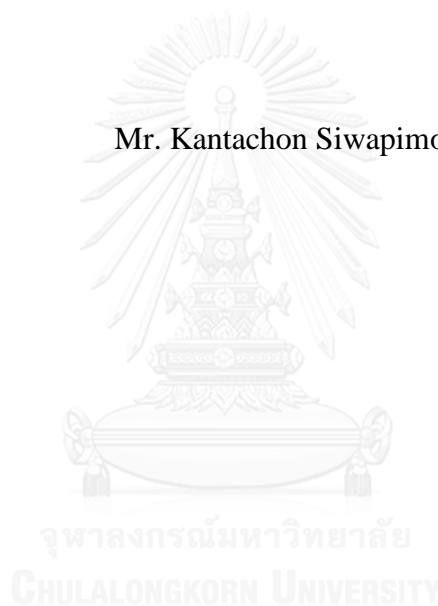


DEVELOPMENT OF STRATEGIC ENVIRONMENTAL ASSESSMENT (SEA) AND
SUSTAINABILITY APPRAISAL (SA) PROCESS FOR THE SPECIAL ECONOMIC
ZONES IN ASEAN ECONOMIC COMMUNITY (AEC):
A CASE STUDY OF SAVANNAKHET - MUKDAHAN

Mr. Kantachon Siwapimon



บทคัดย่อและแฟ้มข้อมูลฉบับเต็มของวิทยานิพนธ์ตั้งแต่ปีการศึกษา 2554 ที่ให้บริการในคลังปัญญาจุฬาฯ (CUIR)
เป็นแฟ้มข้อมูลของนิสิตเจ้าของวิทยานิพนธ์ ที่ส่งผ่านทางบัณฑิตวิทยาลัย

The abstract and full text of theses from the academic year 2011 in Chulalongkorn University Intellectual Repository (CUIR)
are the thesis authors' files submitted through the University Graduate School.

A Dissertation Submitted in Partial Fulfillment of the Requirements
for the Degree of Doctor of Philosophy Program in Environment Development and
Sustainability
(Interdisciplinary Program)
Graduate School
Chulalongkorn University
Academic Year 2015
Copyright of Chulalongkorn University

การประเมินสิ่งแวดล้อมเชิงกลยุทธ์และการประเมินความยั่งยืนของเขตเศรษฐกิจพิเศษในเขต
ประชาคมเศรษฐกิจอาเซียน : กรณีศึกษาสะพานนะเขต-มุกดาหาร



วิทยานิพนธ์นี้เป็นส่วนหนึ่งของการศึกษาตามหลักสูตรปริญญาศิลปศาสตรดุษฎีบัณฑิต
สาขาวิชาสิ่งแวดล้อม การพัฒนา และความยั่งยืน (สหสาขาวิชา)

บัณฑิตวิทยาลัย จุฬาลงกรณ์มหาวิทยาลัย

ปีการศึกษา 2558

ลิขสิทธิ์ของจุฬาลงกรณ์มหาวิทยาลัย

Thesis Title	DEVELOPMENT OF STRATEGIC ENVIRONMENTAL ASSESSMENT (SEA) AND SUSTAINABILITY APPRAISAL (SA) PROCESS FOR THE SPECIAL ECONOMIC ZONES IN ASEAN ECONOMIC COMMUNITY (AEC):A CASE STUDY OF SAVANNAKHET - MUKDAHAN
By	Mr. Kantachon Siwapimon
Field of Study	Environment Development and Sustainability
Thesis Advisor	Associate Professor Thavivongse Sriburi, Ph.D.

Accepted by the Graduate School, Chulalongkorn University in Partial Fulfillment of the Requirements for the Doctoral Degree

..... Dean of the Graduate School
(Associate Professor Sunait Chutintaranond, Ph.D.)

THESIS COMMITTEE

..... Chairman
(Sangchan Limjirakan, D.Tech.Sc)

..... Thesis Advisor
(Associate Professor Thavivongse Sriburi, Ph.D.)

..... Examiner
(Associate Professor Sunait Chutintaranond, Ph.D.)

..... Examiner
(Assistant Professor Chackrit Dangphastra, Ph.D.)

..... External Examiner
(Associate Professor Sura Pattanakiat, Ph.D.)

..... External Examiner
(Atsamon Limsakul, Ph.D.)

กันตชนม์ สีวะพิมล : การประเมินสิ่งแวดล้อมเชิงกลยุทธ์และการประเมินความยั่งยืนของเขตเศรษฐกิจพิเศษในเขตประชาคมเศรษฐกิจอาเซียน : กรณีศึกษาสะพานนะเขต-มุกดาหาร (DEVELOPMENT OF STRATEGIC ENVIRONMENTAL ASSESSMENT (SEA) AND SUSTAINABILITY APPRAISAL (SA) PROCESS FOR THE SPECIAL ECONOMIC ZONES IN ASEAN ECONOMIC COMMUNITY (AEC):A CASE STUDY OF SAVANNAKHET - MUKDAHAN) อ.ที่ปริกษาวิทยานิพนธ์หลัก: ทวีวงศ์ ศรีบุรี, 179 หน้า.

ภูมิภาคเอเชียตะวันออกเฉียงใต้รวมกลุ่มกันเพื่อสร้างความแข็งแกร่งทางด้านเศรษฐกิจ สังคมและวัฒนธรรม ของภูมิภาค หนึ่งในความร่วมมือที่สำคัญนั้นคือระเบียงเศรษฐกิจตะวันออก-ตะวันตกหรือ East-West Economic Corridor (EWEC) ซึ่งเป็นโครงการเชื่อมโยงกลุ่มประเทศบนลุ่มน้ำโขงด้วยเส้นทางคมนาคมทางบกที่พาดผ่านจากฝั่งตะวันตกที่ เมืองเมะลาโย สาธารณรัฐแห่งสหภาพเมียนมาร์ ไปยังฝั่งตะวันออก ที่เมืองคานัง สาธารณรัฐสังคมนิยมเวียดนาม โดยเส้นทางนี้ผ่าน 4 ประเทศหลักคือ สาธารณรัฐแห่งสหภาพเมียนมาร์ ประเทศไทย สาธารณรัฐประชาธิปไตยประชาชนลาวและสาธารณรัฐสังคมนิยมเวียดนาม นอกจากนี้เพื่อเป็นการยกระดับเศรษฐกิจ ของภูมิภาคประเทศดังกล่าวได้จัดตั้งเขตเศรษฐกิจพิเศษขึ้นบนเส้นทางนี้เพื่อรองรับกิจกรรมทางการค้าที่ขยายตัวเป็น อย่างมาก รวมถึงเขตเศรษฐกิจพิเศษสะพาน-เซโนในประเทศลาวและเขตเศรษฐกิจพิเศษมุกดาหารในประเทศไทยด้วย

อย่างไรก็ตามสิ่งที่มีเกิดขึ้นควบคู่กับการพัฒนาคือผลกระทบต่อสังคมและสิ่งแวดล้อม ซึ่งอาจทวีความรุนแรง มากยิ่งขึ้นหากไม่บริหารจัดการอย่างถูกวิธี ทำให้เกิดความพยายามนำการพัฒนาอย่างยั่งยืนมาปรับใช้ในปัจจุบัน จึงเป็นที่มาของการศึกษาในครั้งนี้ โดยใช้กรอบการประเมินสิ่งแวดล้อมสิ่งแวดล้อมเชิงกลยุทธ์ หรือ Strategic Environmental Assessment (SEA) และการประเมินความยั่งยืน หรือ Sustainability Appraisal (SA) มาบูรณาการและพัฒนาเป็นเครื่องมือการประเมินโดยกำหนดให้มีแบบสอบถามที่ใช้ศึกษาในกลุ่มผู้มีส่วนได้ส่วนเสีย 15 คนที่มีความชำนาญเฉพาะด้านและมีส่วนเกี่ยวข้องกับการพัฒนาดังกล่าวโดยตรงเพื่อให้ทราบถึงปัญหาและผลกระทบที่เกิดขึ้นในปัจจุบัน

การศึกษาพบว่าการพัฒนาเขตเศรษฐกิจพิเศษสภาพปัจจุบันที่อาจก่อให้เกิดผลกระทบในวงกว้างต่อสังคมและ สิ่งแวดล้อมของพื้นที่ จึงจัดสร้างเครื่องมือต้นแบบเพื่อนำแนวทางการพัฒนาอย่างยั่งยืนไปบริหารในเขตเศรษฐกิจพิเศษ ที่สามารถลดปัญหาต่างๆที่มีเงื่อนไขที่สอดคล้องกับวัตถุประสงค์ของ SEA และ SA โดยการบูรณาการเข้ากับปัจจัย ความสำเร็จของการพัฒนาอย่างยั่งยืนที่พบจากการศึกษาทั้งสิ้น 11 ปัจจัยคือ 1) การพัฒนาความรู้ของสังคม 2) การพัฒนาระบบการศึกษา 3) การปรับใช้มาตรฐานสากล 4) การจัดสรรพื้นที่และสาธารณูปโภค 5) การพัฒนาองค์กรร่วม 6) การกำหนดนโยบายและกฎหมายที่สอดคล้อง 7) การกำหนดโครงสร้างบริหารจัดการ 8) เงินทุนสนับสนุน 9) การมีส่วนร่วมของผู้มีส่วนได้เสีย 10) ระบบสาธารณสุข และ 11) การป้องกันเศรษฐกิจท้องถิ่น นอกจากนี้ได้เสนอตัวชี้วัดเพิ่มเติมซึ่งสอดคล้องกับมาตรฐานสากลด้านการพัฒนาอย่างยั่งยืนเพื่อสนับสนุนให้การพัฒนาดังกล่าวเป็นที่ยอมรับในระดับสากลอีกด้วย

สาขาวิชา สิ่งแวดล้อม การพัฒนา และความยั่งยืน ลายมือชื่อนิติ
ปีการศึกษา 2558 ลายมือชื่อ อ.ที่ปริกษาหลัก

5387828420 : MAJOR ENVIRONMENT DEVELOPMENT AND SUSTAINABILITY

KEYWORDS: SPECIAL ECONOMIC ZONE / STRATEGIC ENVIRONMENTAL ASSESSMENT (SEA) / SUSTAINABLE APPRAISAL (SA) / MUKDAHAN / SAVANNAKHET / SAVAN-SENO SPECIAL ECONOMIC ZONE / MUKDAHAN SPECIAL ECONOMIC ZONE

KANTACHON SIWAPIMON: DEVELOPMENT OF STRATEGIC ENVIRONMENTAL ASSESSMENT (SEA) AND SUSTAINABILITY APPRAISAL (SA) PROCESS FOR THE SPECIAL ECONOMIC ZONES IN ASEAN ECONOMIC COMMUNITY (AEC):A CASE STUDY OF SAVANNAKHET - MUKDAHAN. ADVISOR: ASSOC. PROF. THAVIVONGSE SRIBURI, Ph.D., 179 pp.

Southeast Asia Nations gathered together to strengthen its mutual economic and social developments. One of the important corporations is the East-West Economic Corridor (EWEC), a project linking countries on the Mekong Sub-region with roads, which lies across from the West Bank at Mawlamyine in Republic of the Union of Myanmar to the east coast of Danang in Socialist Republic of Vietnam. The route passes through four countries including Republic of the Union of Myanmar, Kingdom of Thailand, Lao People's Democratic Republic and Socialist Republic of Vietnam. Accordingly, these countries have set up special economic zones along the EWEC including Savan-Seno special economic zone in Laos and Mukdahan special economic zone in Thailand in order to accommodate commercial activities.

However, the study found out that the developments brought about environmental and social impacts to the areas, which could be even more severe if not managed properly. This reason is the importance of this study. The study had been done via the framework and tools for sustainable development called Strategic Environmental Assessment (SEA) and Sustainability Appraisal (SA) to develop a questionnaire that used in the in-depth interview with a group of 15 people that involved directly in the developments to explore more understanding about current situations and important factors of the developments. As consequences, the study gained deep understanding about the current developments that needed to be managed.

As a result, the study found out that the current state of the development in the target areas could cause severe problems. Therefore, this study established the New Integration of SEA and SA Process for the Special Economic Zones in Savannakhet and Mukdahan. Further, the Process is flexible and suitable to be applied in other special economic zones. The Process integrated SEA and SA processes into the 11 key success factors of the sustainable development that had been found in the study. These key success factors are 1) Public education and understandings of stakeholder 2) Development of educational system 3) International standard implementation 4) Zoning and infrastructures 5) Holistic management 6) Policy, legal and enforcement 7) Management structure 8) Expenditure 9) Public participation 10) Public health care 11) Local business protection. Furthermore, the research proposed monitoring/ assessment indicators that in line with the international SD standards to gain the international acceptances of this study.

Field of Study: Environment Development and
Sustainability

Student's Signature

Advisor's Signature

Academic Year: 2015

ACKNOWLEDGEMENTS

Foremost, I would like to express my deepest gratitude to my thesis advisor, Associate Professor Dr. Thavivongse Sriburi for worthy advice giving the guidance and constant encouragement throughout process of this thesis. I also would like to deliver all of my sincere appreciations to Dr. Sangchan Limjirakan for being a great overseer ever during all of my time studying in the Environment Development and Sustainability program (EDS) since she was the Director of the program who took care closely to all of her students. My special thanks also to the thesis committee namely Dr. Sangchan Limjirakan, Chairman of the Committee; Associate Professor Dr. Sunait Chutintaranond and Assistant Professor Dr. Chackrit Duangphastra, Committee; Associate Professor Dr. Sura Pattanakiat and Dr. Atsamon Limsakul, External Examiner.

I am grateful for the lecturers for their teaching, knowledge and wisdom. My thanks also deliver to Ms. Sudthida Wongsathapornpat, Deputy Director and Mr. Wiwat Lertwilaisak the current EDS program officer who contributed all of his energy to the most effectively support me and other students during the study. My thanks also give to the Chula Unisearch officers who ideally managed the time schedule of me and my advisor. Also thank you to the Graduate School officers who facilitated all processes of this thesis.

Furthermore, the research required opinions from several experts. I would like to pass my appreciations to all key informants who delivered the valuable information to this thesis.

Last but not least, I most gratefully acknowledge my PAPA and MAMA who were always with me throughout good and bad days. Without them I would have no chance to continue my further studies. Your words of “I had not got enough money to support my own educations, and I have not much money in my life to construct your beautiful future, the only thing I can do is to work hard to support the educations of my children. That is the only thing I can brighten your future” will be forever on my mind. My special thanks to my special wife who always on my side during the days and nights and took care all of my daily responsibilities. Thank you to my special EDS friends, especially Dr. Nick Leo, for all of their mental supports throughout the period of this research. Thank you to Ajarn Anantachai Yoonprathom, my teacher and work colleague, for his supports of my SD life.

Sincerely loves,

Kantachon Siwapimon

CONTENTS

	Page
THAI ABSTRACT	iv
ENGLISH ABSTRACT.....	v
ACKNOWLEDGEMENTS	vi
CONTENTS.....	vii
Chapter 1.....	1
INTRODUCTION	1
1.1 Background and significance of the study.....	1
1.2 Research Objectives.....	3
1.3 Research Question	3
1.4 Scope of the study.....	3
1.5 Benefit of the research	4
1.6 Limitation of the Research.....	4
Chapter 2.....	6
LITERATURE REVIEW	6
2.1 Study Lens	6
2.1.1 Strategic Environmental Assessment (SEA).....	6
2.1.1.1 Objective of SEA.....	7
2.1.1.2 The Process of SEA.....	8
2.1.1.3 Criteria and indicators of SEA	12
In 2002, IAIA published the detail document of SEA that provided the part of SEA indicators which were set out in accordance with the SEA directive (international Association on Impact Assessment, 2002). The indicators were formed up as the common criteria of a good SEA as following:	12
2.1.2 Sustainability Appraisal (SA).....	13
2.1.2.1 Objective of SA	14
2.1.2.2 Process of SA	15
2.1.2.3 Criteria and indicator of SA	17
2.1.3 Strategy Map	19

	Page
2.1.3.1 Relationships of the Key Success Factors to the Strategy Map ...	22
2.1.4 Integration of SEA and SA.....	24
2.1.5 International Standards with SEA and SA	26
2.1.5.1 ISO 26000.....	26
2.1.5.2 UN Global Compact (UNGC)	28
2.1.5.3 The Global Reporting Initiative version G4 (GRI)	29
2.2 Savan-SENO Special Economic Zone and Mukdahan Special Economic Zone on the East West Economic Corridor	30
2.2.1 Relationship of Greater Mekong Sub-region and East West Economic Corridor project	30
2.2.2 Savan-SENO Special Economic Zone (SSEZ)	32
2.2.3 Mukdahan Special Economic Zone (MSEZ)	34
Chapter 3.....	39
RESEARCH METHODOLOGY	39
3.1 Conceptual framework of the study.....	39
3.2 Study Area	40
3.3 Research Design	43
3.4 Key Informants	44
3.5 Research Tools.....	45
3.6 Data Collection	45
3.7 Data Analysis.....	47
3.8 Research Process	48
Chapter 4.....	49
RESEARCH RESULTS AND DISCUSSIONS	49
4.1 The Current States of the Special Economic Zone development in Savannakhet and Mukdahan.....	49
4.1.1 Summary of the In-depth Interviews.....	49
4.1.1.1 Governmental Sector	51
4.1.1.2 Private Sector	53

	Page
4.1.1.3 Social Sector	54
4.1.2 Comparative study on the current states of the development between Savannakhet and Mukdahan.....	54
4.1.3 Key Success Factors for integration of SEA and SA process of the Special Economic Zone Development in Mukdahan and Savannakhet...	75
4.2 The Development Process of the Integration of Strategic Environmental Assessment (SEA) and Sustainability Appraisal (SA) Process for the Special Economic Zones in Savannakhet and Mukdahan.....	81
4.2.1 The Integration of key success factors, Strategy Map, SEA, and SA process	81
4.2.2 SEA and SA Objective Checklists	114
4.2.3 Integration of International SD Standards.....	115
4.2.4 Monitoring and Assessment Indicators for the Integration of SEA and SA Process.....	117
4.3 The New Integration of the SEA and SA Process for the Special Economic Zones in Savannakhet and Mukdahan.....	128
Chapter 5.....	132
CONCLUSION.....	132
5.1 Data Analysis.....	132
5.2 Suggestions	134
5.2.1 Suggestions from the research.....	134
5.2.2 Policy and implementation Recommendations	136
5.2.2.1 Policy and Implementation Recommendations for Government	137
5.2.2.2 Policy and implementation recommendations for Public sector or non-governmental group	140
5.2.2.3 Policy and Implementation suggestions for communities.....	142
5.2.3 Recommendation for further research	145
REFERENCES	146
VITA.....	179

Chapter 1

INTRODUCTION

1.1 Background and significance of the study

Sustainable Development (SD) has been brought to the international arena in 1990s with the main concept from Brundtland report (United Nations Development Programme, 2012). The concept has become the mainstream of development since then. Consequently, South East Asian countries have tried to develop themselves towards SD as declared in their ASEAN vision 2020 that “We envision a clean and green ASEAN with fully established mechanisms for sustainable development to ensure the protection of the region's environment, the sustainability of its natural resources, and the high quality of life of its peoples.”(Association of South East Asian Nations, 1997).

In 1998, The Greater Mekong sub-region (GMS) with supports from Asian Development Bank (ADB) achieved the substantial program named East West Economic Corridor (EWEC) in order to upgrade many highways that extended from Andaman Sea to Da Nang (Asian Development Bank, 2012). As results, the GMS members have introduced their development projects along the EWEC routes with the common sustainability goals of GMS and ASEAN community.

Accordingly, in 2003, Laos National Committee for Special Economic Zone (LNSEZ) has established Savan-SENO Special Economic Zone (SSEZ) in Savannakhet province in order to trigger the economic activities of the country. The project has been developed on the R9 route which is the right wing of the EWEC project. The LNSEZ put a lot of incentives into the process which, as the results, attracted a lot of foreigners' investments in the area (Institute of Developing Economy and Japan External Trade Organization, 2008).

In Thailand, the government by the Cabinet Resolution 22/02/2004 has approved the development of Mukdahan Special Economic Zone (MSEZ) project in Mukdahan province. This means to provide developments more proper infrastructures to attract the domestic and foreign investors.

Both Special Economic Zones (SEZs) have much potential on the economic growths as the details reported in the Perspective of Savan-SENO Special Economic Zone and Vientiane Industrial Park in the Lao PDR by JETRO that “the special economic zones triggered a lot of economic activities...” Moreover, the Office of Industrial Economics (OIE) (Office of Industrial Economics, 2011) reported on the research of MSEZ that the area would create a lot of economic activities due to their various potential such as industrial, labour and etc.

However, in contrary, the economic activities always bring about the social and environmental problems. Due to this concern, both governments have already stated the purposes to achieve the Sustainable Development but the social and environmental dimensions tend to gain less concerns than the economic growths. The Royal Thai Consulate General at Savannakhet (2012) analysed that R9 and the Savan-SENO also created many negative impacts on social and environment due to the lack of adequate facilities, proper maintenances and appropriate management. Accordingly, Supaluk (2009) stated that there were negative impacts happened along the R9 especially in Savanakhet area due to many damages on the road surfaces. The damage resulted in economic, environment and social issues such as lower level of transportations, damages of goods, waste, dirt, chemical split, and air-pollution caused of serious injuries of the travellers and communities.

In developed world, Sustainable Development (SD) tools have been potentially developed for many decades (Fisher, 2007). There are various kinds of tool fit for different purposes including Strategic Environmental Assessment (SEA) and Sustainability Appraisal (SA). Both tools were developed to achieve the SD by assessing the SD elements of the Policy, Plan and Programs of the development projects. They are sophisticated tools that have been used throughout the European Union (EU) by the enforcement of the SEA directive 2001/42/EC (European Commission, 2001).

Therefore, it is a challenge of the research to study on the SEZs’ developments through the SEA and SA concepts in order to integrate the economic, social and environment issues into the SD direction. Furthermore, the research aims to develop the final outcome which is the Strategic process of SEA and SA that can elevate the SD of the SEZs in both studied areas. Moreover, the research aims to utilize the

process that fits for other SEZs in ASEAN Economic Community (AEC), which will be officially operated in late 2015.

1.2 Research Objectives

This research aims for an integrated study of the policy and management of the Special Economic Zones in Savannakhet and Mukdahan under Sustainable Development concept which has the objectives as following:

- To study on the current states of the Special Economic Zones development in both target areas under the Strategic Environment Assessment (SEA) and Sustainability Assessment (SA) processes.
- To develop the Strategic Process of the Strategic Environmental Assessment (SEA) and Sustainability Appraisal (SA) for the Special Economic Zones in Savannakhet and Mukdahan.

1.3 Research Question

The research has the following questions:

- What are the current states of development of the Special Economic Zones in both areas under the SEA and SA views?
- How could the SEA and SA process be specifically developed to support the Sustainable Development of the Special Economic Zones in Savannakhet, Mukdahan and AEC region?

1.4 Scope of the study

This research conducted on Sustainable Development dimensions of the studied areas by using SEA and SA processes to assess on the sustainability performances. The selected studied areas are Savan-Seno Special Economic Zone (SSEZ) in Savannakhet province, Laos and Mukdahan Special Economic Zone (MSEZ) in Mukdahan province, Thailand. Thus, both zones located on the EWEC project in the mainland South East Asia.

The study and assessment conducted through the SEA and SA process on Laos' SSEZs policies while researching for Thailand's policies of MSEZ. However,

the policies of both governments were scoped only the policies that related to the SEA and SA of the Special Economic Zones.

1.5 Benefit of the research

The research finally developed the Strategic Process for SEA and SA of the Special Economic Zones in AEC region. This is an integrated process of SEA and SA. The integrated process will advance the sustainability performances of the AEC members while solving the problems and get rid of obstacles of the Sustainable Development. By using two studied areas, this research shows a comparative analysis of data and information of the studied areas. Moreover, this integrated process will help AEC members to manage their SEZs in common Sustainable Development direction as they are going to be bonded together in 2015. Lastly, the process means to enhance the environmental and Sustainable Development of the region to meet the international development standards which will create competitive advantages to the members.

1.6 Limitation of the Research

This research had some considered limitations that limited the potentials of the research. The limitations are as following;

- There was a limitation on budgets for field surveys due to the studied areas were in different countries.
- There was a limitation on duration of the study due to this research aimed for the in-depth interviews with various ranges of key informants in both areas that were quite difficult to manage the interviews to be conducted in the same period.
- There was limitation on accessing information of Savannakhet province. It was almost impossible to access some important information since the researcher is not Laos PDR citizen.
- There was limitation on the figure details. The researcher faced with difficulty of finding the open-source maps of Savannakhet and Mukdahan that came with scales and its legends. Most of the maps with legends were issued under the copyrights which caused more expends to the research.

The research then used the open-source map of both Savannakhet and Mukdahan to provide the overall understanding of both boundaries.



Chapter 2

LITERATURE REVIEW

This section is divided into two substantial parts. The first part provides information of Strategic Environmental Assessment (SEA), Sustainability Appraisal (SA), Strategy Map, and summary of International SD Standards. Then the second part provided backgrounds of the Savan-SENO Special Economic Zone (SSEZ) and Mukdahan Special Economic Zone (MSEZ) along with the detail of development of EWEC in the GMS and AEC region.

2.1 Study Lens

The research studied through the Strategic Environmental Assessment (SEA) and Sustainability Appraisal (SA) views to achieve the goal of Sustainable Development. Therefore, this part provided information as following:

2.1.1 Strategic Environmental Assessment (SEA)

Strategic Environmental Assessment (SEA) is undertaken in an increasing trend. Many organizations started to implement the tool as SEA appeared in the standard model of European SEA Directive (2001/42/EC) and United Nations Economic Commission of Europe (UNECE) SEA protocol 2003. SEA is various in process, methodology, and practice according to the different adaptation of each institutional specifications.

The broad concept of SEA is to ensure that the environmental issues are taken into the consideration. The SEA could bring the issues into higher level which is the decision-making process that finally operated through Policy, Plan and Programs (PPPs) (Nishiura, 2005). SEA was developed on the basic perspective of Environmental Impact Assessment (EIA). SEA responds to the limitation of EIA which normally applied to specific projects and actions (European Commission,

2001). The development of SEA is to reflect the initiatives on the matter of environmental preservation.

Generally, SEA is developed into 4 essential characters as following:

- (1) SEA is a tool for developers to forecast environmental impacts that obviously occurred by decision-making process or the PPPs. The process covers all levels of the developments and makes SEA become more advance than Environmental Impact Assessment (EIA) which only be implemented at the specific steps of the developments.
- (2) SEA is prepared to start before the decision making. This timeline makes SEA more flexible in indices and scopes of assessment comparing to EIA which tends to be fix by specific issues and scopes.
- (3) SEA provides analysis and alternative options. Additionally, SEA forecasts different environmental impacts in each alternative option.
- (4) SEA offers participations by public stakeholders via many mechanisms such as public announcements, public consultations, public opinions, public decision making, and rights to stop if the project has significantly high environmental impacts without proper prevention and restoration plans.

The characters of SEA shifted the environmentally work to touch the point of conducting the most positive impacts rather than eliminating negative impacts to our environments.

2.1.1.1 Objective of SEA

Worldwide acceptance of objective of SEA is to analyse and evaluate the ability to the environmental dimension while support critical information and data to the policy makers. In relevant to the jurisdiction of Directive 2001/42/EC, SEA approaches the objective of providing for a high level to the environmental protection and go towards an integration of environmental dimension into the preparation of

policies, plans and programs. The Directive has a view to promoting sustainable development by ensuring that an environmental assessment is carried out of certain plans and programs (European Commission, 2001).

However, some arguments happened to the objective that should undertake to deliver more on sustainable development rather than environmental only (Sadler B., 2011). The SEA should apply more on integrative approaches of Economic, Social and Environment assessment as Sustainable Development concepts instead of promoting environmental path only. For example, for decades, annual meeting of International Association for Impact Assessment (IAIA) provided the floor for the discussion of how to expand the SEA into the larger measurement. The IAIA tended to highlight on the broader key aspects and areas of SEA (International Association on Impact Assessment, 2011).

2.1.1.2 The Process of SEA

SEA is a process of assessment that finally issues the environmental report as the output. The report will provide choices for policy makers. The process of SEA is vary depends on the stage or level of engagement, regional or local. Generally, there are 5 main steps of SEA as following:

➤ **Stage A: Setting context and establishing the baseline**

This part is design to give a conclusion of the environmental condition and recent policy and protection plan available. It also provide objective of the development. This process is important for setting up the source of baseline of the assessment. This stage does not need the consultation with stakeholders.

➤ **Stage B: Scoping of SEA and designing alternatives options**

This stage is provided to overview the total area of assessment and to define the total outcome of SEA. It is to make sure that a full range of environmental issues will be considered properly at the later stages. This stage will be consulted on the list of issues that SEA should deal with.

➤ Stage C: Assessing the effects of the plan and alternatives

This stage is focusing on assessing of the effects of the policy and plan by using the stage A and B information. It is a prediction. SEA will provide a pack of alternative options together with impact forecast. This stage ends up with a draft of environmental report.

➤ Stage D: Consulting on the draft plan and environmental report to the involve stakeholders

This stage tends to conduct the consultation of the draft plan and environmental report. The report should set out the result of the SEA process from previous stages. The result of consultation and environmental report were considered by the involve stakeholders.

➤ Stage E: Monitoring the implementation of the plan

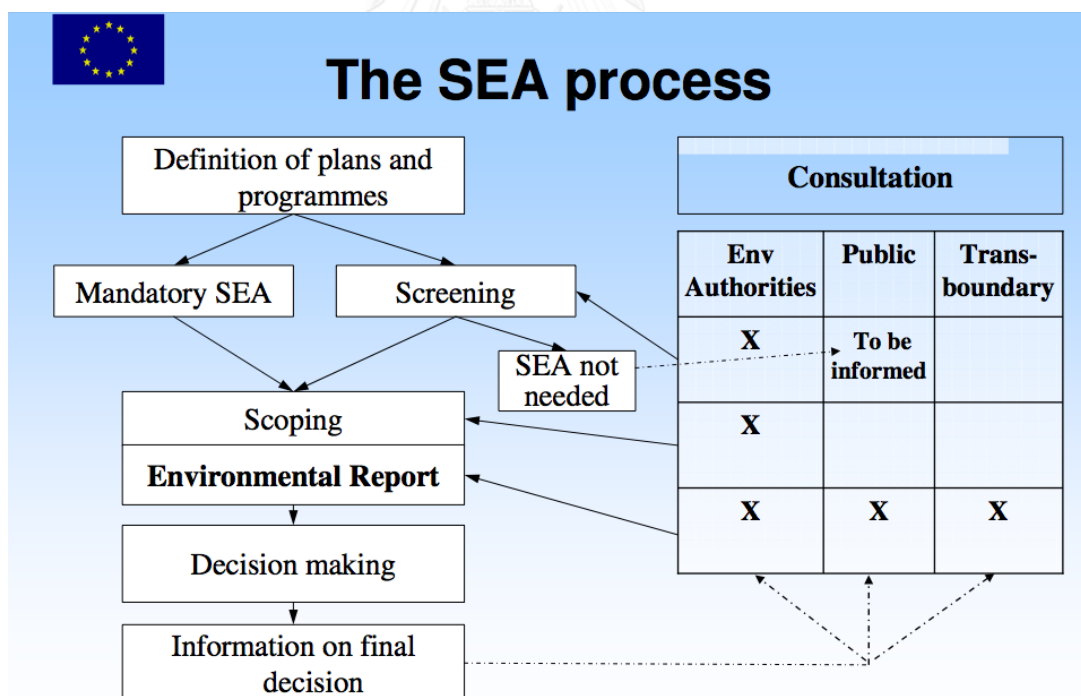
This stage is monitoring the effects of the implementation of the plan on the environmental report. The objectives set in the environmental report should ensure a proper monitoring.

However, there are other institutional forms of these major 5 steps which broke into different numbers of steps and stamped their own name as following:

- The European Commission categorized SEA process into 6 major steps of
- Screening: elaboration of plan and program
 - Environmental report
 - Consultation
 - Decision-making
 - Information on decision making
 - Monitoring

Table 1 Main Process of SEA (Office of the Deputy Prime Minister, 2005a)

Stage	SEA
Screening	Consultation with ENV authorities
Environmental Information / Report	Stronger emphasis on alternatives to ensure environmental reports
Consultation	Public, authorities and where relevant
Decision-making	ER and consultation comments
Info on decision	More details requirements
Monitoring	Required

**Figure 1** The process of SEA according to the European Commission (Office of the Deputy Prime Minister, 2005a)

- Office of the Deputy Prime Minister (ODPM) divided the step of SEA in The Practical Guide to the Strategic Environmental Assessment Directive

that comprises of 12 single steps which categorized into 4 main steps as following.

- (1) Context Setting
- (2) Assessment and mitigation
- (3) Consultation
- (4) Documentation and monitoring

Table 2 SEA main process of ODPM's practical guide to the SEA directive (Office of the Deputy Prime Minister, 2005a)

SEA in decision-making		
Plan-making stage	SEA stage	Purpose of SEA stage
Earl in the plan-making process	Decide whether SEA in needed: "screening"	
	Context setting Describe the environmental and policy context that affects the plan: Identify other relevant plans, programmes and environmental protection objectives, collect baseline information, and identify environmental problem. Develop an SEA framework of objectives and/or indicators	Establish how the plan is affected by outside factors; provide an evidence base for impact prediction and monitoring; help focus the SEA and streamlining subsequent stages; suggest ideas for how any constraints can be addressed; and help to develop the SEA framework Provide and means by which the environmental performance of the plan and alternatives can be assessed.
	Early Consultations about the scope of the SEA	Ensure that the SEA covers the likely significant environmental effects of the plan.
As the plan evolves	Assessment and mitigation plan objectives; test the plan objectives against the SEA framework, suggest mitigation	Identify potential synergies of inconsistencies between the plan objectives and SEA objectives; and help in developing plan alternatives.
	Plan alternatives; inform the development of plan alternatives, and test the plan alternative against the SEA framework, suggestion mitigation draft plan; test the draft plan against SEA framework, suggest mitigations.	Develop and refine plan alternatives; predict the significant environmental effects of the plan alternatives; and help in choosing the preferred options. Predict the significant environmental effect of the draft plan; and help to fine-tune the plan.
	Consultation Preparing the SEA report, including proposing monitoring measures; consult the public, consultation bodies and others on the draft plan and SEA report	Present the predicted environmental effects of the plan, including alternatives. Give the public and others an opportunities to express their opinions on the findings of the SEA and use it as a reference point in commenting on the plan; and Gather more information through the opinions and concerns of the public and others.
	Assess any significant changes made to the plan as a result of plan examination	Ensure that the environmental implications of any significant changes to the draft plan are assessed and taken into account.
	Documentation and monitoring Provide information on decisions	Provide information on how the SEA Report and consultees' opinions were taken into account in deciding the final form of the plan.
	Develop aims and method for monitoring	Track the environmental effects of the plan to show whether they are as predicted; and help to identify adverse effects.
Adapted from ODPM (2005) A Practical Guide to the Strategic Environmental Assessment Directive, London		

2.1.1.3 Criteria and indicators of SEA

In 2002, IAIA published the detail document of SEA that provided the part of SEA indicators which were set out in accordance with the SEA directive (international Association on Impact Assessment, 2002). The indicators were formed up as the common criteria of a good SEA as following:

The criterion is to check whether SEA is:

- Is integrated?
 - Ensures an appropriate environmental assessment of all strategic decisions relevant for the achievement of sustainable development.
 - Addresses the interrelationships of biophysical, social and economic aspects.
 - Is tiered to policies in relevant sectors and (Trans-boundary) regions and, where appropriate, to project EIA and decision making.
- Is sustainability led?
 - Facilitates identification of development options and alternative proposals that are more sustainable.
- Is focused?
 - Provides sufficient, reliable and usable information for development planning and decision making.
 - Concentrates on key issues of sustainable development.
 - Is customized to the characteristics of the decision making process.
 - Is cost and time-effective.
- Is accountable?
 - Is the responsibility of the leading agencies for the strategic decision to be taken.
 - Is carried out with professionalism, rigor, fairness, impartiality and balance.

- Is subject to independent checks and verification
 - Documents and justifies how sustainability issues were taken into account in decision making.
- Is participative?
- Informs and involves interested and affected public and government bodies throughout the decision making process.
 - Explicitly addresses their inputs and concerns in documentation and decision making.
 - Has clear, easily-understood information requirements and ensures sufficient access to all relevant information.
- Is iterative?
- Ensures availability of the assessment results early enough to influence the decision making process and inspire future planning.
 - Provides sufficient information on the actual impacts of implementing a strategic decision, to judge whether this decision should be amended and to provide a basis for future decisions.

2.1.2 Sustainability Appraisal (SA)

Sustainability Appraisal (SA) is a tool used to assess planning policy documents in order to promote sustainable development. Social, environmental and economic aspects are all taken into consideration. SA is a compulsory requirement under the 2004 Planning and Compulsory Purchase Act and the 2001/42/ EC European Directive.

Accordingly, United Kingdom planning law of 2001 stated that SA is an assessment of the economic, environmental, and social effects of a plan from the outset of the preparation process to allow decisions to be made that accord with SD (Stafford Borough, 2012).

SA also considering the three key elements which are;

- Environmental, including how to use and conserve resources to achieve sustainable ecosystems.
- Social, to bring security to their lives and combine with cultural and tradition in the use of natural resources production, both directly and indirectly to make a better living.
- Economic, it is important to provide guidance in the event that the family has enough income to survive. Therefore, to achieve a sustainable use, it needs to be managed to solve the problem in holistic views (Geldenhuys, 2002).

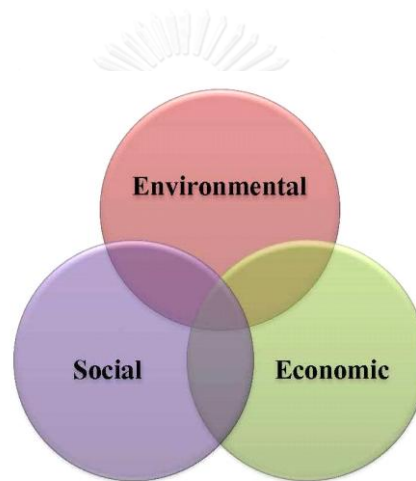


Figure 2 *Elements of Environmental Sustainability Appraisal (Geldenhuys, 2002)*

2.1.2.1 Objective of SA

Generally, SA is the tool to assess the balance of development according to SD. SA is the legacy of Sustainability which has the objective to conserve the 3 pillars which are Economic, Social and Environment in order to balance the development towards long-term concept. In the United Kingdom, as the Sustainability Appraisal of Regional Spatial Strategies (RSS) and Local Development Documents (LDD) of the UK stated that SA in RSS and LDD is a contribution to achieve the SD concept (Stafford Borough, 2012)

In addition, practically, the UK's local authorities also surplus one more objective into the balance of the SD which is "community objective". Therefore, the objective of SA will be implemented under 4 main categories as following:

- Economic Objective
- Social Objective
- Environmental Objective
- Community Objective

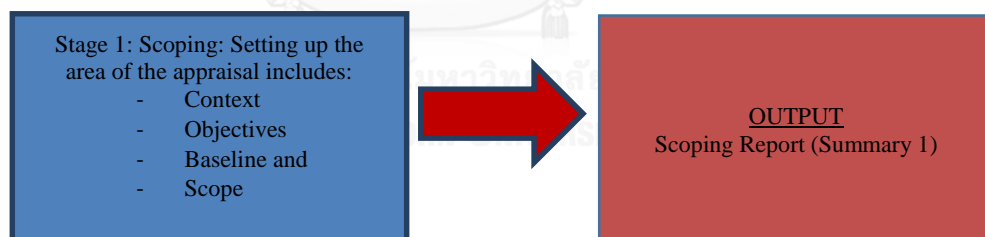
2.1.2.2 Process of SA

The SA was set to have 5 main stages according to the 2001/42/EC European Directive of the European Union Parliament (European Commission, 2001).

The 5 stages are designed to make sure that the development policies and plans are fully considered under the concept of Sustainability as following;

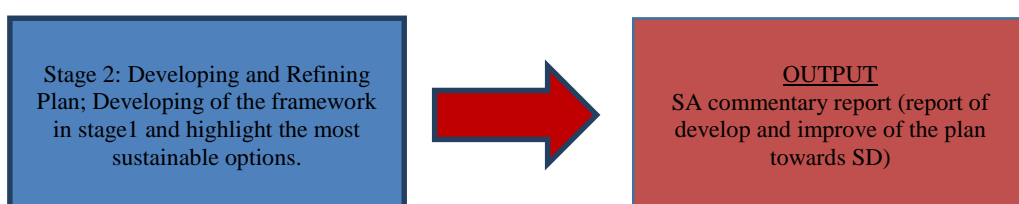
- Stage1: Scoping: this step is to setting up the context of the development which includes objectives, baselines and scoping area of the SA.

OUTPUT: The outcome of this stage is the scoping report which summarized the area and scope of the appraising.



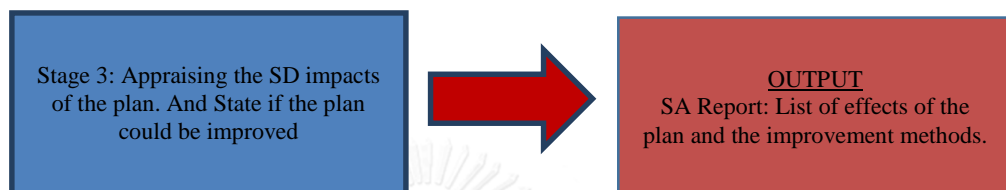
- Stage2: Refining: this step is for developing and refining the scoping framework set in the stage1. This stage will underline the most sustainable options and provides the improving method towards Sustainability.

OUTPUT: The output of the step is "SA commentary report" which provides developing information the options.



- Stage3: Assessing: this step is to assess through the plan of the impacts on economic, social and environmental dimension. Then find out the improve methods to be more sustainable.

OUTPUT: this stage will define the SA report which will list all the effects of the plan to the sustainability. Also, provides the information of how to improve the plan towards Sustainability.



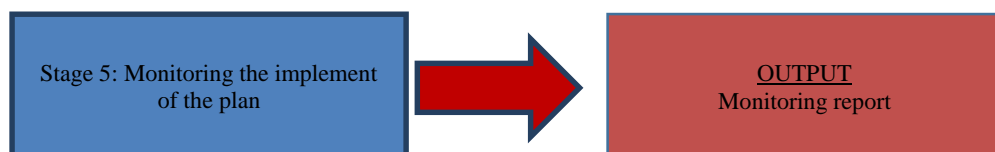
- Stage4: Consulting: the stage provide the consultation for involved stakeholders to provide opinions of the SA report in order to find out whether the report is sustainable enough in their views and what could be developed.

OUTPUT: the step will conclude the suggestions and opinions of the related stakeholders.



- Stage5: Monitoring: the step is to monitor the implementations of the approved plans. Then will take a list of negative impacts and ways of improvement

OUTPUT: Monitoring Report



2.1.2.3 Criteria and indicator of SA

There are various lists of the SA indicator. In the year 2008, OECD by Candice Steven (2008) presented the SA criteria which is the attempt to create a good SA as following;

Whether the SA is:

- Relevance analysis – is the sustainability relevant?
- Scoping analysis – what are the extent/depth, procedures and tools for the Appraisal?
- Impact analysis – what are the short-and long-term economic, environmental and social impacts?
- Comparative analysis – what are the major synergies, conflicts and trade-offs?
- Associative analysis – what measures can be put in place to mitigate harmful impacts?
- Political analysis – which path is the least-cost (economic, environmental and social) option?

Accordingly, the UK local authority named Stafford Borough has set out the main indicator reflecting the main 4 objectives of SA as following:

- Economic Objectives
 - To create high, stable and equitable levels of employment
 - To ensure high and stable level of economic diversity and competitiveness that recognizes social and environmental issues
 - To sustain the vitality and viability of the area
 - To support the needs of the area economy and community
 - To reduce vulnerability to the effects of climate change such as the risk of flooding on public wellbeing, the economy and the environment

➤ Social Objectives

- To ensure that every one has the opportunity of a decent and affordable home
- To improve opportunities for access for all to work, education, health and services
- To reduce and prevent crime and reduce fear of crime
- To reduce the impact of noise and light pollution
- To improve health, safety and well-being

➤ Environment Objectives

- To reduce societal contributions to climate change
- To protect and enhance biodiversity
- To protect, enhance and where necessary, restore designated landscape areas and town character, scenic beauty, local distinctiveness, historic and cultural character
- To protect and conserve soil
- To protect and enhance water quality of the area's rivers whilst maximising their carrying capacity through achieving sustainable water resource management

➤ Community Objectives

- To create a sense of community identity and belonging
- To ensure tolerance, respect and engagement with people from different cultures, back grounds and beliefs recognising their rights and responsibilities
- To ensure that all individuals and groups in society have the opportunity to effectively engage in issues relating to their community
- To encourage a strong, inclusive, community and voluntary sector
- To engender a sense of civic and neighbourhood values, responsibility and pride

2.1.3 Strategy Map

In this research, the researcher concluded issues and concepts of the SEA and SA and found out that one effective mechanism that goes well with the SEA and SA called “Strategy Map” that developed by Kaplan & Norton (2004). The Strategy Map is a visual tool designed to clearly communicate a strategic plan. It can achieve high-level development goals (or objectives) since the beginning at the policy development stage. Kaplan & Norton mentioned that the Strategy Map is important to the management as they stated that

“Imagine that you take your armies into battles. You must have maps noticing important strategic points, places, environment, situation, city plan like roads and tunnels, and highways that traverse the region. Without this information, you couldn’t communicate your campaign strategy to your field officers and the rest of your troops.”(Kaplan, 2004).

Strategy Map is a tool to manage the consistency of the strategies with objectives and activities in the short to long terms that lead to creations and presentations of the different strategies for stakeholders of the organizations. These methods are valuable in the long term. The Strategy Map can be applied at all levels of the organizations. The role of the Strategy Map is a key method to issue strategies at the core management process.

Accordingly, the design of the Strategy Map must be concerned on the assumptions that include rational causes and effects. The strategy must be defined for each activity and combine them to drive the core management. Kaplan & Norton (2004) introduced the Strategy Map, or so called Balanced Scorecard, that can gather performances of the organizations together to develop the concrete strategies under the strategic objectives of the organizations.

A good Strategy Map must clearly define the importance of the scope and ultimate goal. In accordance, this study, the research set up the three aspects of

sustainability included environmental, social and economic as the scope and ultimate goal.

Internationally, the Strategy Map has been world-wide accepted that it could help the developers in both governmental and private sectors to plan their policies under the holistic view approach. Internationally, the Strategy Map has been used in both governmental and private sector. The Strategy Map can help designing implementation plan through four main perspectives of the Strategy Map in order to make sure that the policy covers all essential dimensions. The perspectives including:



Figure 3 *Strategy Map Perspectives*

1) Learning and Growth Perspective is the method to make sure that the development policy covers the essential learning and growth aspects.

2) Internal Perspective is the method to make sure that the development policy covers the internal management process strategy.

3) Financial Perspective is the method to make sure that the development policy covers the plan for financial issues.

4) Stakeholders Perspective is the method to make sure that the development policy covers the stakeholder related issues.

The Strategy Map tends to create the common knowledge that all practitioners would learn together more efficient performance at work. The Strategy Map consists of driven 4 key elements include 1) “Learning and Growth Perspective” is to drive the

organizations to develop on learning processes. 2) “Internal Perspective” is to bring in all information from the “Learning and Growth Perspective” to issue the internal strategic process. 3) “Financial Perspective” is to have a potential method to manage the organizations’ financial term in relation to all activities in the “Internal Perspective”. 4) Stakeholders Perspective is to consider on how the development strategies will benefit the stakeholders.

Accordingly, the key success factors of the special economic zone development are 15 factors. However, in order to ease the design of the strategic planning process, the researcher re-categorized the 15 key success factors into 11 topics and put it into 4 perspectives of the Strategy Map as appear below.

(1) Learning and growth perspective

- Public Education and stakeholders understanding
- Education system
- International standard implementations

(2) Internal Process Perspective

- Holistic management
- Policy, law, and enforcement
- Management structure and institutional structure
- Proper zoning and infrastructures

(3) Financial Perspective

- Expenditure

(4) Stakeholder Perspective

- Public participation
- Public Health Care
- Local business protection

2.1.3.1 Relationships of the Key Success Factors to the Strategy Map

The research found out that the 11 Key Success Factors could be generated into 4 perspective of the Strategy Map. Moreover, these 11 key success factors have close relationships to the 4 perspectives as following descriptions.

A) The Learning and Growth Perspective concluded of 1) Public Educations and Stakeholder Understandings, which play important roles in increasing the public learning and awareness rates. 2) Educational System, which also plays important roles to produce high performance human resources to the society. 3) International Standard is an essential issue that the development stakeholders should study in order to elevate the quality of the development in the Special Economic Zone. These 3 Key Success Factors shared important characters to increase the development performances with knowledge and clear understanding of the stakeholders.

B) Internal Perspective concluded of 1) Holistic or SD Management which will provide the broader view in management including Economic, Social, and Environmental developments. 2) Policy, Law, and Enforcement will be the concrete direction and regulation of the management. 3) Management Structure is an important issue that helps the developers to ease the management with effective performances. 4) Zoning and Infrastructure can lead the management to be more systematic as well as reduce the negative impacts to the society. In summary, these 4 factors shared common characters to elevate performances of the internal management process which is important to the development.

C) Financial Perspective concluded of 1) Expenditure that will provide the monetary supports to the development. However, in the governmental projects, the financial perspective does not aim for the highest benefits from the investments but it has the ultimate goal to equally distribute positive impacts to all stakeholders in the development paths.

D) Stakeholder Perspective concluded of 1) Public Participation that provides chances for all stakeholders to get involved in all process of the developments. 2) Public Health Care will provide better living quality to the society. 3) Local Business Protection will provide extra benefits to the local businesses in order to survive in the

competitive market. These 3 factors have close relationships to the stakeholders in the development programs. The factors help the development to increase stabilities of the society which at some extends the society could support the Sustainable Development degrees in to the management directions.

In summary, the explanations showed the relationships between the key success factors and the 4 perspectives of the Strategy Map. These factors could support the development performances of each other. Moreover, the factors can promote the Sustainable Development of the Special Economic Zones.

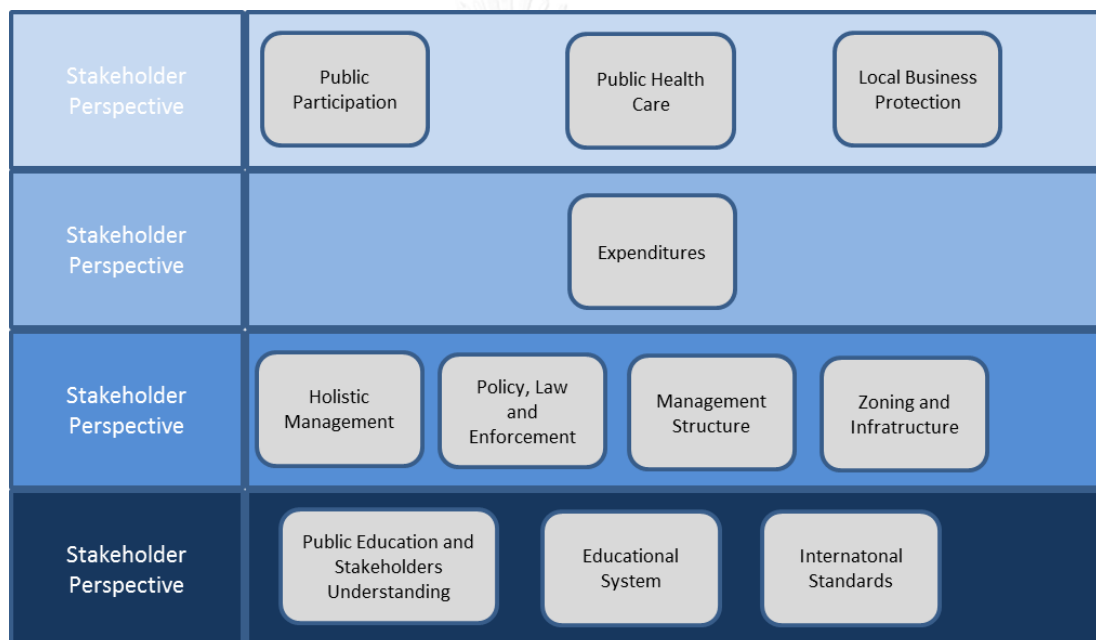


Figure 4 Key Success Factor via Strategy Map Perspectives

The research found out that the Strategy Map has relationships to the SEA and SA. The Strategy Map can indicate management directions in relation to the SEA and SA purposes. Moreover, the Strategy Map can be confirmed by the relate process of Total Quality Management or TQM that provides “Plan”, “Do”, “Check”, and “Act” process to make sure that the management paths is complete.

2.1.4 Integration of SEA and SA

In this section the research is developing the combination process of the SEA and SA that benefits the strategic planning of the special economic zone developments. This process is to make sure that the development plan covers SD aspect into the development strategy. The integration of SEA and SA can be described in the following diagram.

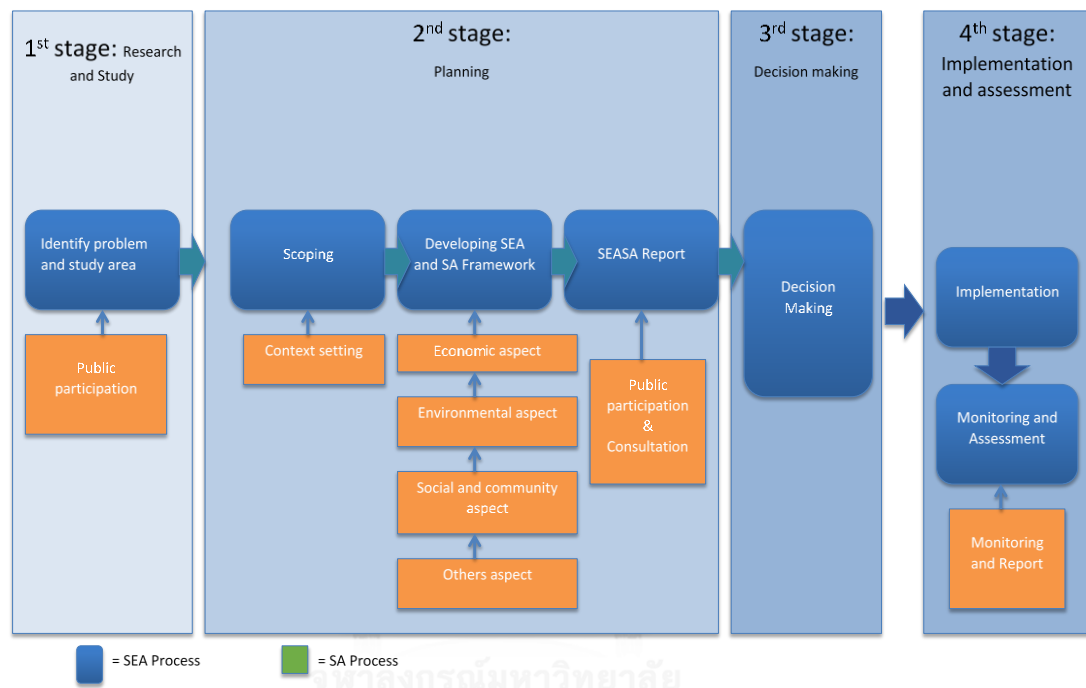


Figure 5 Integrations of SEA and SA

Accordingly, the research found out that SEA and SA have similar elements and steps. It is possible to set up the integration of SEA and SA process by combining the similar process of the two. The integration process can be categorized into 4 main stages which are 1) Research and Study 2) Planning 3) Decision Making and 4) Implementation and Assessment. The process can be described as following;

1) Research and Study stage

- A) The 1st stage SA begins with “Identify problem and study area” which is the same process as “Decision problem and screening” process of SEA that has the public participation process as the

main mechanism to drive the process. In accordance, this process is in parallel with the public participation process was requested in both SEA and SA. The process is to find out the area of study by deliberating of current situations regarding environmental and social issues by the stakeholders' participations. All stakeholders or at least all direct related stakeholders must be in this process to full fill the purpose of the SEA and SA.

2) Planning stage

- B) The following step is to “Scoping” which is the process to limit the area of the problems in order to define solutions for the problems. This step provides Current problems Report, Negative impacts, and Scope of the sustainability.
- C) The “Developing SEA and SA Framework” is the step to provide mitigation plans and alternatives of the development to solve the problems.
- D) The following step is to provide “SEA and SA report”. This step is to conclude the SEA and SA framework and monitoring methods including the prediction of the impacts from the framework.
- E) The step called “Consultation” is to ask for the consultation bodies to review on the draft SEA and SA framework.

3) Decision-making

- F) The “Decision-making” process which is the crucial step of the development. It is the process of Policy/ Plan/ Program design process. The development direction will be shaped in this step under the information from previous steps. The decision is based on SEA and SA elements and to optimize the benefits of

the development along with the environmental and social protections.

4) Implementing and Assessment

G) The “Implementing” step is to follow the policy and strategic framework.

H) The “Monitoring and Assessment” is to monitor and assess the implementation of the framework. Then latterly issue the assessment report that shows how the environmental and social problems were solved.

To be concluded, it is obvious that SEA and SA processes are quite similar to each other. It is beneficial to this research to bring in the integration steps of SEA and SA in to the next stage of the development.

2.1.5 International Standards with SEA and SA

International standard can help shaping the management path to perform with high performance. It effectively helps to re-confirm that the development will be under the SD concept and suitable for the international SD standards that definitely related to SEA and SA. In This section, the researcher has selected three well known International SD Standards which are used in all kinds of organization including governmental, private, and social sectors. The standards are:

2.1.5.1 ISO 26000

ISO26000 was developed by the International Standard Organization (ISO) which has been launched since 2010 (www.iso.org). It provides Sustainable Development guidelines and indicators that suitable for all kind of organizations. There are 7 main categories that the standard underlined as following picture.

Social responsibility: 7 core subjects



* The figures denote the corresponding clause numbers in ISO 26000.

Figure 6 ISO26000 elements (www.iso.org)

The standards divided into 7 main categories including

- A) Governance: organizational management and domestic management functions.
- B) Human Rights: according to the UN 1984 Human Rights declaration.
- C) Labour Practice: according to the International Labour Organization regulations.
- D) Environment: all environmental related topics.
- E) Fair Operating Practice: fair operations in all processes of the management
- F) Stakeholder Issue: all stakeholder related issues.
- G) Community Development: Social work and support.

The standard provides these 7 main categories to be the core issues to guide that the users should carefully manage their projects under these SD aspects. The standards also provide sub category indicators as assessment tools. However, the researcher only selected the 7 core issues to be the filter to make sure that all practices of the new strategic process are under the SD core directions.

2.1.5.2 UN Global Compact (UNGC)

UN Global Compact (UNGC) by the United Nations provides SD guidelines and indicators for all kind of organizations. It has quite similar ideas and directions to the ISO26000. There are 4 main categories and divided into 10 total main principles as following;

A) Human Rights

Principle 1: Organizations should support and respect the protection of internationally proclaimed human rights; and

Principle 2: make sure that they are not complicit in human rights abuses.

B) Labour

Principle 3: Organizations should uphold the freedom of association and the effective recognition of the right to collective bargaining;

Principle 4: the elimination of all forms of forced and compulsory labour;

Principle 5: the effective abolition of child labour; and

Principle 6: the elimination of discrimination in respect of employment and occupation.

C) Environment

Principle 7: Organizations should support a precautionary approach to environmental challenges;

Principle 8: undertake initiatives to promote greater environmental responsibility; and

Principle 9: encourage the development and diffusion of environmentally friendly technologies.

D) Anti-Corruption

Principle 10: Organizations should work against corruption in all its forms, including extortion and bribery.

Internationally, UNGC can create more reputations and increase accountabilities of the organizations that implemented UNGC. Therefore, this new process will use UNGC to be the second filters to make sure that the new process is compliance with the international SD standards.

2.1.5.3 The Global Reporting Initiative version G4 (GRI)

The Global Reporting Initiative (GRI) by Global Reporting Organization is the well-known international SD standard. There are users from all kinds of organization throughout the world. Most developed countries like, for example, United States, European, Scandinavian and Japan have been using GRI to manage their sustainability paths. The standards can be both implementation guidelines and assessment tools to make sure that the users follow the right directions. The standards divided in to three main aspects with further sub indicators in each aspect. The main aspects are as following.

A) Economic

- Economic Performance
- Market Presence
- Indirect Economic Impacts
- Procurement Practices

B) Environment

- Materials
- Energy
- Water
- Biodiversity
- Emissions
- Effluents and Waste
- Products and Services
- Compliance
- Transport
- Overall

- Supplier Environmental Assessment
- Environmental Grievance Mechanisms

C) Social

- Labour Practices and Decent Work
- Human Rights
- Society
- Social Responsibility

2.2 Savan-SENO Special Economic Zone and Mukdahan Special Economic Zone on the East West Economic Corridor

The research focused on two study cases which are Savan-Seno Special Economic Zone (SSEZ) and Mukdahan Special Economic Zone (MSEZ) which are the consequences of the development of East West Economic Corridor (EWEC). Both areas had different perspectives on managing their special economic zones. Savannakhet local government was legitimated to manage the SSEZ by themselves. The government set up the Savan-Seno Special Economic Zone Authority to issue its direction and operate all activities in the SSEZ. Meanwhile, MSEZ received all policies from the central government. The local authorities had responsibilities to follow all rules and regulations from the main policy. As a result, the special economic zone management regulations would be replaced by the new policy when the new government comes.

2.2.1 Relationship of Greater Mekong Sub-region and East West Economic Corridor project

The GMS is a natural economic area covering 2.6 million square kilometres and a combined population of around 326 million (Asian Development Bank, 2012). The GMS consists of 6 countries which are Cambodia, the People's Republic of China (PRC, specifically Yunnan Province and Guangxi Zhuang Autonomous Region), Lao People's Democratic Republic (Laos PDR), Myanmar, Thailand, and Viet Nam. The

Asian Development Bank (ADB) has been one of the main monetary supporters of GMS since 1992 in order to form the sub-region economic corporation or GMS-EC (Asian Development Bank, 2012).

In 1998, GMS established the project called the East West Economic Corridor (EWEC). The EWEC has the purpose of connecting and developing highways in the region together in order to link the transportation routes and finally enhance the economic growth of the region. The project linked the highways by a flow of goods from Myanmar, Thailand, Laos and Vietnam Cambodia and China, to contribute the economic growth of developing countries in the GMS by distributing the routes linking east - west called R8 R9 and R 12.



Figure 7 Cooperation Projects under GMS (Chiangrai Times, 2014)

ADB and GMS started funding on the route number 9 of Laos PDR to connect the trade from Mukdahan – Savannakhet and Dansavan – Lao Bao in Vietnam. ADB funded for maintenance of the route number 9 for more than 300 kilometres. In 2007, the connecting bridge of Mukdahan – Savannakhet has opened simultaneously with the grand opening of the 270 kilometres road and tunnel at Hai Van in Vietnam to Danang sea port. This became the symbol of the beginning of the EWEC project and other routes and sub projects have been developed since then (Samphantharak, 2011). Nowadays, the project already connected the routes from Indian Ocean to Pacific Ocean at Mor-Lamyai in Myanmar and Danang in Vietnam respectively.

As consequences, GMS members have tried very hard to trigger economic activities along the EWEC project such as SSEZ, MSEZ and etc.

2.2.2 Savan-SENO Special Economic Zone (SSEZ)

Laos People's Democratic Republic or Laos has been listed in the least developed country. However, the government has aimed to achieve the Million Development Goals by 2020. It is a significant turning point of Laos when the GMS and ADB developed the R9 route on EWEC project that constructed the road number9 in Laos as one of the regional economic corridor.

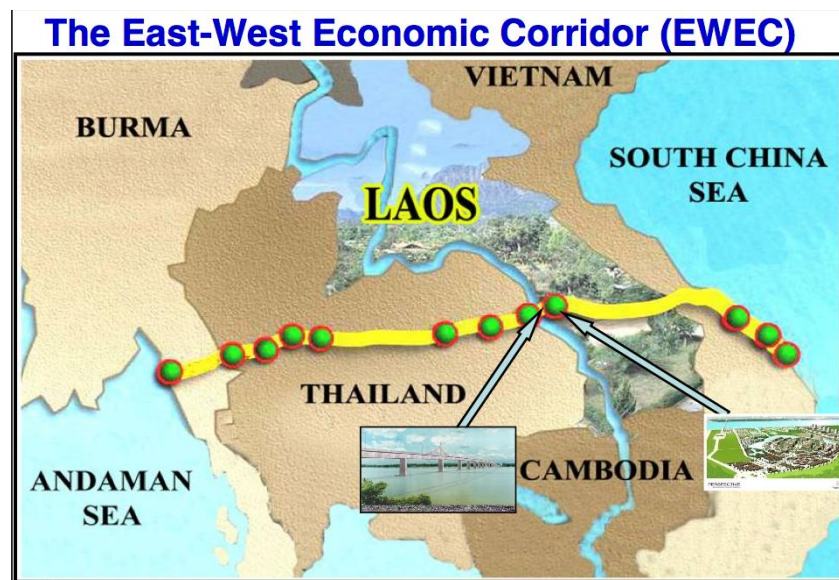


Figure 8 Savan-SENO project on East West Economic Corridor (East Asia Watch, 2010)

According to the Prime Ministerial Decree No. 2/PM of 2002, No.148/PM of 2003 and No. 177 of 2003, the government then decided to introduce and develop SSEZ in Savannakhet area as critical means to mobilize investments in non-resource based sectors and trigger economic activities on EWEC.

The categories of business activities planned to be developed in the SSEZ include the following:

- 1) Export Processing Zone,
 - Textile and food production;
 - Ore and wood based production

- 2) Free Trade Zone, and
 - Duty free, re-export, & wholesales
- 3) Free Service and Logistic Centre (which should include tourism, banking and other activities).
 - Tourism, banking, & insurance;
 - Logistics & distribution

Currently, SSEZ comprises of 4 Sites: A, B, C & D. Site A is located near the Second Mekong International Bridge which was constructed by use of Yen loan provided by Japan Bank for International Cooperation (JBIC). The area is 305 hectares, where Thai Airport Ground Service is conducting feasibility study. The area of Site B has only 20 hectares, where Japan Logitem has started operation since 2008 and Double A (Thai Company) plans to set up its factory.

Site C Pacific Stream Development (Malaysia Company) is implementing feasibility study for Site C (220 hectares). ST Group (Lao company) and Macao company has constructed Savan Vegas Hotel & Casino, and been running casino at 50 hectares beside Site C since 2008. Site B1 and D has not yet made any progress for development.

Location of the site A, B, C, D and Expansion Plan



Figure 9 Location of the site A, B, B1, C, and D in SSEZ (East Asia Watch, 2010)

Simultaneously, Laos government also issues laws and regulations to support 3 pillars of SD especially environmental protection as stated clearly in many articles of the decree on special economic zone No.443/PM of 2010. For example, Article3 stated that “Development of SEZ to achieve effectiveness in social field refers to the change of the living style of the population in SEZ in line with the standard level toward achieving the millennium goals of sustainable development”. Article5 stated that “to ensure sustainable development and environmental protection”. Article6 stated that “...the development of SEZ is a form of development in line with the mechanism of using land in a focused manner, the protection of environment, the social and economic development aiming at achieving the highest level of effectiveness in the development...”. Article80 stated that “...regard to the administration within the SEZ, the administrator shall perform in accordance with the main principles as follows...and (8) Sustainable Development”.

Obviously, the government has tried to fasten their economic growth concerning MDGs as a core of development which concentrates on all economic, social and environmental dimensions.

2.2.3 Mukdahan Special Economic Zone (MSEZ)

MSEZ is located in Mukdahan province in the North-Eastern part of Thailand. It has been rapidly developed since the opening of the Thai–Lao Friendship Bridge II in January 2007. The bridge linked Mukdahan and Savannakhet together. Businesses and local activities have been driven through the communications over the bridge and the growth rates significantly expanded up to 10 times comparing to the period before the establishment of the bridge (Office of Industrial Economics, 2011). Mukdahan Province is also compared as the Indochina gateway which linked at Savannakhet, Lao PDR. According to development plan of land transportation routes in the EWEC this route is considered the shortest for land transport, minimal costs and most beneficial, in order to promote the expansion of trade, industrial investment, tourism and services sector, as well as sustainable development aspects. Also it aims to improve the quality of people in the Mekong Sub-region. The friendship bridge II

connects to Highway9, or R 9 of Savannakhet area, Lao PDR which then links to Central Vietnam, throughout the sea border districts, converging with Route1 in Vietnam to Danang which is the very significant harbours that could accommodate 30,000 ton-vessels. As a result, it supports Mukdahan as a centre of trade and commerce of the North-Eastern part of Thailand.

On the Agreement Framework of the GMS Cross-Border Transport Agreement (GMS CBTA) of Thailand, Laos and Vietnam, according to the Economic Corridor along the EWEC that is set to facilitate the transportation by releasing the Single Stop Inspection (SSI) for the Mukdahan - Savannakhet route (Thailand - Laos). This border crossing Savan - Lao Bao has made Mukdahan province the outpost or gateway into the South China Sea, and as a hub for the distribution of products through Laos PDR. However, there are several constraints that cause the GMS CBTA unable to be fully utilized such as transport limitation, the toll fee, the working periods of these 3 countries, including restrictions on the transport of Vietnam that are not standardized, the traffic density and the speed limitation which definitely affects the performance of logistics management for the route9. Nevertheless, when the negotiations on the various mechanisms of the agreement are considered and the related cooperation framework is supported, these constraints should be fixed soon, in the near future.

Currently, products from Thailand are transported through the Thailand-Laos Friendship Bridge II to Lao Bao city, the border of Vietnam, before entering the main route number1 of Vietnam and connecting the link to the port of Haiphong or Danang. Nowadays, the products that deliver into a port of Da Nang are about 15% of all and the rest will be distributed to Central Vietnam, including the economically important areas which are Lao Bao Special Economic Zones (one of the fastest economic development areas in the middle of Vietnam), Hanoi (the Vietnamese capital), and Dan Yeoh Guan Yi of Nanning in China.



Figure 10 *Mukdahan Provincial Map (Websanom, 2013)*

The Cabinet Resolution on 2004, 22nd February has approved the principle of development capabilities in the competition in order to increase the rate of economic growth in the Northeast of Thailand. The very first issue that needs to be responded is the need to accelerate the process of land use planning of "Mukdahan" province in order to develop a manufacturing, gathering, processing and distribution centre to link the economy and to open the trade and investment between ASEAN countries which is assigned to the Industrial Estate Authority of Thailand (IEAT). This project emphasizes on "Mukdahan" because this province is designated as "border node" or the developed point of manufacturing centre and products transmission and distribution in the special economic zone, Savan – SENO, Laos PDR. Moreover, the production developing, processing and distribution project is also considered as one of the strategic development of the province.

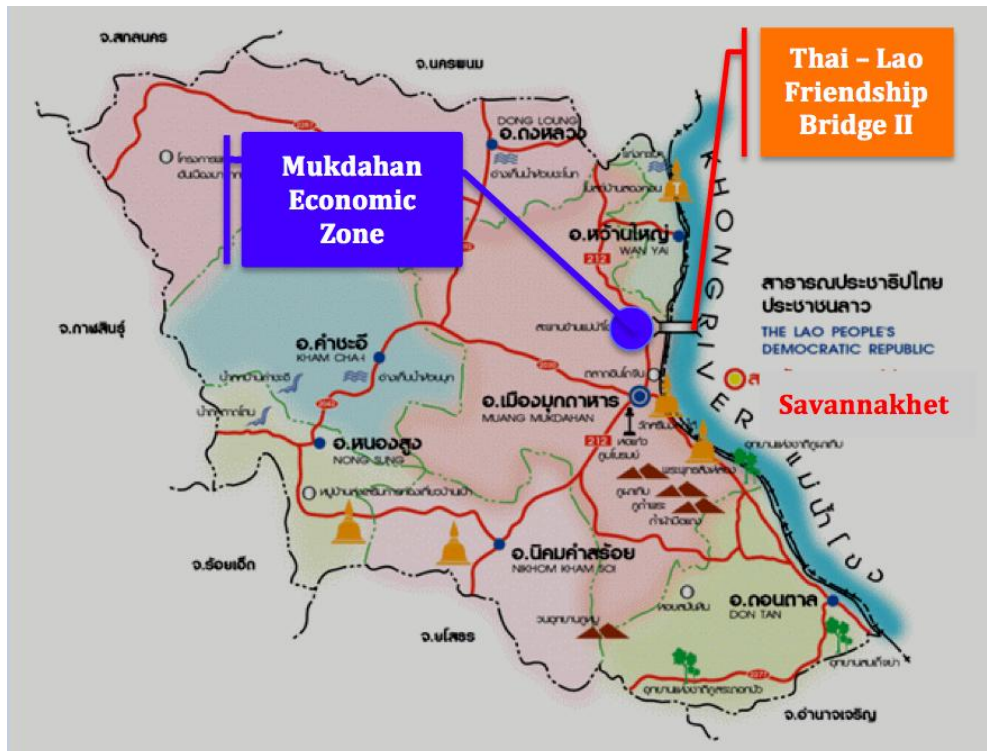


Figure 11 Mukdahan Special Economic Zone (Map of Thailand, 2013)

The key objectives of the project include;

- To increase the capacity and capabilities of Thailand in order to compete with other countries, following by the framework of economic development cooperation in the 6 the GMS and also the economic development of the EWEC.
- To reduce the cost of freight, both domestically and internationally, by taking advantage of lower transportation costs.
- To promote investment and development in the industry, transportation business, along with the business cooperation with neighbour countries
- To strengthen the process of economic activities such as tourism and border trade which will be able to lead to the increased employment and of course, the increase of public revenue.

The review found that “Mukdahan” province has the extreme potential for the establishment of an industrial estate and a distribution centre which contains of

- It is the area full of raw rubber trees production which is in sufficient quantities for the rubber processing plant, including the ethanol industry that has the raw sugar cane production.
- It is near the export markets in East Asia such as China and Japan.
- It is located in the area expected to easily find workers.
- It is located in an area with public utilities and infrastructure.
- The entrepreneurs can possess the proprietary right of the project.
- Investment for entrepreneurs is not very high.
- The investment environment and economic growth of Thailand still has good prospects and builds a confidence for investors.
- It is on the EWEC route.
- It is in the areas of infrastructure and utilities

Accordingly, regarding to the Cabinet Resolution, the establishment of the Mukdahan special economic zone expects to take advantage from the area development along the EWEC project, especially the second Friendship Bridge linking Thailand and Laos as a mean to trigger the flow of development in the long term development direction.

However, there are several constraints that cause the GMS CBTA unable to be fully utilized such as transport limitation, the toll fee, the working periods of these 3 countries, including restrictions on the transport of Vietnam that are not standardized, the traffic density and the speed limitation which definitely affects the performance of logistics management for the route⁹. Nevertheless, when the negotiations on the various mechanisms of the agreement are considered and the related cooperation framework is supported, these constraints should be fixed soon, in the near future (Office of Industrial Economics, 2011).

Chapter 3

RESEARCH METHODOLOGY

3.1 Conceptual framework of the study

This research studied on the state of the Special Economic Zones (SEZ) development through the Strategic Environmental Assessment (SEA) and Sustainability Appraisal (SA) processes. Then the research analysed policies and plans of the SEZs following the SEA and SA processes in order to develop the specific process for the SEZs in the Savannakhet and Mukdahan in the AEC region. The conceptual framework is as following

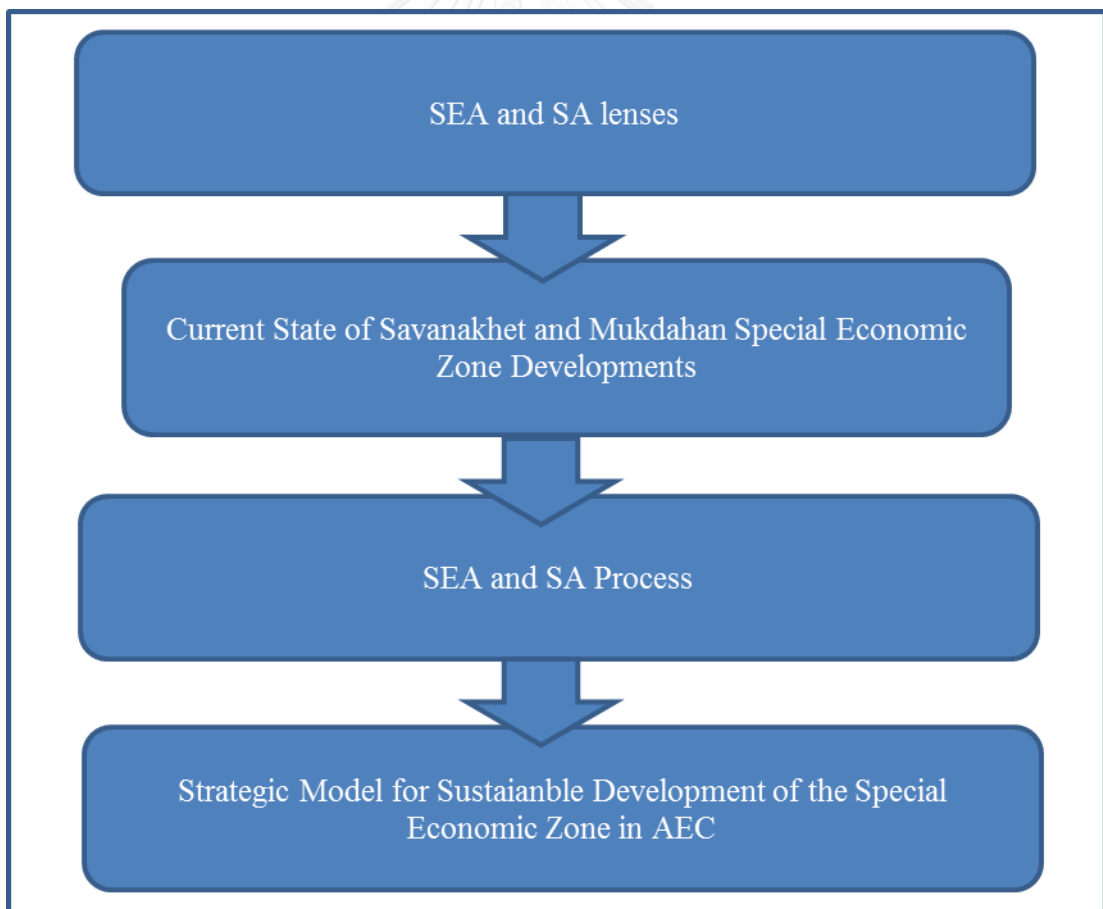


Figure 12 *Conceptual Framework*

This research aimed for the below purposes;

- Studying the current states of the developments of the target Special Economic Zones under the SEA and SA processes.
- Develop the Strategic Process for Sustainable Development of the Special Economic Zone in AEC region.

3.2 Study Area

The research conducted on Sustainable Development of SEZs on a case study of Savannakhet and Mukdahan Special Economic Zones.

The GMS with ADB brought the issues of economic corporations into an account since 1992. The GMS then brought the development on the transportation route called the East West Economic Corridor project or EWEC on the matter of developing economies of the region under the purpose of expanding the regional growth and getting rid of poverty (Asian Development Bank, 2008). The project constructed under the concept of “Land Bridge” to connect regional members together by a flow of goods from Myanmar, Thailand, Laos, Cambodia and Vietnam into China. As consequences, the GMS members have tried to develop and create the economic activities along the EWEC routes. SSEZ and MSEZ are the significant developed projects.

The SSEZ located in Savannakhet province in Laos PDR as a critical means to mobilize investments in non-resource based sectors and trigger economic activities on R9 of EWEC. The SSEZ is connected to the international markets by the R9 route that connects from Mukdahan via Laotian of Savannakhet province and connects to Quang Tri and Da Nang province of Vietnam. The SSEZ has a size of almost 6,000 Rais or 954 Hectares. The SSEZ divided into 4 separated sites (A, B, B1, C and D). However, so far the main economic activities have been developing in site A and B only (Institute of Developing Economy and Japan External Trade Organization, 2008).

While, the MSEZ is an important Economic Zone the South East Asian which is compared as the economic gate to the Indo-China. The MSEZ comprises more than 3,400 Rais (about 545 hectares) of land in Bang Sai Yai, Kam Pa Lai and Muang district in Mukdahan province. The MSEZ also located on the Thai-Lao border at the second Thai-Lao friendship bridge that connected to Savannakhet on R9 route in Lao PDR.

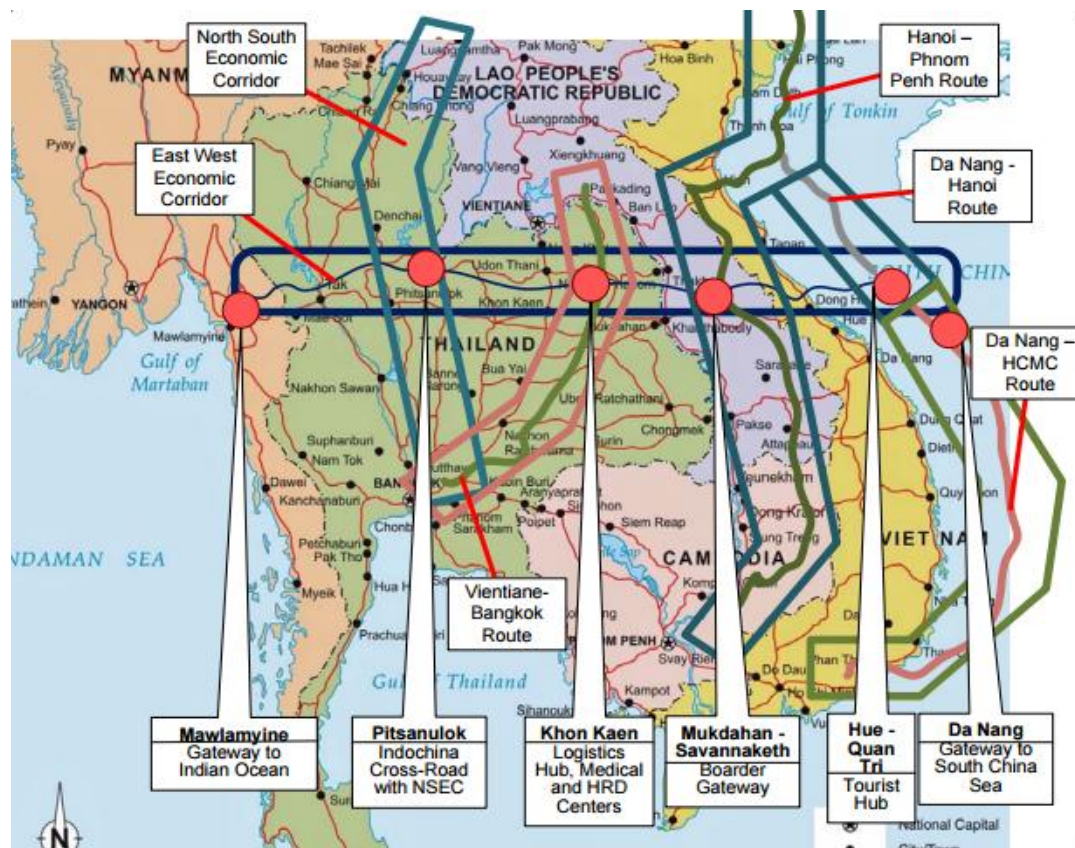


Figure 13 The EWEC route connecting from Indian to Pacific Ocean (Lord, 2009)

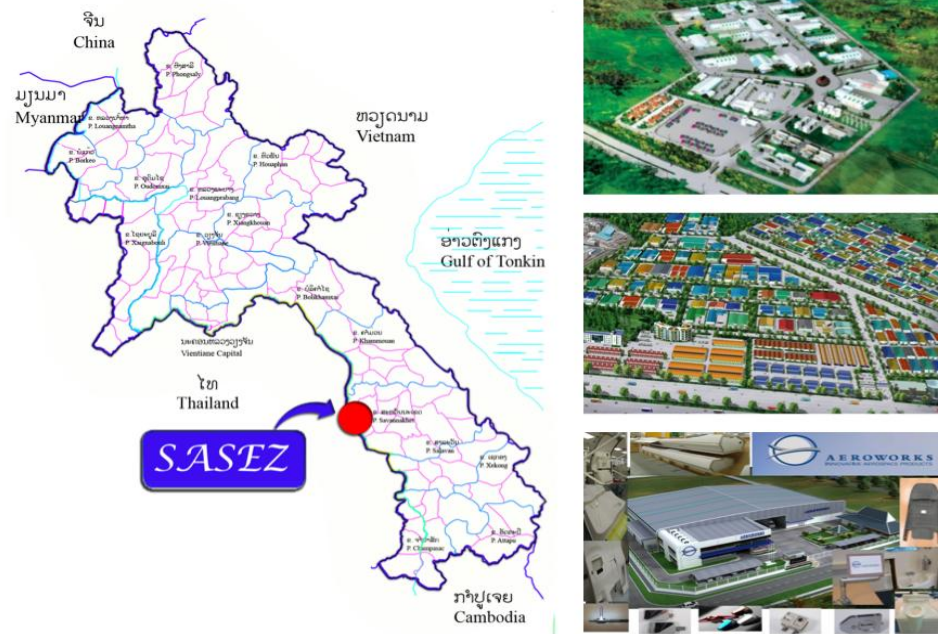


Figure 14 Savan-SENO Special Economic ZONE in Savannakhet Province (Laos National Committee for Special Economic Zone, 2013)

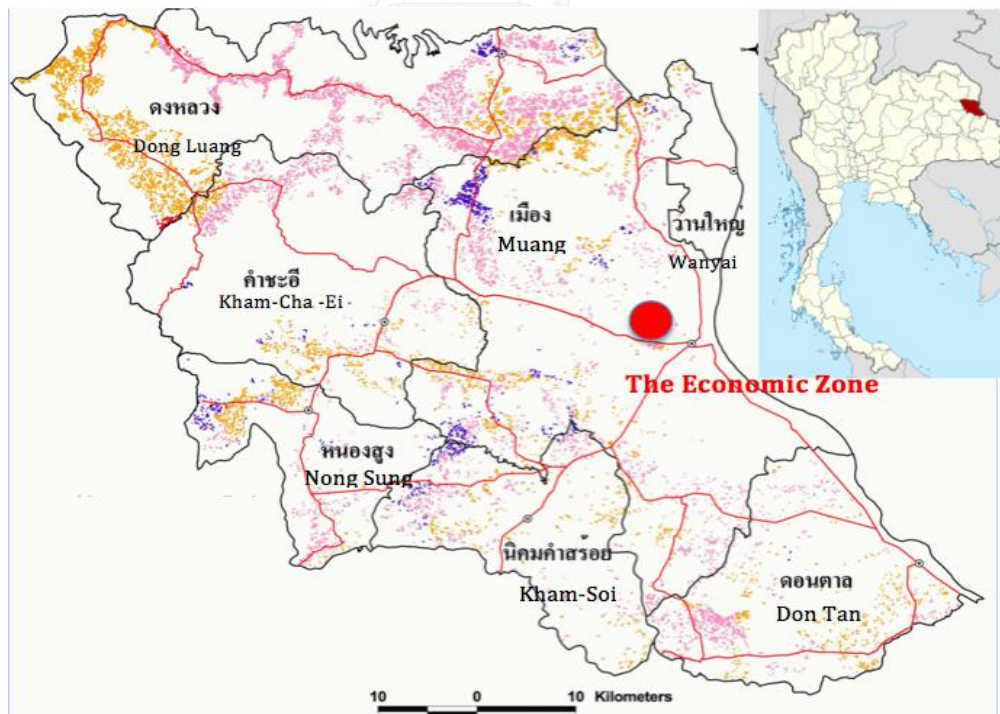


Figure 15 Mukdahan Special Economic Zone in Mukdahan Province (Map of Thailand, 2013)

2016, Mukdahan has population of 348,101 people with the breakdown number of 174,394 and 173,707 for male and female respectively. There are 107,620 households with average age at 40-50 years old (Department of Provincial Administration, 2015). Most of the population, 80%, is in agricultural sector. Main religion is Buddhism. While, Savannakhet compiled of 916,948 in population with 541,236 of female. The average age is at 40 years old. 90% of the population is in agricultural sector. The main religion is Buddhism. Obviously, both provinces shared many similarities and have mutual origins that influenced the ways of living of people in both areas in the current era.

Mukdahan is located in the North-eastern of The Kingdom of Thailand. The name “Mukdahan” came from the history about the reflection glass bead that was found during the establishment of the province in the year 1788 (Mukdahan Government House, 2010). Thai government underlined Mukdahan to be one of the important provinces that fulfilled with local traditions and norms. Moreover, the province has close relationships to its neighbor like Savannakhet province. Meanwhile, Savannakhet is located in the central of Laos PDR. The name of Savannakhet means the city of paradise. It is the largest province in Laos PDR with 15 sub-districts in the areas. Savannakhet is also holding the highest number of population in the country. It was clear that both provinces share similar languages, cultures, and traditional ways of living. Thai and Laos governments could see the benefits from these close relationships. Therefore, in 2007 they agreed to establish the “Thai-Laos Friendship Bridge II” that links Mukdahan and Savannakhet together.

3.3 Research Design

The aim of this research is to develop SEA and SA process, specifically, for the special economic zone in Mukdahan and Savannakhet. The research methods included documentation reviews and In-depth interviews as the main directions. Qualitative research method was applied for involvement of stakeholders.

3.4 Key Informants

This research studied from key respondents through in-depth interview. The structured qualitative questionnaire was designed to gain baseline information and comparative study sets including their opinion towards the SEA and SA process of the studied special economic zones.

- The key respondents were selected from 3 main groups as following:
 - Governmental Organs
 - Ministry of Natural Resources and Environment
 - The governor of Mukdahan and Savannakhet
 - Savan-SENO Special Economic Zone one stop service office
 - Thailand Special Economic Zone development committee
 - Industrial Estate Authority of Thailand
 - Mukdahan Local Authorities
 - Laos Local Authorities
 - Laos ministry of plan and investment
 - Non-governmental organs
 - SEA and SA scholars and experts
 - SEZs scholars and experts
 - The president of the chamber of commerce
 - SEZs' investors
 - Foreign investors
 - Environmental Organizations
 - Community
 - Mukdahan and Savannakhet Local Communities
 - Local businesses
 - Local Scholars

The research developed the set of Key Informant lists through establishment of name list of relevant authorities. Then the selected key informants suggested and developed further key informants that could support this research.

3.5 Research Tools

This research mainly conducted the in-depth interviews to gain information from key informants that led to the analysis in the later parts. The research tools were developed via literature review to collect the relevant theories and processes. Then edited and reconfirmed by the SEA and SA experts. The developments of the tools are as following.

- Study on theories of SEA and SA
- Study on previous research and implementation of SEA and SA
- Establish the in-depth interview questionnaire
- Develop the questionnaire with suggestions from the experts.
- Amend the research tools
- Issue the complete version of the questionnaires.

3.6 Data Collection

The research used two kinds of data in the collecting process. 1) Primary data and 2) Secondary Data as appear below.

➤ Primary Data

The research gather information from three main groups included of Governmental Organs, Non-Governmental Organs, and Communities. The data got via in-depth interview questionnaire that was set under the concept of SEA and SA. The interviews were conducted by Face-to-Face method.

➤ **Secondary Data**

- Documentation review was conducted to compile information relevant to the development of SD, SEA, SA and the development of SEZ in order to understand the relationships between policy and plan under the sustainable development as the following key points:
 - The Special Economic Zones were reviewed to find out the current state of development.
 - SEA and SA were reviewed to get the information on the processes towards the Sustainable Development performances. Moreover, the Sustainable Development indicators by the Committee for Sustainable Development of the United Nations was reviewed to select the relevant key areas in order to help the research on advancing the SEA and SA process to cover more on Sustainable Development direction.
 - Direction of developments of Thai and Lao's were reviewed to get the information of the development paths including purposes, directions, situations, supportive and obstacle factors of the countries .
 - Specific development information of SSEZ and MSEZ including policy and plan were reviewed to get the current situations and characters of the development.

➤ **Stakeholder identification and selection**

- Study of the SEA and SA process and information of the SEZs were gathered from the responsible stakeholders through in-depth interviews. Interview of SEA and SA relevant players helped to concrete the output process and to develop the stakeholder list. Simultaneously, interview of the SEZs experts also benefited the research to gain more extra specific information. Target groups for the study were selected by the relationships and experiences towards the key study elements.

- Target groups for the study were selected by the relationships and experiences towards the key study elements.
- The in-depth interviews were conducted. The selection also base on the responsible duties of the stakeholders to the interview topics.

3.7 Data Analysis

This research used the content analysis for the data analysis step. The analysis concluded the important components from the data and information that had been collected previously.

- The research used the descriptive analysis to present the set of data in order to show the qualitative results. The analysis also used the figure and table to present the analysis.
- The research also used the qualitative analysis to present the opinions, perceptions, gaps and barriers, problems, needs, and interview results according to the SEA and SA process and also SEZs' policies and plans.
- Lastly, the results were analysed concerning policies and plans in regard to critical economic, environmental and social decisions. Further, the research used analysis process to compare the situations and forecast future results in order to propose ultimate outcome of the Sustainable Development process for the special economic zones in AEC region.

3.8 Research Process

The research process can be presented as following figure.

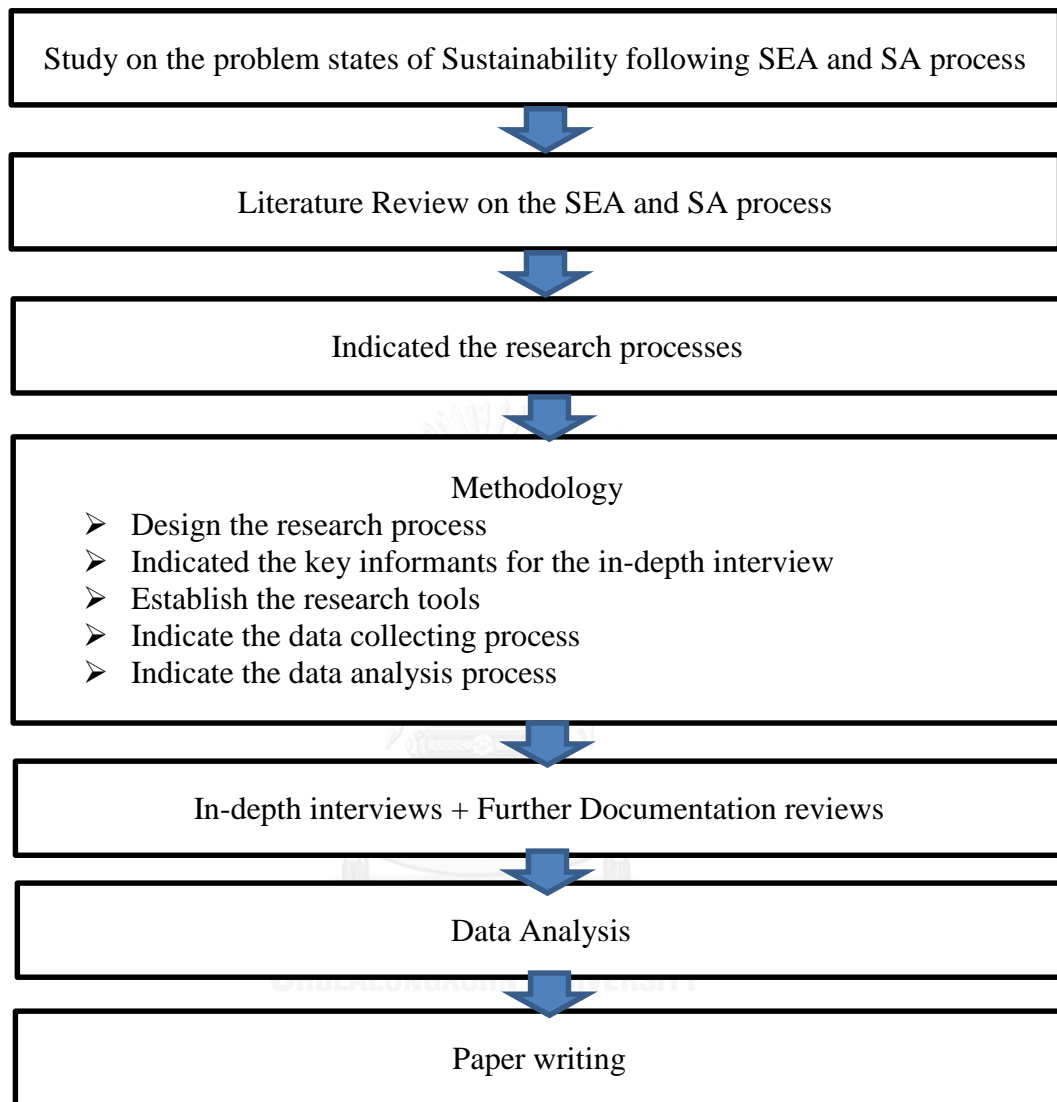


Figure 16 *Research Process*

Chapter 4

RESEARCH RESULTS AND DISCUSSIONS

This paper is a qualitative research that gathered information and data through several research methods. The interviews were one of the main methods that researcher selected. The interviews were conducted among a wide range of key informants in order to get crucial information and opinions on key elements that lead to effective analysis. The research was done to respond to the two research objectives as following.

- To study on the current state of the Special Economic Zones development in both target areas under the Strategic Environment Assessment (SEA) and Sustainability Assessment (SA) processes.
- To develop the Strategic Process of the Strategic Environmental Assessment (SEA) and Sustainability Appraisal (SA) for the Special Economic Zones in Savannakhet and Mukdahan areas.

Accordingly, the research presented following the sequences of above research objectives.

4.1 The Current States of the Special Economic Zone development in Savannakhet and Mukdahan

This session is determining the study of the current states of development of the target areas under the SEA and SA views. The study was done through the in-depth interview process and further documentation reviews. There in-depth interviews were conducted via qualitative questionnaire which constructed following the SEA and SA perspectives. The in-depth interview details are as following.

4.1.1 Summary of the In-depth Interviews

The researcher conducted in-depth interviews on economic, environmental, and social issues with various groups of stakeholders through the questionnaire that

constructed following the SEA and SA concept. The researcher selected the key informants to fulfil the completeness of the list that comes from all relevant groups of stakeholder including governmental, private, and social sectors. There were 15 key informants included Thai and Laos as following list.

Governmental sector

Thai

- The former Deputy Prime-minister of Thailand (also the former minister of the Ministry of Natural Resources and Environment)
- The Governor of Mukdahan
- The director of Sustainable Development department, Industrial Estate Authority of Thailand
- The director of the office of Commercial Affairs Mukdahan
- The director of Mukdahan provincial industry office
- The officer of strategic planning department of the Mukdahan government house

Laos

- The Vice Governor of Savannakhet district (also the director of Savan-seno special economic zone)
- The former director of strategic and planning department of the ministry of Planning and Investment of Laos (also the current advisor to the vice President of Laos)
- The consul of The Royal Thai Consulate General at Savannakhet (Provide information of Savan-Seno Special Economic Zone)

Private Sector

Thai

- The president of the Mukdahan Chambers of Commerce
- The president of the Mukdahan Federation of Industries
- Entrepreneurs in Mukdahan in Muang District (including Local, outside, and foreign investors)

Laos

- Laos entrepreneurs and local Businesses included Savannakhet Chamber of Commerce officer (including Local, outside, and foreign investors)

Social Sector

Thai

- The member from Thai Society of Environmental Journalist
- Local communities in Mukdahan (Muang District, Nikhom Kamsroi District, Khamcha ei District)

The in-depth interviews had been formally done in both Mukdahan and Savannakhet from September 2014 – February 2016. The questionnaire was developed under the purposes of SEA and SA to gain information of economic, social, and environmental aspects of the current development of the special economic zone in Mukdahan and Savannakhet.

According to the results, all key informants expressed current situations of the development and provided opinions to the further development of SEA and SA in the special economic zones. Mostly, the key informants had quite similar directions in responding to the questionnaire. The key informants repeatedly mentioned some similar issues to be the necessary factors for the development. As consequences, the interviews can be summarized by sector as following. (See also Appendix B)

4.1.1.1 Governmental Sector

Thai

First, the former Deputy Prime-minister and the former minister of the ministry of Natural Resources and Environment mentioned 14 main topics included of policy, institutional analysis, public participation, international standard implementation, environmental management, management structure, holistic approach, statistical database, law and enforcement, zoning, educational development, public education, practical manual, monitoring process, and distribution of power.

Second, the Governor of Mukdahan concluded the crucial topics to be 7 issues which are; management policy, implementation plan, tax incentive, infrastructure development, environmental management, management structure, and public education.

Third, the director of Sustainable Development department, Industrial Estate Authority of Thailand gave 7 main topics included of policy setup, implementation plan, law and enforcement, economic/social/ environmental management with databases and statistics, international standards, public education, and public participation.

Fourth, the strategic planning department of the Mukdahan government house underlined 8 main issues which are environmental criteria, well prepared staff, knowledge management, stakeholder involvement, policy management, implementation plan, expenditure, and management structure.

Fifth, the director of the office of Commercial Affairs Mukdahan stated 8 essential issues as following; concrete policy, public participation, implementation plan, education, monitoring process, zoning, environmental management, and law/regulation and enforcement.

Sixth, the director of Mukdahan provincial industry office discussed on 7 issues which are; holistic approach, public participation, policy for SEA and SA, knowledge management, educational development, local business protection, and income of the people.

Laos

Seventh, the Vice Governor of Savannakhet and the Director of Savan-seno Special Economic Zone Authority mentioned 9 main issues about SD/ SEA/ SA, zoning, community involvement, knowledge and skill, tradition and culture, health, education, policy, and social and environmental plan.

Eight, the former director of strategic and planning department of the ministry of Planning and Investment of Laos (also the advisor to the vice President of Laos) mentioned 7 main issues which are; SD goal, public participation, zoning, infrastructure, urban planning, waste management, and education. Furthermore, he also talked about problems included culture crashes, health cares, crimes, educations, and population densities.

Last, the consul of The Royal Thai Consulate General at Savannakhet mentioned the success issues of both areas into 6 topics included of international standards, zoning management, supportive policy, SD mechanism, assessment process, and international committee between Thai and Laos.

4.1.1.2 Private Sector

Thai

First, the president of the Mukdahan Chambers of Commerce expressed 9 issues included of concrete policy, management body, holistic approach, stakeholder involvement, zoning, public education, local business protection, infrastructure, and environmental management.

Second, the president of the Mukdahan Federation of Industries stated 6 main issues included of policy, expenditure, knowledge management, public participation, local people and business protection, and protection of the traditions and cultures.

Third, the local entrepreneurs in Mukdahan concluded 3 important issues included of public understanding and awareness, local people and business protection, and public education.

Laos

Last, group of Laos entrepreneurs and local businesses included Savannakhet Chamber of Commerce officer provided 8 crucial issues included of concrete policy, SD strategy, international standards, knowledge management, environmental management, infrastructure, public participation, and adaptation plan.

4.1.1.3 Social Sector

Thai

First, the member of Thai Society of Environmental Journalist raised 10 essential issues included of policy of SEA and SA, expenditure, local social benefit, community security, infrastructure, zoning, laws and enforcement, public educations, public health care, and environmental management.

Last, local communities in Mukdahan (Muang District, Nikhom Kamsroi District, Khamcha ei District) gathered together and provided 9 important issues included of holistic approach, SD program, public participation, waste management, sufficient facilities, security, infrastructure, transportation system, education, and public health care.

These are the main issues that were summarized to be the important keywords that the key informants saw as the necessary factors to the special economic zone development and the integration of SEA and SA. These keywords will be concluded to be the key success factors in the following section.

As consequences, the information gathered from in-depth interviews and additional Documentation Reviews found out that there were various in details of the current status of the development on both areas. The current states of the development under SEA and SA lens can be described comparatively provided in the next section.

4.1.2 Comparative study on the current states of the development between Savannakhet and Mukdahan

The key information of the interviews led to the conclusion of the key success factors that contribute to be the baseline of this study. In this section, the research determined the comparative study on the current states of the special economic zone development in both target areas. The study compared the current states of the 15 key success factors in both Thailand and Laos with the analysis of each factor in the following table. It is to remark that the table was established from the qualitative research method called in-depth interviews of the main key informants. Then the researcher required all the key informants to reconfirm on the final conclusion of the key success factors. Moreover, the researcher conducted the documentation reviews,

from official sources, for the supportive evidences of each factor. The key success factors are presented following the SEA and SA categorized of Environment, Social and Economic as following table.

Table 3 *Comparative study of current states of the SEZs development (Environmental)*

Environment	Mukdahan	Savannakhet
Issue		
1. Environmental Law and management	Thailand has advance environmental Law and management	Laos has advance environmental Law and management
2. Holistic management and SD management	Thailand was failed to complete the holistic approach management. It was found that the central government tried to combine the SD on to the development. However, the local authorities and its staffs were lacks of SD management knowledge to fulfil the ultimate goal of the Sustainable Development like the central government tended to do.	Savan-Seno Special Econmic Zone Authority has tried to provide holistic approach in to their development policy by corporation of all related governmental organs in to the policy development process.

Table 4 *Comparative study of current states of the SEZs development (Social)*

Social	Mukdahan	Savannakhet
Issue		
3. Proper zoning	Thailand allocated the MSEZ on the existing communities without proper zoning. It was not easy to remove the residences out from the area.	Laos managed to set SSEZ on free spaces with proper zoning. There were some residences to be removed from the location.

Social	Mukdahan	Savannakhet
Issue		
4. Infrastructure	Thailand has more complete infrastructures due to Mukdahan is concerned to be one of crucial provinces of the North-eastern part of Thailand. It has high number of economic growth rate. Therefore, the central government put expenditure to develop the province.	Laos was trying hard to develop their infrastructures in area in order to serve the expansion of the special economic zone. However, the government faced with insufficient expenditure.
5. Policy of the special economic zones	Thailand promoted special economic zones in their plans	Laos promoted special economic zones in their plans
6. Public participation	Thailand planned to provide public participation processes and already have supportive policies. However, they were failed to implement in practices.	Laos planned to provide public participation processes and already have supportive policies. However, they were failed to implement in practices.
7. Public education and understanding of stakeholders	Both countries have very low rate of people's understanding about special economic zones and SEA/ SA. The living qualities of both areas were quite low which also related to the low literacy rate and social awareness of the communities.	Both countries have very low rate of people's understanding about special economic zones and SEA/ SA. The living qualities of both areas were quite low which also related to the low literacy rate and social awareness of the communities.

Social	Mukdahan	Savannakhet
Issue		
8. Educational system	The research found out that Thailand has high standard in educational system. With 293 schools and 8 vocational schools. However, it was found that Mukdahan lacked of university or other higher educations.	Laos has already completed all levels of educational institutes from kindergarten to university ranges.
9. Management structures or institutional structure	Thailand does not have a clear management authority. There was no management authority especially for the Mukdahan special economic zone. All policies were driven by the central government.	Laos has Savan-seno Special Economic Zone Authority that fully legitimated for the management power of the Savan-Seno Special Economic Zone.
10. Law enforcement	Both countries have good law enforcement system. However, in practical, it was found that many of Thai officers in the enforcement processes were found guilty in involvement of bribery and corruption cases.	Both countries have good law enforcement system. However, in practical, it was found that many of Thai officers in the enforcement processes were found guilty in involvement of bribery and corruption cases.

Social	Mukdahan	Savannakhet
Issue		
11. Implementation of international standards	Thailand has international standards implemented in the policies. However, it was found out that Mukdahan local authorities did not have well understanding about International Standards. There was a big gap of understanding between central government and local government.	Laos has international standards implemented in the policies. It was found that the Savan-seno Special Economic Zone Authority has a very clear understanding on how to implement International SD Standards in to the system.
12. Implementation plan	Thailand has implementation plan from the central government. However, the local government was fail to links the policy to daily tasks. There was a big gap of corporation among local authorities. The implementation plan was only design to complete the main policy from the central government.	Savan-Seno Special Economic Zone Authority was responsible for the policy and implementation plan development. Therefore, they have clear direction on how to develop the implementation plan in an effective way.
13. Public health care	Thailand has quite good public health care. There were 7 governmental hospitals, 1 public hospital, 78 health promoting hospitals, and 57 clinics.	Laos is trying to develop the health care standards. However, Laos lacked of medical personals who serve in the health care services.

Table 5 *Comparative study of current states of the SEZs development (Economic)*

Economic	Thailand	Laos
Issue		
14. Local business protection plans	Thailand did not have clear protection schemes for local businesses.	Laos prepared the protection policies to protect their local businesses from the expansion of the big capital into the market.
15. Expenditure	Thailand has sufficient expenditure in the development system.	Laos lacked of enough governmental expenditures to develop in a full scale. However, they have better international monetary support comparing to Thailand.

According to the interviews, Thailand and Laos have been preparing themselves for the ASEAN Economic Community (AEC) and the world economic challenges. Both countries tried to increase their economic growths by imposing the economic activities especially the activities that link with international arenas. Special Economic Zone was one of the master policies of both countries. Both countries located their Special Economic Zone on the economic strategic areas including on the route called East West Economic Corridor (EWEC) that linked the western side to the eastern side on the terrain. The developments of the Special Economic Zone on this route had quite similar direction that tended to link and transfer products and services from left to right side and vice versa. Mukdahan and Savan-seno Special Economic Zones were crucial Special Economic Zones on the EWEC route. Both zones seemed to have great development in economic ratio. However, both zones were encountering with some important obstacles that led to unsuccessful SEA and SA management and brought negative impacts to environmental and social aspects. According to the interviews, there were fifteen key success factors that could influence the direction of development of SEA and SA in both Special Economic Zones. The current states of the development of all fifteen factors in both countries can be described as following

First, environmental laws and managements were mentioned to be advance in both countries. According to the key informants, both Thailand and Laos have quite up to date environmental laws with suitable sub regulations and practices. Furthermore, the punishment orders of the environmental laws were strong enough to control the practices of the players under the laws. Both countries have at least EIA listed in their environmental laws and they aimed to elevate on to SEA and SA in the near future. However, this issue also linked to the law enforcement aspect. All key informants agreed that both countries already have good environmental laws but these laws were not enforced effectively because the weak enforcement process.

It was found that in Thailand, there was law related to environment for more than 30 years. In 1992, it had been adjusted to be more appropriate which was concerned by 5 and one main law which were (1) The Promoting Environmental Quality Act 1992, (2) The Factory Act 1992, (3) Toxic Goods Act 1992, (4) Public Health Act 1992, and (5) Wildlife Protection Act 1992. Besides, it was found that the laws had covered all issues but the problem was there was no clear and fair coordination and law enforcement.

Second, the holistic view management in Laos was outstanding because they hired the expert to manage the special economic zone specifically. Thus, the outcome of proper management was splendid and most effective. They integrated SD issue into the master plan since the beginning. Obviously, all SD dimensions were taken in to account.

Nevertheless, Thailand has encountered with problem as the government did not let the expertise to take care of this issues. As a result, each management issue was with different officers who came from different organs. Moreover, these officers have different understanding about special economic zone development and SD direction. They have no common understanding about the special economic zone management. These conditions seemed to compile more problems rather than support the development quality. Eventually, there was no concrete SEA and SA management functions in both countries. According to the documentation reviews, it was found that Thai Government was trying to establish a Holistic Management, which would be very effective in the case of small projects. The study case of the Royal Thai Embassy

in London mentioned to apply the Holistic Management in the working process. It was claimed that the project achieved good results. While large-scale projects like special economic zones, there was no mention of bringing Holistic Management into practices.

The holistic view is important to the developments since it can help the management authorities to totally plan the development directions that cover all related dimensions. The holistic view of the management is an idea of managing situations from many visions. The visions can be gathered from many related stakeholders. Thus, the holistic visions can be established through the process of stakeholder participation that will help the authorities to gain different methods to the developments. It is more likely to be sustainable in the development that combines visions from economic, environmental, and social aspects rather than focusing only on the economic activities.

Third, proper zoning management was quite completely implemented in Laos. Laos allocated the special economic zones onto a huge empty space which belonged to the government. Laos government hired the special economic zone management company from Malaysia called “Pacifica” to organize areas which divided into four different zones included industrial, logistic, service and shelter, Zone A, B, C, and D respectively. The administrative designed an appropriate zoning plan since the beginning of the development. As a result, Savan-seno special economic zone has outstanding proportions of the zoning areas.

Meanwhile Thailand faced with difficulty to plan the zoning system due to the government allocated the Mukdahan special economic zone on the existing community’s area rather than set up the special economic zone on the empty spaces like Laos due to most lands belonged to the publics and the government has not enough empty spaces to set the special economic zone. Obviously, this problem was undeniable for Thailand. As a result, Mukdahan special economic zone was divided into many proportions and speeded all over Mukdahan provinces. This type of allocation led to difficulties in management. Furthermore, it was quite unsuccessful to manage environmental and social issues in Mukdahan by the zoning system. Therefore, the Mukdahan special economic zone needs proper social and

environmental management tools. According to the special economic zone development data and information agent under the Ministry of Interior Issue3/2015, stated that the Zoning in the special economic zones had not been allocated or placed with specific characteristics. The document stated that the zoning process only implemented to the establishment of camps for foreign workers in the field of construction or the special economic zones. The consistent data shows that Thailand does not have an appropriate zoning design.

Zoning management is crucial in facilitating the special economic zone managements. Thus, the zoning can help the management authority to control and protect any negative impact that will happen to the environment and community. Internationally, zoning is required for the industrial management especially the heavy industrial zone that needs to be organized in particular to conserve the environment care, as well as surveillance and management of the development. While the community shelter should be in a separate area to be further from chemicals, toxins or pollution from the industrial processes that may affect the health of the communities. Normally, proper zoning puts free spaces between industrial zone and community in an advance model and it called greenbelt. The greenbelt will respond as a buffer between the areas and will separate industrial risks away from communities. Besides, the zoning must be designed to support the expansion of the special economic zone and community areas in the future by annually measuring growth trends of the industry and expansions of the local community to see the possibility of the further expansions.

Fourth, the infrastructure was quite complete in Thailand and the government kept on developing the basic infrastructure throughout the province to serve the Mukdahan special economic zone and to reach the goal of to be the gate of Southeast Asia. Although, there was water and electricity shortage in the past, the local government fixed this problem and provided sufficient supplies for all activities happened in the Mukdahan special economic zone. The additional data showed that Thailand tended to developed provinces that have border trades with neighbour countries in order to develop the trade channels with neighbouring countries. According to the annual meeting of the ministry of Education in 2016, General

Surachet Chaiwong, Deputy Minister of Education, said that Thailand has developed special economic zones by accelerating the continuous infrastructure to support the growths of trade. The development is going to be consistent with ASEAN Academic Strategic Plan in year 2015-2019 to encourage sufficient infrastructures for Educational development.

While Laos was short of basic infrastructures which became the main obstacle of the Savan-seno special economic zone development. However, the management authority has tried their best to complete the infrastructure services throughout the Savan-seno special economic zone.

Infrastructure is a supportive element for the zoning management. The infrastructure needs to comply with the zoning to spread prosperity of urban areas equally, especially electricity and water supply to drive the operations of the industry in all zones. Furthermore, the infrastructure also increases life qualities of local communities, economic activities, environmental and social related activities which later on create successful developments.

Fifth A, policy of the special economic zone was well developed in both countries. In 2014, Thailand started to prepare for the opening of the AEC and began to construct five pilot projects of special economic zones included Mukdahan province as appeared in the announcement of the Policy Committee for Special Economic Zones no.1/2014. While Laos started to sustain high economic growth and to achieve Million Development Goals (MDGs) aiming at exiting from the least developed country status by 2020, the Government decided to introduce the first SEZ by issuing Prime Ministerial Decree No.148/PM, 29/9/03 on the Savan-SENO Special Economic Zone (SSEZ) as a critical means to mobilize investments in non-resource based sectors. According to the policy and law of the special economic zones, both countries have quite clear and supportive policy for the special economic zones which led to more concrete outcomes of the developments.

Thailand has a National Committee for Special Economic Zone Development (NC-SEZ) which regulated all policy related to the special economic zone developments. According to the meeting No. 1/2014, the NC-SEZ had indicated the

direction to develop the special economic zones as following: 1) Study to develop strategy of special economic zone development in the national and local level, 2) Discuss with the authorities regarding to the rights and benefits in the development, 3) Prepare and create the understanding of all stakeholders related to the development, 4) Study successful development of special economic zones in other countries, 5) Explore border areas with high potential to link with neighbour countries, 6) Cooperate with neighbour countries to develop special economic zones together. Obviously, Thailand has clear policy on special economic zone development.

Sixth, the public participation was weak in both countries. Recently, Thailand has registered the process in the public participation laws while Laos governmental officer insisted that they usually consult with the local people before they make any decision. However, the governments did not have suitable implementation plans for this process. The current practices were held in the informal style by the local authorities who personally visit the communities to talk and gain information. Moreover, several key informants stated that most public participations in Thailand were set up only to complete the public participation law and most events attended by participant from outside the area. While Laos public side insisted that they had little chances to show their opinions.

It was found that most the Public Participations in both countries were a public hearing process in order to receive comments and opinions. However, the stakeholder has no chance to engage in to full development process. It was found that Mukdahan area has not had the complete process of Public Participation compared to other areas in Thailand like Songkhla where the authority held the seminars to receive the feedbacks and comments on the development paths following the Strategic Environmental Assessment (SEA).

The public participation is an essential mechanism that helps establishing successful corporations among stakeholders. The involvement of the social sector is important to drive the successful corporations of all stakeholders such as government, private sectors, investors, local people, and etc. In order to achieve corporation

between the stakeholders, the authorities must provide participation events to exchange of ideas between the stakeholders and finally get the social consensus.

The public participation can reflect social's needs and establish more sustain development paths. It was defined that the public participation as the process that allows people to get involved in the development process (Creighton, 2005). The people can show opinions, provide decisions, and suggest solutions since the beginning of the policy planning process. The successful participations should increase more chances for people to be in all processes throughout the development paths. While, Cohen and Uphoff (1977) stated that public participations could be operated in four different directions as following

- 1) Decision making: it is the process that people have rights in the decision making.
- 2) Impel Mutation: it is the process that people can provide their own resources to support the development in management and corporation dimensions.
- 3) Benefits: it is the process that people can be benefited from the development process.
- 4) Evaluation: it is the process that people can be the evaluators or support the evaluation process.

According to Cohen and Uphoff, the special economic zones should include all four different directions in to the public participation process. People should involve since the decision-making process or policy drafting and especially 70% of local people should be count. The local people should have more power to approve the development policies. Meanwhile, the integration of SEA and SA should focus on Impel Mutation step in order to provide chances for communities to perform the important roles to drive the development process. Moreover, when the management allocates the local resources to the development, the local people can manage and control their natural resources via the participation process. This step will convince the local people to have a sense of owner to protect their natural resources and

promote the long term sustainable management. Besides, people will have more feeling to get involved in the development.

Currently, this research found out that the local people in both targeted areas did not have enough chances to get involved in the public participations and did not receive proper benefits from the special economic zone developments. Therefore, beneficial steps should be considered to provide more advantages to the local people. Especially, the local businesses should be provided more supportive schemes. They should be protected from the invasions of big capital investments and provided more investment chances. Further, they should be supported to have more competitive advantages in order to survive in the dramatically increase of economic growths of the special economic zones. While, the communities or local people should gain more benefits from the economic growths at the lower rate of environmental and social damages.

Seventh, public educational and understanding of stakeholders were weak in both countries. The people in both Thailand and Laos had different understanding of the special economic zone development programs and SEA and SA. Generally, when talking about environment protection, most people only talked about planting more trees and increase green spaces. They also had different perspectives toward the SEA and SA in special economic zones. Local Thai people perceived the special economic zone as another economic promotion by the government. While Laos people raised it as their core economic to lead them through the Millennium Development Goals (MDGs) in 2020 and they have to get involved in this development. Both governments lacked of common set of knowledge that promote to build up mutual understanding among publics. Further, both countries were deficient of the effective public educational program along with supportive officers who will navigate the local people and businesses to drive the developments in the mutual direction.

According to the Thai PBS Press, on June 8th, 2016, it had revealed that people in the area of special economic zones have no understanding about the special economic zone. They did not know the definition of the development. Moreover, they did not know the benefits of the development. Currently, as it is also appeared in other economic development zones, Chiang Khong for example, that local people did not

have understanding on the development policy. As consequences, outsiders invaded in to the area and take advantage over the local people on investment aspect.

The public education is the crucial process for the special economic zone management and the integration of SEA and SA. This process can help the authorities to initial introduce the developments and its supportive activities to the publics. Since the developments need corporations from many stakeholders, it is important to create the common understanding among different stakeholders. Generally, public education is used to engage people and societies to the developments. According to the survey report of the Iowa School Board in the year 2010 (Iowa School Boards Association and the Thomas B., 2010). The public education was beneficial in many ways including:

- Help public to fulfil their potential – 42.6 per cent
- Prepare public for satisfying and productive life – 31.7 per cent
- Prepare public for the workforce – 8.1 per cent
- Prepare public for college – 8.1 per cent
- Help public becomes well rounded – 6.5 per cent
- Prepare public for civic life – 3.0 per cent

Therefore, it is quite beneficial for the management authorities to engage the public sector to the development through this process because the process will prepare more advance performances of the public sector. Obviously, the common understanding of the stakeholders will lead to the common supports in the management directions.

Eighth, Educational system is important for the development. Thailand, Mukdahan, has plenty of primary and secondary level educations but there was no higher educational institute in the province. Mostly, students from the secondary level in Mukdahan move to Ubonratchathani University in Ubonratchathani province. This was one crucial problem that Mukdahan has been facing with. The provincial governmental house accepted that this is one important obstacle that reduced investors' interests in investing in Mukdahan.

While Laos, Savannakhet, has all level educational institutes in the area. According to the Laos' key informants, there were at least 8 higher educational

institutes in Savannakhet areas. Moreover, the government was planning to upgrade the educational system by constructing international schools to serve foreign investors' family who invested in the area. To sum up, educational institutes are quite important to all key informants. However, Savannakhet was still in shortage of performance educational professionals. The key informants all agreed that the educational system is one of the most concern issues in their development ideas. Since the education is not only beneficial to their families but also benefits their development views due to these educational institutes would produce quality personals to the society.

The educational system is another important factor that will create the potentials of the society and management system. The education will drive people's knowledge and turn in to corporations in development processes. Generally, education system is used by many countries as the primary step to construct their performance people to input in the development process. The US Educational Development agency stated in their report that

“When you get on an aircraft, you want a pilot who has been held to the highest standards of flight training. When you need an operation, you want a surgeon who has been held to the highest standards of medical education. And when you root for American athletes in the Olympics, you know they won't win the gold unless they have trained to meet the highest standards of international comparison.

In many areas of our life, we expect—and demand—high standards. We know their great value. They help bring out the best in us. When we do not hold all students to high academic standards, the result can be low achievement and the tragedy of children leaving school without ever having been challenged to fulfil their potential.” (U.S. Department of Education, 1994).

The above quote confirmed that the education system creates brighter future of the developments. Therefore, the education development in all levels should be implemented seriously to create Sustainable Development of the areas.

Ninth, the management structures and institutional structure in Laos was quite appropriate due to the central government already set up particular agent to govern the Savan-seno special economic zone called the Savan-seno Special Economic Zone Authority SSEZA who has a full authority to manipulate this zone. Moreover, the central government also formed up a supportive management structure which gathers all levels of the management including expert from different fields to effectively support the SSEZA on the special economic zone development.

On the other hand, Thailand managed the special economic zones through the local government that had the governor as the head of the management. Thailand has no specific management body that will totally take care of the Mukdahan special economic zone. Obviously, the governor and his officers have more daily tasks and could not completely respond the new tasks. Furthermore, the power to deliver main decisions was with the central government.

The management structure is necessary for the development of the special economic zones and the integration of SEA and SA. Currently, it was found that the management authorities and all players in the areas did not have clear understanding on the development responsibilities and their positions especially in Thailand. This was because the absent of clear management structures and equal distributions of power that would provide clear layers of administrative levels. Obviously, management structure is needed. The management authorities should make sure that the elements of the management structure must include of the establishment of the Management Committee that gathers from all stakeholders. The committee will have broader view to manage and set up holistic approach to the development. As consequences, the management authorities will be a centre of the special economic zone development that will drive all activities in the special economic zones with stakeholders' consensus. Moreover, the committee plays important roles in promoting the integration of SEA and SA since they are regulators who control and monitor all activities in the areas.

Tenth, law enforcement issue has more severe problems in Thailand comparing to Laos. For Thailand, there were many arguments toward the enforcement standards of Thai officers who responsible for the enforcement processes. It was

found that governmental departments lacked of proper law and regulation enforcements. These problems rooted down deeply into the bureaucratic system. This weak point impeded the development and reduced reliabilities of the country. Generally, all managements need completeness of the law enforcements as well as SEA and SA development because the SEA and SA has one important purpose to monitor and assess the development process which at some extends it relies more on law enforcement process. Obviously, it is quite impossible to manage the SEA and SA completely when the law enforcement process still has arguments. For Thailand, it was found that the newspaper, called Thai post, in 2012, published the interview of the Sra-kaew Governor which was another special economic zone. The interview said the major obstacle of the special economic zone development which was corruption. As the relevant enforcement officers were not enforcing the law seriously but tried to search for opportunities to make money from bribery attempts. Currently, Sra-Kaew province has been affected by the corruption which reduced the quality of the legal process.

On the other hand, most key informants agreed that Laos has more quality in law enforcement processes than Thailand due to Laos has stronger punishments defined by laws. Besides, some of key informants agreed that Laos government has authoritarian power to control and get rid of obstacles easily. However, several key informants opposed the above statements. They argued that in practical, Laos also faced with curious actions in law enforcement processes

The current laws were not designed especially for the special economic zone and the integration of SEA and SA. Thus, the laws did not support the management of the authorities and the rapid change of the situations. Obviously, it was quite difficult for the management to drive the development following the policy. Moreover, the managements that have weak enforcement processes could not be successful as the policy's intentions. In the studied areas, the enforcement processes were complaint by most interviewees, especially, in Thailand. In general, Thai people have culture of reconciliation and negotiation which causes of failure in enforcement of the laws and regulations. As consequences, there were negative effects to the special economic zone and local community, along with the entire investments in all areas. In order to create the beneficial process, there must be more clear policies and laws enforcement

processes to drive the development and also the integration process of SEA and SA. Furthermore, punishment details should be carefully looked after which the authorities must take economic, social, and environmental aspects in to account. In particular, the specific penalties for industries or businesses that are poorly qualified in the SD standards should also be imposed. In summary, from above reasons, the policies, laws and enforcements are critical to the success of the management and integration of the SEA and SA.

Eleventh, implementation of international standards was key element that Laos government tended to follow to compliance with the international arena. This condition was because Laos government corporates more with international arenas. Therefore, they have to reach the international standards. In the Savan-seno special economic zone, Laos government convinced more foreign investments, mostly German and Japan, to the zone to develop their businesses and bring higher standards to the process. Meanwhile, Thailand has input many international standards in to their main policy. However, the research found out that the Mukdahan local authority lacked of understanding on implementing of international standard. Therefore, in practical, Mukdahan local authority organized their directions and standards which sometime delivered partially from international standards. As a result, this condition reduced Thailand's reliabilities in the international acceptance

Nowadays, the world is integrating to be one single village which has no economic boundary. The Free Trade Area (FTA) became bigger and bigger every day. The FTA brought the idea of no economic tariff between the countries. Therefore, people have more freedom to transfer products and services between the countries. However, this condition requested more quality standards or, so called, no-tax barrier. The quality standards are such an important component of today business. Mostly, the quality standards are in the Sustainable Development category which also requests the market to not only respond to the economic but also environmental and social performances. Moreover, the standards requested all users to expand the standards throughout all players in the value chains. Therefore, the special economic zones, which produce products and services to the world, are compulsory to implement the

international standards in order to connect to the world and enhance their management processes.

Twelfth, implementation plan was counted as necessary issue in the management of the SEA and SA in the special economic zone. As the matter of fact, Thailand lacked of concrete implementation plan for SEA and SA in the special economic zone development plans. In general, the implementation plan would provide steps of implementing SEA and SA into work plans. Currently, SEA and SA is one of the sustainable mechanisms that the Mukdahan governor tried to raise it on the meeting table but they had no further plan on how to start the SEA and SA. The researcher found that all governmental organs have heard the SEA and SA but they did not know how to manage in the proper way. Mostly, the officers were in doubt of how to deliver the SEA and SA in to their daily work tasks. Moreover, there were different definitions of the SEA and SA among the officers. Obviously, each officer developed their own understanding point of the SEA and SA then designed their own working directions on SEA and SA.

Meantime, Savan-seno Special Economic Zone's director stated clearly that they attended to SEA process in their management. He asked the Malaysian developer who took the contract to administrate the Savan-seno Special Economic Zone to place implementation plan for the SEA. Further, he also showed his interests on implementing SA in their implementation plans.

Thirteenth, Public health care was crucial to the current development of all countries since the public health care was in national master plans and counted to be the national security. Thailand has quite exceptional national health care policy. For example, the current beneficial policy called "30 BHT health care" that helped poor people to ease accessing the governmental health care services. However, the Thai key informants also underlined that the government should carefully plan the public health care policy in the special economic zone. They worried that there would be more health problems occurred in the special economic zone because the economic activities in the zone would increase number of population and migrants which also bring health risks and diseases with them.

While Laos government also mentioned a lot about the public health cares. However, Laos still needed a lot of development in the public health care sectors.

The public health care is important to the special economic zone developments since the public health care can promote a greater good of human beings. The mission of the public health care is to elevate the conditions that affect health of people in certain area. Normally, public health care initiatives of development agencies affect people every day in every part of the world. It protects and solves problems that can affect the health and well-being of individuals, families, communities, populations, and societies. Moreover, public health care helps keep people alive and reach the higher life expectancies or reduction of many communicable diseases. Since the economic activities require a lot of labours that will migrate to the areas and bring health risks and diseases with them. Therefore, the government should take a careful care for the public health service. In 2015, the Mukdahan Statistic Office stated that there were 7 governmental hospitals, 1 public hospital, 87 Health Promotion Hospitals, and 57 Clinics in Mukdahan area. However, these health care services were not enough to serve people in the areas since there were increasing numbers of patients who did not access to the health care services. Therefore, the development on this issue is urgent.

Fourteenth, the local business supportive and protection plans in Laos was quite developed as the government arranged supportive programs to prepare the local people and businesses to get involved in the special economic zone development since this development was core activity to reach their MDGs target in 2020. However, there were not many businesses involved in this program due to they did not know that the programs were existing.

For Thailand, many businesses encountered with blank idea of how to survive in the rapid change of the special economic zone development. Most people got the negative impacts from the development since they did not prepare themselves well enough. In accordance with the interviews of the public sectors, recently, the local businesses faced with the outside big capital that came to invest in the areas. This capital had taken over the market and the local businesses started to die out from the battle. Therefore, people requested for protection plans from the government such as

tax exemptions for the local businesses, or low rate interest loans, or local business funds to help them survive in these economic challenges.

Since this issue can help protect the local businesses, especially small and medium business, to survive in the rapid change of the developments. In general, small and medium businesses have less competitive abilities in markets comparing to big capital companies that are packed of performances. It is needed to highlight that these local businesses fulfil the economic system. The governments should look after these businesses by providing protection privileges such as tax exemption, zero interest loans for business, and etc. These mechanisms will establish thicker wall to protect the local businesses from the great impacts from bigger capital investments in the special economic zones.

Finally, expenditure was one of the most important issues in the development. Thailand had sufficient number of governmental expenditures. However, there were some arguments opposed about inappropriate allocations of the budget. Moreover, people were still full of doubts in the expenditure allocation due to corruption factors which were quite high ratio at the current extends.

In the meanwhile, Laos had been struggling with the limited expenditures which were the main difficulty of the development in Laos. Nevertheless, the international arena started to give Laos a hand to support its development goal including this special economic zone as one of the main resource of the country wealth.

Expenditure contributes significant role to the success of the special economic zone developments due to the operation and management services have necessities to require fund to support operations. Therefore, the governments should allocate sufficient budgets for the management authorities. Then the management authorities must seriously spend the budgets following the planned policies. When the budget was spent appropriately, there would be supportive cash flows that feed the development activities then generate throughout the development chains in special economic zones. This condition creates tremendous returns to the investments. Besides, it is able for the authorities to manage the environmental and social aspects. Thus, the environmental and social supports will benefit all stakeholders sustainably.

4.1.3 Key Success Factors for integration of SEA and SA process of the Special Economic Zone Development in Mukdahan and Savannakhet

According to the information gathered in 4.1, there were several keywords that the key informants tended to repeatedly mention with supportive explanations and underlined them as the necessary issues of the development and the integration of SEA and SA process (SEASA). The researcher used Content Analysis to conclude the qualitative results from the raw information. The research tended to select on the keywords that all key informants repeatedly mentioned. The following table present the keywords that had been presented as the important factors rose by the key informants. Further, the researcher calculated the frequency numbers that the key informants repeatedly mentioned each factor. The results are as following.

Table 6 *Key success factors*

Key success factors	Frequency
1. Policy (Special Economic Zone / SEA and SA)	12
2. Public participations (or involvement)	11
3. Proper zoning	7
4. Infrastructure	7
5. Public education and understanding of stakeholders	6
6. Educational system	6
7. Environmental Law and Management	6
8. Management structures or institutional structure	5
9. Law and enforcement	5
10. Implementation of international standards	4
11. Implementation plan	4
12. Holistic managements or SD management	4
13. Local business protection	4
14. Public health care	4
15. Expenditures	3

***Notice:** *Key success factors = the issues that rose by the key informants.*

Frequency = the number that each issue was repeatedly mentioned by different key informants.

In summary, there were fifteen keywords selected. According to the interviews, these keywords were mentioned to be key success factors of the SEA and SA process of the special economic zone developments. The statistics are as following,

- Policy of the special economic zone and the SEASA was the most crucial topic. It was counted at 12 times and calculated to be 80% of 15 key informants.
- Public participation was counted at 10 times and calculated to be 73.33%.
- Proper zoning and infrastructure were individually counted at 7 times and it was 46.67% from total.
- Public education and understanding of stakeholders, educational system, and environmental law and management were individually counted at 6 times and it was 40% from total
- Management structures and institutional structure, Law and enforcement were individually counted at 5 times and it was 33.33% from total.
- Implementation of international standards, Implementation plan, Holistic management, Local business protection, and Social management were individually count at 4 times and it was 26.67% from total.
- Expenditures was counted at 3 times and it was 20% from total.

The above keywords were set to be crucial elements in the interviewed and explained as the successful factors in the development of the studied areas. However, the researcher then requested the key informants to re-categorized these 15 key success factors. As a result, the key informants summarized to be 11 key success factors in total. The 11 key success factors can be presented as following details.

- 1) Policy, law, and enforcement
- 2) Public participation
- 3) Zoning and infrastructure
- 4) Educational System
- 5) Holistic management or SD management
- 6) International standard implementation
- 7) Management structure

- 8) Public Health Care
- 9) Implementation Plan
- 10) Local Business Protection
- 11) Expenditures

Moreover, the research tried to affirm on that the 11 key success factors that were mentioned by the key informants are also acceptable by international arena. Therefore, the researcher tended to do further review on the international development projects of SEA and SA in order to find out the supportive evidences that help proving the values of these 11 key success factors. The following part is explaining on the benefits of each key success factor to the SEA and SA process with examples from other resources. The explanations are as following.

First, policy, law, and enforcement were grouped together since the analysis found that the policy, law and enforcement are the important issues to confirm that the special economic zones will have concrete development direction with law and enforcement process to make sure that all activities will be implemented following intentions of the policy. There are many SEA cases in Asia that underline the Policy, law, and enforcement to be the crucial issues to many related areas. For example, policy was underlined in the SEA process to make sure that the stakeholder engagement will be implemented in the SEA projects where as the policy may help to engage a broad range of stakeholders (Organization for Economic Co-operation and Development, 2006). Moreover, policy was also highlighted in developing SEA in Indonesia. For instance, An Inter-Ministerial Working Group, that included Ministry of Environmental Affairs (MOE), National Development Plan Agency (Bappenas), Ministry of Home Affairs (MOHA) and Ministry of Public Works (MOPW), the group was given the objectives to set up an umbrella policy, strategic guidelines, law, regulation, enforcement, and supporting tools for SEA in order to make sure that SEA will be covered by the practitioners (Dusik, 2005).

Second, public participation is a compulsory process in the SEA and SA process. The participation can help the development to gain more understanding of stakeholders who get involved in the development paths. The public participation can be done through stakeholder engagement process. Public participation can be done in

many form such as; meetings, questionnaire, public consultation, dissemination of information through mass media. Recently, there are many SEA projects discussed about the importance of public participation to the SEA and SA process. For example, the draft MONRE General Technical Guidelines on SEA recommend that the teams operating the SEA should identify of key stakeholders and prepare of a stakeholder engagement plan to be developed in the following participatory process: including printed material gathering comments, events and exhibits, information call center/ staffed hot lines, internet/web-site consultations, questionnaires and response papers, surveys, public hearings, workshops, advisory committee (SEMLA, 2007).

Third, zoning and infrastructure are important to the development of SEA and SA in the special economic zone developments. The zoning and infrastructure can help the authorities to reduce environmental impacts to their communities. Moreover, the zoning and proper infrastructure system can elevate the living standards of the society. Zoning and infrastructure were mentioned in some SEA and SA development attempts. For instance, the SEA of Tourism Development in the Guizhou Province that implemented SEA as the mechanism to protect the environment aspects described that the SEA could address most of the environmental issues by implementing through the well preparations of zoning and proper infrastructure (World Bank, 2007).

Fourth, Educational System is likely to be the compulsory issue for the present developments. The better educations can promote better quality of people in society which at the end benefit the development of economic, social, and environmental aspects in return. In South East Asia, there are many SEA projects that prioritised the educational issue as the important rank in the social dimension. For example, the development plan of Nam Theun II Hydropower in Laos PDR raised educational development issue as one of social implications of the development. Therefore, the development authority should review on the possible risks and impacts of the development to this issue and support to increase the higher standards in educational quality (World Bank, 2007a).

Fifth, holistic management or SD management is another essential issue for the special economic zone developments since this issue provides broader

perspectives that could benefit the development. The holistic management means to take economic, social, and environmental dimensions into account of the development paths. Obviously, it is quite clear that the SEA and SA share the same original concepts with Sustainable Development. Therefore, there is no doubt that SEA and SA process can go along with the SD mechanisms. As the example in Thailand, in 2003, the Office of Natural Resources and Environment Policy and Planning (ONEP) recommended that the SEA should be implemented as a tool to enhance SD management that comprises of economic, social and environmental dimensions (Paranan, 2008).

Sixth, international standard implementation is claimed to be one of the core factors to support the SEA and SA process of the special economic zones. The international standards can be guidelines and assessment indicators that support the management processes to gain more trusts from international arenas. It is the mechanism to prove that the development reaches high standards in managing economic, social, and environmental issues. There was a recommendation by the International Association for Impact Assessment (IAIA) that the development of SEA or Environmental Assessment (EA) should be implemented in parallel with international environmental assessment standards as the guidance to help the SEA and EA to be more consistent (International Association on Impact Assessment, 1996).

Seventh, management structure can support the SEA and SA process in the development. It helps to increase management performances of the authority since the management structure will manipulate the duties and responsibilities of the related authorities. The OECD mentioned about the management structure or institutional structure that “a key principle of SEA is to adjust for purpose, adapted to the environments and situations of countries and political culture, norms and institutional arrangements” (Organization for Economic Co-operation and Development, 2006).

Eighth, public health care can help promote the sustainable development of the special economic zones since an increasing number of economic activities can cause of increasing in population of the area. Therefore, good public health care can eliminate medical risks that increased when the city becomes bigger. Many of SEA

and SA projects in Asia mentioned Public Health Care to be the compulsory development in the social issues. For instance, Philippine Constitutional provisions on the development stated that ‘the State shall protect and promote the rights to health of the people and instil health consciousness among them’ (Mercado, 2008)

Ninth, implementation plan is concerned to be the supportive components of the policy development. The implementation plan can interpret the intentions of the main policy in to the daily tasks. With the implementation plan, management authorities can manage the project within the scope of the policy. The implementation plan is like a map for travellers. In SEA development world, the implementation plan is the crucial element in the implementation process. For example, in 2003, the Ministry of Natural Resources and Environment (MONRE) of Thailand mentioned that ‘the SEA approach includes...development plan, alternative plan, ... implemented plan’ (Yootong, 2007).

Tenth, local business protection can promote the sustainability of the local economic structure which also plays an important role in the macro-economic scale. It is accepted that the Small and Medium Enterprises (SMEs) constructed to be a foundation layer in the economic system. The development of the special economic zones brings a lot of investment from outsiders in to the areas. Therefore, these local SMEs should receive some protection schemes from the government in order to increase competitive advantages and survive in the expanding markets.

Eleventh, expenditure issue was underlined by the key informants to be the key driver of the SEA and SA development in the special economic zones. The key informants agreed that monetary supports can indicate directions of the development. It is clear that without the expenditures or monetary supports, the SEA, SA, or the development level is also limited. As appeared in discussions of the SEA development for tourism in Cambodia that the current SEA project faced with difficulties in a monetary term. The authority discussed that budget restrictions did not allow the further development of SEA. It also obstructed the authorities to have extensive consultations but a little amount of public information into the process.

In summary, the research confirmed on the values of these 11 key success factors that they are not only mentioned by the Savannakhet and Mukdahan special economic zones stakeholders but also mentioned by the SEA and SA cases in the past. Therefore, the researcher set up these 11 key success factors to be the development elements of the integration of SEA and SA process of the target Special Economic Zones that will be presented in the following section.

4.2 The Development Process of the Integration of Strategic Environmental Assessment (SEA) and Sustainability Appraisal (SA) Process for the Special Economic Zones in Savannakhet and Mukdahan

According to the information gained, the researcher has explored that the development of the integration of SEA and SA process for the special economic zone in Mukdahan and Savannakhet should be designed to reach the international standards. Therefore, the researcher studied on the international management mechanisms and tools to be the main structure. Internationally, there are many management methods that could take the developers to reach their successful goals including Strategy Map. The research is combining the key success factors to the elements of Strategy Map, SEA and SA in the following section.

4.2.1 The Integration of key success factors, Strategy Map, SEA, and SA process

This section is determining the particular integration of SEA and SA process for the target Special Economic Zone Developments with the 11 key success factors via the integration of Strategy Map, SEA, and SA process. The process started with bringing in the 11 key success factors that had been concluded previously. Then the researcher categorized them into the four perspectives of Strategy Map. Then the researcher integrated the Strategy Map in to the integration of SEA and SA process that had been explained in the chapter 2. The next step is to design the framework by selecting the similar issues of all mechanisms and setting up the new process. The process is described as following figure.

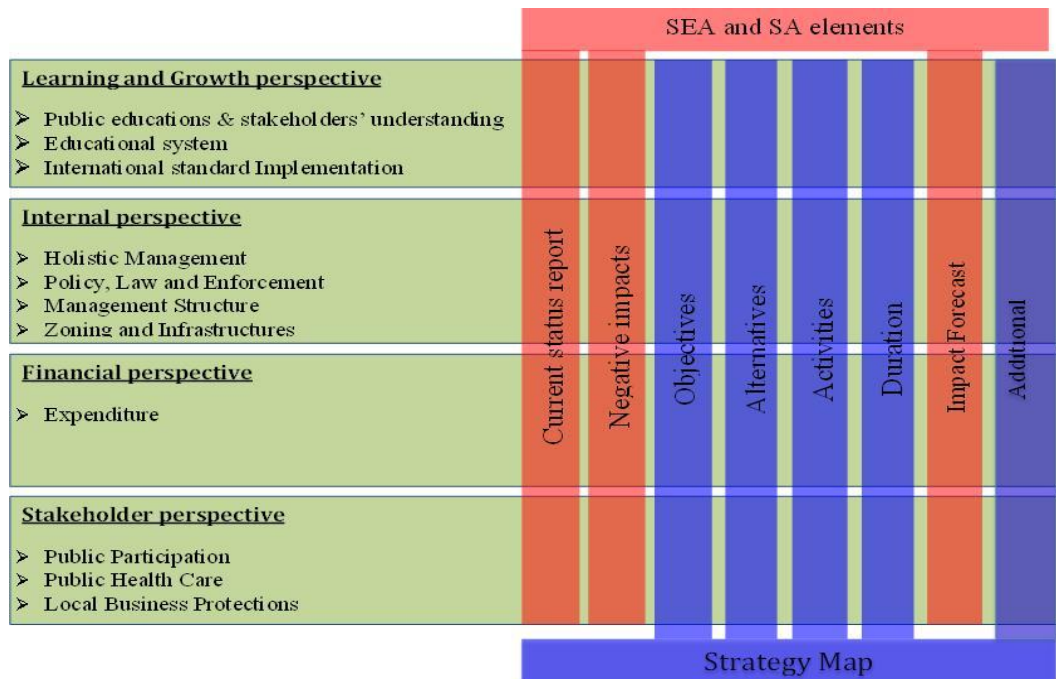


Figure 17 *The Integration of 11 key success factors, Strategy Map, SEA, and SA process*

Step1 Set up the key success factors

Accordingly, the 11 key success factors were categorised into 4 perspectives of the Strategy Map. The key success factors are grouped in the following list.

Learning and growth Perspective

- 1) Public Education and Stakeholder Understanding
- 2) Educational System Development
- 3) International Standard Implementation

Internal Perspective

- 4) Holistic Management
- 5) Policy, Law & Enforcement
- 6) Management Structure
- 7) Zoning and Infrastructure

Financial Perspective

- 8) Expenditure

Stakeholder Perspective

- 9) Public Participation
- 10) Public Health Care
- 11) Local Business Protection

Step2 Selection of Strategy Map, SEA, and SA elements

In order to design a complete set of the strategic process, the researcher combined the SEA and SA elements into the Strategy Map structure to assure that the process has potential to establish the strategic plan under the SD concept following the intentions of SEA and SA.

The analysis of the Strategy Map, SEA, and SA constructed the new process's elements since the researcher found out that there are several similar elements from these mechanisms that can be integrated and constructed to be the strategic tool as following explanations.

- 1) Current Status/ Problem Report:

The Strategy Map combines of current status report while SEA and SA also request to list the current state of the problems. Therefore the researcher set up the “Current Status / Problem report” to report the current situations and problems of the development.
- 2) Negative Impact:

The SEA process requests to provide lists of negative impact of the problems when they are ignored while SA also requests to indicate impacts to the economic/ social/ and environmental aspects.
- 3) Objectives:

All mechanisms require providing objectives of the development.
- 4) Alternatives:

The Strategy Map requests to provide initiative to solve the problems while SEA and SA seek for alternatives for the developments which fulfil the objectives set before.

5) Activities:

The Strategy Map requires providing activity details as supportive part of the Alternatives.

6) Duration:

It is important to indicate the duration of the development plan.

7) Impact Forecast:

SEA requires indicating the forecast of impacts from the alternatives set before while SA requires estimating the results in Economic/ Social/ Environmental and Other dimensions.

8) Additional:

Additional notices for the practitioners.

Consequently, the selections of the elements from the three mechanisms are in the same direction. Moreover, all elements can be integrated together as a structure to set up strategic plans for the special economic zones. The researcher then constructed the strategic plans for each key success factor as following.

1st Perspective: Learning & Growth Perspective

First: Public education and stakeholders' understanding

Current Status Report/ problems:

According to the in-depth interviews, it has been found that stakeholders' understanding of SEASA and the special economic zone was weak and it was the most important point that needed to be supported. Since people in both areas, Mukdahan and Savannakhet, had no clear ideas about the SEASA and the special economic zone and they did not know how to attach themselves to the development. This problem obstructed the governments' intentions to have Sustainable

Development in both special economic zones. There were many topics that should be provided to stakeholders including understanding of SEASA, meaning of the special economic zone, laws and regulations, benefit of the development, and etc.

As a result, this knowledge will lead to effective participations of stakeholders. Moreover, the stakeholders will involve in the right way to support the development activities. Finally, the integration of SEASA will be constructed effectively by involvement of all stakeholders.

Negative impacts:

- Economic aspect: Stakeholders will have different understanding about the special economic zone development which finally lead to absences of the stakeholders from the economic involvements and cause of loss of economic growth due to the stakeholders cannot get involved in the right position.
- Environmental aspect: Stakeholders who lack of knowledge of environmental management and its related issues cannot protect their communities' environments. Obviously, they cannot handle the environmental management in the sustainable style.
- Social and community aspect: Stakeholders who do not understand about the development will have no ability to involve in the development processes. As consequences, they cannot adapt themselves toward the development. It is difficult to survive without knowledge.
- Other aspect: -

Objectives:

- To make sure that the management authority provides public education to create mutual understanding about special economic zone, sustainable development (economic/ social/ environment), SEA and SA, and other related knowledge to people in both areas.
- To monitor the knowledge and understanding level of the stakeholders in order to elevate the development directions.

Alternatives:

- Provide public educational activities in economic, social and environmental areas to all stakeholders every month along the development plan.
- Knowledge assessment will be done before and after each activity in order to assess the percentage of understanding among stakeholders. The successful target is that all stakeholders have at least 80% of the total knowledge taught in each session.

Activities:

- Organize knowledge training projects with objectives to transfer understanding of special economic zone, SD, SEA, SA, Environmental and social issues, policies, laws, privileges, and other sustainable development related issues. The training courses should be done by group of stakeholders
- Hire consultants who can provide knowledge and awareness to the participants.
- Design of knowledge assessment to monitor successful ratios of the participants. The formula is

$$\text{Average training hour} = \frac{\text{Total number of training hour}}{\text{Total number of registered stakeholder}}$$
- Recruitments of community, government, and private sector representatives to attend special training courses that set to create professionals of sustainable development in special economic zone. These people will be essential linkages among different groups in the special economic zone.
- Increase average number of public educational training hour every month or at the appropriate numbers.
- The course must have knowledge of
 - a. Special economic zone,
 - b. SEA,

- c. SA,
- d. SD
- e. Related topics

Duration:

- Implement the initiatives every month throughout the development plan.

Impact forecast:

- Economic aspect: Stakeholders will have common understanding about the special economic zone development which finally leads to unity and corporation of the stakeholders to involve in the economic development and drive the economic growth with appropriate actions.
- Environmental aspect: Stakeholders who have knowledge of environmental managements and its related issues can help protecting the communities' environments in sustainable way.
- Social and community aspect: Stakeholders who understand about the development will have abilities to take part in the development process. As consequences, they can shape their own development direction that fit to the mainstream development of the government. Access to training opportunities can also support progress in other areas of social performance.
- Other aspect: The government will have long-term sustainable developments by this process.

Additional:

- Knowledge and lessons on the courses should be designed by the experts and covered SD components, such economic/ social/ environment, and appropriate for all stakeholders.
- The authority should manage the training courses by groups of stakeholder.

- Stakeholders
 - Economic related departments
 - Governmental organs
 - Private sectors
 - Communities
 - Social related departments
 - Governmental organs
 - Private sectors
 - Communities
 - NGOs
 - Environmental related departments
 - Governmental organs
 - Private sectors
 - Communities
 - NGOs

Second: Educational System

Current Status Report/ problems:

Educational system is an important key to construct SEASA in to the management of the special economic zones. The education will drive people's knowledge and turn in to corporations in development processes. The interviews found out that, currently, the educational system in both areas still had weak points to be developed. Mukdahan lacked of higher educational institutes while Savannakhet has all level educational institutes but shortage of educational professional to drive the system. People's knowledge and educational status was weak. Moreover, the existing educational system was ineffective and low quality. As consequences, local communities do not ready for the developments and being taken advantages by some groups of sophisticated people. Moreover, there were not enough educated people who would be in the development processes. The interviews explored that there are many methods to improve the system. The conclusions are (1) setting up and

developing local educational institutions at all levels and (2) performing public educational activities by professionals.

Negative impacts:

- Economic aspect: Educational system is one crucial concern of investors. In general, people tend to invest in the areas that the educational system was ready. Without complete educational system in the area means there is no machine to produce quality professionals to the development system. Moreover, people will move out from the area once their children need educations. Education is one indicator that used to rank the province's status. In term of economic development, higher rank means better position to invest. Therefore, low quality education will slow down the economic growth rate of the area as well.
- Environmental aspect: It is assumable that educational system can ease the environmental management. Educational system has a lot influences to the environmental development. Developed countries tended to put the environmental elements in the compulsory educations due to this curriculum can help shaping their populations to have environmental minds. According to the studies of the European commission (EU), the educational system has close relationships to environmental management. There were better environmental preservation statistics in the countries that emphasis on the environmental educations.
- Social and community aspect: Without educational system people tended to have low quality. Therefore, these groups of people will loss better chances to develop their living standards. Especially in the special economic zone that requests higher quality professionals.
- Other aspect: -

Objectives:

- To develop the local educational system.

- To make sure that economic, social and environmental issues will be appropriately contained in the compulsory educations
- To increase total number of educational institutes in the area.

Alternatives:

- Setting up new educational development policies and knowledge series or syllabuses that cover issues of SD, SEA, SA, Special economic zone, and public participations.
- Investing in educational system to create more channels for local people to access the basic knowledge and fundamental educations.
- Increasing numbers of educational institutions in the area and elevate the educational standards.
- Providing scholarships for local students for the related studies or courses with the conditions to get back and work in the area.

Activities:

- Invite responsible persons from the ministry of Education and related departments, scholars and experts, educational NGOs, Local people to plan the course syllabuses for both formal and non-formal studied courses.
- Increase more budgets on the educational developments
- Establish more educational institutions in all levels of primary-university. As well as recruiting more educational staffs in to the process.
- Allocate a least 5 full scholarships annually for local people to study on SD, SEA, SA, Special economic zone, and public participations.
- Funding money from private sectors and related organizations for the educational supports to people in the area.

Duration:

- Complete the course syllabuses within the 1st quarter of the project then monitor and develop it every semester.
- Establishment of educational institutions can be implemented immediately at early stage of the development and continue to develop with no end.
- Allocation of the scholarship can be implemented immediately since the beginning and continue to increase the number of the scholarships every year.

Impact forecast:

- Economic aspect: prompt educational system can increase literacy rate of people and in turn it will increase the economic growth rate due to more people will get involved in the economic activities.
- Environmental aspect: Stakeholders who have more knowledge of environment and its related issues can help protecting the communities' environments in sustainable way and corporate more in environmental development campaign.
- Social and community aspect: Stakeholders who understand about the development will have abilities to take part in the development process. As consequences, they can shape their own development direction that fit to the mainstream development of the government.
- Other aspect: the literacy rate of the province will be increased dramatically.

Additional:

The development of educations to prepare the local people for the special economic zone development and SEASA should have careful initial researches to scope and set up the right direction of the educational development

Third: International Standard Implementation

Current Status Report/ problems:

Nowadays, there are a lot of international standards indicated in the development policy. However, in practical, the local authorities were failed to understand the process of international standards implementation while Laos seemed to have more international standards in their developments. However, in both countries, the existing standards mainly focused on economic growth rather than SD standards. The key informants insisted that the SD international standards are important and needed to implement in the governmental system since policy level. These international standards can be a guidance and assessment tool for all issue in SD elements. For example, Sustainable Development international standards will provide issues in each dimension including economic, social, and environment that the users can use it as checklists to follow and monitor these issues at work. Moreover, most international standards were designed to be universal. Therefore, the users can select some suitable standards that fit to the characters of the local responsibilities. Obviously, the government that implements the international standards will enhance its credibility level in the international stage.

Negative impacts:

- Economic aspect: globalization combined the world as one community and the international standards would be the common criteria to assess all countries including economic activities like international trade. Nowadays, international standards became more important in controlling the quality of each country's productions and services including SD standards. Therefore, the country that did not implement the international standards, especially environmental standards, tends to be isolated from the international community.
- Environmental aspect: international arena is underlining environmental issue which normally attaches to almost all human activities. Development that creates a lot of change to environment should have

implementing international environmental standards to control and develop its environmental conditions.

- Social and community aspect: most international standards included social aspect into their main issues due to these days people are concerning more about impact of development to their community. As can be seen, people opposed some developments that damaged their living standards. This circumstance can cause of social risks that slow down the developments.
- Other aspect: -

Objectives:

- To study on the SEA and SA relevant international standards.
- To implement the select standards in the special economic zone.
- To provide the international standard framework that fit to the management process of special economic zones.
- To develop the international standards understandings of the local authorities.

Alternatives:

- Study and select the relevant international standards (SD or SEA or SA) and design the framework of the international standards to use in the development process.
- Strategic and planning authority designs the indicators that will be used to monitor the development.

Activities:

- Delivery the authority's representatives to attend international standard seminars or workshops both domestic and international events at least 5 events a year to obtain knowledge and update of the implementation understanding.

- Request the central government and related sectors to support of the international standard implementations.
- Hire consultants who are specialist for SD international standards to advice for the implementing frameworks.
- Set up SD indicators that will help monitoring the process under the concept of SD.
- Follow and assess of the indicators' performance.
- Exchange knowledge of the international implementations between Mukdahan and Savan-seno special economic zones.

Duration:

- The international standard framework should be developed before the start of the development project and closely monitor with the framework along the process.

Impact forecast:

- Economic aspect: international standards will be an important key to open the door to the international trade market. International standards also help to elevate products and services qualities as well.
- Environmental aspect: international standards will help the users to prepare and develop the environmental issues to reach the international levels.
- Social and community aspect: social standards will be increased as negative impacts from development are limited by the international standards.
- Other aspect: -

Additional:

- The relevant organizations both governmental and public sector should not deny the international standards due to, recently, international arena requires at least SD international standard as the quality standards for any product and service.

2nd Perspective: Internal Process Perspective

Fourth: Holistic management

Current status report/ problems:

Many development projects in the studied area encountered with difficulties and inappropriate directions for the development because these projects did not have the holistic view preparations. Obviously, holistic view management such as analysis of management through SD or SEASA lens can help authorities to understand the overview of the situations. As a result, correct understanding that leads to the right resolutions to resolve at the root problems under the sustainable concept.

Negative impacts:

- Economic aspect: management without holistic approach can lead to inappropriate directions and can cause of management overlapping that definitely waste of time and expenditures. Moreover, the failure of management can affect the economic confidences of investors.
- Environmental aspect: generally, management aimed to fulfil at economic function which normally fail to prevent the environmental aspects. Later, the authority has to pay for the restoration of the environmental conditions which actually cost more than what they gained in the economic aspect.
- Social and community aspect: management without consideration on social aspect can lead to bigger problems from the social risks.
- Other aspects: -

Objectives:

- To gather information via the holistic view by collecting information and data from all related stakeholders about economic, social and environmental dimensions.
- To set up holistic management body by aggregating representatives from related department and public sectors.

- To form the holistic management policies and strategic plans including economic, social and environmental dimensions.

Alternatives:

- Set up particular holistic management structure for the special economic zone.
- Create participation events to gather public's opinions and views.
- Hire experts in SD, SEA, and SA field to draft the SD development policy for the special economic zone.
- Field visits for the SD, SEA and SA management in special economic zone at other successful special economic zones.
- Prepare plan for environmental management

Activities:

- Provide the participation road shows to local communities in the area to collect information and data following the SEASA issues before the process of the policy drafting.
- Manage the meeting that involved by all relevant organs from both government and public sector every Monday morning to set up week plan.
- Set up field trips once a year for the management members to learn how the successful special economic zones run in the holistic management style.

Duration:

- The holistic management is very essential for the SEASA of special economic zone that should be started before the beginning of the policy planning.

Impact forecast

- Economic aspect: holistic approach will bring about proper direction in management which tends to be long-term plan. This sustainable plan will gain more trusts from investors.

- Environmental aspect: Holistic management will help the authority to not only totally manage to reduce negative impact from economic development to environmental aspects but also manage to preserve the environmental condition.
- Social and community aspect: Holistic management can bring consensus from society to the development plan. Moreover, it helps to reduce risk issues from the communities.
- Other aspects: Holistic management tends to be more sustainable than single approach management.

Additional:

- Institutional analysis is suggested for this step. The analysis will hint that which organs will be the key management members and who responsible for each duty.

Fifth: Policy, law, and enforcement

Current status report/ problems:

The research explored that both countries have policies for special economic zone development. However, the special economic zone policies lacked of many important issues in environmental and social dimensions. There were no mentions about the integrations of SEA and SA in the current policies. Although the SD issue was mentioned but there were no concrete policies and implementing directions. Internationally, special economic zone policies provided complete directions for economic development paths together with environment and social dimensions. Due to environment and social problems are areas that international arenas underlined as the compulsory issues for all developments. Therefore, the authorities should pay more attentions to formulate SD policies for the special economic zone. Meanwhile, laws and enforcements are equally important to the policy processes. Laws and enforcements need to support development policies. The research discovered that, currently, the enforcement process is being disputed as weak process, particular in

Thailand, and could not lead to a complete justice in accordance with the purposes of the laws.

Negative impacts:

- Economic aspect: Developments that lacked of environmental and social management policies seemed to be unsustainable. It could be failure to trigger investments into the development since new generations of investment tended to focus more on the development programs that have concrete policies with integration of social and environmental aspect into the policies.
- Environmental aspect: Environmental management without supportive policy can lead to ineffective management and cause of risks in environmental aspects which produce long-term problems.
- Social and community aspect: Social and community management without supportive policy can lead to ineffective management and cause of risks in social and community aspects which produce long-term problems.
- Other aspects: unclear development policy can cause of negative reputation of the countries.

Objectives:

- To impose the special economic zone policies and laws that cover economic, social, and environment dimensions or SD.
- To impose the special economic zone policies and laws that supports the SEASA direction.
- To indicate effective laws and enforcements with heavy punishments to law breakers and heavier punishments to the authorities who ignored the enforcement process.
- To elevate the enforcement process.

Alternatives:

- Set up the policies and laws that covered all dimensions of SD including SEASA that fit to the area's conditions.
- Set up laws and enforcements that covered all dimensions of SD including SEASA that fit to the area's conditions.
- Prepare and enhance the skill and performance of officers in the justice process to elevate the law and enforcement process.

Activities:

- Open stage and invite representatives from relevant organizations to provide their opinions in the policies, laws, and enforcements issuing process.
- Develop training courses for the justice officers to be ready for the special economic zone development towards SD and SEASA directions.
- Develop monitoring process to assess the enforcement system

Duration:

- The policy issuing process should be done at least 6 months before the beginning of the development.
- The training courses should be performed monthly for at least 6 times before the beginning of the development and keep monitoring monthly along the development journey.

Impact forecast:

- Economic aspect: Economic directions of the development that has concrete policy can gain trusts of investor to invest and drive the economic growths easier.
- Environmental aspect: Environmental management under supportive policy will have effective directions.
- Social and community aspect: Social and community management under supportive policy will have effective directions.

- Other aspects: Concrete policy of the development elevates reputations of the country and brings in supportive factors to the development.

Additional:

The policies, laws and enforcements should be developed under the concept of SD. Both management and justice authorities should have a common and clear understanding about the SD direction.

Sixth: Management structure

Current status report/ problems:

One of the crucial elements in special economic zone management is to set appropriate management structure. Currently, the local management structure for the special economic zones in Thailand is still unclear. All duties belong to the governor house without particular management body for the Mukdahan special economic zone. Authorized powers and duties of officers were unclear and overlap in many aspects. Moreover, the discontinuous policies happened when the new government was set. As a result, the management performance was poor and many problems were left behind. While, Laos has independent management structure that particularly set for the Savan-seno special economic zone called Savan-seno Special Economic Zone Authority (SSEZA). This management structure has effective performances appropriate bodies to manage the zone in more sustainable trend.

Negative impacts:

- Economic aspect: Particular management structure is important in the development. Without a clear management structure, the economic directions might be vague which damages investors' trusts.
- Environmental aspect: Without management structure means no particular agent to take care of the environmental issue. The natural resources and environment will be exploited ineffectively.

- Social and community aspect: There will be no responsible agent who takes care of this issue in particular. The failures might cause of social and community risks to against the development.
- Other aspects: -

Objectives:

- To form management structure especially for the special economic zone.
- To integrate SEASA into the management process
- To prepare the management master plan, strategies and implementation plans that cover economic, social, and environmental issues or SEASA
- To prepare the management manual that will ease the management

Alternatives:

- Scope all tasks including economic, social, and environmental dimensions.
- Select the relevant departments to be the special economic zone management authority.
- Select the representatives from public stakeholders who come from economic, social and environmental related areas.
- Issue the management master plan, strategies and implementation plans that cover economic, social, and environmental dimensions by approval of all members in the special economic zone management committee.

Activities:

None

Duration:

The management structure setting should be finished within 45-60days and the management plans should be approved within 90 days

Impact forecast:

- Economic aspect: Particular management structure can gain trusts from investors to drive the economic growths of the development.

- Environmental aspect: Appropriate management structure can create more performance in environmental management that can reduce negative impacts and conserve the environment conditions of the development areas.
- Social and community aspect: Appropriate management structure can create more performance in social and community management. The effective management can help the authority to reduce social problems and provide rapid development to the societies.
- Other aspects: -

Additional:

The management authority should be selected through participation process that includes all stakeholders from economic, social, and environment related groups.

Seventh: Zoning and infrastructure

Current status report/ problems:

The proper zoning can effectively create the economic growth together with social and environmental developments. According to the in-depth interview, it showed that Mukdahan special economic zone lacked of proper zoning. This was because the Mukdahan special economic area was allocated on the existing local communities. Therefore, there were many limitations in managing the special economic zone. For example, it costs more on investment of basic infrastructures because the local communities spread around and overlap with the Mukdahan special economic zone. Therefore, the government would need to invest in some special required infrastructures repeatedly. Moreover, the government will have to provide additional investments for the protections on social and environmental conditions otherwise there would be plenty of risks in the development. These are such crucial difficulties when the authority did not implement the proper zoning system.

Meanwhile, the Savan-seno special economic zone has a very good zoning system due to the local government hired consultants who had experiences in

managing the special economic zone to provide the plan and manage the zoning system for the Savan-seno special economic zone.

Negative impacts:

- Economic aspect: the economic losses and higher investments always happen to the developments that zonings and infrastructures were left behind. Since zoning and good infrastructure can support economic activities and reduce costs of investment.
- Environmental aspect: the development areas that zonings and infrastructures are poor means to have poor environmental management.
- Social and community aspect: communities that blended with the economic development zone usually get negative impacts from the economic activities as can be seen in news when communities directly get effects from safety issues.
- Other aspects: governmental expenditures are higher in the development zone that lacked of zoning.

Objectives:

- To provide the new zoning and infrastructure plans that suitable for the existing map
- To enhance the current zoning and mapping system in order to provide the right land use management which is not only create less impacts to the communities but also increase less damages to the environments.

Alternatives:

- Provide effective zoning plan and infrastructure development plans.
- Provide basic infrastructures and facilities to serve the development.
- Develop the zoning plan

Activities:

- Invite representatives from relevant organizations and stakeholders to be a working group for the zoning and infrastructure planning.

Duration:

The plan should be done within 6 months before the beginning of the development.

Impact forecast:

- Economic aspect: proper zonings and ready infrastructures attract investors to come and invest in the area. Moreover, it helps the management authority to safe cost of management.
- Environmental aspect: Implementing zoning systems can help the authority to control environmental risk factors and the ready infrastructures can ease the management team to control the safety issues.
- Social and community aspect: Proper zonings and ready infrastructures benefit communities in many beneficial ways such as safety issues, transportations, living standards, and etc.
- Other aspects: expenditures are controllable under zoning system and infrastructure plans because environmental and social aspects in safety issue are well managed under this plan.

Additional:

The zoning and infrastructure plans must be clear and relate to not only economic and industrial development but also environment and social development. All dimensions should have equal important in the decision making process. The zoning is the crucial key that the authority should not ignore.

3rd Perspective: Financial perspective

Eighth: Expenditure

Current status report/ problems:

The interview discovered that expenditure is one of the most important factors for the development. All key informants insisted that there would be unsuccessful development if there were insufficient expenditures. Therefore, it is very important to focus on this factor. Currently, Thailand has fruitful expenditures for Mukdahan special economic zone. However, it was in the early stage of the plan so the expenditure allocations were imbalanced. Obviously, there were no expenditures for SEASA in the process. Meanwhile, Laos encountered with insufficient expenditure of the country that also affected to allocations of budget to the special economic zone developments. Therefore, the government has tried to convince foreign investments in to their development plans.

Negative impacts:

- Economic aspect: Expenditure plays important roles in development. Without sufficient expenditure means unsuccessful development. This issue has direct effects to the economic development.
- Environmental aspect: Lack of expenditures will lead to failure environmental management.
- Social and community aspect: Lack of expenditures will lead to failure environmental management.
- Other aspects: -

Objectives:

- To gain sufficient expenditures for the special economic zone.
- To properly allocate the expenditure to the development effectively.
- To process the cost-benefit analysis and social return on investment (SROI) to see possibilities and benefit from the investments in order to make right decision on budget allocation.

Alternatives:

- Properly allocate the budgets in to the development plan including economic, social, and environmental parts.
- Process cost-benefit analysis report of each project together with SEA and SROI calculation to request for more budgets from the central government or international development funds.
- Set up development funds particular for the special economic zone development by supporting of investors and stakeholders in the area.

Activities:

N/A

Duration:

Relate to central governmental fiscal calendar.

Impact forecast:

- Economic aspect: Gain more budgets and effective monetary management plan for the economic development.
- Environmental aspect: Gain more budgets and effective monetary management plan form international funds to develop the environmental aspect.
- Social and community aspect: Gain more budgets and effective monetary management plan form international funds to develop the society and community.
- Other aspects: -

Additional:

The authority should carefully plan and allocate the financial details which calculate under the components of SD.

4th Perspective: Stakeholder Perspective

Ninth: Public participation

Current status report/ problems:

The interviews found that the one of the key success factors of the special economic zone and SEASA is public participation. All stakeholders have rights to involve in the development by this process. The participations will help enhancing the management performance and credibility of the development plans. Recently, both local governments have started to provide public participation events for the stakeholders. However, the interviews also explored that the involvement rates were low. Besides, the participations had no quality. Therefore, the authorities should develop the participations qualities. Then build up awareness among the stakeholders to get involved in the participations.

Negative impacts:

- Economic aspect: Development without public participation is at risk of disagreement from society that can be huge damage to the economic status.
- Environmental aspect: Environmental aspect has very close relationships with society. Therefore, the development without consensus of the society and create negative impacts to the environment tends to be obstructed by the community.
- Social and community aspect: The development without public participation seemed to have more risks from society due to the society are holding social license to operate and they have right to oppose the development by laws.
- Other aspects: -

Objectives:

- To build up awareness and participation process among stakeholders
- To draft the participation manual
- To make sure that participation process is done under the SD elements.

Alternatives:

- Form up the public participatory supportive team
- Issue the public participation manual that includes the SD elements.
- Study on needs of the stakeholders to develop the stakeholder engagement plan.

Activities:

- Create mutual awareness and understanding among the stakeholders by promoting public participation through public education process.
- Integrate SD issues into the public participation process.
- Promote the public participations by providing activities in all communities in the area.

Duration:

- The public participation manual should be finished within 90 days before the beginning of the development.
- The promotion of the participatory campaigns should be started at least 30 days before the beginning of the development.

Impact forecast:

- Economic aspect: Public participation brings about legitimacy to the authority and the development plan. Therefore, the economic development under this situation is quite stable.
- Environmental aspect: Environmental management will be more effective with supportive action from the society once they already agreed in the public participation process.
- Social and community aspect: Public participation can be necessary mechanism to link social needs to the development plan which drive the development in sustainable way.
- Other aspects: -

Additional:

The public participation is necessary for the development. Therefore, the authority should make sure that this process is prepared promptly at the early stage of the development

Tenth: Public Health CareCurrent situation report/ problems

The key informants all agreed that public health care was one of undeniable issues in the development. The special economic zone developments in both countries attracted more populations to the areas. Moreover, when Southeast Asian region implement the AEC program, the migration number between the countries has been increasing due to more economic activities in the areas. This condition also leads to more risks in public health care because more diseases will be transferred with the migration activity. Therefore, the governments of both countries should be aware of the public health problems that come with the special economic zone developments.

Mukdahan has 7 governmental hospital, 1 public hospital, 78 health promoting hospitals, and 57 clinics. However, the statistic shows that Mukdahan still encountered with some health care problems such as insufficient health care services and medical personals.

Negative impacts:

- Economic aspect: The development brings more public health problems which definitely cost more money to take care of these problems.
- Environmental aspect: none
- Social and community aspect: Public health care and community has very close relationships to each other. Community will be the first group to be influenced by any public health care incident.
- Other aspect: Public health care standard affects to the countries' reputation.

Objectives:

- To make sure that public health care is carefully planned.
- To be aware of the new public health care risks that will come with the developments.
- To enhance the public health care standards of the development areas.
- To reach the health care international standards.
- To increase the health care units to cover all areas of the provinces

Alternatives:

- Plan for the particular public health care policy for the special economic zone that includes of prevention and mitigation plans for any incidence in the future.
- Conduct the specific research on the health care risks in order to provide the risk management plan.
- Corporate with central government to gain more supports in order to enhance the local public health care standard.
- Study and select the public health care international standards in order to develop the management process under the international standard directions.

Activities:

- Hire the expert on the public health care field to help drafting the plans.
- Corporate with stakeholders who related to public health care issue to gain more information to enhance the management process.
- Use the public education process to promote the health care knowledge to the communities at least 1 community per week.
- Hire the consultants who are specialized in public health care international standards to help implement the international standards to the process.

Duration:

The public health care plan has to be implemented since the beginning of the development policy and manipulate it continuously throughout the development period.

Impact forecast:

- Economic aspect: effective plan will reduce the health care problems which absolutely reduce the budget of the health care services.
- Environmental aspect: None
- Social and community aspect: the communities' living standard will be increased when the public health care is in an appropriate direction.
- Other aspect: the country will gain more support internationally when implementing public health care international standards.

Additional:

None

Eleventh: Local business protectionCurrent situation report/ problems

The interviews discovered that when the special economic zone has started, the local businesses got effects from the development and most of them received negative impacts in economic term. Since the government has tried to trigger investors in to the area with special privileges of the special economic zone. As consequences, big capital companies invaded to invest in the areas. These capitals also brought advance products and services in to the areas. As a result, the products and services wiped unprepared local businesses out from the market. They failed into uncompetitive position. Therefore, the development authority should be aware of this factor and prepare the local businesses to be ready for the competition since these small local businesses are one of the important players in the economic development.

Negative impacts:

- Economic aspect: It can be an economic domino effect in the economic system when the local businesses or small-medium enterprises collapsed.
- Environmental aspect: Environmental aspect tends to have less effect by this issue. However, the environment can be destroyed when the economic players have less knowledge about how to exploit the natural resources effectively.
- Social and community aspect: Local businesses hold the stabilities of the society. Once these businesses collapsed, it definitely affects to the social living standards.
- Other aspects: -

Objectives:

- To set up business supportive team that can prepare businesses in the area to increase competitive advantage in economic, social and environmental dimensions.
- To develop the local businesses to reach the international standards and expand their networks throughout the area.
- To set up local a business network to enhance abilities of the local businesses.

Alternatives:

- Set up the business supportive team by corporation of governmental organs, public sectors, business sectors, scholars, and experts.
- Prepare the local businesses by transferring knowledge and providing workshop to increase their performances.
- Expand the business network and corporation among the sector to increase business opportunities especially for the local businesses.
- Limit the numbers of investment of outsiders.
- Provide priority rights to the local investors before given the investment rights to outsiders.

- Issue the Tax exemption for the local business in the first 8 years.

Activities:

- Provide training courses to increase economic performances and SD understanding for the local business monthly throughout the annual plan.
- Provide business matching events monthly to match and increase business opportunities
- Provide mobile business library with business consultant and travel to local businesses to give them knowledge and resolution for their businesses.

Duration:

The business development team should be set up within 30 days since the development start and provide the training throughout the year.

Impact forecast:

- Economic aspect: the economic system becomes stronger when the small and medium enterprises are well prepared.
- Environmental aspect: Environment is supposed to have more sustainable when all users are educated to have environmental management knowledge.
- Social and community aspect: economic development creates stronger community and supports the community to have long-term development path.

Additional:

The local businesses play important roles in the economic structures. Therefore, the government should protect and help them to survive in the economic scale by not only providing economic but also social and environmental performances.

4.2.2 SEA and SA Objective Checklists

This section initiates the SEA and SA objective checklists which designed to be used as the checklist table to make sure that the established strategic plans in this research is in parallel with the SEA, SA, and SD concepts. Thus, additional questions of SEA and SA were used in this table as following.

Table 7 Checklists for the SEA and SA objectives

Done	SEA and SA questions	Explanation
Yes	Whether the plan is sustainability relevant?	All issues had been studied through SEA and SA elements which constructed under the SD concept.
Yes	Whether the plan has short, medium, and long term impacts?	The plan provide monthly, quarterly, and annually plans which create more positive impacts rather than negative impacts.
Yes	Whether the plan has alternatives to mitigate the negative impacts?	The strategic plan provided alternatives in all perspectives to mitigate the negative impacts.
Yes	Whether the plan is cost and time effective?	The plan provided short, medium, and long term plan that can be adjusted to suit the budgets of the project.
Yes	Which part is the least-cost (Economic, Social, or Environment)?	The plan provided equivalent alternatives to all SD aspects.
Yes	Whether the plan provides sufficient SD information? (Economic, social, and environment)	The plan provided sufficient information in Eco, SOC, and ENV aspects.
Yes	Whether the decision process was taken under the sustainability concept?	All information provided under the SD concept. The decision maker will perceive all aspects when choosing direction.
Yes	Whether the plan has an involvement process?	The plan developed from the information gained by the public involvement process.

4.2.3 Integration of International SD Standards

The researcher studied on the international SD standard that relevant to the SEA and SA processes in the chapter2. The international SD standards are ISO26000, UNGC, and GRI.

According to the three main standards, the researcher found out that these standards can be combined to be a single flow of the international SD standard that will be plugged into the Strategic Process established in this study. All of them originated from the SD concept. Therefore, these standards can function in the same direction which fulfils the completeness of the international SD standard implementation in the Process as following figure.

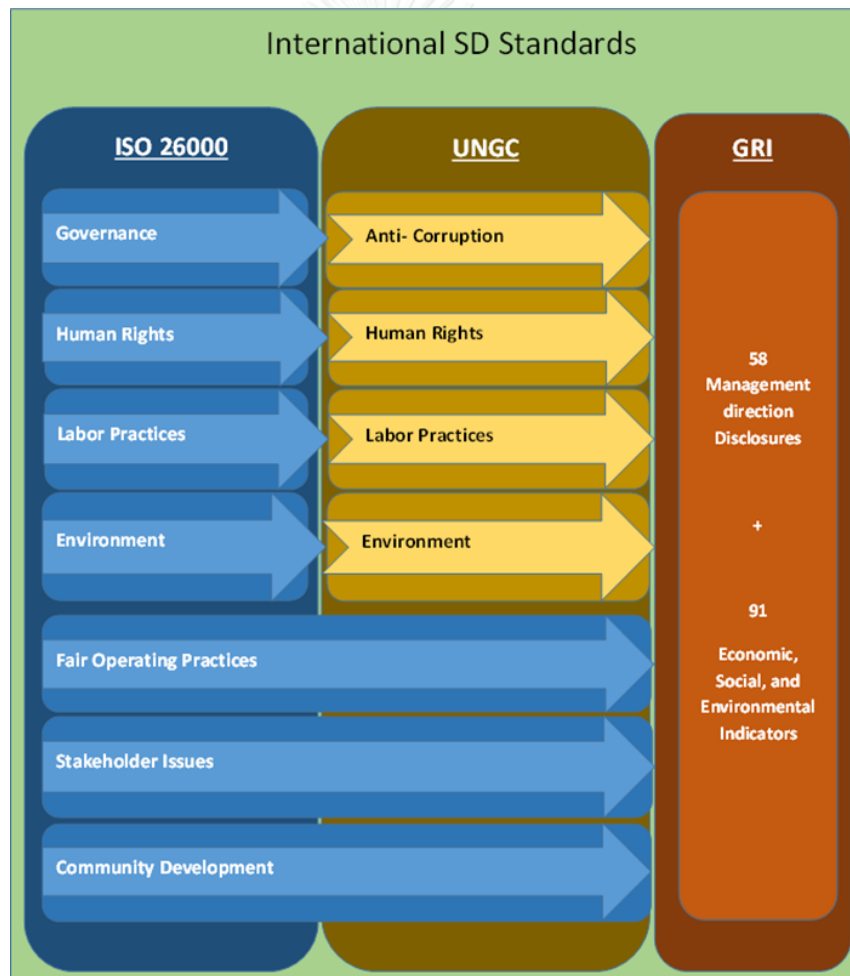


Figure 18 *Combinations of International SD Standards*

Obviously, these three standards have three elements of SD which are Economic, Social, and Environmental Aspects. Therefore, there is a possibility to

create the combination flow of these standards in order to support the efficient performance of the standards. The combination can be described as following:

Economic Aspect:

Governance: ISO26000 has Governance Issues to make sure that the developments are implementing the collect direction with perfectly supportive mechanisms in the governance process. Meanwhile, the UNGC discusses about Anti-Corruption which can be a supportive issue in the Governance area. When GRI G4 also provides “Management Disclosures” and “Economic Governance Indicators” that can be used as indicators and assessments for this aspect effectively.

Fair Operating Practices: ISO26000 stated that “Fair Operating Practices” is the important issue for the economic development which will help the development to manipulate all activities to have fair operations among all stakeholders. Meanwhile, GRI G4 also provided indicators in Economic and Social aspects that are in parallel with the ISO 26000.

Social Aspect:

Human Rights: this issue has been underlined in all standards. ISO26000 and UNGC mentioned that Human Rights is the key issue for the Sustainable Development while GRI G4 supported this sentence and provided detailed indicators to guide the developer to manage their projects within 1984 Human Rights Declaration.

Labour Practices: This issue is highlighted in all standards to be one of the obligations for the developments. Since the labours are key mechanism in the development processes.

Stakeholder Issues: ISO26000 focused on this issue as it has high influences to the developments these days. While, GRI G4 agreed on this concept and provided

management indicators to make sure that the developments are dealing with right manners to all stakeholders. The standards suggested that this issue can help the developers to reduce risks of management from the social side. It also elevates the relationships between all stakeholders which will create more strength of the development structures.

Community Development: Nowadays, this topic is undeniable for all development. ISO26000 and GRI G4 took this topic into account and focused more on this part. The community Development will help the developers to create more Sustainable Society.

Environmental Aspect:

Environment: All standards raised this issue to the focused area that the developments have to take care of. Nowadays, it is clear that people have more concerns for the environments. ISO26000 and UNGC provide main directions for the environmental development while GRI G4 provided detailed indicators to check that the developments are carefully managed under the environmental concept.

4.2.4 Monitoring and Assessment Indicators for the Integration of SEA and SA Process

According to the selected international SD standards in the previous section, they have similar concepts and directions which can be integrated into particular indicators and assessments for the special economic zone management. The researcher then developed the SD indicator and assessment table to make sure that the designed process is determined under the SD concept. The management authorities can use these following indicators and assessment processes as the tools to reconfirm that they are working under the right directions and, as well, they can also check whether the management reaches the international standards level or not. The table is separated by issues as following tables.

Table 8 *Indicator and Assessment for Public Education and Stakeholders' Understanding*

Perspective	Learning and Growth			
Issue	1) Public Education and Stakeholders' Understanding			
Alternative	Key SD Indicators (SDI)			
	Process Indicator	ISO 26000	UNGC	GRI
Provide public educational activities in economic, social and environmental areas to all stakeholders every month along the development plan.	Provide training course by group of stakeholder.	Community Development	N/A	G4-LA9: Maintaining and improving human capital, particularly through training that expands the knowledge base of stakeholders, is a key element in the development. Separately provide public education by group of stakeholder. Calculation is done by this formula
Knowledge assessment will be done before and after each activity in order to assess the percentage of understanding among stakeholders. The successful target is that all stakeholders have at least 80% of the total knowledge taught in each session.	<p>- The target of 80% from the total knowledge is the successful goal. However, the percentage should not be lower than 50%</p> <p>- The course must have knowledge of</p> <p>a. Special economic zone, b. SEA, c. SA, d. SD e. Related topics</p>	Community Development	N/A	<p>Average training hour = $\frac{\text{Total number of training hour}}{\text{Number of registered stakeholder}}$</p> <p>G4-LA10/ LA12 Programs for skills management allow the projects to plan skills acquisition that will equip stakeholders to meet strategic targets in a changing work environment. A more skilled and aware workforce enhances the society's human capital and contributes to stakeholder satisfaction, which correlates strongly with improved performance.</p>

Table 9 *Indicator and Assessment for Educational System*

Perspective	Learning and Growth Perspective			
Issue	2) Educational System			
Alternative	Key SD Indicators (SDI)			
	Process Indicator	ISO 26000	UN GC	GRI
Set up new educational development policies and knowledge series or syllabuses that cover issues of SD, SEA, SA, Special economic zone, and public participations.	Provide topics of -Special Economic Zone -SD -SEA -SA -Public Participation Into the current course syllabus	Community Development	N/A	G4-SO1: Local community development programs based on local communities' needs And provide impact assessment to the programs. G4-EC1: Community investments: -Investment of funds in the broader community.
Investing in educational system to create more channels for local people to access the basic knowledge and fundamental educations.	-Improve the current educational institutes in the area. -Create more educational supportive channel such as community libraries.	Community Development	Human rights: Equal access to compulsory educations for all people.	These include contributions to charities, NGOs and research institutes (unrelated to the project's R&D), funds to support community's educations. Direct costs of social programs (including arts and educational events).
Increasing numbers of educational institution in the area	-Number of Completeness of the educational institutes in all levels (kindergarten – Higher education). -Numbers of particular skill training institutes.	Community Development. Stakeholder issues.	Human rights: Equal access to compulsory educations for all people.	-Investment of funds in the broader community. These include... school and hospital. -Total benefits include regular contributions such as educational grants
Providing scholarships for local students for the related studies or courses with the conditions to get back and work in the area.	-Number of short or long term educational grants for local students. The grants should also related to the special economic zone development, SD, SEA, SA, Public participations	Community Development	Human rights: Equal access to compulsory educations for all people.	

Table 10 *Indicator and Assessment for International Standard Implementation*

Perspective	Learning and Growth			
Issue	3)International Standard Implementation			
Alternative	Key SD Indicators (SDI)			
	Process Indicator	ISO 26000	UN GC	GRI
Study and select the relevant international standards (SD or SEA or SA) and design the framework of the international standards to use in the development process.	-Draft of international SD standard framework.	Governance International Standard Disclosure	Anti-corruption Implementation of international SD standards	G4-DMA-a: Disclosures on management approach -Explain the significance of the indirect economic impacts in the context of external stakeholder priorities, such as national and international standards, protocols, and policy agendas.
Design the indicators that will be used to monitor the development.	-Specific set of indicators from ISO2600, UNGC, GRI	Governance International Standard Disclosure	Implementation of international standards	

Table 11 *Indicator and Assessment for Holistic Management*

Perspective	Internal Process Perspective			
Issue	4) Holistic Management			
Alternative	Key SD Indicators (SDI)			
	Process Indicator	ISO 26000	UN GC	GRI
Set up particular holistic management structure for the special economic zone.	-Establishment of management body with collaboration of representatives from all group of stakeholders	Governance	N/A	G4-DMA-a/b: Disclosures on management approach -Describe the availability of grievance mechanisms and remediation processes for environmental impacts, including along the organization's supply chain, and the involvement of stakeholders. Stakeholders involved in monitoring the effectiveness of the organization's grievance mechanisms may include suppliers and local community and workers' representatives. G4-EN: Report on how to process the environmental management
Create participation events to gather public's opinions and views.	-Number of public participation channels and events	Governance	N/A	
Hire experts in SD, SEA, and SA field to draft the SD development policy for the special economic zone.	-Involvement of experts from different fields	Governance	N/A	

Perspective	Internal Process Perspective			
Issue	4) Holistic Management (Continued)			
Alternative	Key SD Indicators (SDI)			
	Process Indicator	ISO 26000	UN GC	GRI
Field visits for the SD, SEA and SA management in special economic zone at other successful special economic zones.	-Numbers of field visits -Numbers of knowledge transfers to the development.	Governance	N/A	
Prepare for the Management Plan	Environmental Management Plan			

Table 12 *Indicator and Assessment for Policy, Law, and Enforcement*

Perspective	Internal Perspective			
Issue	5) Policy, law, and enforcement			
Alternative	Key SD Indicators (SDI)			
	Process Indicator	ISO 26000	UN GC	GRI
Set up the policy and law that covered all dimensions of SD including SEASA that fit to the area's conditions.	-Policy of implementing SD or SEASA in the special economic zone development. -6months before the development.	Governance	N/A	Report the organization's policy and current practice with regard to seeking external assurance for the report
Set up law and enforcement that covered all dimensions of SD including SEASA that fit to the area's conditions.	- Law and enforcement that support the intentions of the above policy.	Governance	Anti-corruption	N/A
Prepare and enhance the skill and performance of officers in the justice process to elevate the law and enforcement process.	-Numbers of qualified officers in the justice process.	Governance	Anti-corruption	N/A

Table 13 Indicator and Assessment for Management Structure

Perspective	Internal Perspective			
Issues	6)Management structure			
Alternative	Key SD Indicators (SDI)			
	Strategic Process Indicators	ISO 26000	UN GC	GRI
Scope all tasks including economic, social, and environmental dimensions.	-List of development tasks related in all SD elements	Gov erna nce	N/A	Section 3: Sustainability Context The report describes how sustainability topics relate to long-term strategy, risks, and opportunities,
Select the relevant departments to be the special economic zone management authority.	-List of information that indicated relevant departments.	Gov erna nce	N/A	Section 4: 4.1 General Standard Disclosures - Strategy and Analysis - Organizational Profile -Identified Material Aspects and Boundaries
Select the representatives from public stakeholders who come from economic, social and environmental related areas.	-List of selected representatives of the public stakeholders.	Gov erna nce	N/A	-Stakeholder Engagement -Report Profile -Governance -Ethics and Integrity
Issue the management master plan, strategies and implementation plans that cover economic, social, and environment.	-Master plan, Strategy and implementation plan especially for the SD development in the special economic zone.	Gov erna nce	N/A	

Table 14 *Indicator and Assessment for Zoning and Infrastructure*

Perspective	Issues	Alternative	Key SD Indicators (SDI)			
			Process Indicator	ISO 26000	UN GC	GRI
Internal Perspective	7) Zoning and infrastructure	Provide effective zoning plan and infrastructure development plans.	-Zoning and infrastructure that designed under the SD concept -Zoning and infrastructures that suit for the future expansions of the economic zone	Community Development	N/A	G4-EC1: Community investments -Voluntary donations and investment of funds in the broader community... such as infrastructures. -For infrastructure investments, the calculation of the total investment is meant to include costs of goods and labour, in addition to capital costs. For support of on-going facilities or programs (such as an organization funding the daily operations of a public facility), the reported investment includes operating costs
		Provide basic infrastructures and facilities to serve the development.	-Prompt infrastructures and facilities.	Community Development	N/A	

Table 15 *Indicator and Assessment for Expenditure*

Perspective	Financial Perspective			
Issue	8) Expenditure			
Alternative	Key SD Indicators (SDI)			
	Process Indicator	ISO 26000	UN GC	GRI
Properly allocate the budgets in to the development plan including economic, social, and environmental parts.	-Make sure that the budgets are equally allocate to the social and environmental aspects.	Gover nance Enviro nment al Manag ement	Enviro nment	G4-EN31: -Total environmental protection expenditures and investments by type G4-EC1: -Total expenditures invest for society
Process cost-benefit analysis report of each project together with SEA, SA and SROI calculation to request for more budgets from the central government or international development funds.	-Analysis report that cover the SD elements.	N/A	N/A	N/A
Set up local development funds particular for the special economic zone development by supporting of investors and stakeholders in the area.	-Local Development fund	Comm unity Devel opmen t	N/A	G4-EC1: Report on the value of the community investment

Table 16 *Indicator and Assessment for Public Participation*

Perspective	Stakeholder Perspective			
Issue	9) Public participation			
Alternative	Key SD Indicators (SDI)			
	Process Indicator	ISO 26000	UN GC	GRI
Form up the public participatory supportive team	-Stakeholder Engagement team	Stakeholder Issues Engagement and participation	N/A	Section2 Disclosure: Stakeholder engagement Stakeholder inclusiveness: report how the stakeholders were engaged to the development G4-24, 25, 26: Report on stakeholder engagement process
Issue the public participation manual that includes the SD elements.	-Draft the troubleshooting and stakeholder engagement hand book that cover the SD elements.	Stakeholder Issues Engagement and participation	N/A	

Table 17 *Indicator and Assessment for Public Health Care*

Perspective	Stakeholder Perspective			
Issue	10) Public Health Care			
Alternative	Key SD Indicators (SDI)			
	Process Indicator	ISO 26000	UN GC	GRI
Plan for the particular public health care policy for the special economic zone that	Public health care plan for the special economic zone	Human Rights Labour	Human Rights Labour	G4-DMA: Disclosure on Management Approach Public health care, Occupational health care, stakeholder health care

Alternative	Key SD Indicators (SDI)			
	Process Indicator	ISO 26000	UN GC	GRI
includes of prevention and mitigation plans for any incidence in the future.		Human Rights Labour	Human Rights Labour	G4-EC7: Investment for community, this might include transport links, utilities, community social facilities, sports, or health and welfare
Conduct the specific research on the health care risks in order to provide the risk management plan.	Health care risk management plan especially for the special economic zone			G4-LA2, LA5-8, LA14: Report on health care policy and program for employment G4- SO1: Community health and safety committees Report on Health Impact assessment
Corporate with private sector in medical service to gain more supports in order to enhance the local public health care standard.	Corporations with the private sector for advance technology and knowledge	Human Rights Labour	Human Rights Labour	
Study and select the public health care international standards in order to develop the management process under the international standard directions.	Select and implement the international standards on public health care and medical service	Human Rights Labour	Human Rights Labour	

Table 18 *Indicator and Assessment for Local Business Protection*

Perspective	Stakeholder Perspective			
Issues	11) Local Business protection			
Alternative	Key SD Indicators (SDI)			
	Process Indicator	ISO 26000	UN GC	GRI
Set up the business supportive team by corporation of governmental organs, public sectors, business sectors, scholars, and experts.	Business Development team to look after and develop the businesses in the area.	Fair operating practice	N/A	G4-EC9: -The influence the development can have on a local economy -Supportive process to stabilize the local business. -How to contribute to
Prepare the local businesses by transferring knowledge and providing workshop to increase their performances.	Assessment of the knowledge and performance of the local businesses	Fair operating practice	N/A	local economy and maintaining community relations.
Expand the business network and corporation among the sector to increase business opportunities especially for the local businesses.	Build and expand the business network every year.	Fair operating practice	N/A	

From the proposed indicators and assessments, the related departments should select and apply the relevant indicators carefully. The additional indicators can be applied according to the additional tasks. The indicators and assessment methods can be found in the international SD standards, especially in GRI-G4, to achieve effective

management in implementing the strategic process of the integration of SEA and SA process for the special economic zone development.

4.3 The New Integration of the SEA and SA Process for the Special Economic Zones in Savannakhet and Mukdahan

In order to complete the ultimate goal of this research, in this section, the researcher combined the 2 processes of 1) the Integration of SEA and SA process for Special Economic Zone and 2) the integration of international SD standards in the previous sections together. As consequences, the New Strategic Process for Sustainable Development of the Special Economic Zones was developed as following figure: (Next Page)



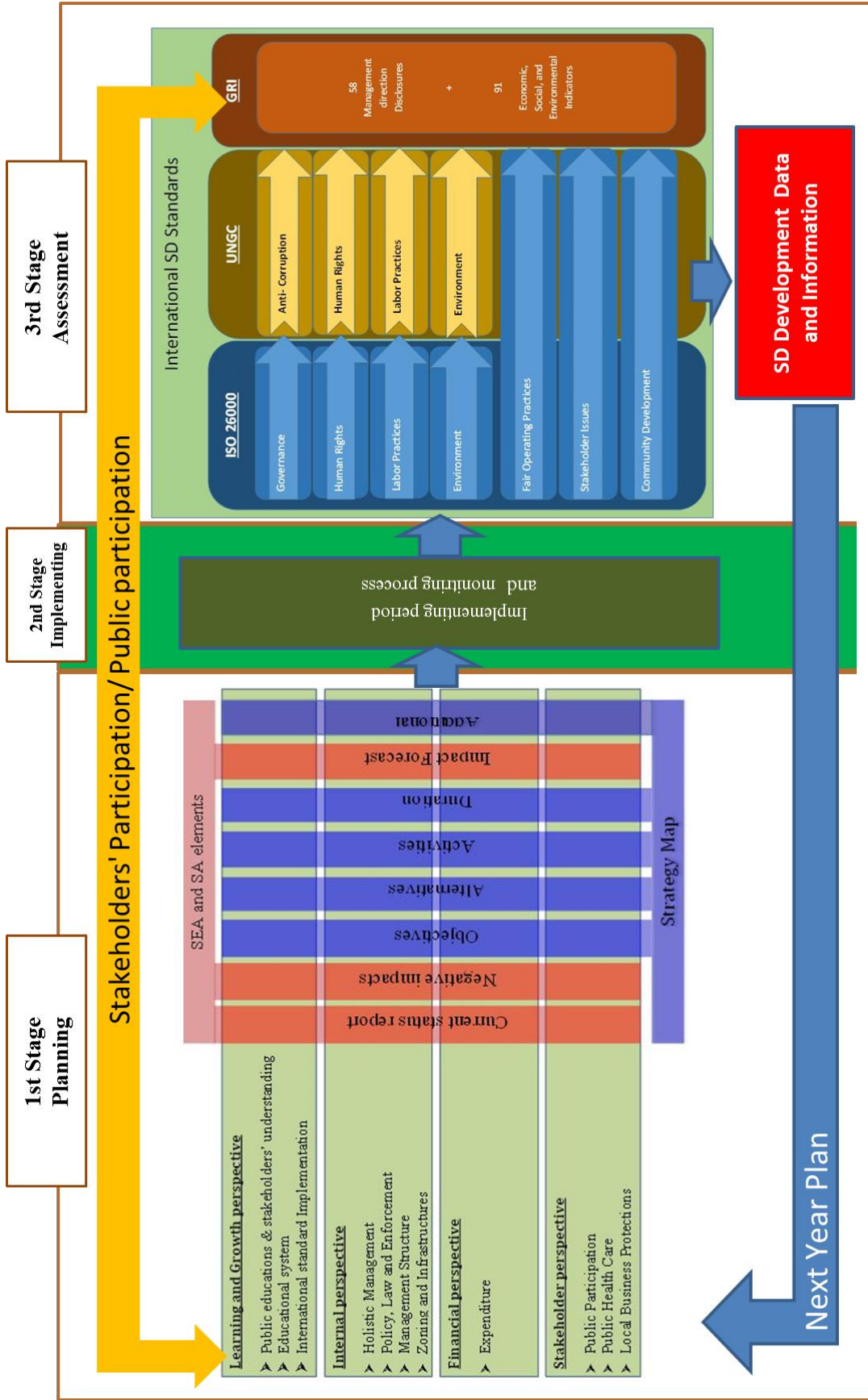


Figure 19 The New Integration Process of SEA and SA for the Special Economic Zone

According to the figure, both processes can be merged perfectly due to they were constructed under the concept of SD which focuses on Economic, Social, and Environmental dimension. This integration led to the successful establishment of The New Integration of the SEA and SA Process for the Special Economic Zones in Savannakhet and Mukdahan, namely “JOKANT Process”. The elements of the Process divided into 3 stages which are:

1st stage: Planning (Plan)

The stage is to prepare and plan of the special economic zone development direction under the SEA and SA concept as already mentioned in the previous section. Moreover, it is to study and select the international SD standards in to the process in order to set up the indicator and assessment plan. The output of the 1st stage is policy, strategic implementation plan, and indicators that issued under the SD concept following the SEA and SA purposes.

2nd stage: Implementing (Do)

This stage will be implemented after the 1st stage has been decided by the authority. This stage is to implement the approval policy and strategic plan following details in stated in the implementation plan. It is underlined that the monitoring process has to be carefully taken since the start of this stage.

3rd stage: Assessment (Check)

This stage is compare to a medical check-up of that we usually do annually. The set of international SD standards is used to assess the whole performance of the development that has been done throughout the year. The assessment process will be done following the indicators and assessment plans that had been designed in the 1st stage. All data and information will be collected as the statistical data of the special economic zone developments. These set of data will be used as an input database for the next year policy and plan development.

In addition, these 3 stages are the crucial steps of the New Strategic Process for the Sustainable Development of the special economic zones. The researcher then tried to make sure that all related stakeholders will have chances to involve in all 3 stages. Therefore, the Process provided the public participation process throughout the 3 stages of the Process. The participation process can be flexible designed according to situations and development conditions of each stage.



Chapter 5

CONCLUSION

This study is a qualitative research which gathered information by interviewing of experts, getting through the analysis process, presenting the results of the data analysis, and discussing on feedbacks.

5.1 Data Analysis

In this study, the researcher conducted in-depth interviews of key informants, such as the former ministers, governmental management authorities, business associations, businessmen, entrepreneurial groups, communities, merchants and traders, central government, and development agencies. After the results have been analysed and processed, the research got the key success factors that contributed to the integration of SEA and SA process for the special economic zone in Savannakhet and Mukdahan. The key success factors are as following.

- (1) Public Education and understanding of the stakeholders
- (2) Education system
- (3) International standard implementation
- (4) Zoning and infrastructure
- (5) Policy, law, regulation and enforcement
- (6) Management structure
- (7) Holistic management
- (8) Expenditure
- (9) Public participation
- (10) Public Health Care
- (11) Local business supportive and protection plans

These 11 main factors were then analysed through the integration process that was constructed from the integration of essential elements of the Strategy Map, Strategic Environmental Assessment (SEA) and Sustainability Assessment (SA). This combination was set to produce the strategic process for the Special Economic Zone

Developments in both target areas. The process concluded of these following elements;

1. Current status and problems report,
2. Negative impacts to SD aspect,
3. Objectives of the development,
4. Alternatives of the development,
5. Activities
6. Duration
7. Impact forecast
8. Additional

These 8 elements were extracted from the important elements of the Strategy Map, SEA, and SA which the research found out that there are the main issues that all the 3 strategic tools contained in their processes with the same purposes. Then, the researcher developed and prioritized the 8 elements into the new order to harmonize all elements to be the new process that can construct the potential strategic plan for the special economic zone management.

Moreover, the researcher then designed monitoring and assessing process with indicators that selected from the 3 main Sustainability international standards including ISO26000, UN Global Compact, and Global Reporting Initiative (GRI) in order to set up particular indicators for the integration process. The researcher had studied and selected the similar issues in ISO26000, UNGC, and GRI which finally concluded into 7 different dimensions that could benefit the developments of the special economic zone as following:

1. Governance
2. Human Rights
3. Ethical behaviour
4. Fair Operating practices
5. Environment
6. Stakeholder Engagement
7. Community involvement

5.2 Suggestions

5.2.1 Suggestions from the research

- The strategic process for Sustainable Development of the special economic zones is useful for the policy and project planning of the development. It must be highlighted that the management authorities must study carefully through various dimensions (economic, social, environment) in order to prepare holistic approach information for a proper plan of implementing the Sustainable Development process to the special economic zone developments to achieve the sustainability goal.
- The research studied and developed the Sustainable Development directions of the special economic zone development that will also show the possibility to create the long-term management trend. The development direction should start from the policy, law and enforcement process and following by other aspects in the 4 perspectives of the process which the researcher already provided the details in all issues.
- The researcher developed the new strategic process that includes the integration of SEA and SA element into the process that also in line with international SD standards. The SEA and SA process confirmed that the process covered all 3 pillars of Sustainable Development in to the policy and plan of the development. Moreover, the Strategy Map can help to establish strategic plan for the management process.
- It is to underline that the public participation is a compulsory process of the development since it will engage all stakeholders to the development process. Moreover, the public participation should be in all process since the start of the policy development process.
- Monitoring and assessment process are important. The researcher provided international standard indicators particularly for the new process of this research. However, the further research can also develop the update international SD standards or other specific standards in to the indicator and assessment table.

- This process was designed to have a flexible ability to fit into not only Savan-seno and Mukdahan Special Economic Zones but also other Special Economic Zones in the AEC region. However, it is recommended that the initial research following the 11 issues of the process should be done before setting up the policy of the developments. It is highly recommended that this process is fit for the upcoming special economic zone in Sakonnakorn. This process should be used in the early stage of the policy development as the sustainable platform for the Sakonnakorn special economic zone that the local people are asking for concerns on benefits and negative impacts not only economic aspects but also environmental and social dimensions.
- The research recommend that in order to function this process effectively, the management authorities should set up the Sustainable Development Goals following their national development plans or other international standards or agendas for examples, “Sustainable Development Goal of the UN” which issued in 2015 with 17 main sustainable targets of:
 - 1) End poverty in all its forms everywhere
 - 2) End hunger, achieve food security and improved nutrition and promote sustainable agricultural
 - 3) Ensure healthy lives and promote well-being for all at all ages
 - 4) Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
 - 5) Achieve gender equality and empower all women and girls
 - 6) Ensure availability and sustainable management of water and sanitation for all
 - 7) Ensure access to affordable, reliable, sustainable and modern energy for all
 - 8) Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
 - 9) Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation
 - 10) Reduce inequality within and among countries

11) Make cities and human settlements inclusive, safe, resilient and sustainable

12) Ensure sustainable consumption and production patterns

13) Take urgent action to combat climate change and its impacts

14) Conserve and sustainably use the oceans, seas and marine resources for sustainable development

15) Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

16) Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all

17) Strengthen the means of implementation and revitalize the global partnership for sustainable development.

- National Committee on Special Economic Zone Development (NC-SEZ) should study further on the stakeholders on the relevant issues of SEA and SA. It is recommended to study more on needs and expectations of the stakeholders in order to indicate the strategic engagement plan and following development plans.
- Office of the National Economic and Social Development Board (NESDB) issued the development vision to be the sustainable development country. Therefore, the proposed SEA and SA process is an important tool that can support the direction of the NESDB.

5.2.2 Policy and implementation Recommendations

The researcher concluded the in-depth interviews and the summarized of the current state in Thailand and Laos in the chapter4 which provided deep details of the development situations in both countries.

In this section the researcher provided policy and implementation suggestions as to support use of the new process proposed in the chapter 4.

The suggestions provided into three groups following the three groups of the stakeholders including 1) government 2) public sector and 3) community. All groups

have their own responsibilities. However, the tasks will be driven through Economic, Social, and Environmental Aspects.

Governmental group plays important role as the leader of the development which develop under the concept of SD. There is a responsibility of the government to prepare better performances of the officers in the development process. Meanwhile, public sector must follow the policies and regulations of the governments. Moreover, public sector is responsible for not only development of the economic activities but also the development of the communities. Lastly, community plays an important role to audit and monitor all activities of the government and public sector to be in parallel with the directions that already planned. This research provided recommendations as following;

5.2.2.1 Policy and Implementation Recommendations for Government

Government is the main player in the special economic zone development. In order to implement the new process in the special economic zone developments, the government should play its role to lead the society in the development. Thus, the government also has responsibility to plan the policy under the new process in this research. The government also has rights to indicate the management of environmental and social issues to support the main economic development. The in-depth research will lead to the following suggestions for the government in the Table 19 (Next Page).

Table 19 *Policy and implementation for Government*

Suggestions	Details
1. Management structure	<p>1.1 The government should immediately set up the special economic zone management structure and its related authorities that have its legitimacy to manage the special economic zones.</p> <p>1.2 The management members must come from all related organs including committee from public sector and community.</p> <p>1.3 The management works and decides any direction under holistic view approach including SEASA mechanism.</p> <p>1.4 Indicate the authorized power, responsibility, and get rid of overlap tasks among department.</p> <p>1.5 Implement internal auditing process that can monitor the process and balance the power of each governmental organ in order to get rid of conflict of interests.</p>
2. Implementation and Action Plan	<p>2.1 All set up authorities corporate for the design of the implementation and action plan</p> <p>2.2 Draft the action plans including steps of work, responsible persons, supportive persons, work descriptions, and monitoring process.</p> <p>2.3 Provide Key Performance Indicators that will control the quality of work.</p> <p>2.4 Design emergency plan to react to any problem and get rid of further risks from all SD issues including economic, environmental and social dimensions.</p> <p>2.5 Redesign the implementation and action plan every year in order to shape the most appropriate plan for the development.</p>

Suggestion	Details
3. Zoning	<p>3.1 Design and plan the area of the special economic zone through the SEASA lens.</p> <p>3.2 Urban planning needs to be considered in order to ease the management of the area in the future.</p> <p>3.3 Organize the zoning system that will place industrial activities away from the communities.</p> <p>3.4 Implement the greenbelt area in the zoning system that will separate the communities from the industries by the green areas.</p>
4. Holistic view management	<p>4.1 The management body that was set in (1.1) should gather members from all related organs and stakeholders in order to perceive the management ideas from different aspects.</p> <p>4.2 The management should make decision and design the policy under the holistic view including SEASA mechanism.</p> <p>4.3 The management body has responsibility to monitor and assess the development through the holistic view including SEA and SA as well as SD international standards.</p> <p>4.4 The management issues the SD report.</p>
5. Develop the local business protection programs	<p>5.1 The management should organize the business support centre for the local business and others in order to prepare them for the rapid change of the development.</p> <p>5.2 The activities can be set up in form of training, advisory, public education and participations.</p> <p>5.3 The management set up protection policy that provides special privilege for the local business for first few years in order to help them to survive with the outside capitals.</p> <p>5.4 The management set up local business fund to support the low rate loans to the local businesses.</p> <p>5.5 Implement the international standards in to the assessment benchmark to elevate the performance of the local businesses.</p> <p>5.6 Support the local businesses to be the essential players in the value chain of the special economic zone.</p>

Policy and implementation recommendation for the governmental group has 5 essential issues in total including

(1) Management structure and related authorities is set to create more effective management performances and tangible results. Moreover, it legitimates the power of the responsible persons who will drive the developments.

(2) Implementation and Action Plans is set to help the management body to deliver the policy to practices and it is the method to guarantee that all SD dimension and stakeholders will be taken care of throughout the development plan.

(3) Zoning is set to ease the management especially to reduce the ratio of risks from both environmental and social issues. The zoning will separate the economic activities from residential areas which believed that it will help reducing negative impacts from the economic activities to the communities.

(4) Holistic view management is set to manage the special economic zone in more sustain directions. The holistic approach not only create more value in the development but also reduce risks from all economic, social and environmental dimensions.

(5) Develop the local business protection programs is set to enhance the abilities of the local businesses to survive in the economic battle. The protection program can be delivered in the form of training program, advisory program, public educational service, low rate interest loans, tariff exemption, and etc.

5.2.2.2 Policy and implementation recommendations for Public sector or non-governmental group

Public sector or Non-governmental group, including investors and experts are critical players to the developments of the special economic zone. Moreover, they urge the government to implement and manage the concrete policy, along with creating benefits for investors and local people in the special economic zones.

The in-depth interviews of experts could lead to the suggestions for policy and implementation of the Public sector as following;

Table 20 *Policy and Implementation Recommendations for Public Sector or Non-Governmental Group*

Suggestion	Details
1. Association of enterprises within the special economic zone.	<p>1.1 Establish the Special Economic Zone Enterprise Association</p> <p>1.2 The Association shall establish operating standards for environmental management sustainability, as well as operations to create a pleasant society along with the economic growth.</p> <p>1.3 Establish local business networks to exchange knowledge and information to enhance capacity for economic competitiveness and sustainable development paths.</p>
2. Establish the mutual fund for special economic zones	<p>2.1 Business sector and Investor set up the fund to support the implementation of the Special Economic Zone by requesting some capital from the government for the establishment and implementation of budget management to achieve growth and support the special economic zone while businesses gather capital to be mutual funds to run internal economic activities in the special economic zone.</p>
3.Implementation manual	<p>3.1 The Committee implements the sustainable development manual for business in the special economic zone in order to create a sustainable work practices that compliance with SD international standards.</p> <p>3.2 Set up the indicators of SD that refers to the global SD standards such as the GRI, UN Global Compact, & ISO26000 and etc.</p> <p>3.3 Setting the award for the best practitioners to encourage businesses and investors to lead their organizations toward sustainability.</p>

According to the above table, there are three approaches in total which are:

(1) The establishment of the Special Economic Zone Enterprise Association to be the of the involvement that links industries, businesses, investors and academics to emerge a strong network of knowledge exchange and creating a joint agreement that will benefit the developments.

(2) The establishment of The Special Economic Zones Mutual Fund is crucial to the development, and management the special economic zones. It was found from

the interview that Laos was encountering with the fund problem. In order to create a successful monetary mechanism, the government should involve in setting up and delivering a fund to contribute budget for the public finances, subsidies, low tariffs, low cost for the investment, BOI privileges, and etc.

(3) Implementation or operation manual is important to deliver policies and strategies into practices. It is also shape the tasks to be in the same direction or inconsistent with the ultimate goal of the SEASA management in special economic zone.

5.3.2.3 Policy and Implementation suggestions for communities

The communities are key players of society who have great importance to any change in the development because they get direct effects from the development. The community holds the “social license of operation” which means they have rights to accept or obstruct the development activities of the government or public sector if they see that they will get negative affects by the activities. Therefore, the researcher agreed that the community should also have policy and implementation direction to practice themselves along with the development.

According to research, it led to the formulation of policy and implementation suggestions for the communities as described as following;

Table 21 *Policy and Implementation Suggestions for Communities*

Suggestion	Details
1.Establishment of the educational institution	<p>1.1 Government and investors support the establishment of educational institutions to improve the quality of education and human resources.</p> <p>1.2 People in the communities involve in the educational process and take responsibilities to assess the quality of the educational institutions.</p> <p>1.3 People in the community have equal educational opportunities.</p>
2.Establishment of local capital	<p>2.1 Public and private sectors establish funds for the community development.</p> <p>2.2 People in the community involve in the Fund Management Committee.</p> <p>2.3 Set clear goals to create value for society in the special economic zones.</p> <p>2.4 The committee considers the use of budget funds to create a sustainable society in the special economic zone.</p>
3. Job creation and income	<p>3.1 All communities in the special economic zone gather together as the community network to set up career development activities in order to practice its members to be more professional.</p> <p>3.2 Government and private sectors provide an opportunity for local people to work in the area of special economic zones.</p> <p>3.3 Public and private sectors support the local skill labours and products.</p>
4.Enhance of life quality and health issue	<p>4.1 Communities corporate with government and private sector to establish health care centres to enhance the life standards.</p> <p>4.2 The Community leaders support the health education and protect the health problems.</p> <p>4.3 The community Committee monitors the economic activities that might affect to living quality and environmental status.</p>

According to the table of policy and implementation suggestions of communities, there should be four approaches to be implemented which are:

(1) To establish educational institutions and raise the quality of education. It is very important to develop and enhance the quality of educational system for the local communities. This process needs to gain corporations from all players in governmental, public, and social sectors. The educational system increases living standards and working skill of the communities to reach the industrial levels. This skill will not only drive the community's abilities to compete in the developed economy but also increase development growth ratios and reduce migration rate of the local people to other provinces.

(2) To establish the community fund in the special economic zone is essential for the development because this process will bring capital into the communities. This process can be started by governmental agencies who promote the campaign together with private sectors that join the development paths. This community fund should be managed by a group of management people who particularly selected from all related organizations. This fund will help building the economic ability of the community and increase long-term development path once it is managed under the SEASA scheme.

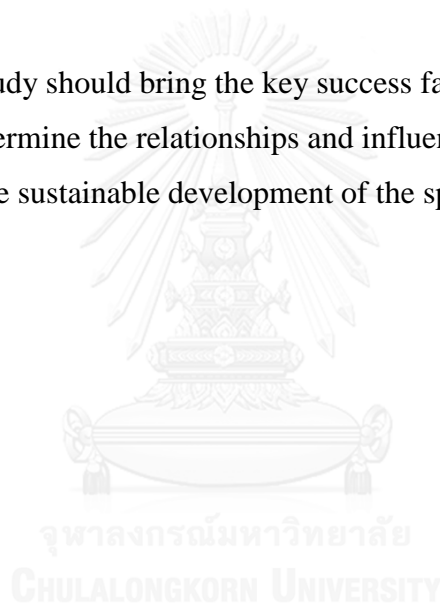
(3) Creating domestic jobs and incomes especially for the local community. This issue is very important to the development because it can prove that the development will generate economic growth to the local communities and make the community become stronger. Besides, Job and income creation help reducing social and environmental problems. For examples, when local people have jobs and incomes to survive their families, it tends to decrease in crime rates.

(4) To enhance of life quality and health issues is essential for the community development. In particular, health issue must be taken care intensively by setting medical team and increase of medical standards. The medical team will play an important role to get rid of health problems and prevent the health issues for people in the community. In addition, government and private sector should support the establishment and development of medical clinic or small sized hospital in each area

to increase medical standards in order to be ready for the risk that may arise during the industrial activities.

5.2.3 Recommendation for further research

- The next study should focus on the test of the key success factors which concluded in this research. It is convinced to test the success of the new process to improve the guideline and most suitable solutions for the specific areas of the development.
- The further study should bring the key success factors into the theory review process to determine the relationships and influences of the SEA and SA elements to the sustainable development of the special economic zone managements.



REFERENCES

- Asian Development Bank. (2008). Project and program agreement for Greater Mekong Subregion: East-West Corridor Project.
- Asian Development Bank. (2012). FINANCING AGREEMENT (Special Operations) Greater Mekong Subregion East-West Economic Corridor Towns Development Project.
- Association of South East Asian Nations. (1997). *ASEAN Vision 2020*. Jakarta: ASEAN Secretariat.
- Chiangrai Times. (2014). Great-Mekong-Subregion-East-West-Economic-Corridor. Retrieved 20 December 2014 <http://www.chiangraitimes.com/japan-pledges-to-assistance-to-mekong-sub-region-nations.html/great-mekong-subregion-east-west-economic-corridor>
- Creighton, J. L. (2005). *Public participation handbook*. San Francisco: Jossey-Bass.
- Dusik, J. (2005). Advisory services for drafting of Philippine Bill on Environmental Assessment.: World Bank Institute. .
- East Asia Watch. (2010). Savan-Seno Special Economic Zone. East Asia Division. Ministry of Foreign Affairs. . Retrieved 29 July 2014 www.eastasiawatch.in.th/downloads/files/saSEZ.pdf
- European Commission. (2001). SEA of Transport Corridors: Lessons learned comparing the methods of five Member States. In E. D. Environment (Ed.). London: European Commission.
- European Commission. (2001). *The Directive 2001/42/EC of the European parliament and of the council on the assessment of the effects of the certain plans and programmes on the environment*. Luxembourg: The European Parliament.
- Fisher, T. B. (2007). *Introduction to Procedures and Methods for SEA* Washington: The World Bank.
- Geldenhuys, C. J. (2002). Concepts and Approach Towards Development of Sustainable Resource Use of Non-Timber Forest Products: The Example of Bark Harvesting for Traditional Medicine". Innovation Fund Project Commercial Products from the Wild. Retrieved 20 December 2012 <http://dwaf.pwv.gov.za/Forest/IFM/symp2002/sustainability.doc>
- Institute of Developing Economy and Japan External Trade Organization. (2008). *The FORMATION OF INDUSTRIAL CLUSTERS IN ASIA AND REGIONAL INTEGRATION*. Japan: IDE-JETRO.
- International Association on Impact Assessment. (1996). *International Study of the Effectiveness of Environmental Assessment: ENVIRONMENTAL ASSESSMENT IN A CHANGING WORLD: Evaluating Practice to Improve Performance*. Canada: Minister of Supply and Services.
- international Association on Impact Assessment. (2002). *Strategic Environmental Assessment Performance Criteria*. The Netherlands: IAIA headquarter.
- International Association on Impact Assessment. (2011). *SEA implementation and practice: making an impact?* Prague: European Commission Publishing.
- Iowa School Boards Association and the Thomas B. (2010). *Governance in the Accountability Era a joint effort of the National School Boards Association*. IOWA: Fordham Institute.

- Kaplan, R. S., and David P. Norton. (2004). Strategy Maps: Converting Intangible Assets into Tangible Outcomes [Press release]
- Laos National Committee for Special Economic Zone. (2013). Investment Opportunities in SEZ in LAO PDR. Secretariat Office. Government's Office. Retrieved 29 July 2014 http://www.asean.or.jp/ja/wp-content/uploads/2013/10/01_Ms.-Phanchinda-Lengsavad_SEZ.pdf
- Lord, M. (2009). East-West Economic Corridor (EWEC) Strategy and Action Plan. Retrieved 29 June 2014 <https://mpr.ub.uni-muenchen.de/41147>
- Map of Thailand. (2013). Mukdahan Province, City Map. Retrieved 18 August 2014 <http://www.mapofthailand.org/tourism-map/mukdahan-tourist-map/>
- Mercado, E. (2008). A Discussion Paper for a Strategic Environmental Assessment (SEA) Policy in the Philippines. Manila: CIDA
- Nishiura, S. (2005). *SEA as a tool for Growth Management. In-house Seminar "Strategic Environmental Assessment (SEA)" April 19, 2005*, Nakornpathom. Office of Industrial Economics. (2011). *3 Northeastern provinces...the new economic productive area*. Bangkok.
- Office of the Deputy Prime Minister. (2005a). *A Practical Guide to the Strategic Environmental Assessment Directive*. London: Retrieved from <http://www.gov.scot/Resource/Doc/921/0018361.pdf>.
- Organization for Economic Co-operation and Development. (2006). *Applying Strategic Environmental Assessment*
- Good Practice Guidance for Development Co-operation. Paris: OECD Publishing.
- Paranan, E. (2008). Draft Guideline of SEA for Thailand. Retrieved 19 January 2011 www.onep.go.th/eia/SEA/Guideline_sea.ppt
- Sadler B., A. R., Dusik J., Fischer T. B., Partidarion M. R., and Verheem R. . (2011). *Handbook of Strategic Environmental Assessment*. England: Earthscan.
- Samphantharak, K. (2011). The Rise of China and Foreign Direct Investment from Southeast Asia. *Journal of Southeast Asian Affairs, Vol.30(No.2)*, pp.8-14.
- SEMLA, M. (2007). *General Technical Guidance for SEA. Final Draft. VietnamSweden Program on Strengthening of Environmental Management and Land Administration*. Vietnam: Ministry of Environment and Natural Resources.
- Stafford Borough. (2012). Sustainability Appraisal summary. . Retrieved 20 December 2012 http://www.staffordbc.gov.uk/live/images/cme_resources/Public/Forward%20Planning/LDF/SA/SA%20for%20Revised%20LDF/New%20SA/SA-Summary.pdf
- U.S. Department of Education. (1994). High Standards for All Students. Washington: U.S. Department of Education publishing Retrieved 6 January 2016 <http://www2.ed.gov/pubs/studstnd.html>
- United Nations Development Programme. (2012). Triple wins for Sustainable Development. Retrieved 2 March 2013 <http://www.undp.org/content/dam/undp/library/Cross-Practice%20generic%20theme/Triple-Wins-for-Sustainable-Development-web.pdf>

- Websanom. (2013). Mukdahan Provincial Map. Retrieved 4 August 2014
www.websanom.com
- World Bank. (2007a). The Philippine Environmental Impact Statement System: Implementation And Performance (Final Report). Manila: The World Bank.
- World Bank. (2007). Strategic Environmental Assessment Study: Tourism Development in the Province of Guizhou. . China: The World Bank.
- Yootong, K. a. (2007). *The Development of EIA and SEA in Thailand; Presentation at ASEAN-China Workshop on EIA/SEA.*



APPENDIX



จุฬาลงกรณ์มหาวิทยาลัย
CHULALONGKORN UNIVERSITY

Appendix A
The Questionnaire

Questionnaire for the In-depth Interview
Of
DEVELOPMENT OF STRATEGIC ENVIRONMENTAL ASSESSMENT
(SEA) AND SUSTAINABILITY APPRAISAL (SA) PROCESS FOR SPECIAL
ECONOMIC ZONES IN ASEAN ECONOMIC COMMUNITY (AEC): A CASE
STUDY OF SAVANNAKHET-MUKDAHAN

Declarations

DELPHI OCT 2014.pdf/6

Research Topic:

DEVELOPMENT OF STRATEGIC ENVIRONMENTAL ASSESSMENT (SEA)
AND SUSTAINABILITY APPRAISAL (SA) PROCESS FOR SPECIAL
ECONOMIC ZONES IN ASEAN ECONOMIC COMMUNITY (AEC): A CASE
STUDY OF SAVANNAKHET-MUKDAHAN.

Purpose: This interview is set to gather key information from experts who are in the relate fields of the research topic in order to develop the strategic process of SEA and SA for the special economic zone developments in AEC.

Method: Delphi Technique

Interviewer: MR. Kantachon Siwapimon, Ph.D. candidate, Environment, Development and Sustainability, Graduated School, Chula Longkorn University. (With 1 note taker)

Section: Part1 Introduction and definition
Part2 Questions

Part1: Introduction and definition

* Strategic Environmental Assessment (SEA): Strategic Environmental Assessment (SEA) is undertaken in an increasing trend. Many organizations started to implement the tool as SEA appeared in the standard model of European SEA Directive (2001/42/EC) and United Nations Economic Commission of European (UNECE)

SEA protocol 2003. SEA is various in process, methodology, and practice according to the different adaptation of each institutional specifications.

The broad concept of SEA is to ensure that the environmental issues are taken into the consideration. The SEA could bring the issues into higher level which is the decision-making process that finally operated through Policy, Plan and Programs (PPPs) (Nishiura, 2005). SEA was developed on the basic perspective of Environmental Impact Assessment (EIA). SEA responds to the limitation of EIA which normally applied to specific projects and actions (EC, 2001). The development of SEA is to reflect the initiatives on the matter of environmental preservation.

Generally, SEA is developed into 4 essential characters as following:

- (1) SEA is a tool for developers to forecast environmental impacts that obviously occurred by decision-making process or the PPPs. The process covers all levels of the developments and makes SEA become more advance than Environmental Impact Assessment (EIA) which only be implemented at the specific steps of the developments.
- (2) SEA is prepared to start before the decision making. This timeline makes SEA more flexible in indices and scopes of assessment comparing to EIA which tends to be fix by specific issues and scopes.
- (3) SEA provides analysis and alternative options. Additionally, SEA forecasts different environmental impacts in each alternative option.
- (4) SEA offers participations by public stakeholders via many mechanisms such as public announcements, public consultations, public opinions, public decision making, and rights to stop if the project has significantly high environmental impacts without proper prevention and restoration plans.

The characters of SEA shifted the environmentally work to touch the point of conducting the most positive impacts rather than eliminating negative impacts to our environments.

**** Sustainability Appraisal (SA):** Sustainability Appraisal (SA) is a tool used to assess planning policy documents in order to promote sustainable development. Social, environmental and economic aspects are all taken into consideration. SA is a

compulsory requirement under the 2004 Planning and Compulsory Purchase Act and the 2001/42/ EC European Directive.

Accordingly, United Kingdom planning law, 2001, stated that SA is an assessment of the economic, environmental, and social effects of a plan from the outset of the preparation process to allow decisions to be made that accord with SD.

SA also considering the three key elements which are;

- Environmental, including how to use and conserve resources to achieve sustainable ecosystems.
- Social, to bring security to their lives and combine with cultural and tradition in the use of natural resources production, both directly and indirectly to make a better living.
- Economic, it is important to provide guidance in the event that the family has enough income to survive. Therefore, to achieve a sustainable use, it needs to be managed to solve the problem in holistic views

*** Savan-SENO Special Economic Zone (SSEZ): Laos People's Democratic Republic or Laos has been listed in the least developed country. However, the government has aimed to achieve the Million Development Goals by 2020. It is a significant turning point of Laos when the GMS and ADB developed the R9 route on EWEC project that constructed the road number9 in Laos as one of the regional economic corridor.

According to the Prime Ministerial Decree No. 2/PM of 2002, No.148/PM of 2003 and No. 177 of 2003, the government then decided to introduce and develop SSEZ in Savannakhet area as critical means to mobilize investments in non-resource based sectors and trigger economic activities on EWEC.

The categories of business activities planned to be developed in the SSEZ include the followings:

- 1) Export Processing Zone,
Textile and food production;
Ore and wood based production
- 2) Free Trade Zone, and
Duty free, re-export, & wholesales

3) Free Service and Logistic Centre (which should include tourism, banking and other activities).

Tourism, banking, & insurance;

Logistics & distribution

**** Mukdahan Special Economic Zone (MSEZ): MSEZ is located in Mukdahan province in the North-Eastern Thailand. It has been developed since the opening of the second Thai–Lao Friendship Bridge in January 2007, Mukdahan-Savannakhet. Businesses and local activities have been driven through the bridge and the growth rates significantly expanded up to 10 times comparing to the period without the bridge. Mukdahan Province is also compared as the Indochina gateway which linked at Savannakhet, Lao PDR. According to development plan of land transportation routes in the EWEC this route is considered the shortest for land transport, minimal costs and most beneficial, in order to promote the expansion of trade, industrial investment, tourism and services sector, as well as sustainable development aspects. Also it aims to improve the quality of people in the Mekong Sub-region. The friendship bridge plays a huge role to connect to Highway9, or R 9 of Savannakhet area, Lao PDR which then links to Central Vietnam, throughout the sea border districts, converging with route1 in Vietnam to Danang which is the very significant harbours that could accommodate 30,000 ton-vessels. As a result, it gives Mukdahan province as a centre of trade and commerce of the North-Eastern part of Thailand. Accordingly, regarding to the Cabinet Resolution, the establishment of the Mukdahan special economic zone expects to take advantage from the area development along the EWEC project, especially the second Friendship Bridge linking Thailand and Laos as a mean to trigger the flow of development in the long term development direction.

Part2: Questions

Question 1

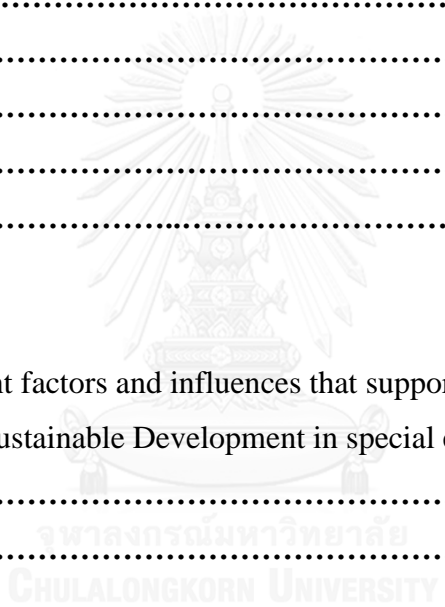
Whether the SEA and SA can be integrated to be the Environmental and Sustainability management mechanism, or not? What is your opinion, please describe on how does the mechanism can be integrated?

.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....

Question 2

What are the important factors and influences that support or obstruct the integration of SEA and SA and Sustainable Development in special economic zones?

.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....



Question 3

What are similarities and differences of social and environmental dimensions between Thailand and Laos? What should be the management direction that beneficial to both countries for the Sustainable Development of the special economic zone?

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

Question 4

What should be the elements of the integration of SEA and SA and SD that can effectively implemented in special economic zones in Thailand and Laos?

.....

.....

.....

.....

.....

.....

.....

.....

.....

Further opinions

.....

.....

Thank you for your corporations.

Sincerely Yours,

MR.Kantachon Siwapimon
Ph.D. Candidate

Appendix B

The In-depth Interview Details

In-depth Interview: 1

The former Deputy Prime-minister of Thailand and the former minister of the Ministry of Natural Resources and Environment stated his opinion that “Exported markets currently require highly social and environmental standards. So, it is utterly needed to pay attention to the social and environmental policies.” Therefore, the qualities of production and export must be controlled and produced under the social and environmental policies to create changes. Then, he expressed his opinion towards the management topic that the integration between SEA and SA could be done to fulfil the completeness of the social and environmental policies. This mechanism must be driven by several key factors such as institutional analysis, public participations, international standard implementation, and environmental management which will lead to better understanding of the problems.

In accordance, it is necessary to determine the structure of the management to have more specific character that is compliance with international standards to create abilities to effectively manage the special economic zones. This will result in higher standard in work policies and international compliance principles. It is necessary to improve laws and regulations that encourage more acknowledgement and awareness towards Sustainable Development (SD), including SEA and SA, among public sectors and relevant stakeholders.

The former Deputy Prime-minister suggested the plan to enhance the management process by considering both formal and informal institutional bodies. This will provide the management authority to have broader view via formal and informal practices.

In order to create dynamic in the management of policy, plan, and project, it must be consistent of SD elements or three pillars of economic, social and environment. In accordance, he raised the example of projects in Map Ta Phut which had been operated without SEA or SA at the early stages. Moreover, these projects lacked of “Carrying Capacity” evaluation to compare the sizes and capabilities of society and

environment. Consequently, there were many environmental and social problems occurred in the area. According to the judgments of the courts, it showed that most cases were judged as big failures of the SD managements. Hence, his idea is to provide “Carrying Capacity”. This issue should be identified in the early process of policy and planning at the beginning of the development.

Nowadays, Thai laws require an implementation of EIA to the certain ranges of projects that relate to the environments. However, it was argued that to implement EIA only at the later steps of the projects was not enough to protect our environments. Therefore, it is better to have such a holistic process engagement and Economic, Social, and Environmental dimension planning since the beginning of the policy issuing. Obviously, SEA and SA are appropriate for this task.

The mentioned problems occurred many times in Map Ta Phut and more cases happened to the social health issues. Therefore, the local authority has tried to implement EHIA to make sure that “Health” is taking into the consideration of the managements. Furthermore, he suggested that the government should have MIS and GIS statistics to gain more different form of information such as wind direction, atmosphere, chemical spill and toxic pollution, and etc. As a result, the local authorities will be able to deliberately investigate that where and which factory was cause of the problems. In order to complete the mentioned process, the local authority needs to develop data and information intelligence unit which has full necessary database such as the use of chemicals, bus transportation for chemicals, number of logistics per day, routes and directions, duration of uses, and etc. Furthermore, he suggested that the local authorities should define Grid Line to complete the database and to ease the holistic management. This database will help the authorities to apply emergency plans together with other relevant departments such as paramedic, emergency authorities, fire-men, polices, and etc. For example, in case of emergency, hospitals can prepare and respond effectively when they already have the grid database on their hands.

Moreover, he also showed his thought about law compliance and enforcement which is currently a chronic problem when practitioners try to avoid them for benefits of some minority group of people. Consequently, justice process was weak and could not protect the people as the intentions of the laws were established. Besides, the laws

and regulations were outdated and inadequate to cover the concept of sustainability. Therefore, law and enforcement process needs to be revised up to date and the related authorities must be prepared to support the better justice system.

He then discussed about the reason we had unsuccessful SEA was because several factors, such as lack of proper zoning which has not been planned to protect problems since the beginning of the development. Most of them would be redesigned to resolve problems after it happened. It was not stylish enough for the growth of a more diversified city. Moreover, implementation and control of the city plan, which lack of strict enforcements. Furthermore, specific area planning for special economic zones is not available. The plan that developed specifically for the special economic zone must include Zoning and Greenbelt, strict urban planning, special management plans, and special agents and administrators. These elements are very beneficial for allocation of resource management and land use policies which practice consistently with Sustainable Development.

Further, educational issue, Thais did not pay attention to the public problems even they were in that society. Such problems must be solved in the long term by improving and developing the educational system in order to create knowledge and awareness for the current and new generations. Therefore, the strategies of SEA and SA should contain Public Education to create learning mind. Meanwhile, it is to portray the country in overall holistic view which will become the best immune and push the development in a better way.

According to the integration of SEA and SA, the former minister suggested that the guideline for the management of SEA and SA was to properly integrate international standards and local criteria such as toxic emissions, hazardous wastes, water contaminations, and etc. The management must enforce the rules strictly and clearly in order to create the engagement with all stakeholders for the understanding of the SEA and SA. There must be a practical manual that is easy to understand, including continuous monitoring process and being concise to evaluate performance in each criterion.

In this case, monitoring and assessment technology system should be developed to prevent defects from faulty human beings. The system must have collected statistical data to be used as a database for analysis. It should also be

developed to generate statistical comparisons. All plants in the area need to have the mentioned manual and monitoring system to assess the adequacy of the implementations and evaluations. Consequently, with adequate data and information, safety and environmental engineer/department can design appropriate procedure and mitigation plan for their plants in the strategic plans.

Another concern, he issued about the distribution of power. He said that the power from central government to rural authorities has been distributed in Thailand for many decades. However, this transition of power caused problems in management as well. It was found that the local governments were not ready for many responsibilities. For instance, the central government has given the decision rights to the local authority for approval of construction projects when the local governments lack of knowledge, guidelines, plans, standards, and technologies to detect problems and set up right decisions. Mostly, personal judgments were used in the system. For another example, 'Khao Yai' area, project approvals were made under the old patronage system. Many luxurious houses were constructed over the agricultural permitted piece of lands and most of these houses belong to hi-society people and politicians, such as national park invasions by investors and politicians in Wang-nam-khiew, Pakchong, and Lamtaklong area. On the other hands, although there are laws and regulations imposed but authorities do not enforce them strictly. Moreover, when the authorities lack of knowledge and technology to prove of these problems, the local authorities' power will be very weak. Obviously, laws and regulations system do not work functionally. Therefore, the management guidelines of SEA and SA must contain strategy and plans, implementation plans, checklists, monitoring plans and including the investigation of carrying capacity as well as how to manage the overlap management among authorities. It is proved that the management of SEA and SA should be done holistically.

Lastly, it is important to create a model that supports people participation and collaboration. There must be chances for the public to be invited to give their opinions and needs which lately come up with a mechanism to track, monitor and manipulate the issues and awareness over a period of time. This would also be done parallel with considering impact levels of problems in order to prioritize the issues and lead to determine remedies. He finally underlined that the most important thing is to look at

how local people can be benefit and whether these benefits are distributed widely and equally or not?

In-depth Interview: 2

The researcher exclusively talked with the Vice Governor of Savannakhet district. He also positioned as the director of Savan-seno special economic zone. The interview found out that there were enormous demands for more workers in Savannakhet since the government implemented the Savan-Seno Special Economic Zone project. Obviously, there were a lot of changes in this district and it was undeniable that society and environment would get a lot effects from the project. Accordingly, the government had requested investors in the area to propose social and environment adaptation plans before they got license of operation. Fortunately, most investors were Japanese and western people which already had higher industrial standards than the local requirements. He mentioned that, normally, Japanese and Western standards had more advance aspects than the local regulations including Economic, Social and environment which were the main dimensions of Sustainable Development (SD). This condition was compatible with the country's main direction. Therefore, the local government was welcome if the investors want to bring in their standards in to the operations. However, the investors must get the approvals from the local government to prove that their standards meet and comply with the local law and regulation levels. The local government also aimed at Western and Japanese technology and knowledge. They welcomed and aimed to transfer these technologies in order to enhance the country's quality level.

Beside from the above targets, the local government insisted that they focus on SD in their national directions. Recently, they started to provide public participations to the communities which created more chances for their people to speak up. The vice governor then highlighted that this process was the first mechanism in their SEA plan. Nowadays, Laos government already imposed SEA in their national laws. The Savan-Seno special economic zone also started to use SEA as one of the main management scheme. Practically, SEA helped us to select companies that have higher in revenues while produce less environmental and social impacts.

Since the beginning, the government set up the Savan-Seno Special Economic Zone Authority (SSEZA) especially for this project. The government positioned the vice governor as the Director of the authority. This management authority had been administrated all activities including Social and environmental dimensions. In order to manage the area effectively, the committee first implemented zoning system which finally divided into Zone A, B, C, and D for entertainment complex, industries, industries and logistics, and shelters, respectively. The zoning helped the committee to categorize activities and put them into the right zone. Accordingly, the zoning also helped the management authority to scope and to limit the environmental and social problems within the zone. “We put heavy industries away from communities and bring SEA into the management to control the impacts” said by the vice governor and the director of SSEZA.

The establishment of SSEZA also meant to provide channels for community involvement into the decision-making processes. Recently, the authority together with communities held many public hearings before the authority wanted to lay policies or make decisions. The authority members were aware that all decisions made must have zero or least negative impacts to the society especially traditional norms and cultures.

In addition to the participation, the authority also brought in the international standards to enhance the public participation process for the best hearing results. This process is suitable with the main government’s target of Millennium Development Goal (MDG).

The committee has a very clear target, related to MDG and SD, to sustain the developments in the special economic zone. As a result, the committee figured out that which issues should be listed in the SEA plan. The lists are as following

1. Income per capita
2. Employment rate
3. Better living standards
4. Education
5. Health
6. Get rid of social problems
7. Get rid of environmental problems

In conclusion, the governor also mentioned about SA and agreed that it was good to integrate SEA with SA. He suggested that the key success of this integration was to set up concrete policies and directions that go towards the SEA and SA. Furthermore, all state officers must pass preparation courses for knowledge and skill.

In-depth Interview: 3

The interview exclusively discussed with the Governor of Mukdahan. He gave his visions that these days, in the Association of Southeast Asian Nations (ASEAN), each government has their own directions to manage their special economic zones. Obviously, Mukdahan special economic zone also had its own developing paths which were not really relate to Savan-Seno special economic zone in Laos. There was no corporation among the two countries in managing the special economic zones. Each country aimed at their national interests.

Special economic zone was the special area that governments offer special privileges and exemptions for all investments in the area. It was because the governments need to boost up economic activities to increase development rate of their countries. Mukdahan was one of the five initial areas that the government allocated to be the special economic zones since the province had several strengths such as 1. Located in East West Economic Corridor project 2. Connected to Danang, Vietnam via Savannakhet, Laos 3. Thai, Laos, and Vietnam have similar needs and living styles therefore Mukdahan will be the east gate of Thailand 4. Mukdahan and Savannakhet have its own special economic zone which will create dynamic development between the two in the near future

Recently, the government had been working to conclude the special economic zone management policies and implementation plan. The government was aiming at how to convince investors by promoting tax incentives and infrastructure development programs. The government was also working intensely on zoning and urban planning because the government perceived that without zoning the management would be difficult. As well as the government was concluding the issues that needed to be in the development plans. The government found out many obstacles as following. Firstly, Mukdhan properties were quite expensive and it was

the most important obstacles for the development. Secondly, most of the designated areas overlap with the local communities and it caused of social problems. Thirdly, environmental issue was in the account. Economic activities and bigger societies cause of more wastes. Therefore, the government put more efforts for environmental management.

The local government debated with the central government that we should not set the zone near the Me-kong River because it would create more environmental problems. Consequently, the central government agreed to reconsider about the location and boundary of the special economic zone. This showed that the local government also count the environment as an important principle for the decision making process.

In conclusion, the government was preparing to set the public mutual understanding about the special economic zone and its benefits due to most Thai people did not understand the special economic zone. Recently, the local government has not set the special economic zone one stop service like Savan-seno one stop service office. The central government still attaches all special economic zone tasks to the governor office. However, the governor gave a comment that the central government should set the special economic zone management authority and position the director of the authority instead of managing by the governor. On the other hands, the governor suggested that integrating all related governmental departments and stakeholders in the area in to the management structure to provide professional management to the special economic zone development.

In-depth Interview: 4

This interview was held with the former director of strategic and planning department of the ministry of Planning and Investment of Laos. He also held the position of advisor to the vice President of Laos. The interview found out that the government was aiming at the Sustainable Development goal. Thus, environmental and social issues were equivalent to the economic dimension in the decision process. All investors need to hand in their business strategic plans to the governments including SD plan. Then the government would use SD as the criteria of approval.

Finally, the government would work and monitor closely with each company following the strategic plans.

Recently, there are a lot of labours migrated in to the area from various origins, both Laos and alien people. Obviously, there were many problems occurred from these migrations such as culture crashes, health cares, crimes, educations, population densities, and etc. In order to solve these problems, the government has tried to take international standards and initiatives in to accounts including SEA.

In conclusion, he mentioned about the main issues that would support SEA and SA which were public participation, zoning, infrastructure planning, waste management, and education.

In-depth interview: 5

The interview was conducted with the director of Sustainable Development department, Industrial Estate Authority of Thailand. She gave her opinions that the SEA and SA should be integrated in to one process with common geographic database including all dimensions of SD. She mentioned that there were many supportive factors including policy setup, implementation plan, law and enforcement, public participation, economic/social/ environmental management with databases and statistics. She then suggested that in the data collecting, the authorities should set up appropriate indicators that can gather qualitative facts.

She further mentioned that there were a lot of demands in natural resource use, especially in special economic zone, in both Thailand and Laos. Therefore, the authorities should be aware of this issue. As a result, the authorities should update laws and enforcements and impose heavy punishments in to the process. According to Thai laws, she said the laws and regulations were quite up to date which also meet the international levels. However, she accepted that the enforcement process was very poor.

Apart from the above issues, she also discussed about overlap responsibilities among governmental departments. This caused of weak performances and unclear responsibilities. Therefore, once the government needed to develop the SEA and SA then they needed to concern on these factors.

Finally, she insisted that to provide policies with suitable laws and enforcements were the first start for the development of SEA and SA. Moreover, public participations and public educations should also be provided to the public sides because once the public knowledge is ready for the development, it was easier to drive following development journeys.

In-depth interview-6

The interview was conducted with the strategic planning department of the Mukdahan government house. He showed his opinions that he focused more on environments. He had been trying to integrate environmental criteria into every task of his duties. Recently, the central government had issued many environment related policies which all local governments had to implement and issue the implementation plan into their daily tasks. However, there were many difficulties such as unprepared staffs and lack of supportive budgets. Each staff had to learn and made themselves understood by their own methods. As a result, people in the area had different understanding and awareness on the development directions. Therefore, it was good if we have one common set of knowledge that was used in the whole process.

According to the policy development, he said that apart from the environmental criteria, these days, the local government was planning to provide more channel to public stakeholders to involve in the decision-making and monitoring processes. The involvement would help shaping the policies to have more effective performance. It would protect the risks of economic, environment, and society which was better than resolving problems when they already occurred.

The development of the economic activities would definitely change the social structure. More investments and tremendous of capital would pouring into the area. This capital would change the living standards and shifting the local people living style to be more urbanized. Obviously, people in agricultural sector would move in to private business sector or change their agricultural activities to be industrial style. Local people would sell their lands off to enhance their capital statuses due to the high property prices. This development would increase the population in the area and finally lead to more waste and environmental problems.

To summarize the social and environmental issues comparing Thailand and Laos. Both countries had quite similar impacts from the economic developments. However, the way that each government encounters the problems was different. For instance, if there was a waste problem in Thailand, we must request the budget for waste management in the regular process which was slow and not confirmed that the responsible authority would get the budget or not? Meanwhile, Laos government, under their political style, could immediately order the responsible authority to rapidly respond the problems. Therefore, in order to have rapid response to the management, Thai government should consider on the particular administrative authority who can manage the special economic zone by their own as same as Pattaya city.

In-depth interview: 7

The interview of the consul of The Royal Thai Consulate General at Savannakhet was conducted at his office in Savannakhet, Laos. He gave his idea that environmental issue was not the main consideration criteria for Savan-Seno Special Economic Zone. It seemed that the local government tended to be more flexible on investments policies to serve any investment in this area. This attracted a lot of foreign investors, especially Japanese companies that wanted to move away from Thailand.

According to the current implementations, the government developed specific social and environmental laws and regulations for the Savan-seno special economic zone. However, the government convinced the investors to bring international standards in to their working processes which were already higher than the local laws and regulations in many aspects.

Savan-Seno has an advance zoning management by the special economic zone management expert from Malaysia. The total area provided in to 4 main zones including: Zone A: Complex, Zone B & C: factory and logistic, and Zone D: shelters and residential areas

Recently, Laos government was trying to adjust their policies in order to attract more Foreign Direct Investments (FDI). Obviously, investments ratio in the area kept increasing dramatically. There were several supportive reasons beside this

successful. Firstly, Laos has supportive domestic investment policies which triggered more economic activities. Secondly, Laos is a rich natural resources country. Thirdly, Laos has a lot of international trade privileges such as Generalized System of Preferences (GSP) granted by many countries which convinced tremendous FDI into the area. Fourthly, Laos has more political stability comparing to Thailand. Fifthly, Savannakhet has cheaper property prices comparing to Mukdahan which the property prices has been soaring incredibly when Thai government announced the Mukdahan special economic zone. Moreover, Laos government always monitor Thai regulations and offer better campaigns to the investors. These dimensions showed that Laos government had taken the Savan-Seno Special Economic Zone very serious and more professional.

Recently, Laos government imposed several benefits to the investments in this special economic zone. For example, any company operating without profits will receive the tax exemptions until it has profits, company registration period was shortened into only 5 days, the government provides lower utility costs, permission to rent any land in the zone for 99 years with low prices, less taxes than the past, and Laos, especially, are granted by GSP which arranges big privileges to the investors. Meanwhile Mukdahan's provided privileges are only equivalent to Thailand Board of Investor (BOI) Zone 3. The campaign offering very low benefits compared to Savannakhet area. Therefore, FDI and new investments had no doubt to invest in Savannakhet rather than Mukdahan.

According to the current environment status, it seems like Laos had less environmental impact than Thailand because Laos still had plenty of unoccupied spaces and more environment abundant together with good zoning management. Therefore, communities have less effect from industrial activities comparing to other congested area. However, environmental and social impact rates kept rising in both Savannkhet and Mukdahan because of dramatically increasing of economic activities and expansion of communities. Therefore, there must be some sophisticated management mechanisms that support the Sustainable Development in both special economic zones. He then totally agreed that the integration of SEA and SA was a good mechanism toward the development of SD in the special economic zones.

He mentioned that the integration of SEA and SA that appropriate for both provinces should be rapidly developed. By his opinions, the integration must have clear policy and guidance that prevent factors of problem. Furthermore, he advised that assessment process was very important. The integration should talks about Trans-boundary Process Impact Assessment (TPIA) to manage environmental impacts between the provinces. The two governments should pay attentions and establish the international management committee.

Lastly, according to his personal view, Mukdahan should place itself as a research and development centre that provides high technology products and services rather than heavy industrial productions and work collaboratively with Savannakhet to enhance the overview special economic zones of the two provinces.

In-depth interview: 8

This interview was the interview of the director of the office of Commercial Affairs Mukdahan. She mentioned that the successful integration of SEA and SA could happen by many supportive factors. Firstly, policy was the most crucial step towards the successful work. “We work without directions, supportive teams, and budget when we do not have policy. Therefore, it was a good start at setting up policy”, said by the director. Then she proposed public participation as another crucial factor. Governmental organs and communities should work collaboratively in order to get the real facts and issue the right decisions. The participations must consist of at least 50% of local population. The communities should get involved since the beginning state of gathering data and information to draft the policies. Furthermore, the communities need to attach to the whole process like they are one of the management teams.

The good characters of the policies are as following;

- Clear and concrete direction,
- Suitable strategies and implementation plans,
- Integrate all stakeholders into the system,
- Create public awareness,
- Support public education,

- Focus on public participation,
- Good monitoring and assessment
- Appropriate laws and regulations
- Zoning and infrastructure

Nowadays, the Mukdahan governor had started to open chances for the local business sector to propose their ideas and strategic plans. As a result, the government had got abilities to reshape its policies. This action helped the government to get closer to realities and produced more sustainable policies.

In conclusion, she proposed that in order to have a sustained special economic zone, we have to focus on environmental and social issues. The most important issue for environment was natural resource and waste management such as; land use, resource use, air pollution, water contamination, and etc. The bigger city would produce bigger garbage mountains. Therefore, the policy should aim to manage the issue as soon as when the economic development direction was written.

In-depth interview: 9

The interview conducted with the director of Mukdahan provincial industry office. He commented that the integrating of social, environmental and economic dimensions to establish a special economic zone should carefully research in all dimensions. Once the governments collected all data and information the dimensions, the government should bring them into the decision-making process. This was the important step of SEA and SA. The successful integration of SEA and SA must include several factors as following. Firstly, public participation was very important and undeniable. The participation would help the policy planners to understand different aspects from related stakeholders. This would reconfirm that the authority plan the policy by stakeholders' view. This participation included consultation process which derived opinions from stakeholders and make sure that the policy was agreed by stakeholders. Secondly, policy or strategy and implementation plan were supportive factors for the integration of SEA and SA. The policy should provide plan and monitoring process which would focus the journey of the development under the

SD way. Thirdly, awareness of the authorities and local people should be built. The stakeholders should have common knowledge and understanding about SEA and SA which will finally lead to awareness of protecting social and environmental qualities.

The integration of SEA and SA that would be used in Thailand and Laos should have common components which were selected by a study of SD dimensions of these two areas. Management authorities in both areas should have similar policies in order to operate the special economic zones within the same direction and standard.

According to his idea, the components that should be in the integration come from economic, social, and environmental aspects which are as following;

1. Environment dimension: The authorities should concern on the environment carrying capacity and develop the environmental management program.
2. Environment dimension: The authorities should focus on the measures taken at the persons who were convicted as the environmental offender.
3. Social dimension: The authorities should focus on the effects on the local norms.
4. Social dimension: The authorities should focus on the changes of society from the development programs.
5. Social dimension: The authorities should focus on the development of complete education system in the province as well as particular training courses for local people and labours in the areas.
6. Economic and Social dimension: The authorities should focus whether the developments increase income among local people or not?

In-depth interview: 10

This interview was conducted with the president of the Mukdahan Chambers of Commerce. The president agreed to have SEA and SA in the development directions. He mentioned that the government should have a clear policy together with the management body which combines members from both government and public

sector. Currently, there was no SEA being used. The legal environment assessment was EIA. Therefore, all project developments needed to conduct EIA. However, the EIA was not effective in long term development because it seemed that developers just perfunctorily provided it for the project approvals.

According to his view, SEA and SA would provide more sustainable directions due to these strategies combined economic dimension with social and environmental issues into Policy, Plan, and Project. According to Mukdahan Special Economic Zone, the development was at the starting point. He suggested that the government should manage the special economic zone at the gradual speed because the capabilities of the local government and private sector in the province were unprepared. As a result, when the problems occurred, it was easier to be resolved at a small scale.

He insisted that the SEA and SA were possible to be integrated and used in the development when the government shows serious sign that they would take SEA and SA as main method in the development and place it in the main policy. Another supportive factor was participation. The participation was very important in this mechanism which includes communities, public sectors, and all related stakeholders.

He then discussed that Thailand and Laos had similar environmental conditions. However, it seemed that Laos's green areas and natural resources were fruitful while Thailand has a weak environmental condition when calculated the green area per 1 Square Meter. Then he mentioned about the social conditions that both Thailand and Laos had similar social foundations. However, it was likely that Laos could preserve their traditional norms and cultures better than Thailand. He said that Laos had less social problems comparing to Thailand due to Thailand received various new cultures and traditions from outside which replaced Thai's original cultures and, finally, led to social problems. Therefore, it was excellent if we aware of these different factors when constructing SEA and SA.

Lastly, he mentioned that good special economic zone needs to have good zoning and infrastructure. The zoning is a method that helps authorities to professionally manage the special economic zone. Furthermore, he then concluded the main issues that should be in the SEA and SA plan including logistic system, security,

local business protection, public education, public participation, environmental management, and waste management.

In-depth interview: 11

The interview of the president of the Mukdahan Federation of Industries occurred at his office. He showed his vision towards SEA and SA as following. Personally, he thinks that the integration of SEA and SA, together with the management of environment and sustainability could not be done simultaneously at current decade as the fundamental factors were inequality in many aspects, such as understanding of people involve in the process or lack of concrete policy towards integration of SEA and SA, knowledge management was poor, especially budget from the government was the most essential factor which would be used to determine development activities in the area. According to his ideas, lack of state policies and expenditures means lack of sustainable development paths.

However, when it comes to the concept of SEA and SA, it has to start by public participation process. Recently, there are a few channels for NGOs and third parties to get involved in the developments. It seemed that the participation process with local communities was very weak. Citizens or residences had less opportunities to get involved in this decision making process. Generally, the public sector had not been acknowledged about the development plans. Especially, the Mukdahan special economic zone was only promote on the billboards along the streets. However, we did not acknowledge into details including benefits people would get, as well as changes that would occur with the local communities. Obviously, there were no differences between before and after the development of the special economic zone was announced.

According to his quote, "These things will happen when the government gives serious attention in providing public participation process and delivers plans and budgets, So, I do insist that it is impossible now. Although, I have heard the official announcements of SD from the central government however, I have not seen serious actions from the local authorities."

Currently, the Mukdahan special economic zone focuses on tourism and border trade as an essential part. The reasons why the local government aimed at tourism and border trade because they learnt that the establishments of industrial estate in the past produced severe environmental and social impacts to their local people. It was also because of Mukdahan had limitations in natural resources. Therefore, a lot of raw materials had to be shipped from other provinces. This factor costs more investments.

Generally, Mukdahan was on agricultural basic. Main agricultural products were rice, rubber and sugar cane, and tapioca. Obviously, these activities had fewer effects on environment comparing to industrial activities. Therefore, environmental and social impacts were very low.

In conclusion, he had a view over the integration of the SEA with SA that this issue must be completed and planned with long term strategy. The government must confirm on more consistence and continuous development direction because, in the past, the development directions were change every time we had new governments. As a result, local communities and businesses could not have sustained development plan. Finally, the development policies must support the local ways of living and cultures.

In-depth interview: 12

The interview was conducted with a group of Laos entrepreneurs and local people in Savannakhet area, consisted of a group of leading hospital, salt mine, forestry, hospitality, restaurant, construction and factory. It was found that this group had been informed about Sustainable Development and management environmental and social issues that the government asked for the cooperation from all organizations. However, the concrete policy and SD strategy had not yet been prepared to support an integration of SEA and SA.

We must continue to put clearer directions and goals, along with the strategy that included in development policy. The policy must specify contents with economic development together with integration of social and environmental international standards. While the economic zone should focus on income distributions to the local

communities equally with promoting of equal access to natural resources, creating awareness of Sustainable Development, making jobs, living levels, generating revenue for the country, development for medical service, human rights, sustainability, building market, improving infrastructure, improving education, creating norms to a better protection and managing the environment. Meanwhile, the governments should try to decrease social and environmental negative impacts caused by economic activities in the special economic zones, such as corruption, pollution and changes in environment, and etc.

In summary, the development policy should include a prompt response adaptation and mitigation plans based on international standards. To support the integration of SEA and SA, the governments must start from the clarity of governments' policies. Moreover, the government should provide opportunities for public or organizations to involve in the development journey.

In-depth interview: 13

This interview concluded opinions from 9 local entrepreneurs in Mukdahan. The businesses included restaurants, gift shops, convenient stores, print and copy businesses, beauty and massage services, and motor garages. These businesses located all over the areas of the special economic zone. The interview found that although there was a special economic zone project announcement and they have seen PR campaigns around the province but they did not feel changes in everyday life apart from more and more constructions. They also saw more PR billboards convinced them to be ready for the special economic zone. However, they did not know how to put themselves ready for the development.

According to their perspectives, they did not understand how the special economy zone would benefit them. They were confused between special economic zone and special administrative region. They recognized that there were constructions going on without any notice from the government or the constructors. As a result, these constructions affected their daily life. For example, they normally open doors and windows to welcome customers in to their shops and for air ventilations but, nowadays, they have to close all doors and windows due to the constructions created

more dusts and noises. They had to clean their place 4-5 times per day. They also noticed that there were more traffic congestions comparing to last 2 years.

Lastly, they came up with the issue of market competitions. Since the start of the special economic zone, there were many big capital investors expanded their investments into this province. They also brought in lower prices and more varieties of products and services which the local businesses, definitely, could not compete with them. Consequently, the recent years, local businesses' annual revenues dropped significantly. Numbers of customers decreased down by 40 per cent. They worried that once the full implementation of the special economic zone has done, they would die out from the markets, if they did not adapt themselves by knowledge and understanding. Therefore, they needed the government to help protecting them by providing more privileges in the first few years of the changes as well as elevate their competitive advantages by providing public educations.

In-depth interview: 14

This interview was held with the representative from the local environmental protection organization (NGO). He also held the position as environmental scholar. He showed his visions on the SEA and SA in Mukdahan Special Economic Zone in many aspects. Firstly, he stated that the implementation of SEA and SA was impossible because the government had not got the policy to lead the management yet. Therefore, if the government wanted to bring the SEA and SA into the system to make more sustainable special economic zone, the government should list the SEA and SA into the policy and provide expenditures on this direction. According to his view, budget was the most important thing. It defines all directions and activities. Without monetary supports, there would be no concrete corporations and sustain developments. Nowadays, there were many good initiatives that the government asked for corporations from public sector and local people but the government did not provide the policy and budget. As a result, less than 10% occurred and most of them stopped in the middle due to there were no supports. For another instance, there were road and construction initiatives talked in the meeting with the governor, but there were no expenditure allocations. Consequently, there were no approvals of new road

projects. From above reasons, people tended not to cooperate with any initiative that does not have concrete policies with monetary supports.

In general, many local people do not perceive the details of Mukdahan special economic zone. Many public sectors known the existence of the project but do not know the benefits of the project. Therefore, businesses do not know how to adapt themselves for better competitive abilities. According to these problems, the government should rapidly solve these development difficulties. In his perspectives, the SEA and SA should relate with these issues;

- Local social benefits
- Communities securities
- Laws and enforcements
- Public educations
- Public health cares
- Infrastructure completeness
- Zoning management

Currently, Mukdahan property prices had been soaring up rapidly since the announcement of the Mukdahan special economic zone. Consequently, the land price was the most difficult for the business investments in this area. Meanwhile, Laos still had plenty of available space and the land belonged to the government that could easily manage their land use. This was the benefit of their political condition and it seemed that these conditions promoted Laos to have better land use management. Moreover, Laos government also provided new satisfied privileges for foreign investors such as 90 years of rental period at lower rate comparing to other places.

Beside from the above points, Thailand was facing with questionable law enforcements. Authorities that holding the laws and regulations, were very weak. Laws and regulations had been misused. Therefore, the results were different from the justice's intentions.

For environmental concerns, he suggested that the state should concern more on ecosystem condition due to the current situation of the ecosystem was poor. Many parts of the environment were destroyed by the development of special economic zone. In addition, the government should imposed up to date environmental laws and

set up heavy punishments. Then the government should also get rid of errors in the justice processes.

In-depth interview: 15

This interview was conducted among local communities and residences in Mukdahan. They all agreed that the government should develop Mukdahan special economic zones to be a duty-free zone which would drag a lot of economic activities in to the province. However, they also worried that the economic expansion may affect social and environmental issues in the communities. For environmental issue, they mentioned that the government should underline the issue of protecting the problems by implementing a zoning particularly for the special economic zone rather than resolving problems when after it happened without protections. The government should manage natural resources under the sustainable program and waste management program should be taken into account. Furthermore, they also concluded the main problems that they encounter recently. They raise the point of local people and local business protection. The government should focuses on how to protect the local people from rapid changes of the development. For example, when big companies invested in the area and brought in new cultures that definitely affects to the local traditions and cultures. How would this problem be protected? Or when the big capital invested in the market and took over the market share, how would the local businesses be protected? or when people invaded in to the area, how does the local government prepare for the huge invasion? Can the current public facilities serve more people? For instance, there were many hotels and service apartments opened within 2015 by the supports of the local government. These activities required high standards of public utility systems. However, in reality, the utility supplies were not ready. All local communities faced with water and electricity supply shortage. Consequently, each community needed to buy water. Besides, local hotel and businesses spent more than 100,000 Bahts to buy fresh water and rent an electricity generator to survive their businesses. Therefore, they all agreed that the government should have well prepared policies along with gradual developing steps. Moreover, the steps should help the local people to prepare themselves ready for the rapid

changes caused by the special economic zone campaign. Finally, they also worried about security, transportation system, infrastructure, education, and public health care issues that must be better than current conditions.



VITA

Kantachon Siwapimon was born in Bangkok, Thailand on January 6th, 1984. He received his Bachelor's Degree in South East Asian Studies at Thammasat University, Bangkok, Thailand and his Master's Degree in South East Asian Studies at the School of African and Oriental Studies (SOAS), University of London, London, The United Kingdom, in 2005 and 2007 respectively. In 2010, he enrolled for the Environment Development and Sustainability program at Graduate School of Chulalongkorn University, Bangkok, Thailand.

