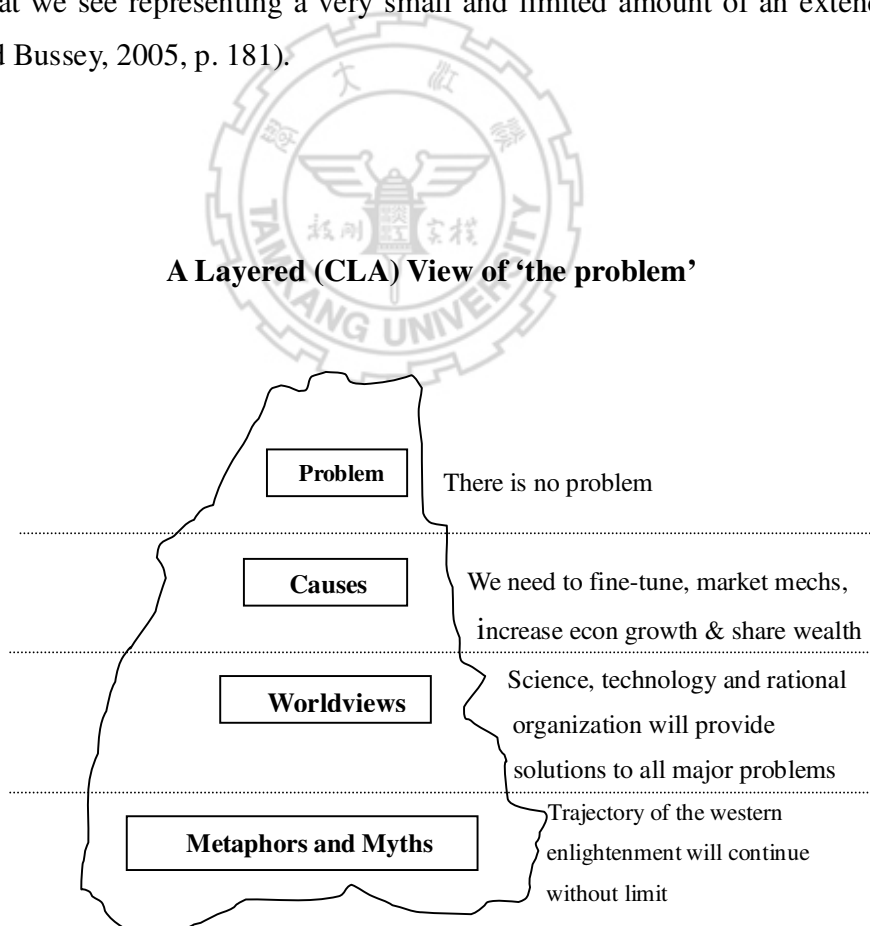
Source: Slaughter and Bussey, 2005, p. 180

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The problem (litany level) is the first thing anyone can notice. At first impression it seems like is only a little part of it. But the true that surrounds this paradigm is a whole situation or problem, that most of the cases has its roots and its solutions. The iceberg example by Slaughter and Bussey shows more clearly the special characteristics CLA is compose of.

3.2.5   Causal Layered Analysis Benefits

Recently researchers that are conducting multiple kind of investigations concerning to the future are using CLA to build the platform for the scenarios developing. Inayatullah states that CLA "is best used prior to scenario building as it 'opens up' a vertical space for scenarios of different categories" (Inayatullah, 2005a, p. 50). Some of the benefits of CLA are that:

- CLA expands the range and richness of scenarios.
- When used in workshop setting, it leads to the inclusion of different ways of knowing among participants.
- It appeals to and can be used by a wider range of individuals as it incorporates non-textual and poetic/artistic expression in the future process.
- CLA layers participant's positions.
- It moves the debate/discussion beyond the superficial and obvious to the deeper and marginal.
- It allows for a range of transformative actions.
- CLA leads to policy that can be informed by alternative layers of analysis.
- CLA reinstates the vertical in social analysis, that is, from postmodern relativism to global ethics (Inayatullah, 2005a, pp. 50-51)

By the already stated, it is not a requirement to make a CLA analysis before you enter into the scenario field. Before CLA existed, professionals and academics based their scenarios on prediction, vision, planning and more. But nowadays that CLA has come as a

systematic method, not only for futures studies but also to any kind of discipline and field that is willing to find different ways of transformations and solutions for getting better options and also solutions.

3.2.6 CLA case studies

Nowadays, CLA has been successfully used y numerous workshops, courses and real life situations. From the numerous CLA projects that have been done until this day, in the paragraphs bellow, are two real cases of study related to CLA for the better understanding of this methodology.

3.2.7 Poverty-free futures – CLA for analyzing economic development issues

This is a study done by Ivana Milojević on how to eradicate poverty by using CLA to summarize the crucial issues that need to be considered in this worldwide problem. In the "litany level poverty is measured only through economic factors and other quantitative indicators" (Milojević, 2005, Litany section, para. 11). At this level everyone knows the problem is there, some do something about it and some do nothing about it. The worst is that mostly people that do something about it; they do it as the western way. Aid packages, money, feel apathy, etc. Is in this level that the sense of helplessness – I wish there is something I/we could do; or projected actions – the government, United Nations or NGO's should do something (2005).

At the social causes level is where "social causes analysis, economic, cultural, political and historical factors are discussed" (Milojević, 2005, Social Causes section, para. 13). Indicators such as education, health, urbanizations, capitalism, income per capita and GNP are the main factors that have to be discussed. This level would lead to the formulation of the correct strategies on how to increase economic growth rate or labor productivity and how to encourage foreign investment (2005).

"At the worldview/discourse level, the main debate is whether economy needs to be regulated" (Milojević, 2005, Worldview/Discourse section, para. 15). The view of the western world is that one of the ways to eliminate poverty is through the free flow of capital and labor. It is not a surprise that human and sustainable factors are not taking into account because of the capitalism mindset that governs this culture. There is also the theory that is naturally to have poor people, because without them there would not be a balance in this world. "Discussions on this level also allow for an analysis of the ways in which the discourses themselves not only mediate issues but also constitute them or how they affect the future strategies" (2005).

The myth/metaphor level is where the deep cultural stories are analyzed. One good example of it is how the world portraits the images of indigenous people as if they were inferior and poor. These messages are sent through books, movies and advertisement. Therefore, in a directly and indirect way these messages have an effect on peoples mind on how to think about indigenous people. That is why at this level we can see how deep beliefs of the human being are inherently competitive and selfish. This creates a worldview that informs discussions that formulate policies that determine actions (Milojević, 2005, Myth/Metaphor section, para. 18).

This CLA example helps us know the core value of this method by analyzing poverty in a human-ethical way showing us the deep issues and also by giving us the best strategies or alternatives to follow. Poverty is world-wide issue that no government, private organization, neither NGO's wants to deal with it directly, so to silence this problem they give fish to the poor instead of teaching them how to fish.

3.2.8 Application of CLA in this investigation

The difference between the application of CLA in this study compared the one's just mentioned above is that CLA will be developed only by one person rather than a group of people guided by a coordinator. CLA is applied in this study as methodology for finding

the core reasons of Panama's lack of systematic development and its consequences by framing its situation layered by layered. After the assumptions are deconstructed in CLA, it will depend on scenarios to create different alternatives futures for Panama's systematic development.

3.3   Section III: Scenarios
3.3.1   Introduction

Perhaps the most famous and used methodology when it comes to forecast the future is scenarios. For futurists this is one of the main tools for the futures studies field (Schwarz, Svedin and Wittrock, 1982, p. 23). "Scenarios are stories about the way the world might turn out tomorrow, stories that can help us adapt to changing aspects of our present environment. Scenarios are about making choices today understanding how they might turn out in a future" (Schwartz, 1991, pp. 3-4). "Scenario thinking helps focus our thoughts about the future and then to recognize the questions surrounding them and the degrees of our uncertainty" (Shell International, 2003, p. 12).

In this study, scenarios will be applied after the development of CLA. Thus for having a better understanding on how this common but powerful resource of developing and forecasting alternative futures works, this section will try to cover important content and also cases of study.

3.3.2   Background

"The name comes from the theatrical term 'scenario' – the script for a film or play" (Schwartz, 1991, p. 3). They "emerged following World War II, at the U.S. Air Force as a method to imagine what its opponents might do, and to prepare alternative strategies" (Schwartz, 1991, p. 7). Scenarios "started with gaming operations research and planning during the 1950s. Particularly in defense, gaming was used as a tool of long-range planning" (Schwarz et al., 1982, p. 23).

Herman Kahn introduced it to futures studies in the mid-twentieth century (Slaughter, 2004, p. 102). At the beginning scenarios where described more into mathematical models rather than in futures discipline. One of the reasons was that futures studies was not developed by that time like nowadays. There was also plenty of discussion and arguments about how to define this new revolutionary concept. Brown in 1968 stated some of the notions describe as following:

- an outline of a sequence of hypothetical events
- a record of the actions and counteractions taken by parties to a conflict
- a specific set of parametric values selected for a given run of the computer.

Finally, scenarios where "developed as one of the family of alternative futures "methods by forecasters who where dissatisfied with the accuracy of conventional statistical forecasting over periods of more than a few years" (List, 2007, p. 77).

3.3.3 Definitions

Herman Kahn was one of the first ones who defined the term scenarios. He defined it as "a hypothetical sequence of events constructed for the purpose of focusing attention on causal processes and decision points" (Kahn and Wiener, 1967, p. 192). Schwartz defines scenarios as "a tool for ordering one's perceptions about alternative futures environments in which today's decisions might play out" (1996, p. 817). Ratcliffe defines it as a prime technique of futures studies that function as "instruments for ordering people's perceptions about alternative futures environments in which today's decisions might play out" (2004, p. 7). For Chermack scenarios are a "set of varying paths into the future that challenge the conventional thinking" (2006, p. 25). Shell International defines it "as a story that describes a possible future. It identifies some significant events, the main actors and their motivations, and it conveys how the world functions" (2003, p. 9). But most important is Wilson's holistic definition about scenarios:

Scenarios are (or should be) multifaceted and holistic in their approach to the future. In the early days of futures research, and still to a great extent in popular literature, it is the isolated event, the specific prediction that rivets attention. However, history is a booming buzzing confusion' of events, trends and discontinuities; it is constantly in motion picture than by a snapshot. Scenarios have a special ability to represent this multifaceted, interacting flow process, combining (when appropriate) demographic changes, social trends, political events, economic variables, and technological developments (1978, p. 27).

Actually, there is not an agreed upon definition about scenarios. Every person has different perspectives about scenarios, because in fact, the scenario development is an art rather than a mechanic methodology. There is no adequate book that can explain the unique paths for developing scenarios. Scenarios are developed by different kind of persons depending on their natural faculties, experience, situation, data and other factors that with practice will be the only way to learn it and later to master it.

3.3.4 Types of scenarios

Scenarios are a broad term used in almost any field of study. Around twenty-three types of scenarios exist, though many have rarely been used (List, 2007, p. 78). This sub-section will resume them into two general types and also it will emphasized on the one applied in this study (qualitative futures scenario). To distinguish them, it is required to divide them into the quantitative scenario and the qualitative futures studies scenario. The quantitative scenario is defined by Godet as a "from anticipation action" (1994). Chermack states that the quantitative scenario "is often the result of computer analysis, involving probability estimates that a given scenario will occur, and various other numeric representations that shed light on a variety of possible futures events" (2006, p. 24). Hatem states that the building of scenarios is a discipline halfway between intuition, logic, reflection and action, rhetoric, and science (1993). Concerning to Godet's, mostly of his work is based in the "identification of a process that brings together different techniques, frequently formalized" (cross impact matrices, structural analysis, etc.) (Masini and Medina, 2000, p. 52).

The type of scenario used in this study will be the qualitative futures studies scenario named double variable. The double variable scenario identifies two major uncertainties and develops multiple scenarios based on these. Essentially this method was developed by Johan Galtung (Inayatullah, 2008, p. 13). This method is about developing the uncertainties and using that as the scenario logic. Figure 3.2 shows the scheme of the double variable scenario method:

Figure 3.2

Double Variable Scenario

Scenario

Scenarios Developing | Scenarios Developing

Scenario | **Scenario**

Scenarios Developing | Scenarios Developing
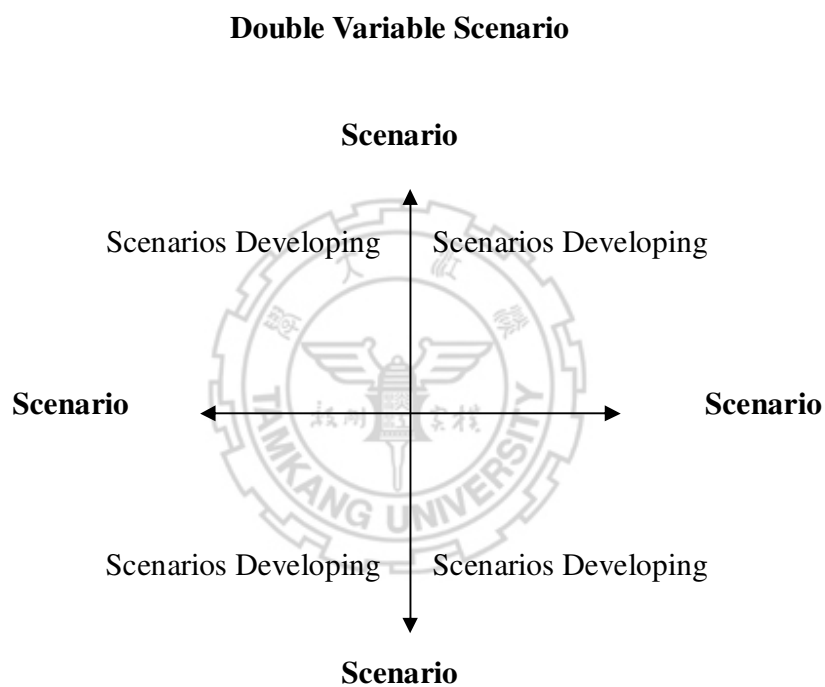
Scenario

Generally speaking qualitative scenario applied in this study is based on external environmental analysis, imagination and intuitive investigation trends (Chermack, 2006, p. 24).

3.3.5 Scenarios application

Scenarios are used for diversity type of objects-from simple alternative projections to results of complex simulation models. For Slaughter and Bussey scenarios "serve to portray aspects of a possible future as clearly and as fully as possible" (2005, p. 136). It also could be used as for creating futures images that combine future-open thinking with systematic thinking (Brunnhuber, Fink and Kuhle, 2004, p. 321)."Building and using scenarios can help people explore what the future might look like and the likely challenges of living in it" (Shell International, 2003, p. 9).

The only reason scenarios exist is because the future is unpredictable but at the same time is not unimaginable. Uncertainty makes people doubt, and because of this doubt methods like scenarios where created for lowering the levels of insecurity. That is why this method "unlike traditional forecasting or market research, which extrapolate from current trends, scenarios present alternative images" (Schwartz, 1996, p. 817). Scenarios of alternative futures are developed to serve variety of purposes (Schwartz, 1991 p. 21). Specially scenarios "seek to stimulate debate on the future and facilitate conversations on what is happening and may happen in the world around us" (Masini and Medina, 2000, p. 52). This is the reason why scenarios main "purpose does not lie in predicting, but in constructing several different futures and paths to them" (Borjeson, Hojer, Dreborg, Ekvall and Finnveden, 2006, p. 724). In fact, Kahn encourages the use of scenarios in a systematic, creative and imaginative way to facilitate the process of development (1979, p. 78).

One important critique about scenarios comes from different point of views. These points of views are divided into two: business-management and social science-future. Is very simple, business-management search for quick solutions (benefits) and the social science-future search for alternatives, images and also the wellbeing of human kind. That is why the scenarios used in this study (human-social futures studies scenario) will "describe alternative futures that will be accessible to possible analysis about possible futures" (Masini and Medina, 2000, p. 53). Therefore, depending on the field or discipline that we

are into, the development of scenarios will adapt to the same situation obtaining the expected results for making the best future actions.

3.3.6   Canadian International Development Agency (CIDA) in Latin America – Scenario case of study

Latin America suffered major transformation during the 1980's and the early 1990's. These transformations concerned to the international context and how the region will create a new setting for the development cooperation with the Western Hemisphere. This whole process surely required futures trends, specially the one used by Shell in the 1970's and 1980's (Sagasti, 2004, p. 19). This was the initiative why in 1995 The Americas Division of the CIDA launched the scenario building process for the elaboration of policies frameworks in the Latin American region.

For building scenarios is required to have precise background information. The scenarios that where developed referred to the Future of Latin America and the Caribbean. It also involved interaction with Canada, The United States and the rest of the world. Because Latin America is a heterogeneous region with different types of cultures and ethnicities, the consultation process required professionals from all kind of backgrounds. The CIDA also provide background reports with information about the Latin America region (Sagasti, 2004, p. 20).

An extensive questionnaire on the challenges Latin America and the Caribbean were sent to numerous key people along the region. Later their responses were processed, analyzed and distributed to the fifteen participants on a one-day workshop organized by CIDA. The workshop held by CIDA involved people from Central America, South America and the Caribbean, including NGOs, military, government, mass media, business to international financial institutions (Sagasti, 2004, p. 20).

The purpose of the questionnaire was to identify key issues, variables and problems in the region. After all these key issues where synthesize, no formal work was done, what the workshop did was an "overwhelming collection of statements, which provided a raw material for the scenario building" (Sagasti, 2004, p. 20).

After the consultation process was completed the participants where invited to join a two day workshop at Quito, Ecuador to review the background report of the consultation process. In this workshop they also review objectives, logic and mechanics of scenario building (Sagasti, 2004, p. 20). So they divided the scenario building in eight processes:

1. **Key past developments:** each participant was first asked to identify three or four major changes that had taken place in the social, economic or political situation of the region over the last decade. Other important questions they asked was concerning to development. Basically the key point was, if development had taken place in Latin America in the last decade? Because the answers where 'yes', they where also asked which might be the shifts directions or the emerging trends in development for Latin America. After each person answered the questions, seven clusters of key development were identified: regional political trends, paradoxical evolution of culture, global influence, new economic paradigm, and economic globalization (Sagasti, 2004, p. 21).

2. **Key future trends:** In this process it was also need to identify possible future changes and trends. "Participants were invited to identify three or four important changes they expected would take place in the region and have an impact on its development" (Sagasti, 2004, p. 21). In this process they identified nine more clusters, each grouping between seven and 15 changes and trends: the influence of United States and Canada on the region, regional integration, global political economy context, culture, key actors within the region, governance, social dynamics and environmental concerns (2004, p. 21).

3. **Variables and outcomes:** this process involved the identification of the key variables that play an important role in each cluster. They put together the variables

that had something in common. The groups where divided into two, to make all participants be actively involved in discussions. In this way they identify some specific outcomes: trade policy in the United States could turn protectionist reflecting isolationist tendencies, environmental management on the region could improve to ensure sustainable use of natural resources, political and economic power could lead to conflicts between countries and seriously threaten democracies in the region (Sagasti, 2004, pp. 21-22)

4. **Stories:** In this process each group had to invent stories about clustered outcomes. One of the groups came up with scenarios that reflected positive and negative developments, while the other had produced stories with several inflexion points and twists in their lines of argument (Sagasti, 2004, p. 22).

5. **Consistency check:** All groups had to check the plausibility of the stories they just created. First they had to search for internal inconsistencies, such as link between outcomes, variables and trends. Second they had to examined the story in view of the past events and trends at the very beginning of the process. It is important to point out that for a "scenario to be credible, a it has to flow from the past, through the present and into the future" (Sagasti, 2004, p. 22).

6. **Overall coherence:** At this point the stories had to be look as a single whole, to identify common threads that ran through all of them. The group identified two clusters of variables appeared to determine the flow of the various story lines: the international economic context and domestic governance. "The four scenarios that emerged were associated with combinations of positive and negative development in each of these two clusters of variables" (Sagasti, 2004, p. 22).

7. **Names:** In this stage the groups need to set out names for their scenarios. Scenarios needed to have quality, some life, so this process is very important although seems strange. The names where: The Flight of the Condor, The Wounded Dolphin, The Caged Parrot, and the Rising Phoenix (Sagasti, 2004, p. 22)

8. **Transcription and publication:** In this final stage the scenarios need to expand and to complement all the information with material on past development, future trends, variables and outcomes that was produced by the workshop. Plenty versions of the

scenarios, that where developed where transcribe and edited until it got "published as a booklet with a brief introduction on recent development in the region" (Sagasti, 2004, p. 23).

This scenario developed in Latin America was a teamwork effort towards the development of the region. Key trends, emerging issues and plenty of imagination where needed to start this scenario building process that for the Latin America region is a must nowadays. If in a global way scenarios can be applied as demonstrated in this example, in a glo-cal way scenarios can be also apply for Panama. This maybe would not happen in the same way, but focusing on the process of having the correct future image (development) and being clear enough in our visions, Panama's leaders surely will achieve any kind of challenges that the future has already prepared for it.

3.3.7 Scenario critiques

As mentioned above, scenarios are the tool that futurists and planners used more because of its possibilities to create different alternative futures and forecasting attributes. Most importantly, it is a unique anti-methodology way of self-developing depending on the person's characteristics and knowledge. But as scenarios have its advantages it also has its disadvantages. Some of them are:

- There are no interconnections between scenarios. Each one of them acts as an island, lacking often a clear origin from the present.
- That the emphasis on plausibility narrows the range of scenarios produced. Though implausible futures may be unlikely, there are so many possibilities that an implausible outcome is highly likely (Coates, 2003).

That scenario development is cumbersome and slow in big companies. Shell International is good example of it. Although they where the pioneers who developed scenarios successful, nowadays this process requires so many bureaucratic steps to be developed in a natural way as it should be (Shell International, 2003).

3.3.8 Application of scenarios in this project

As mentioned above the scenario used in this research will be qualitative scenarios. Developing qualitative scenarios with real facts with also accurate perception and imagination will help developed reliable futures scenarios for Panama's society to be prepared for the future that is sure to come.

3.4 Summary

This chapter mentioned and explained all the methodology used in this study. It started with a brief explanation about poststructuralism as the base of CLA. Later it focused general aspects of CLA as futures studies methodology for setting-up the bases for creating alternative futures. At the end there was an overall explanation about the most famous and useful futures methodology 'scenarios'. In this case, although scenarios are mostly seen as empty management forecasting tools, this study used scenarios with a qualitative human concept. This type of scenarios is the one how will open up the adequate alternative scenarios for Panama's systematic development to reach systematic levels of success. Chapter 4 proceeds with the application of the methodology mention above, by first creating CLA and later developing this methodology on Panama by deconstruction, reordering knowledge and also to find the root causes of social diseases (Fricker, 2000). The scenario technique will develop different types of alternative futures derived from the CLA analysis. Scenarios will also empower the forecasting of these alternative futures for Panama to achieve systematic development futures.

CHAPTER 4
FINDINGS AND ANALYSIS

4   Introduction

For the purpose of this research chapter 4 will be the core of this investigation because of its purely futuristic approach and analysis. In section I, CLA is the main futures studies methodology used to deconstruct Panama's actual lack of systematic development situation and its consequences. The other advantage of this CLA method is that creates alternative futures and also offers broader possibilities for developing Panama's future scenarios.

Section II goes deeper into CLA by applying the four quadrant mapping methodology. This futures studies methodology supports and deconstructs in a much deeper way the CLA analysis, which functions as a support and justification of the CLA analysis.

Section III is the application of futures studies scenarios. The type of scenarios used is the double variable in which Panama's two major uncertainties are identified to later transform it in alternative futures images. It is important to point out that this scenario analysis has a direct link with the CLA section I.

4.1   Causal Layered Analysis
4.1.1 Litany

The litany focuses on how the economic development model affects Panama's future systematic development aspirations. The discourse tends to focus on Latin America's conventional concept of economic development. A good example of it is Chile. Chile is considered the fastest growing economy in Latin America, in terms of GDP. With its GDP per capita of $16,000 (US dollars), Chile is one of Latin America highest economy per capita, and it's expected to grow more than 5% this year (Padgett, 2007, pp. 36-37). This

year 2007 Time magazine also considered Chile as the best country for investors to make business in Latin America (2007, p. 37). But what the world does not know is what happened in Chile this past September 11 of year 2007. For the first time in more than fifty years, the low class and the middle class went to the streets, killing, stealing, destroying public property and loosing all respect for authority (Diario La Nacion, 2007, p. 1). The main reason was 'equality and job opportunities' for reducing the gap between rich and poor people that is one of the worst in the world according to the Gini international index, where Chile is in the last 20 places of 130 countries (2007, p. 2). This is a good lesson for Panamanian leaders and policy-makers to know that a high GDP would not warranty a country a successful and equitable systematic.

Can systematic development be the comprehensive factor for Panama's future success? The official question of Panama's leaders and policy-makers ask the question: Does systematic development has any kind of future?

4.1.2   Social Causes

At this level social causes analysis, educational, cultural, corruption, political and economical causes are discussed. In this level educational, cultural, corruption and capitalism are the social causes that actually have a direct impact in Panama's systematic development due to their actual economic development model.   First of all Panama's government, corporate, and civil leaders and policy-makers do not belief in education as one of the sure ways of achieving systematic development. Spending only $ 790.8 millions (US dollars) (De Leon, 2006) last year 2007 and with a GDP (purchasing power parity) of 26.04 million (US dollars) (Index Mundi, 2006, Panama GDP (purchasing power parity) section) the numbers talk by itself. In addition Panama leaders and policy-makers do not believe in professor's education and preparation. That is why most professors at all levels of education teach the same things until they get retired. That means lots of money wasted without the correct use of it.

The culture cause is very delicate, because no one can judge others because of one's beliefs and thoughts; that is because no one knows the unique true about all things on earth or beyond. The culture indicator is also complex to measure due to its non-numerical aspects. Four negative aspects characterize Panamanian culture in conjunction with the Latin America culture: selfishness, non-team working, emotional, and consistent alcohol drinkers.

At the World Future Society 2007 conference, this past July 2007, a Colombian futurist Pedro Morales, stated a common reality in Latin American as following:

> One of the most relevant issues about Latin Americans is that they drink to much alcohol. Comparing them to other cultures, specifically the Asia culture that has the lowest rate in alcohol consumption, and mostly all their countries are achieving amazing economic development; Latin America should start thinking that this is good point to start changing habits (laziness and emotiveness also) for being better as a society and as a country. (Morales, 2007)

The term corruption in Panama's society is usually use to describe 'stealing' or sometimes 'government employees'. Panama in the in world ranking of corruption is located at position 74 of 179 countries (World Audit, 2007, Democracy Audit section). As it may be notice, also all Latin American countries are listed in this ranking table, but mostly are ranked in bad positions (see Table 4.1).

Table 4.1

Corruption Rank

Country	Corruption Rank
Finland	1
Denmark	1
New Zealand	1
Singapore	4
Switzerland	4
Norway	8
Canada	8
Australia	10
Chile	19
Uruguay	20
Costa Rica	35
Cuba	46
El Salvador	52
Colombia	53
Brazil	57
Panama	**74**
Argentina	83
Bolivia	83
Guatemala	88
Nicaragua	98
Honduras	103
Paraguay	110
Ecuador	122

Source: World Audit, 2007

Basically, corruption origins come from values, and values come from home. Without strong family tides (ethics, moral, honesty, love, sincerity and more) corruption will become instead of a virus, a cancer of Panama's society.

At the fourth social cause is the social cause of capitalism. To understand this systemic cause, it is required to comprehend the concept of development as a direct influence that can have different definitions and mindsets. These definitions will depend on social status, education, culture and most importantly the country in which one resides. A general example should be, if development is understood predominantly in terms of the economic development model, only economic measures are going to be suggested (Milojević, 2005, Litany section). The definitions and mindsets will therefore not include measures that work against traditional capitalism thinking structure that are complicit in creation and sustenance of lack of systematic development.

Finally, the purpose of this research it is important to clear out why capitalism has been fair and unfair in terms of systematic development. The reasons why is fair is because all the countries around the world used and their still using the capitalism model for wellbeing of their countries. Nowadays, there is no country in this world that can escape from this reality, besides the capitalism model has proven to have positive results and there is no other model that others country are willing to take the risk on. Although these results have not been pure systematic and mostly monetary, it is fair to say that 'nobody is perfect and at least its initiative make human kind have a better quality of life'. Now the reason it has been unfair is because, this model was created originally to create profits. This can be identified as one of the reasons of the gap enlarging between the rich and poor that is growing more and more each day, causing the disappearance of the middle class. In resume, less rich people with more, more poor people with less.

4.1.3 Worldview/discourse

At the level of worldview/discourse, the main argument is if economic development should be the correct model of development for sustaining a countries future. To explain more clearly the worldviews regarding to economic development, the definitions have been arranged in chronological order:

- Economic development is defined in terms of "increases in total or per capita income or output". It can also be defined in terms of creating the potential for growth (Flammang, 1979, p. 48).

- Economic development is defined as "the means to 'carry out a nation's development goals' and to promote economic growth, equity and national self-reliance (Staudt, 1991, pp. 9-28).

- Economic development is the sustainable increase of the total product goods and services that take place in a society (Cameron, 1998).

- For the world to achieve minimal standards to live in good conditions, it is required economic development. (Furtado et al., 1999, p. 1).

- For the World Bank economic development is "qualitative change and restructuring in a country's economy in connection with technological and social progress" (2004, Glossary section, para. 18).

- Economic development helps a nation by providing sense of direction, taking control of their situations, specifying goals and creating ways to fulfill them (Molitor, 2007, p. 3).

It is important to emphasize in these different types of definitions about economic development, how this concept have been evolving through time. First, there is the full quantitative definition. At the middle is a partial definition between sustainability and growth. At the end, it looks for the balance between quantitative and qualitative factors in a sustainable-human way. Looking at economic development in a macro-perspective it has been moving from a quantitative concept (GDP or GNP) to a qualitative concept (human-

sustainable). Unfortunately this evolution has been more on theory rather than on reality. The reason: nobody thinks or experience life for others.

Mostly, all the information concerning to a country stability and wealth relies on statistical data and economic development indicators. For example, how The World Bank uses its economic development indicators is an important worldview that has an effect on the society's point of view. Some of The World Bank economic indicators are describe as following:

1. External debt (% of GNI)
2. GDP (current US$)
3. GNI per capita (current US$)
4. Life expectancy at birth, total (years)
5. School enrollment, primary (% net) (The World Bank, 2007, Key Development Data & Statistics section).

In Panama's case, a 2006 economic development report by the Ministry of Economy and Finance of Panama concluded that, because of the continued growing of the GDP per capita, for the last five years and also an increase on foreign investment, there is a promising future awaiting for Panama. In this case the question should be: What kind of promising future? In terms of what? Only more and more money for the privilege ones or is only a promising future for the rich?

In contrast there is a more impartial-human report done by the United Nations in the year 2002 on Panama's economic development, more specifically, its poverty situation. This report concluded that for Panama leaders and policy-makers to achieve real development plans and policies, human and sustainable factors also needed to be taking on account for a real equitable future for every Panamanian.

When countries achieve their goal, in this case, economic development, they found out that something is missing and not everything is how they expected or planned. For example, more poor people, corruption, degradation of the environment, shrinking of the middle class and more. Therefore, after realizing that truth and the real meaning about the word economic development, they start thinking of development not only as a way of making more and more money, by a mechanism of human-sustainability for the wellbeing of their country and human-kind.

4.1.4 Myth/Metaphor

In this fourth level is where the deep beliefs analyzed in deep thoughts. The issue at the litany level of measuring development and growth by economic development creates a worldview that communicates arguments, which provides policies that determine the future actions of it.

Regarding to the deep cultural myths and their relevance to Panama actual lack of systematic development are considered as following:

- **Government responsibility:** Panamanians assure that the government is responsible for all what happens in the country (mostly bad things). Panamanians often say that 'if I pay my taxes the government should use that money to solve my problems, besides is their problem not mine'. When Panamanian refers to their problems, they refer to simple things like throwing the garbage bag into a garbage car to protecting the streets. In resume, the government has to take care of Panama because that is the reason why governments exist.

- **I am too busy:** This is a combination of selfishness and individuality already explained in the second layer (social causes) and in the third level (worldview/discourse). This is a common expression that someone will hear commonly in any kind of conversation, especially if someone is trying to make en excuse (aspect in which Panamanians are expert in doing). For example, the

common thinking of a Panamanian as a professor at the Santa Maria La Antigua University stated: "first me, second me, third me and fourth maybe you" (Puertas, 2002). In simple words this resumes and explains the reality of Panama's society mindset nowadays. Another example is about developed countries being busier than Panama and they still can help each other for having the common goal of success. So, why Panama as a society is not capable of having the will to at least makes the first step for making the difference? The answer is simple 'metaphor of individuality'.

Another important myth in this level has to do with foreigners from all around the world are moving to Panama to make money (United States, China and Spanish), to search for better living standards and to escape from political and non-political regimes (Colombia and Venezuela). In these cases, the most serious one comes from Colombia that is Panama's geographical neighbor. Because of Colombia actual situation of 'guerillas' (guerilla is the unconventional warfare and combat with which small group combatants use mobile tactics to combat a larger, less mobile formal army) and political instability, thousands of people moved to countries like The United States, Spain and Panama, in search of security and secure jobs. That is why nowadays, Colombian are occupying plenty of job positions in Panama, displacing Panamanians (specially low and middle class) from their originally job positions. Nowadays, one of myths around Panamanians is that 'Panama is going to be part of Colombia again' (Panama was part of Colombia from 1821 to 1903). Therefore, the reactions and answers to this globalization phenomenon by Panamanians are 'nothing and more excuses'.

The real myth and metaphor that indirectly has to do with this analysis of Panama's lack of systematic development is what foreigners and Panamanians expect from Panama as a 'Bridge of the World, Heart of the Universe'. This is a heavy burden Panama has to carry on for a long time. Connecting the world by the Panama Canal and connecting the American continent by its Tocumen International Airport was a future image of many people that slowly has been concretize within the last five years and still plenty of work

needs to be done in its upgrading international airport and in the multimillionaire upgrading of its canal. Between these two mega-projects, Panama is risking all on its canal. The reason is because naval companies all over the world have to continue using the Panama Canal and they also need to pay a higher rate each year due to Panama's Canal upgrade. At least the good news is that an international study of 20 years is backing up this mega-project that in October 22 of 2006 Panamanians in a national referendum said 'yes' to its upgrading.

Finally, it is important to emphasize that the part of the myth that is missing from what was just explained above is Panama as 'Heart of the Universe'. Panama is a country that depends completely on others. Panama nowadays is not functioning as a vital motor and heart of the world, instead is falling sleep in its laurels forgetting that 'is not the big that eats the small, is the fast that eats the slow'.

4.2   Four Quadrant Mapping Method

Following the previous CLA analysis, the four quadrant mapping method created by Ken Wilber and Richard Slaughter will give CLA a stronger base to Panama's actual systematic development situation. Briefly, this epistemological futures method merges into the foundational areas that feed into the futures enterprise and provide part of its substantive basis on social construction of reality, ontology, philosophy, and all the terms relevant at this level (Slaughter, 1999, p. 447) (Table 4.2). It also uses critical futures studies work to "probe beneath the surface to social life and to discern some of the deeper processes of meaning-making, paradigm formation and the active influence of obscured worldview" (Slaughter, p. 447). The method consists in four quadrant that are described as following:

1. **Inner-Individual:** is the stories individual tell.
2. **Outer-Individual:** is the main behavior we engage.
3. **Outer-Collective:** these are the official strategies organizations undertake.
4. **Inner-Collective:** is the inner map of organizations (Inayatullah, 2008, p. 11).

4.2.1 The Inner-Individual

In this first quadrant of personal feelings, goals and purposes are analyzed. In the previous CLA analysis there was a deconstruction of Panama's systematic development issues and consequences. All countries facing nowadays the lack of systematic development focused all their efforts and solutions on quantitative indicators to measure their economic development, only in monetary ways. Panama policy-makers are following Chile model to only increase their GDP, for the Panamanians to feel that if Panama government has more money, consequently this will increase leaving standards and will bring more prosperity to each individual. The consequence of prosperity in each individual causes Panamanians to feel that they are going towards a financially secure future. Panamanians feel better about spending money. This is an incorrect feeling about spending money. This reaction mostly is due to the economic security Panamanians feel (not think) about the future. Panamanians are living for today rather than living for tomorrow.

4.2.2 The Outer-Individual

Panama's government by promoting economic progress is making Panamanians behave emotionally rather than to think smarter, concerning to financial aspects. That is why Panamanians emotionally are wasting money and resources in materialistic. They are wasting money like water instead of saving and investing for the long-term future. All these collective behaviors have been indirectly supported by the government progress regarding to Panama's actual economic rising.

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4.2.3   The Outer-Collective

To make Panamanians feel better when they spend money, government has eliminated taxes, specifically in the food area. For foreign investment they have incentives, specifically in the construction and real estate area. The curious fact is that Panama is known as a fiscal paradise for foreigner and Panamanians, but only foreigners take advantage of this situation because of their more advantage financial education. Therefore, it can be stated that the government is doing well by reducing taxes and giving fiscal advantages for Panamanians (also foreigners), but also it has failed in communicating and educating the society about its advantages. That is one of the reasons why they are doing the easiest thing to do and worst thing to do that is called 'free advice'.

4.2.4   The Inner-Collective

In this fourth quadrant the behavioral of the Panamanian society is engage on the famous Panamanian myth of the 'juega-vivo' (playing smart means taking advantage of any opportunity for benefiting oneself without thinking on other things in consideration). With Panama's economic boom and at the same time being optimistic about their economic development future, social causes analyzed in the previous CLA analysis like culture and corruption affects directly the psychological behavioral of Panama's society, blinding them about the upcoming future events that may happen. This 'juega-vivo' myth is nowadays being challenge by the word 'teamwork'. No one can be successful being and island. In the business world (the real world) successful people get together to form a team (generally advisors), for achieving systematic goals (legal, product, marketing, leadership, accounting and more). That is why it all resumes on team effort to create success.

In conclusion this critical-epistemological futures studies method has deconstructed in a deeper way Panama's lack of systematic development and its futures consequences. It also provided a support basis for the CLA analysis by giving key structural facts with innovative potential that most of the time is overlooked by normal analysis or

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interpretations. With the future deepened in this analysis is more clearly to notice that besides Panama main lack of systematic development issues, the problem is also due to social causes, worldviews and myth/metaphors. These factors with the support of the international media and information systems, creates an ignorant consumer mindset in Panama's society of a western culture with cold foundations on capitalism (materialism). Finally, it is important to point out that this method is functioning as a support to CLA and not as the main analytic method for this study.

Table 4.2

Panama's Lack of Systematic Development Four Quadrant Mapping Analysis

	Inner	**Outer**
Self	Feeling of financial security Spending is good Living for today and not for tomorrow	Wasting money and resources, specifically in materialism Trust the government Emotions rather than to think smarter Thinking on the moment (there is no future)
Collective	Playing smart (selfishness) None teamwork	Fiscal paradise Lowering taxes Free advice (this is called the worst advice)

4.3   Scenarios

The type of scenario methodology that is going to create different types of alternatives futures for Panama as explained in the previous chapter, is going to be the double variable scenario method (Figure 4.1). The development of this scenario will be supported by the CLA analysis in what it is called incasting. Another task of the CLA analysis besides deconstructing Panama lack of systematic development and its consequences using the poststructural approach is also to expand the range the richness and range of the scenario development. This means, that the scenarios will be more reliable and flexible thanks to the deconstruction approach.

For opening up alternative futures for Panama to enhance systematic development, the two critical uncertainties that are the result of the CLA analysis are:

- Worldview concept of development
- Impact of social causes

Will systematic development enhance Panama's progress to be a developed country? Or it will be the traditional way of economic development based on capitalism that will ensure Panama's future systematic development? Will Panama stay with the status quo of Latin American corruption culture or they will adopt new images of the future based on paradigms of change towards renew moral values that will lead them to sustainability?

Now with these uncertainties threatening or encouraging Panama's alternative futures systematic development, there are four possible futures described as following:

1. **Scenario #1 – Panama follows the wrong herd**: In this scenario inside the litany level is the Gross National Product Rises in Panama. In the systemic layer there is the classical nepotism model in Panama and Latin American governments that brings corruption and bureaucracy at all levels. The worldview is the model of capitalism that leads only economic growth and also economic development around the world. The metaphor is 'government as father. As already explained in the CLA analysis, Panamanians like to depend on the government for everything. That is why the government becomes a part of the family in Panama's society.

2. **Scenario #2 – Panama towards evolution**: In this second scenario inside the litany level is no more poor in Panama. This means a complete eradication of the poor and extreme-poor people. In the systemic level is an empowerment made by the Panama government with partnership funding to empower the poor, health, education, sufficient supplies and good governance. The worldview would be an already implemented systematic development with positive effects on Panama's society. The metaphor/myth is a Eutopia society due to Panama's ideal to create a

perfect society with a future-oriented perspective.

3. **Scenario #3 – Chaos Point**: In the litany level there is a Gross National Product decline in Panama's economy. That is why in systemic layer Panama's system is in a border of collapse. This is due to the worldviews of the classical model of capitalism. Finally in the metaphor/myth level it ends with a 'breakpoint' of Panamas society. This breakpoint means that Panama had the chance to achieve systematic development and also success, but instead, Panama took another way, which led to its society decline without options of going back.

4. **Scenario #4 – A new past**: In the litany level there is a military coup in Panama in hopes of a renew government. In the systemic level is dictatorship better than capitalism. Panama has it last military coup in 1989 by General Manuel Antonio Noriega, which gave its society an experience on how a dictatorship can change a countries mindset. This will have a direct effect on the worldviews, which will be a nationalism and anti-western mindset (it is happening in Venezuela and Bolivia). Finally, the metaphor/myth is one-man one country. This type of government was implemented in Panama in the 70's and 80's with its military government.
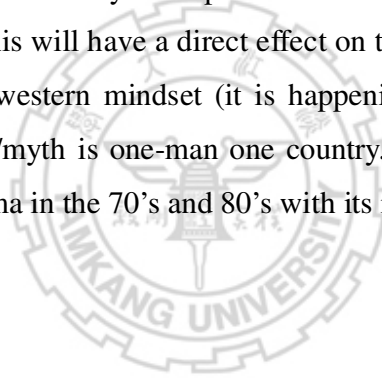
Figure 4.1

Panama's Double Variable Scenarios with CLA Incasting Analysis

Panama rises

Panama follows the wrong herd

Litany: Gross National Product increases

Systemic: Nepotism in government continues to create corruption and bureaucracy

Worldviews: Capitalism

Metaphors/myth: Government as father

Panama towards evolution

Litany: No more poor people

Systemic: Whole-of-government partnerships funding to empower the poor, good health, education, sufficient supply, and good governance

Worldviews: Systematic development

Metaphors/myth: Eutopia society

Culture — **Economy**

Panama old ← → **Panama's new culture**

Chaos Point

Litany: Gross National Product decreases

Systemic: System in border of collapse

Worldviews: Capitalism

Metaphors/myth: Breakpoint

A new past

Litany: Military coup to renew the government

Systemic: Dictatorship better than capitalism

Worldviews: Nationalism and anti-western culture

Metaphors/myth: One man, one country

Panama's decline

4.4   Summary

CLA with the support of the four quadrant method has been deconstructed. The deconstruction started with social causes, going through cultural, financial, environmental and technological. In this way it was easy to layer out each issue for later creating alternative future solutions. Therefore, it would be wrong to point fingers on a countries systematic situation (social, cultural, financial, environmental and technological) by only looking at the surface of the problem. The double variable scenario provided four important alternative futures for Panama. The first alternative future was Panama rises, the second one was Panama's decline, the third one was Panama old and the fourth one was Panama's new culture. A CLA incasting in each scenario provided a better understanding of the deep stories behind each alternative future Panama could face in a future.

For the following last chapter there will be the discussions and conclusions for this research. This chapter will not be purely based on the academic analysis done in the previous chapter. It will also be based on personal experience.
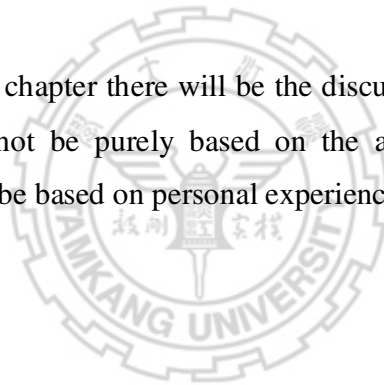
CHAPTER 5
DISCUSSION AND CONCLUSIONS

5   Introduction

This concluding chapter presents a critical analysis of the issues raised in this thesis as based on the analysis and findings from chapter 4. The discussion submits important findings form the previous chapter using the Causal Layered Analysis framework within its four layers. There are the critical responses to the two research questions that where presented at the beginning of this thesis. General conclusions to the whole thesis are also presented integrating academic and real-life approach towards Panama's futures. A final objective is to plant the seeds for encouraging futurists and non-futurist to continue doing their valuable research generated from this investigation.

5.1   Summary

The two main research questions around which this investigation was initially structured were:

1. Can systematic development become a fundamental image of the future for Panama?
2. What are the futures of Panama and what are the impacts on its future systematic development?

Essential and critical responses are provided in the subsequent sections. However, before answering the questions, a summary of the key issues from the previous chapters follows. Chapter 1 introduced the argument that through the use of alternative futures thinking, Panama will be able to achieve systematic development. This systematic development will consist on economic, human and sustainable development. Futures studies methodologies such as Causal Layered Analysis (CLA) are introduced in this study

within a poststructural framework. Also scenarios where applied to create alternative futures to forecast these alternatives, for the creation of new possibilities with renews perspectives of the world for Panama.

Chapter 2 outlined the concepts about alternative futures thinking. It outlines the basic needs of futures thinking for creating alternative futures. It also does a review on different types of perspectives of alternative futures and images of the future explaining its importance as an approach to open new possibilities for Panama's success. A futures text regarding to systematic development was analyzed to sustain that Panama's government, corporate and social leaders can apply the same theories of integration of economic, human and sustainable factors to achieve systematic development. Of course, this is all based on the futures thinking approach. A summary report of Panama's vision for year 2020 and a futures text of Latin America where analyzed as relevant research on conceptual studies in understanding Panama's social realities and the conceptualization of alternative futures in Panama.

Chapter 3 gave an overview of the methodology used in this research -- Causal Layered Analysis (CLA) and scenarios were outlined in detail as the main futures studies methodologies. It explained theoretical approaches of Causal Layered Analysis (CLA) and its origins on poststructuralism. To illustrate how CLA work, a case of study was summarized in simple way to understand this complex but at the same time simple methodology. Following CLA, the four quadrant method was used to support and also to deconstruct Panama's actual lack of systematic development situation. The four quadrant method was not considered as a fundamental futures studies methodology for this study because it works better as tools to stronger sustain the CLA analysis. Scenarios are briefly described as the methodology following CLA analysis. It mentions scenarios background history, definition, types, applications and critiques. There is also a real life case of scenario study, done in Latin American.

Chapter 4 was the core of this investigation because of its purely futuristic approach and type of analysis. CLA as the main futures studies methodology deconstruct Panama's actual situation of lack of systematic development and also its consequences. For going deeper into CLA the four quadrant mapping methodology supported and deconstructed in a much deeper way the CLA analysis, which functions as a sustain and justification of the CLA analysis. Futures studies scenarios in this case the double variable, identified the two major uncertainties in Panama's actual systematic developments issues, to later be develop in alternative futures images. It is important to point out that the scenario analysis had a direct link with the CLA methodology.

5.2 Discussion: Panama's alternative futures along CLA four layers

5.2.1 Litany

It all starts with eyes rather than with the mind. Panama as a society is already in the wave of materialism and ignorance towards a prosper future. Looking at the surface is a common attitude of Panama's society. Believing in the media, newspaper or what other people say is also part of the problem. Although systematic development has been developed academically through this research as the complete model for Panama and Latin American leaders and policy-makers to follow for achieving a systematic development, Panama still is far away from this reality. However, it is strongly stated along the development of this study that systematic development is a strong enhancer for Panama's society success.

5.2.2 Social causes

A change of culture should be the answer or maybe a cultural revolution? Sometimes if a leader of a country has to go the limits to ensure the prosperity and progress of a country, sometimes-extreme measure needs to be taken. But this is not Panama's case right now. Every country has its own problems; in Panama's case culture is one of the burdens. From this point forward in CLA it is clear to see the gaps and fractures of what is

delaying Panama's systematic development nowadays. Starting from this layer it spreads all over the CLA analysis until it gets to the last layer (myth/metaphor). To put a stop at this Panama leaders and policy-makers require starting restructuring their paradigms and values so the culture can go in a positive direction. It all starts from our homes.

5.2.3 Worldview/discourse

All the countries around the globe can see and also demonstrate by numbers that the way towards economic development is the easiest and fastest to follow in a short-term process. But developed countries are now experiencing the consequences of economic development like less human rights, high levels of contamination, larger income gap between the rich and the poor, elimination of the middle class and more. Panama's society does not escape from this reality. Its society is absorbing this type of worldview that without a doubt will lead to progress but at which cost?

5.2.4 Myth/Metaphor

In the industrial age the mentality was study hard, find a good job with social security plans and health plans, and stay there until you retire so life could be almost perfect after retirement. Right now the world is still leaving in the industrial age, but Panama and developing countries are the one who are suffering from this worldwide myth. In this information era, companies are not offering more security, neither benefit. Companies are importing jobs worldwide due to globalization and the one's that are moving faster are the one's who are eating the slower. Panama's government is inefficient and corrupted, and only the top rank positions have good salaries compare to the ones that are eating a cable. To make it clearer, for working in Panama's government you need to now someone that is in politics, if you are lucky enough to know someone who is in a top position surely you will also be at the top, but if not then if you urgently need a job, accept what is available. No exams, no degrees, only who you know. Also in Panama, important companies are getting together or being bought by powerful companies abroad, that means,

less job stability, changes in the market, less security and much more. Panama is still trapped in the industrial age where the government took care of the society, but the today's reality is that society has to take care of themselves.

5.3 Responses to core research questions

5.3.1 Research question #1: *Can systematic development become a fundamental image of the future for Panama?*

The answer to that question is 'yes'. However, what is important to emphasize in this answer is that although systematic development can become a fundamental image of the future for Panama it can only happen through the hard way. The hard way is self-experience. As already pointed out in previous chapters, no one thinks or feels for other people. Is the same as in business, the only way to be successful is to go out there and do it, although education is an important asset, is not as important as facing reality out there.

In a long-term process the credibility and adaptability of this future economic model can be acquired by Panama but in the short-term process is not real. Panama's society is following the wave of western countries; it all has to do with who has the power. If the United States, Chile, The United Kingdom have shown great levels of development by implementing economic development along the years, why do not follow it? They are the real-life proof that capitalism based on economic development really has positive results on a countries progress. However, this progress is not overall, is only monetary progress. Environmental, human and sustainable issues where not took in account and the world is paying the price. The world moves by money and money is the center of every person's life that lives in a capitalist country. It would maybe not be important for some people, but is a need that makes humanity stay alive everyday.

For systematic development to become an image of the future in the development area, it would be recommendable to start with a futures studies approach. Although images of the future can be accomplishing without knowing futures studies, futures studies have the power to make people perspective change in a dramatic way. Futures studies can have a

wave effect on Panama's society of changing of paradigms that will have a direct effect on its culture and life. Futures studies is a way of life rather than a field or are of study. However, Panama's government, corporate and civil leaders are not ready to accept the systematic development model with its futures studies approach. That is why the work has to start first with the development of futures studies in Panama for the society to accept it and know really what the core values of this discipline are. Hopefully when the times comes that Panama policy-makers and leaders are ready to see and understand systematic development with a futures studies approach as the future model of systematic development, then futures studies role in society will start to have meaning, respect and most importantly goals.

5.3.2   Research question #2: *What are the futures of Panama and what are the impacts of its future systematic development?*

Going to the point in this second research question will be the best thing to do. It would be de divided in two parts. Both positive and negative statements will be derived from the chapter 4 analyses. Positive statements are as following:

- Futures studies will be accepted as a way of life that makes better a society in all aspects, from material to spiritual and vice-versa.

- Futures studies will be the approach to ensure Panama's leaders and policy-makers to understand and later implement systematic development as the ideal model for development.

- Systematic development will bring Panama all the attributes to become a developed country. By doing this, Panama will be a pioneer, entrepreneur, and model in this field for other Latin American countries to follow, who knows, maybe the world.

- Panama's society will start being smarter rather than emotional. Being smarter without a doubt has always-positive results. Being smart for Panama's society will make its society believe in itself and also will make them have a positive mind about everything in life.

- Western countries start to implement systematic development and advice developing countries to use this model. As already stated, every successful people in life always have good advisors and mentors.

The negative statements are as following:

- Economic development in a short-term process that will lead to progress, materialism and westernization. The side effects of it would be more poverty, elimination of middle class, declining of human rights, more pollution and more.
- Culture degradation due to westernization and materialism that maybe in the extreme long-term context could bring Panama's society to collapse.
- Status quo of developing country with its social manifestations and inefficient government. Panama's society would stay in the comfort zone expecting that lemons fall from the sky, instead of Panama learning how to make lemonade.
- Futures studies would not have effect of Panama's society.
- Panama will stay in the industrial longer than expected. Panama's whole system is still trapped in this era. This means, education, health, private and public sector, and more.

The impacts of these statements on Panama futures are balanced. Indeed, systematic development with a futures studies approach will develop Panama's society to a first world country. However, this is a reality for the long-term future. One of the objectives of futures studies is to prepare us for that future, not for knowing it; in this world no one can certainly know the future. Therefore, for the short-term process Panama's actual economic development model is the ideal one and maybe it is what this country needs in today's world. Things need to happen in Panama society either good or wrong for this country to learn and to continue growing up.

5.4   Conclusions

It has been demonstrated that Panama has numerous futures alternatives for achieving the systematic development model. However, having these entire alternatives does not secure Panama's leap from a developing country to a developed country; at least not in the short-term process. The role of the creating of alternative and images of the future in this research was to show Panama's government, corporate and civil leaders that before making big steps first it is necessary to crawl and later walk. Panama leaders and policy-makers need to think to later find the main reasons why its situation nowadays. Successful rich people around the world say that is not for the money, is for the dreams and self-achievement that drives them to make a difference in the world.

A critical analysis done in this research was the CLA analysis with its poststructural approach. This analysis analyzed and showed the fragmentations in which Panama is falling day after day. Litany, social causes, worldview and myth/metaphors worked in Panama's case of lack of systematic development as the detectives of Panama's issues. CLA proved extremely beneficial in revealing layers of social realities and in generating insights. Finding out core problems and going to the roots of it through CLA is the best thing to do when someone wants to see and feel beyond what the normal eyes cannot do. Once Panama's lack of systematic development was deconstructed, alternative futures appear through each layer for Panama's society to be prepared to an unknown future that lies ahead.

Nowadays in Panama's society reality, this research does not have any strong effect on whatever circumstances Panama's society is going through right now. In Panama, futures studies still does not have the power and status to transform a society mindset neither their way of life. That is the reality Panama's society is facing in today's world. So that is one of the reasons this research has an academic approach rather than a real-life approach. However, this is a good point to start for building Panama's road to success. This is one of the first studies done purely using the futures studies approach for Panama to achieve systematic development. While the public and private sector are following the

economic development model in Panama, this research will be a future alternative for Panama's government, corporate and social leaders to find innovative ways of success and achievement.

5.5   Suggestions for further research

The role of systematic development in Panama and also in Latin America government, corporate and civil leaders still is an unknown territory. In real-life the effects systematic development will have in a country are still not very clear and there are plenty of questions to ask regarding to this model. Therefore, it is important to know and understand in reality what this model can achieve in the short and long-term process. All these will give Panamanian and Latin American leaders and policy-makers the assurance and self-confidence to study the possibility of an alternative type of development.

Futures studies needs to enter in Panama's and also in Latin America societies as a discipline not as a field. In Panama futures studies is known as mathematical forecasting. Although is not called futures studies, indirectly is used as a scientific tool to measure profits, net income cash flow and more. Futures studies needs to establish as a systematic discipline that will prepare of us for the future. It has to erase completely the image of the crystal ball and any other doubts to gain pure credibility not only in Panama but also in the world.

The research done on a country to achieve systematic development using the futures studies approach still is not enough and is lacks of real world approach. Doing research, investigating, studying is the easiest thing to do. But the real proof of fire comes when it has to be applied in the real world. Although all of this is need as a point to start, the gap between what is wrote and done is huge, not only in the systematic development and futures studies area, but also in plenty of fields and disciplines. It would be more credible for the purpose of further research that instead of making plans and theories about how to implement systematic development using futures studies approach; real actions can take place for the world to judge on their own criteria, values and most importantly, knowledge.

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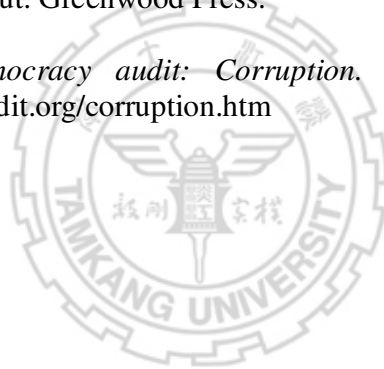
GLOSSARY OF KEY TERMS AND CONCEPTS

Alternative futures	refers to the concerned on how one particular future has emerged as a universal future and what new futures might follow this historical pattern or dramatically transform it.
Development	refers to the process of social change, which has as its goal of improvement in the quality of life of all or the majority of the people without doing violence to the natural and cultural environment in which they exist.
Economic development	increases in total or per capita income or output". It can also be defined in terms of creating the potential for growth.
Economic growth	refers to the increase in aggregate product, either total or per capita, without reference to changes in the structure of the economy or in the social cultural value systems.
Foresight	is a skill that enables us to anticipate many of the risks and opportunities that could confront us in the future. It can also help us to develop worthwhile and achievable long-term goals, along with reasonable strategies for attaining them.

Image	originally meant a visual representation of reality-either physically (as in a picture or photograph) or in the imagination (as in literature or in music).
Image of the future	refers to condensed and crystallized expectations prevailing among peoples in certain periods and developed into systematic projections toward the future.
Juega-vivo	refers to an attitude of taking advantage of any opportunity for benefiting oneself without thinking on other things in consideration.
Futures studies	is the systematic study of possible, probable and preferable futures including, and of the worldviews and myths that underlie each future.
Poststructuralism	in this study has a futures studies approach, which specifically is not focused on predicting a particular event, or of interpretation so as to better understand, but one of making units of analysis.
Scenario	a futures studies tool for ordering one's perception about alternative futures environments in which today's decisions might play out.
Sustainable development	refers to the development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

| *Systematic* | refers to a system as a whole, where social, economic, cultural and environmental factors function as one. |