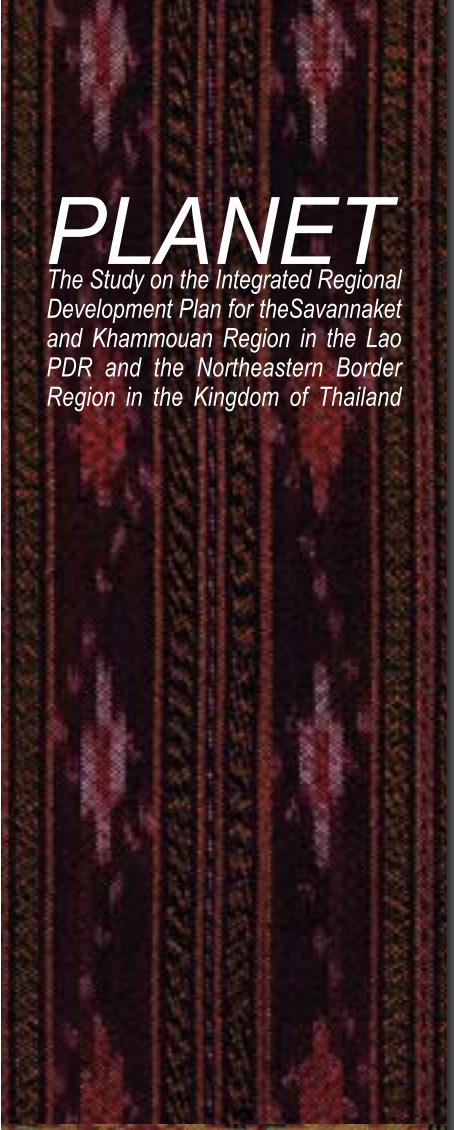


No.

Japan International Cooperation Agency

Committee for Planning and Cooperation
Lao People's Democratic Republic

Office of the National Economic and Social Development Board
The Kingdom of Thailand

Development Vision and Cooperation Programs for the Cross Border Region

Final Report

The Study on the Integrated Regional Development Plan for the Savannakhet and Khammouan Region in the Lao People's Democratic Republic

The Study on the Integrated Regional Development Plan for the Northeastern Border Region in the Kingdom of Thailand

September 2001

International Development Center of Japan
KRI International
Pacific Consultants International

S S F
JR
01-122(2/2)

Currency Equivalents

US$1 = 41.4 Thai Baht
(1998 Bank of Thailand reference rate)

US$1 = 7,700 Kip
(Estimate from 1999 IMF reference rate)

Preface

In response to each request from the Government of the Lao People's Democratic Republic and the Kingdom of Thailand, the Government of Japan decided to conduct the Study on the Integrated Regional Development Plan for the Savannakhet and Khammouan Region in the Lao PDR and the Northeastern Border Region in the Kingdom of Thailand, and entrusted the study to the Japan International Cooperation Agency (JICA).

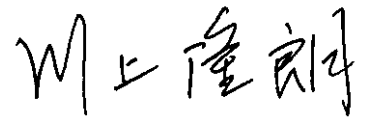
JICA sent a study team which was headed by Dr. Jinichiro Yabuta of International Development Center of Japan to the Lao PDR and the Kingdom of Thailand from March 2000 to August 2001.

The team held discussions with the officials of the Lao and Thai Governments, and conducted field surveys. After the team returned to Japan, further studies and analysis were made and this report was prepared.

I hope that this report will contribute to the development of the Savannakhet and Khammouan Region and the Northeastern Border Region and enhancement of friendly relations among Lao PDR, Thailand and Japan.

I wish to express my sincere appreciation to the officials concerned of the two Governments for their close cooperation extended to the team.

September 2001



Takao Kawakami

President

Japan International Cooperation Agency

September 2001

Mr. Takao Kawakami
President
Japan International Cooperation Agency
Tokyo, Japan

Dear Mr. Kawakami

Letter of Transmittal

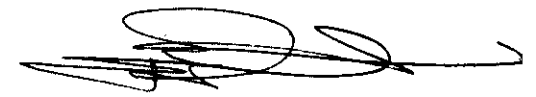
We are pleased to submit to you the final report for the Study on the Integrated Regional Development Plan for the Savannakhet and Khammouan Region (SKR) in the Lao PDR and the Northeastern Border Region (NBR) in the Kingdom of Thailand. The report contains our studies on the present condition of regions as well as surrounding international environment, analysis of the underlying conditions affecting the further regional development based on the regional resources, formulation of SKR and NBR masterplans and development programs/projects for cross border cooperation.

This report presents 22 projects for cross border cooperation over the two countries. Among them, the three most important projects are listed as priority projects for the earliest implementation.

We wish to take this opportunity to express our sincere gratitude to your Agency and the Ministry of Foreign Affairs. We also wish to express our deep gratitude to the National Economic and Social Development Board (NESDB) in the Kingdom of Thailand and the Committee for Planning and Cooperation (CPC) in the Lao PDR and other authorities concerned for the close cooperation and assistance extended to us during our study.

We hope that this report will contribute to regional development of the cross border region.

Very truly yours,



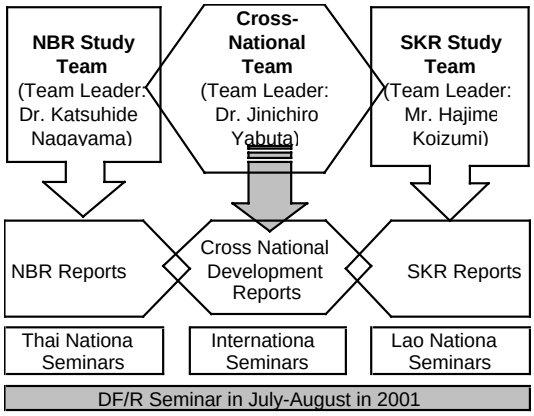
Jinichiro Yabuta
Project Manager / Cross National Development Team Leader
The Study on the Integrated Regional Development Plan for
the Savannakhet and Khammouan Region in the Lao PDR and
the Northeastern Border Region in the Kingdom of Thailand

Cross Border Region

FOREWORD

This volume of report, "Development Vision and Cooperation Programs for the Cross Border Region (CBR Report)", which is prepared to complement the Master Plans for Savannakhet and Khammouan Region in Lao PDR (SKR Report) and for the Northeastern Border Region in Thailand (NBR Report). SKR and NBR are the regions facing each other along the Mekong River as shown in the map. The term Cross-Border Region (or CBR) in this report is used to represent a combined geographical area that consists of SKR and NBR.

Relationship between this volume and SKR and NBR reports are as follows:



Role of CBR Report:

A main role of CBR Report is to facilitate region-to-region cooperation between SKR and NBR. As a medium to facilitate this cross-border cooperation, the report consists of following subject matters:

To know each other better:

Firstly, it is important to know each other before starting to work together. The report provides key information about SKR and NBR that should be understood and shared by both parties.

To know where we are:

Secondly, it is also important to know surrounding conditions of SKR and NBR. The report provides key information about international settings surrounding SKR and NBR in terms of both economic outlook and spatial structure. In addition, major on-going projects at the level of GMS are summarized for reference.

To know where to go:

Thirdly, it is needed to have common baseline development visions for SKR and NBR. The report describes geo-economic characteristics of CBR, and then future development visions to be shared by both SKR and NBR. These visions are also provided as starting points for Master Plans for SKR and NBR reports.

At the same time, it is so obvious that there is a large difference between socio-economic conditions in Lao PDR and Thailand. So is in SKR and NBR. Thus, it is inevitable to prepare two separate master plans for them. More specifically, detailed development targets and strategies are presented in SKR and NBR reports.

To Highlight the Link between SKR and NBR:

On the other hand, enhancement of the link between SKR and NBR is important for both of them. Therefore, Cross-Border Cooperation Programs are prepared to highlight common interests specifically related to enhancement of the link between SKR and NBR.

To present concepts and options for region-to-region cooperation activities:

Any cross-border activity shall be a "joint" activity in practice. There is no entity that is responsible for the CBR as one integrated unit of administration in terms of implementing development programs. Therefore, Cross-Border Cooperation Programs are prepared to facilitate these joint activities. There shall be various joint meetings or committees to promote joint activities.

Structure of the report:

The CBR Report consists of seven chapters. In Chapter 1-3 existing conditions are described. In Chapter 4, the geo-economic characteristics and development visions for the CBR are presented. Chapter 5-7 consists of the cooperation programs and priority projects.

Appendices:

Appendices consist of four sector papers. In the course of study, we identified four sectors have higher cross-border related contents. Study outcomes for these sectors hold information that are better to be shared by both parties from SKR and NBR. Thus, three sector papers are included as appendices of Cross-Border report.

-Investment Promotion (Appendix 1)
-Business Development in CBR (Appendix 2)
-International Transportation (Appendix 3)
-Tourism Development (Appendix 4)

Other sectors that are included in sector reports volumes of both SKR and NBR masterplans are also examined and referred in preparation of the Cross-Border report.

DEVELOPMENT VISION AND COOPERATION PROGRAMS

FOR THE CROSS BORDER REGION

TABLE OF CONTENTS

EXWCUTIVE SUMMARY

CHAPTER 1 OVERVIEW OF SKR AND NBR

1.1 BASIC OUTLOOK OF SKR AND NBR 1-1

1.2 HUMAN RESOURCES 1-6

1.3 ECONOMIC STRUCTURE....1-10

1.4 LAND USE 1-13

1.5 AVAILABLE DEVELOPMENT RESOURCES IN SKR AND NBR 1-15

1.6 PERSPECTIVE ON SOCIO-ECONOMIC CHANGE 1-16

CHAPTER 2 INTERNATIONAL SETTINGS: ECONOMY AND SPACE

2.1 INTERNATIONAL ECONOMIC ENVIRONMENT 2-1

2.2 SPATIAL STRUCTURE....2-9

CHAPTER 3 EXISTING PROJECTS AND PROGRAMS IN INDOCHINA

3.1 REVIEW OF EXISTING PROJECTS AND PROGRAMS 3-1

3.2 ECONOMIC CORRIDORS UNDER GMS PROGRAM....3-8

CHAPTER 4 DEVELOPMENT VISION OF CROSS BORDER REGION

4.1 GEO-ECNOMIC CHARACTERISTICS OF CBR DEVELOPMENT 4-1

4.2 DEVELOPMENT VISION FOR CBR 4-6

CHAPTER 5 CROSS BORDER COOPERATION PROGRAMS

5.1 AGENDA FOR CROSS BORDER DEVELOPMENT COOPERATION....5-1

5.2 CROSS BORDER COOPERATION PROGRAM 5-9

CHAPTER 6 INSTITUTIONAL FRAMEWORK FOR IMPLEMENTATION

6.1 BASIC IDEAS FOR IMPLEMENTATION 6-1

6.2 IMPLEMENTING SCHEDULE AND ORGANIZATIONS FOR PROGRAMS AND PROJECTS. 6-2

6.3 IMPLEMENTING ORGANIZATIONS FOR PROJECTS 6-4

6.4 FINANCING SOURCES FOR PROJECTS.....6-6

CHAPTER 7 PRIORITY PROJECTS FOR CROSS BORDER COOPERATION

7.1 SELECTION OF PRIORITY PROJECTS 7-1

7.2 CROSS BORDER BUSINESS DEVELOPMENT FORUM 7-4

7.3 SAVANNAKHET AIRPORT UTILIZATION 7-17

7.4 ROUTE 9 JOINT MAINTENANCE.....7-32

7.5 PLAN OF PROJECT IMPLEMENTATION 7-46

APPENDICES

APPENDIX 1 INVESTMENT PROMOTION

A1.1 INVESTMENT PROMOTION POLICY IN THAILAND AND LAO PDR A1-2

A1.2 COMPARISON OF INSTITUTIONAL AND REGULATORY FRAMEWORKS ON INVESTMENT PROMOTION BETWEEN NBR AND SKR A1-11

A1.3 INVESTMENT TRENDS IN THAILAND AND NBR AS WELL AS LAO PDR AND SKR .. A1-15

A1.4 IMPLICATIONS OF AFTA ON DIRECT INVESTMENT INFLOWS IN NBR AND SKR A1-25

A1.5 ISSUES AND PROBLEMS ON INVESTMENT PROMOTION..... A1-29

A1.6 RECOMMENDATION A1-32

APPENDIX 2 BUSINESS DEVELOPMENT IN CBR

A2.1 POTENTIALS AND BUSINESS OPPORTUNITIES IN CBR A2-1

A2.2 POSSIBLE BUSINESS DEVELOPMENT PATTERNS IN NBR AND SKR A2-14

APPENDIX 3 INTERNATIONAL TRANSPORTATION

A3.1 REVIEW OF IMPACTS OF THE FIRST MEKONG BRIDGE AND POTENTIALS OF THE SECOND MEKONG INTERNATIONAL BRIDGE A3-1

A3.2 INSTITUTIONAL FRAMEWORK ON CROSS-BORDER MOVEMENT OF GOODS AND PEOPLE..... A3-14

A3.3 REGIONAL TRANSPORT SYSTEM..... A3-21

A3.4 INTERNATIONAL TRADE AND TRAFFIC FLOWS A3-26

A3.5 POTENTIALS AND CONSTRAINTS A3-30

A3.6 DEVELOPMENT PROGRAM FOR INTERNATIONAL PROJECTS AND PROGRAMS.. A3-33

A3.7 COMPARISON OF TRANSPORTATION COSTS AND TIMES A3-36

A3.8 RECOMMENDATIONS..... A3-42

APPENDIX 4 TOURISM DEVELOPMENT

A4.1 PRESENT CONDITION OF TOURISM IN CBR A4-1

A4.2 ANALYSIS OF TOURISM DEVELOPMENT POTENTIAL IN CBR A4-20

A4.3 TOURISM DEVELOPMENT IDEA FOR CBR A4-26

List of Tables

Table	1.1	Baseline Indicators of SKR-NBR	1-1
Table	1.2	Population Indicators of CBR	1-3
Table	1.3	Infant Mortality Rate and Maternal Mortality Rate	1-6
Table	1.4	Illiteracy Rate	1-7
Table	1.5	Gross Enrollment Ratio in CBR	1-7
Table	1.6	Occupation in CBR	1-9
Table	1.7	Economic Structure of SKR and NBR	1-10
Table	1.8	Agricultural Revenues and Expenditure per Household by Region in Lao PDR 1997/98	1-12
Table	1.9	Existing Development Resources Analysis of SKR and NBR	1-15
Table	1.10	Perspective of Population and Economic Situation	1-18
Table	2.1	GMS Countries and International Trade Affiliations	2-5
Table	2.2	Potential Influence by AFTA on the Two Regions	2-6
Table	3.1	ADB financed GMS Loan Projects	3-3
Table	5.1	Development Strategies for SKR and NBR	5-2
Table	5.2	Cross-Border Programs and Projects	5-10
Table	5.3	Who do What for Tourism Promotion (descriptive example):	5-17
Table	6.1	Schedule and Implementing Organizations for Trade and Investment Environment Program	6-2
Table	6.2	Schedule and Implementing Organizations for Human Resources Development Program	6-2
Table	6.3	Schedule and Implementing Organizations for Pair-City Development Program	6-3
Table	6.4	Schedule and Implementing Organizations for Tourism Development Program	6-3
Table	6.5	Schedule and Implementing Organizations for International Transportation Development Program	6-4
Table	6.6	Institutional Arrangement for Cross-Border Programs and Projects	6-4
Table	6.7	Public-Private Scale and Institutional Options	6-5
Table	7.1	Activity / Function Chart of Cross-Border Business Development Forum	7-9
Table	7.2	IEE for Business Development Forum	7-16
Table	7.3	Existing Airports in Cross Border Region	7-17
Table	7.4	Alternatives for Airport Operation in Mukdahan-Savannakhet Pair City	7-19
Table	7.5	Design Aircraft and Necessary Runway Length	7-22
Table	7.6	Demand Forecast for Mukdahan Airport	7-23
Table	7.7	Annual Passenger Demand for Savannakhet Airport	7-23
Table	7.8	Revenue of Airport	7-24
Table	7.9	Cost Estimate for MCAT	7-25
Table	7.10	Cost Estimate for Savannakhet Airport Runway Extension	7-25
Table	7.11	Cash Flow of Savannakhet Airport	7-26
Table	7.12	IEE Checklist for Mukdahan Airport Utilization	7-27
Table	7.13	Impact of East-West Corridor in the International Context	7-35
Table	7.14	Alternative for Source of Maintenance Cost	7-36
Table	7.15	Traffic Forecast	7-37
Table	7.16	Typical Maintenance Cycle (Light Traffic Case)	7-38
Table	7.17	Total Maintenance Cost	7-39
Table	7.18	Toll Structure and Financing Alternative	7-40
Table	7.19	Cash Flow of Route 9 Maintenance	7-40

Table	7.20	IEE Checklist for Route 9 Joint Maintenance	7-42
Table	7.21	Project Implementation Timetable	7-46
Table	A1.1	Criteria for Project Approval	A 1-4
Table	A1.2	Criteria for Shareholding by Foreign Investors	A 1-4
Table	A1.3	Investment Zones	A 1-5
Table	A1.4	Tax and Duty Privileges	A 1-6
Table	A1.5	Types of Priority Projects and Privileges	A 1-7
Table	A1.6	Conditions for Obtaining Promotion Status on Factory Relocation	A 1-7
Table	A1.7	Benefits, Rights and Obligations on Foreign Investment Projects	A 1-9
Table	A1.8	Comparison of Investment Promotion Frameworks	A 1-12
Table	A1.9	Comparison of Tax Privileges for Companies under BOI and FIMC	A 1-14
Table	A1.10	Regional Distribution of Direct Investment in Thailand	A 1-17
Table	A1.11	Foreign Direct Investment Projects Approved by BOI by Sector	A 1-19
Table	A1.12	Foreign Direct Investment Projects Approved by BOI by Country	A 1-20
Table	A1.13	Foreign Direct Investment Projects Approved in SKR (1993-99)	A 1-22
Table	A1.14	Foreign Direct Investment Projects in Lao PDR by Sector	A 1-23
Table	A1.15	Foreign Direct Investment Projects in Lao PDR by Country / Territory	A 1-24
Table	A1.16	Timetable of Tariff Reduction	A 1-26
Table	A1.17	Recommended Functions for Investment Promotion in NBR	A 1-33
Table	A1.18	Recommended Functions for Investment Promotion on SKR	A 1-39
Table	A3.1	Specification of First Mekong Bridge	A 3-1
Table	A3.2	Trade at Friendship Bridge	A 3-4
Table	A3.3	Hotels in Nong Khai	A 3-5
Table	A3.4	Passengers and Vehicles between Mukdahan and Savannakhet	A 3-8
Table	A3.5	Passengers and Vehicles at Borders	A 3-9
Table	A3.6	Summary of Constraints	A 3-16
Table	A3.7	Comparison between Two Frameworks	A 3-18
Table	A3.8	National Highway Network in CBR	A 3-22
Table	A3.9	Comparison of Port Facilities	A 3-24
Table	A3.10	Handling Volume in Three Ports	A 3-25
Table	A3.11	Trade Relationship among Three Countries	A 3-26
Table	A3.12	Major Trade Commodities between Thailand and Lao PDR	A 3-27
Table	A3.13	Border Trade Volume	A 3-27
Table	A3.14	Import and Export by Lao PDR at Nong Khai -Vientiane Border	A 3-29
Table	A3.15	Passenger Flow	A 3-29
Table	A3.16	Cross-Border Projects	A 3-33
Table	A3.17	Comparison of the Highway	A 3-35
Table	A3.18	Average Sea Transportation Costs	A 3-36
Table	A3.19	Port Charge in Bangkok Port	A 3-37
Table	A3.20	Distance of Land Transportation	A 3-38
Table	A3.21	Land Transportation Costs	A 3-38
Table	A3.22	Transportation Speed	A 3-39
Table	A3.23	Results of Comparison	A 3-40
Table	A3.24	Transportation Companies	A 3-43
Table	A3.25	Comparison of Road Maintenance Method	A 3-45
Table	A4.1	Summary of Tourism Resource in the Study Area	A 4-5
Table	A4.2	Tourism Market of Thailand	A 4-9
Table	A4.3	Present Tourist Demand of the Study Area	A 4-10
Table	A4.4	Tourist Arrivals in Lao PDR by Region	A 4-11
Table	A4.5	Tourist Arrivals in Lao PDR by Day-tripper and Accommodated Tourist, 1998	A 4-12

Table A4.6 Tourism Market of Lao PDR by Country, 1998 A 4-12
Table A4.7 Tourist Arrivals in the Study Area (1998) A 4-13
Table A4.8 Present Accommodation in the Study Area (as of 1996) A 4-14
Table A4.9 Road Distance Table A 4-15
Table A4.10 Developed Accommodation in Lao PDR and the Study Area A 4-17
Table A4.11 Projects/Programs Proposed by Existing Plan for Northeast Thailand A 4-19
Table A4.12 Evaluation of Tourism Development Potential of Thai Study Area A 4-21
Table A4.13 Projection of Future Tourism Demand in CBR A 4-23
Table A4.14 Future Tourism Demand in Savannakhet, Khammouan A 4-25
Table A4.15 Major Festivals/Events in the Northeastern Thailand A 4-27
Table A4.16 Evaluation and Rating of Projects/Programs A 4-34
Table A4.17 Evaluation and Rating of Projects/Programs A 4-41

List of Figures

Figure	1.1	Population Distribution in Urban and Rural Areas	1-2
Figure	1.2	Population Pyramid of Lao PDR and Northeastern Thailand	1-3
Figure	1.3	Distribution of Tai Language Group	1-5
Figure	1.4	Educational Attainment of Labour Force in SKR	1-8
Figure	1.5	Educational Attainment of Labour Force in NBR	1-8
Figure	1.6	Economic Structure of SKR and NBR	1-10
Figure	1.7	Total Cash Income of Farm Households in Thailand by Regions 1998/99	1-11
Figure	1.8	Forest Coverage in SKR and NBR	1-14
Figure	1.9	Agricultural Area in SKR and NBR	1-14
Figure	2.1	Export and FDI of Lao PDR	2-2
Figure	2.2	National Development Axes in Three Countries	2-9
Figure	2.3	Cross-Section Along East West Corridor	2-11
Figure	2.4	Population Distribution by Province	2-12
Figure	2.5	Distribution of Economic Activities (1998-1999)	2-13
Figure	3.1	Cross-Border Region in GMS Countries	3-2
Figure	3.2	Hub Airports in Asia	3-7
Figure	3.3	GMS Economic Corridors	3-9
Figure	4.1	Conceptual Image of Present Economic Network	4-2
Figure	4.2	Structure of East-West (Thai-Laos-Vietnam) Network	4-3
Figure	4.3	Spatial Image of Geo-economic Structure in the CBR	4-5
Figure	5.1	Conceptual Flow of SKR, NBR and CBR Reports	5-1
Figure	5.2	Agenda and Programs for Cross-Border Cooperation	5-4
Figure	5.3	Concept of Complementary Setting of SKR-NBR	5-5
Figure	5.4	Tourist Arrivals in CBR	5-14
Figure	5.5	Tourist Arrivals in CBR	5-14
Figure	5.6	Concept of Tourism Integration	5-15
Figure	7.1	Organization of the Forum	7-12
Figure	7.2	Scheduled Flights around CBR	7-18
Figure	7.3	Operational Scheme	7-21
Figure	7.4	Mukdahan - Savannakhet Pair-City and Airport Utilization	7-21
Figure	7.5	Passenger Demand for Savannakhet Airport	7-24
Figure	7.6	Savannakhet-Mukdahan Airport Authority	7-29
Figure	7.7	Lao Section of EWC and Donors	7-32
Figure	7.8	Completed Section of Route 9 at Xeno	7-32
Figure	7.9	Traffic Volume and Maintenance Cost	7-38
Figure	7.10	Unit Cost for Maintenance and Toll Structure	7-39
Figure	7.11	Route 9 Agency	7-44
Figure	A1.1	Structure of Appendix 1 Investment Promotion	A 1-1
Figure	A1.2	Investment Zoning	A 1-5
Figure	A1.3	Direct Investment Trends in Thailand	A 1-16
Figure	A1.4	Number of Direct Investment Projects Approved	A 1-18
Figure	A1.5	Number of Foreign Direct Investment Projects by Country (1985-1998)	A 1-20
Figure	A1.6	Foreign Direct Investment Projects Approved in Lao PDR	A 1-21
Figure	A1.7	Foreign Direct Investment Approved and Domestic Capital Participation in Lao PDR	A 1-22

Figure A2.1 Resource Development and Processing Oriented Business Development A 2-15
Figure A2.2 Border Trader Led Business Development A 2-16
Figure A2.3 From Border Trader to Parts Manufacturer A 2-17
Figure A2.4 Establishment of Satellite Factory A 2-19

Figure A3.1 First Mekong Bridge A 3-2
Figure A3.2 Passengers over the Mekong at Nong Khai Border A 3-2
Figure A3.3 Traffic Volume over the Bridge A 3-3
Figure A3.4 Trade at Friendship Bridge A 3-4
Figure A3.5 Location of Three Bridges over the Mekong A 3-7
Figure A3.6 Location of the Second Mekong International Bridge A 3-8
Figure A3.7 Transportation Network around CBR A 3-21
Figure A3.8 Trade Relationship among Three Countries A 3-26
Figure A3.9 Border Trade between Thailand an Lao PDR A 3-28
Figure A3.10 Location of Truck Terminal and Inland Container Depots A 3-47

Figure A4.1 Major International Tourist Route in the Northeastern Region A 4-2
Figure A4.2 Tourism Destination in Nakhon Phanom A 4-3
Figure A4.3 Tourism Destination in Mukdahan A 4-3
Figure A4.4 Tourism Resources Distribution in the Study area A 4-6
Figure A4.5 Tourist Arrival by Destination in Lao PDR A 4-7
Figure A4.6 International Tourist Arrivals in Thailand (1990-1999) A 4-9
Figure A4.7 Number of Tourist Arrivals in Nakhon Phanom Province A 4-10
Figure A4.8 Guest Arrivals by Type of Accommodation (Nakhon Phanom) A 4-10
Figure A4.9 Number of Tourist Arrivals in Lao PDR A 4-11
Figure A4.10 Tourism Market of the Study Area by Country (accommodated tourist) A 4-13
Figure A4.11 Tourism Receipts Comparing with Other Industry A 4-14
Figure A4.12 Present Transportation Network in the Northeast Thailand A 4-16
Figure A4.13 Transportation Mode of Tourist in the Study Area A 4-17
Figure A4.14 Interests in Lao PDR for International Tourist A 4-24
Figure A4.15 Basic Ideas for Tourism Development of the Study Area A 4-26
Figure A4.16 Conceptual Idea for Excursion Crossing Three Tourism Area A 4-29
Figure A4.17 Alternative Route of GMS E-W Tour Corridor A 4-30
Figure A4.18 Concept of the TFZ for the East-West Corridor of GMS A 4-33
Figure A4.19 Necessary Projects and Programs A 4-38
Figure A4.20 Tourism Development Concept for SKR A 4-39

List of Pictures

Picture A4.1 View of River Bank A 4-3
Picture A4.2 Mukdahan Indochina Market A 4-3

List of Abbreviations

ADB	Asian Development Bank
AFTA	ASEAN Free Trade Area
AIA	ASEAN Investment Area
AICO	ASEAN Industrial Cooperation
AIDAB	Australian International Development Assistance Bureau
ASEAN	Association of Southeastern Asian Nations
BKK	Bangkok
BOI	Board of Investment (Thailand)
BOT	Build-Operate-Transfer
CBBDF	Cross-Border Business Development Forum
CBR	Cross-Border Region
CEPT	Common Effective Preferential Tariff
CIQ	Custom, Immigration and Quarantine
COE	AICO Certification
CPC	Committee for Planning and Cooperation (Former SPC, Lao PDR)
DCA	Department of Civil Aviation (MCTPC, Lao PDR)
DCA	Department of Civil Aviation (MCTPC, Lao PDR)
DDI	Domestic Direct Investment
DOA	Department of Aviation (MTC, Thailand)
DOH	Department of Highways (MTC, Thailand)
DWT	Dry Weight Ton
EDI	Electronic Data Interchange
EIA	Environmental Impact Assessment
ETO	Express Transportation Organization
EWC	East West Corridor
F/S	Feasibility Study
FDI	Foreign Direct Investment
FIMC	Foreign Investment Management Committee (Lao PDR)
FOB	Freight on Board
GIS	Geographical Information System
GMS	Greater Mekong Subregion
GPP	Gross Provincial Product
HIV/AIDS	Human Immunodeficiency Virus/ Acquired Immune Deficiency Syndrome
ICD	Inland Container Depot
IEE	Initial Environmental Examination
IMR	Infant Mortality Rate
ISD	Investment Service Division (FIMC)
ISO	International Organization for Standardization
JBIC	Japan Bank for International Cooperation
JICA	Japan International Cooperation Agency
Lao PDR	Lao People’s Democratic Republic

MCTPC	Ministry of Communications, Transport, Post and Construction (Lao PDR)
MIH	Ministry of Industry and Handicraft (Lao PDR)
MMR	Maternal Mortality Rate
MOE	Ministry of Education (Lao PDR, Thailand)
MOI	Ministry of Industry (Thailand)
MOUA	Ministry of University Affairs (Thailand)
MTC	Ministry of Transport and Communications (Thailand)
NBR	Northeastern Border Region (Thailand)
NESDB	National Economic and Social Development Board (Thailand)
NTA	National Tourism Authority (Lao PDR)
PAT	Port Authority of Thailand
PRC	People's Republic of China
SAA	Savannakhet Airport Authority
SD	Screening Division (FIMC)
SEZ	Special Economic Zone
SIP	Social Investment Project
SKR	Savannakhet and Khammouan Region (Lao PDR)
SMAA	Savannakhet – Mukdahan Airport Authority
SME	Small and Medium Enterprises
SPC	State Planning Committee (The former name of CPC, Lao PDR)
STD	Sexually Transmitted Diseases
STF	Subregional Transport Forum
TAT	Tourism Authority of Thailand
TDI	Total Direct Investment (=FDI+DDI)
TEU	Twenty feet Equivalent Unit
TFZ	Tourism Free Zone
UHT	Ultra Heat Treated
UK	United Kingdom
US, USA	United States (of America)
USAID	United States Agency for International Development

EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

1. OVERVIEW OF SKR AND NBR

Potentials and constraints:

Table S1 Existing Development Resources Analysis of SKR and NBR

		SKR	NBR
Natural Resources		**Abundant but Sensitive:**	**No More Frontier:**
	Potentials	-Rich forestry resources -Rich water resources -Available land resources	- - -
	Constraints	-Shifting cultivation -Forest reserve to protect	-No more forests -Insufficient water -No more land for agriculture
Human Resources		**Lack of Basic Qualification:**	**Good but Need to Upgrade:**
	Potentials	- -	-Good quality of industrial workers -Experience on border trade practices
	Constraints	-Rapid population growth -Shortage of qualified manpower -Slow Social Integration -Lack of entrepreneurship	-Shortage of highly skilled workers
Economic Activities		**Very Small Non-Agriculture Sector, Need More Links to Markets:**	**Insufficient Urban Economies, Need to Diversify Rural Economies:**
	Potentials	-Diverse local products -Proximity to Indochaina Market	-Diverse local products -Proximity to Indochaina Market -Good provision of infrastructure
	Constraints	-Dependence on rice production -No capital and technology -Isolated from market -Dominance of the subsistent economy	-Dependence on mono-cultural cropping -Insufficient industrial base -Remote from sea ports and urban centers

Source: SKR Master Plan, NBR Master Plan

Table S1 summarizes views and insights into development potentials and constraints with regard to existing resources for regional development in SKR and NBR. Regarding natural resources, there is a clear contrast between SKR and NBR. SKR has good potentials in natural resources including forests, water, and land, whereas NBR has no more water and land for agricultural expansion. On the other hand, NBR has advantage in educated human resources, technology, and market access.

2. GMS PROGRAMS IN INDOCHINA

The GMS Economic Cooperation Program was initiated in 1992, with the assistance of the Asian Development Bank. Specifically, GMS Program identified four economic corridors for cooperation as shown in the Figure S1. East- West Corridor that goes across the CBR is one of them.

EWC is most significant as the first major corridor with East-West orientation within Indochina where existing corridors are all North-South oriented. Thus, EWC has

more immediate potentials as a part of inland network to connect economic centers within the GMS, namely Bangkok, Hanoi, and Hanoi rather than to provide outlets to connect GMS to the outside world.

Figure S1 Cross-Border Region in GMS Countries and Economic Corridors

3. DEVELOPMENT VISION OF CROSS-BORDER REGION

3.1 Geo-economic Characteristics of CBR Development

There are five key geo-economic characteristics of the CBR.

Landlocked Area:

The CBR is geographically remote from both seaports and major economic centers along the coastal areas of the GMS, namely Bangkok, Hanoi, and Ho Chi Minh City.

Tail End Economy:

The CBR is located in **"tail ends of economic network"** stretching out from Bangkok. As a result, the CBR economy has small margin of value-added and low profile of non-agricultural economic activities.

Implications of East-West Corridor to CBR: Inland network:

Immediate function of EWC at the level of GMS is to formulate network between a Thai economy and a Vietnamese economy. Given this inland transportation network in place, the CBR will have at least two major crossroads at the center of the network. Thus, it is natural to assume that CBR has more immediate potential markets within GMS.

Gap between Lowland and Highland:

Within CBR, there is a large income disparity between advanced and underdeveloped parts. Advanced parts are the lowland where economies are already integrated in market based economies. In contrast, there are remote and subsistent (non-market based) economies under shifting agriculture in the mountainous areas of the further eastern areas of CBR. At the same time, these are the areas that hold rich forest resources. Fulfillment of basic human needs is the highest priority in these areas.

Risk of Social Uneasiness and Resource Degradation in Highland:

It is also probable that a market-based economy quickly penetrates into once closed and self-reliant community as Thai-Lao-Viet Nam road network is developed. Without preparing alternative ways of production other than shifting cultivation, introduction of money based economy may result in social uneasiness and higher pressure on forest resources. Degradation of forest resources in SKR has negative impacts on NBR as well.

3.2 Development Vision for CBR

With above mentioned five key factors of geo-economic characteristics in mind, following five development visions for CBR are drawn as common ideas to be shared by both SKR and NBR.

[Vision 1] Landlocked to Land-linked: Best use of local resource base and new access to inland GMS market.

One prominent common factor for SKR and NBR is that the regions are both land-locked. There are some key strategies to develop the land locked regions.

- **Focus on Local Resources:** Industries that best utilize available local resources are more viable for these land-locked regions.
- **Inland Market of GMS:** By the east-west corridor development, industries with target markets within GMS shall find locational advantage to invest in these regions.
- **Maintain good conditions of Route 9 and other GMS network:** Good roads and safe and efficient trade environments are key factors to transform CBR to “crossroad economy”.

[Vision 2] Urban based development: Urban-rural linkage

Improvement of rural household income is essential to bring up the level of the regional economies. The urban sector development is important not only to these riverside urban areas themselves but also to the underdeveloped parts on respective sides. There are two aspects to note.

- **Diversification of market demand for the agricultural sector:** Firstly, urbanization is an important factor to promote diversification of agricultural production in the surrounding areas.
- **More-value added within the region:** Secondly, it is particularly important to bring more downstream portion of “value-added chain” of agricultural production into the regional economy.

[Vision 3] Maximum Use of Complementary Roles: Opportunities of Being Different

Basically, NBR has advantage in technology and market access, while SKR has advantage in natural resource base. As a baseline strategy, it is natural to create effective combination of respective advantages for the purpose of benefits on both sides.

- **Better Urban Market Access in NBR:** If target markets of the agricultural sector of SKR can include urban demands in NBR, a potential growth margin could be much larger that the one with limited market within the Lao PDR. NBR with more urban activities can take complementary role on the demand side and create spreading effects to grow urban sectors on the side of SKR.
- **Better Resource Endowment in SKR:** Given the fact that the share of younger generation in the labor force continues to decrease in NBR, some traditional crops, especially those require intensive use of labor or extensive use of land, are less and less viable to produce. SKR with less constraints with land and young labor can take complementary role in agro-processing.

[Vision 4] Private Sector Led Interactions

Interactions of SKR and NBR should be promoted with a more emphasis on the private sector initiatives. There are following two reasons to do so.

- **Existing private interactions are firmly rooted in the local society:** There are various existing cross-border interactions, especially between trading partners on the both sides. Ties between them are not only business relationships but also embraced in ethnic and cultural commonality. It is better to enhance these private interactions rather than to install arbitrary entities without any social background.
- **Private initiatives are more flexible:** Regarding inter-local cooperation, private initiatives, when applicable, are often more flexible and efficient than the official channels.

[Vision 5] Better Management of Natural Resources

Steady supply of natural resources to the processing industries will be a key factor to attract investments to CBR. It is quite important for CBR to have more open and efficient move of resources and products between SKR and NBR. “Open economy", however, is not equal to allowing over-exploitation of resources. Rather, it is more important to install closer and transparent control over natural resources when trading is under market mechanism.

4. CROSS BORDER DEVELOPMENT COOPERATION PROGRAMS

4.1 Agenda for Cross Border Development Cooperation

Enhancing the Link between SKR and NBR:

To promote development of SKR and NBR in line with the visions and respective strategies, cooperation between these two regions are indispensable in many aspects. Among the others, “enhancement of the link between SKR and NBR” is identified as a

core issue in the cross border arena that is boiled into three agenda for region-to-region cooperation, and five recommended cooperation programs.

Recommended Agenda for Cooperation:

There are some existing promoting factors to enhance links between the regions including following things.

- Close cultural commonality between SKR and NBR,
- International trends such as AFTA and GMS Programs, and
- Complementary characteristics of two regions.

In order to exploit full potential of these positive settings, however, it is strategically important for all concerned parties from both SKR and NBR to get together in one place, and have closer discussion to jointly enhance the link between two sides of the Mekong River. To begin with, following items are recommended as agenda to discuss forms of region-to-region links and related cooperation.

[Item 1] Establish Cross-Border Human-Links: Information sharing and common understanding

Process is as important as outcome in the multi-level cooperation. Information sharing and common understanding through well-established human-links would necessarily encourage various initiatives on respective sides for further cooperation.

[Item 2] Establish Closer Cross-Border Infrastructure-Links

In long-term, more bridges and ferries are hoped to be developed over the Mekong River from the viewpoint of NBR-SKR development. Accessibility, both physical and nonphysical, should be explored as much as possible for the purpose of regional development along the Mekong River. Urban development along the Mekong should be a priority.

[Item 3] Establish Policy Dialogue: A Premise

The cooperation will call for a maximum use of comparative advantage on both sides and minimization of negative incidents. Policy dialogue at the national level is needed in order to adjust regional policy direction to this end. Without national level agreement, it is difficult to promote region to region cooperation. Concerned parties in SKR and NBR, on the other hand, must jointly identify what they want to change at the national level policy and regulation, and collectively appeal this to the national level policy makers on both sides.

4.2 Cross Border Cooperation Program

Basic Concept for NBR-SKR Cooperation Programs

NBR-SKR Cooperation programs (and constituent projects) were listed based on the following requirements.

- The programs which need resources from both sides.
- The programs which benefit the both sides.
- The programs need mutual collaboration.

By the above criteria, five programs have been identified for SKR-NBR cooperation. Contents of each programs are as follows (Table S2).

Trade and Investment Environment Improvement Program

New investment from outside will be an engine to industrialize the region. This program intends to improve trade and investment environment in the CBR and to facilitate resources from private investors. The program includes following major projects.

- Cross Border Business Development Forum
- Cross Border Contract Farming

Human Resources Development Program

Cultural tie between SKR and NBR is an advantage to promote HRD cooperation. The international training at academic and vocational levels is included in this program.

Components of cross-border HRD programs are accommodated in country-specific HRD projects that are presented in respective master plans for SKR and NBR. Especially, following projects are recommended.

- Establish sister-school relationships between Laotian schools such as Savannakhet Technical School and Thai schools such as Rajabhat Schools in NBR.
- Mutual support as one school system, regular exchange-programs, and sharing teaching staff and curriculum.

Tourism Development Program

Tourism is one of the key subsectors of service industry. This program is to promote tourism in CBR through various projects. There are two key aspects.

- Integration of the cross border as “Mekong-and-its two-River sides.”
- Increase publicity of the CBR within a tourism industry.

Given, these two aspects in mind, we propose following 4 major activities.

- Activity 1. Cross-border integration of tourism
- Activity 2. Joint Publicity Campaign
- Activity 3. Creating new tourism centerpiece
- Activity 4. Upgrade Tourism Supporting Facilities

Pair-City Development Program

To generate scale merit of urban functions, geographically close cities are encouraged to formulate a "Pair-city". Pair-cities are defined as couples of cities facing over the Mekong to utilize certain urban functions mutually. This program expects involvement of municipalities on both sides and deregulation at national level. It maximizes utilization of the existing facilities and saves duplicated investment on both sides. The Program includes the following projects:

- Savannakhet Airport Utilization
- Nakhon Phanom Airport Utilization
- Third Mekong Bridge
- Secondary Crossing Points
- Telecommunications Gateway
- Emergency Medical Services

International Transportation Development Program

This program is closely related with the East-West Corridor development. This program intends to improve international transportation in CBR and to assist tourists and traders to move and carry cargoes more smoothly and sustainably. This program contains following projects.

-EWC Operation and Maintenance Forum
-Route 9 Joint Maintenance
-Joint Custom Operation

Table S2 Cross-Border Programs and Projects

Program	Project	Contents		Type of cooperation	Immediate beneficiary	Implementation body	Government channel
		Thai-side	Lao-side				
Trade and Investment Environment Improvement	Investment promotion	Border region special incentive	Law and institution development (T/A from Thailand)	Cooperation, support	Both sides	GG (Government-Government) base	National and local
	Cross-Border Business Development Forum	Providing integrated opportunities for business communities.		Collaboration, support	Both sides	Private	Local
	Governor Forum	Creation of governors' forum to discuss local issues. Some issues are forwarded to the central ministries.		Joint	Both sides	Provincial Governments with help of central ministries	Local and national
	Venture business and management support service database	Establish database of government business resources	-Utilize Thai support	Information sharing	Thai side	Thai Government	National
	Livestock Development	-Livestock processing -Contract farming	-Vaccination -Livestock farmer support -Pasture -Market	Collaboration, support	Both sides	Government and private	National and local
	Vegetable and Fruit Development	-Process -Contract farming	-Vegetable and Fruit Development	Collaboration, support	Both sides	Government and private	National and local
Human Resources Development	Savannakhet Technical Training	-OJT System -Study Abroad -Instructor	-Technical School -Mutual Recognition of Qualification and certificates	Collaboration, support	Lao side	Government and private	Local
	Deregulation of Immigration Labor	Deregulation of immigration	Provide qualified labor force	Collaboration	Both sides	G-G base	National and local
	GMS International University	Provide site and basic resources for program		Collaboration	Both sides	G-G base	National
Pair-City Development	Savannakhet Airport Utilization	Deregulation, City Air Terminal	Air Control, Runway Extension	Joint	Both sides	G-G base	National and local
	Nakhon Phanom Airport Utilization	Deregulation, System Development		Joint	Both sides	G-G base	National and local
	Third Mekong Bridge	Construction of bridge betwenn Thakek and Nakhon Phanom		Joint	Both sides	G-G base	National and local
	Secondary Crossing Points	Agreement and construction		Joint	Both sides	G-G base	National and local
	Telecom Gateway	-Extension of service -Construction	Construction and Operation	Joint	Lao side	G-G base and Private	National
	Emergency Medical Services	Provide medical service	Medical Training	Collaboration	Lao side	G-G base with private participation	Local
Tourism Development	Deregulation of immigration control		-Visa Waiver -Common Visa	Collaboration	Both sides	G-G base	National
	Joint Festival and Event	Joint tourism promotion		Joint	Both sides	Local	Local
	Pilgrim Tour	Joint development of tourism resources		Joint	Both sides	Local	Local
	Tourism Free Zone		-Deregulation -Investment in tourism	Collaboration, support	Both sides	G-G base	National and local
International Transportation Development	EWC O&M Forum	-Establish a forum to discuss operational issues on EWC.		Joint	Both sides	G-G base	National and local
	Route 9 Joint Maintenance	-Technical cooperation	-Establish maintenance program -Toll collection	Joint	Both sides	G-G base with private participation	National and local
	Joint Custom Operation			Collaboration	Both sides	G-G base	National

5. PRIORITY PROJECTS FOR CROSS BORDER COOPERATION

5.1 Selection of Priority Projects

Table S2 is a list of the all projects for cooperation by program. Among them, three projects have been identified for preliminary feasibility studies (Pre F/S) during the Phase III of this study. The criteria to identify these projects are as follows:

- Local needs are more prioritized than long-term, international or national needs.
- More private investment is encouraged.
- Existing activity and investment are fostered.

Finally, three projects were shortlisted for examination of Pre F/S.

- Businessperson Forum
- Savannakhet Airport Utilization
- Route 9 Joint Maintenance

These projects are shaded on the project list of Table S2.

5.2 Plan of Project Implementation

The Table below expresses a timetable for Cross-Border Project implementation. Two important milestones are, (1) Year 2004: Route 9 completion, and (2) Year 2005-6: Completion of Second Mekong Bridge. Late in this decade, AFTA will decrease import duties into Lao PDR. Accordingly, the trade and capital mobilization will be more active. It is necessary to improve investment base by the middle of this 2010s.

Table S3 Project Implementation Timetable

Year	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
External Environment				▲Rt9 comple-tion	▲	Second Mekong Bridge				
Cross Border Project	**Business Development Forum** 01 Activation 02 Study tours etc. 03 Exibitions etc.									
		Savannakhet Airport Utilization 02 Feasibility study, detailed design 02- Government deregulation and negotiation 03-04 MCAT construction 04 First flight to BKK. Operation without bridge 06 Operation with bridge 06-07 Runway extension works								
			Route 9 Joint Maintenance 03 Savannakhet Technical School (SKR) 03 Establish maintenance agency 03 Tollgate installment for western section 04 Tollgate installment for other sectins 04 Start routine maintenance and technical cooperation 07 Start periodic maintenance							

CHAPTER 1

OVERVIEW OF SKR AND NBR

CHAPTER 1

OVERVIEW OF SKR AND NBR

As already noted, this report is intended to be a medium to facilitate region-to-region cooperation between SKR and NBR. The first step towards the cooperation should be to have an accurate knowledge and unbiased picture of each other. In this chapter, we go over key information about SKR and NBR that should be understood and shared by both parties.

1.1 Basic Outlook of SKR and NBR

Baseline indicators of SKR and NBR are as summarized in the following tables and figures.

Table 1.1 Baseline Indicators of SKR-NBR

Indicators (1998)		Savannakhet	Khammouan	SKR Total	Mukdahan	Nakhon Phanom	Sakon Nakhon	Kalasin	NBR Total
Land area	(km2)	21,774	16,315	38,089	4,340	5,513	9,606	5,947	26,405
Population									
Population	(prs.)	726,890	294,830	1,021,720	330,413	711,116	1,090,190	947,964	3,079,683
Pop. density	(prs/km2)	33	18	27	76	129	113	159	117
					(Pop growth 1997)				
Pop. growth rate	(%)	2.5%	2.6%	2.5%	1.1%	0.7%	0.8%	0.8%	0.8%
Households		120,550	53,660	174,210	75,094	177,779	272,548	236,991	762,412
Economic Structure									
Production		*(1998 at current price, billion Kip)*			*(1997 at current price, billion Bhat)*				
GPP/GRP		525 100%	351 100%	876 100%	8.5 100%	13.6 100%	23.1 100%	19.9 100%	65.1 100%
Agriculture		289 55%	238 68%	527 60%	1.7 20%	2.8 21%	4.9 21%	5.0 25%	14.4 22%
Industry		51 10%	76 22%	127 14%	1.6 19%	2.1 15%	3.7 16%	2.5 12%	9.8 15%
Services		141 27%	33 9%	174 20%	5.2 61%	8.7 64%	14.5 63%	12.4 63%	40.8 63%
Inport duties		44 8%	5 1%	49 6%	- -	- -	- -	- -	- -
GRP(approx. in mill. US$)		*201*	*135*	*336*	*211*	*341*	*577*	*497*	*1,626*
		(Kip)			*(Bhat)*				
Per Capita GRDP		721,792	1,191,575	857,354	25,594	19,163	21,174	20,983	21,125
(Approx. in US$)		*277*	*457*	*329*	*640*	*479*	*529*	*525*	*528*
Employment		*(Population census 1995)*			*(Average of Feburary and August surveys in 1998)*				
Agriculture		90%	88%	89%	62%	67%	62%	71%	66%
Industry		2%	3%	2%	10%	11%	16%	12%	13%
Services		8%	9%	9%	28%	22%	22%	17%	21%

1.1.1 Geographical Outlook

CBR has 64,494sq.km of land and 4.1 million population. The Mekong River divides CBR into Laos side (SKR) and Thai side (NBR). In terms of landscape, NBR is mainly flat area. SKR consists of both mountainous and flat areas. Savannakhet province has a sizable flat area in the western part along Mekong River, while its eastern part is mostly mountainous. Most parts of Khammouan province are covered by mountains, which are made of lime stone and are craved in curious shapes by the erosion of wind and rain. Flat lands are limited to a narrow strip of a riverside along Mekong River.

1.1.2 Population Outlook

NBR holds more population than SKR:

Approximately 3.1 million people or 75% of the total population of CBR live in NBR side, while only 1 million people or 25% of the CBR population reside in SKR side. Population density in SKR (27 persons/ km^2) is as low as one forth of the one in NBR (117 persons/ km^2).

Large rural population:

Distribution patterns of population between urban and rural areas are as summarized in the following figures.[1]

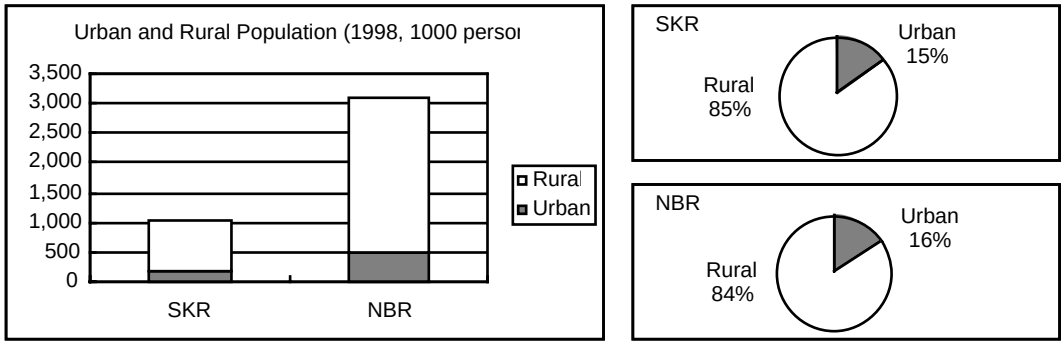


Figure 1.1 Population Distribution in Urban and Rural Areas

[1] SKR and NBR are not directly comparable due to differences in definition of "urban area". In SKR, smaller towns along major national roads are categoraized as "urban".

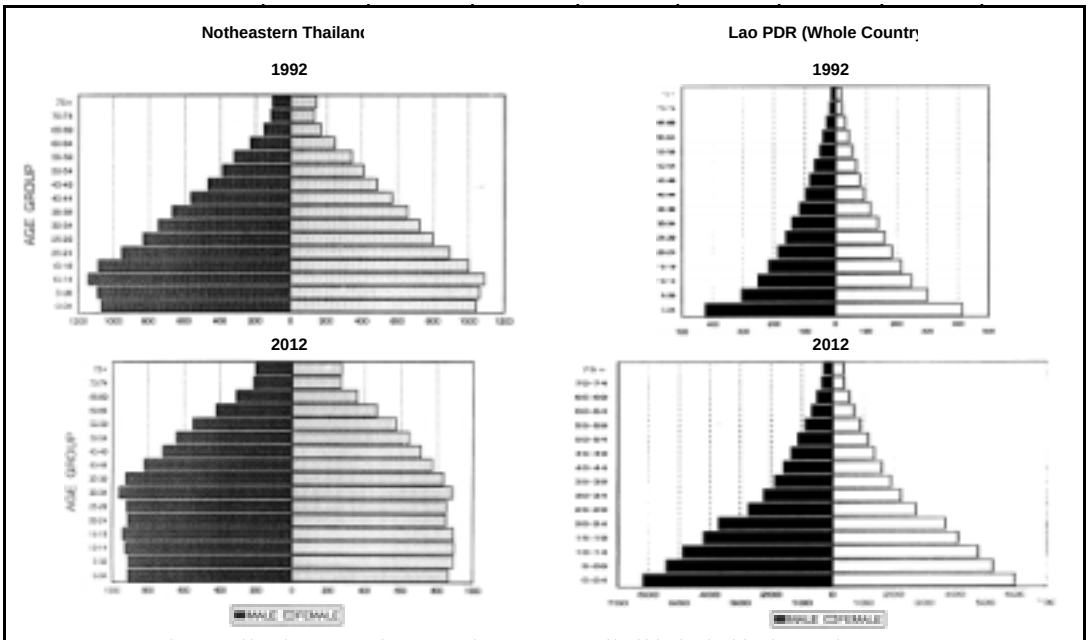
SKR and NBR are predominantly rural in terms of distribution of population. This reflects the fact that agricultural sector accounts for the largest share in employment in both SKR and NBR. In SKR, extensive low-input farming is dominant. In NBR, more labor intensive farming (with irrigation system where available) is prevailing. The amount of production per land, mainly rice, is much larger in NBR than in SKR. Besides agriculture, quite a few people in SKR are engaged in forestry. Lumber is mainly exported to the neighboring countries such as Viet Nam and Thailand.

SKR population growing much faster than NBR:

There is a clear contrast between population growth in SKR and NBR. SKR shows a high annual population growth rate at the level of 2.5 %, while NBR stands as low as 0.8 %. In SKR, the average size of household is 5.9 that is 1.5 times as large as 4.0 in NBR.

Table 1.2 Population Indicators of CBR

Indicators (1998)	Savannakhet	Khammouan	SKR Total	Mukdahan	Nakhon Phanom	Sakon Nakhon	Kalasin	NBR Total
Land area (km2)	21,774	16,315	38,089	4,340	5,513	9,606	5,947	26,405
Population								
Population (prs.)	726,890	294,830	1,021,720	330,413	711,116	1,090,190	947,964	3,079,683
Pop. density (prs/km2)	33	18	27	76	129	113	159	117
				(Pop. growth 1997)				
Pop. growth rate (%)	2.5	2.6	2.5	1.1	0.7	0.8	0.8	0.8
Households	120,550	53,660	174,210	75,094	177,779	272,548	236,991	762,412



Source: TDRI, Forecast of Demographic and Macroeconomic Parameters for Transport Demand in Thialand and Neigbouring Countries

Figure 1.2 Population Pyramid of Lao PDR and Northeastern Thailand

Age structure of population is expected to be very different in SKR and NBR. The ratio of younger generations in the total population is very high in SKR. Child population under age 15 accounts for 44% of the total population in SKR. This implies a supply of labor shall continue to be high. On the other hand, NBR shows a decreasing share of younger population, and thus size of labor force will more or less remains the same.

Diverse ethnic groups:

In CBR, there are many ethnic groups. For example, there are not only ethnic majorities such as ethnic Lao in SKR and Thai in NBR, but also ethnic minorities; Puthai, Kor, Laven, Talieng, So, Yor, Kha, Kaleng, Saek and Kala. Ethnic Lao accounts for 60% of the SKR total population, and ethnic Thai for 95% of the NBR total population. Most ethnic minorities in SKR live in the eastern parts of SKR which is mountainous. They live in subsistent (non-market based) economy with very limited interactions with market-based economies in lowlands along the Mekong River. Their income level is very low. On the other hand, ethnic minorities in NBR are more scattered along the Mekong River and on the hillside.

Those areas settled by ethnic minorities had often been remote from priority areas of the national development policy and are still less developed in many fields.

1.1.3 Language

The linguistic similarity between Lao PDR and Thailand is well known. Especially, the Isaarn accented Thai is very close to Laotian. Both Thai and Laotian belong to the linguistic group of "Tai" in linguistics[2].

The Tai speakers spread over the GMS. Beside Thailand, where 55 million Tai speakers reside, some 18 million speakers are in China, and about 7 million in Laos, northern Viet Nam, and Myanmar. The Tai group has three major groups (Figure 1.2) and Thai and Laotian belong to the Southwestern Tai.

Such language similarity is a basis of close cultural tie between SKR and NBR. For one aspect, ordinary people can communicate without interpreters. Many people

[2] Although Thai, the official language of Thailand, is the most important member of "Tai" language group, the word of "Tai" is used to refer the entire group to avoid confusion in linguistics.

consider that both sides of the Mekong River belong to the same cultural and ethnic group. It is quite common for a person lives in SKR or NBR to have relatives on both sides. This close social and cultural relationship between SKR and NBR is an important asset to promote region-to-region link.

Figure 1.3 Distribution of Tai Language Group
Source: Encyclopaedia Britannica (2001)

1.2 Human Resources

1.2.1 Public Health

The current situation of public health in SKR and NBR is quite different from each other. Infant mortality rate (IMR) in SKR is very high, accounting for more than 80 per 1,000. Maternal mortality rate (MMR) in SKR also falls into a crucial level, accounting for more than 650 per 100,000 (Table 1.3).

On the other hand, those ratios in NBR are much better than SKR. IMRs in NBR provinces fall into somewhere between 4.0 to 13.1 per 1,000 and MMRs fall into somewhere between 7.0 to 53.0 per 100,000. Those higher rates in SKR are due to ill-prepared public health system and severe shortage of public health facilities and personnel. On the contrary, there are significant number of health facilities and personnel in NBR. The Thai government is known to have a good record of improving their public health system in rural areas.

Table1.3 Infant Mortality Rate and Maternal Mortality Rate

	SKR		NBR			
	Savannakhet *(1995)*	Khammouan *(1995)*	Mukdahan *(1999)*	Nakhon Phanom *(1997)*	Sakon Nakhon *(1997)*	Kalasin *(1998)*
IMR (per 1,000)	80	85	8.27	13.10	4.00	8.57
MMR (per 100,000)	656	n.a.	53	n.a.	7	18

Note: IMR: Infant Mortality Rate, MMR: Maternal Mortality Rate

1.2.2 Education

Literacy and enrollment ratio:

CBR has 296,421 illiterate people in total, or 7.2% of the total CBR population. However, most of illiterate population is concentrated in SKR. It accounts for 231,222, or 78% of the total illiterates in CBR. This is largely due to the fact that enrollment rate at basic education had been low in SKR. There have been many dropouts before completing 3rd grade especially in rural areas. Given very small chance to engage non-agricultural jobs in remote areas of SKR, many parents do not put importance on formal education for their children. At lower secondary level, there is a larger difference between SKR and NBR. Enrollment rate (gross enrollment rate) at this level is approximately 29% in SKR, in contrast to 75.5% in NBR.

Table 1.4 Illiteracy Rate

	(1995)			*(1998)*				
	Savannakhet	Khammouan	SKR Total	Mukdahan	Nakhon Phanom	Sakon Nakhon	Kalasin	NBR Total
Illiterate	164,076	67,146	231,222	21,046	1,994	17,492	24,667	65,199
% of illiterate/pop.	43.8	44.0	43.8	6.4	0.3	1.6	2.6	2.1

Source: Lao PDR Statistic Office, Laos Population Census, 1995. Min. of Interior, Community Development Data, 1998.

Table 1.5 Gross Enrollment Ratio in CBR

Gross enrollment rate	SKR (1998)		NBR (1999)			
	Savannakhet	Khammouan	Mukdahan	Nakhon Phanom	Sakon Nakhon	Kalasin
Primary School	102.3	109.3	106.6	103.3	87.9	92.0
Lower Secondary	29.4	28.4	91.7	85.3	94.6	49.5
Upper Secondary (Academic)	10.7	10.6	53.4	49.5	82.1	7.5

Source: UNDP, Integrated Rural Accessibility Project (IRAP), 1998. Prime Minister Office, Thai Education, 1999.

These facts clearly shows that people in NBR has better access to education than people in SKR. It will take time to fill this gap. It generally takes at least one generation for real effects of provision of basic education to be visible in the labor market. Thus, it is important to start quantitative expansion of primary education as soon as possible in SKR. In NBR, on the other hand, improvement of secondary and tertiary education is more important.

Low educational attainment of labor force:

At present, educational attainment of labor force in SKR and NBR is low as shown in the Figure 1.4 and 1.5. People who did not complete primary education account for 69% of labor force in SKR and 51.4% even in NBR. This low educational attainment of the labor force has been a bottleneck for development in CBR.

Especially in SKR, supply of educated labor force is very limited. Most people in SKR have not completed primary education. People who finished lower secondary account for only 7.6%. People with upper secondary education account for 3.0% and people with tertiary education or more for only 2.3%.

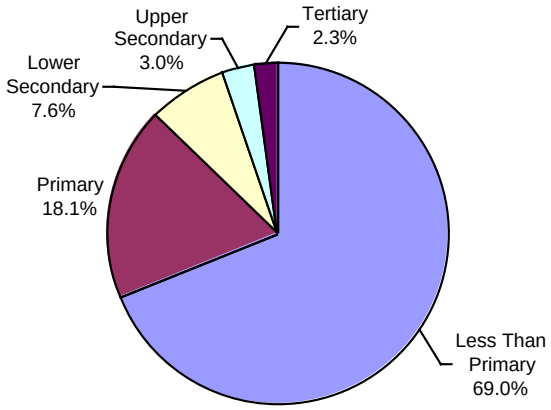


Figure1.4 Educational Attainment of Labor Force in SKR

(As % of population over 14 yrs old in SKR, 1995 Census)

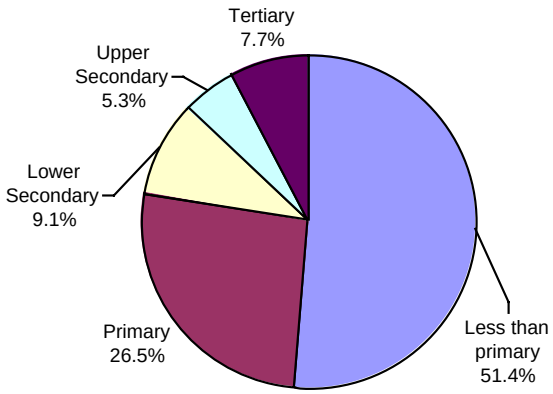


Figure1.5 Educational Attainment of Labor Force in NBR[3]

(As % of employed population in NBR, May 1999 Labor Force Survey)

On the other hand, in NBR, 26.5% of the total employed population had completed primary education. People with lower secondary education account for 9.1%, upper secondary education for 5.3%, and tertiary education or more for 7.7%. As generations go by, these ratios are expected to improve because of the fact that younger generations have much higher enrollment ratios than older generations.

There is a considerable gap between SKR and NBR in terms of educational attainment of labor force, especially at the level of higher than secondary education. This is partly due to difference in the number of schools in the areas. SKR has only 26 upper secondary schools and no university, while NBR has 188 upper secondary schools that is more than 7times as many and 8 universities.

This insufficient supply of educated labor force is both a cause and a result of limited development of non-agricultural sector in the regions. As mentioned before, most people in CBR are engaged in agricultural sector. Particularly in SKR, agricultural sector accounts for 89.5% of employment, while it is 58.4% in NBR. Besides agriculture-related works, SKR has very limited employment opportunities.

In NBR, there are more employment opportunities in manufacturing and service sectors than in SKR. Within Thailand, however, NBR's level of non-agricultural employment share is below national average. The employment in manufacturing sector and service sector in NBR account for 18.4% and 11.3% of the total

[3] The figures in NBR is substituted by employed population for population over 14 years old.

employment, respectively. In addition, labor productivity of these existing non-agricultural sectors is generally low due to their labor intensive nature.

Need more capital, and then, training:

The job opportunities for persons with advanced skills and knowledge, such as managerial works, and professional and technical works, are very limited in both SKR and NBR. The employee in those fields accounts for less than 5% of the total employees in CBR.

As already mentioned, relationship between "a short supply of educated labor" and "limited job opportunities for skilled labor" is a chicken-and-egg issue in CBR. In short term, increase of capital inflows to the region is more immediate factor to break this situation. In medium to longer term, enhancement of education becomes more important.

Table1.6 Occupation in CBR (% share by province)

	(1995)			*(1999)*				
	Savanna-khet	Kha-mmouan	SKR Total	Mukdahan	Nakhon Phanom	Sakon Nakhon	Kalasin	NBR Total
Professional, technical related workers	3.5	3.7	3.5	5.9	3.0	3.6	3.9	3.8
Administartive, executive, and managerial workers	0.2	0.2	0.2	2.1	1.3	1.3	2.3	1.7
Clerical workers	0.1	0.2	0.2	1.4	1.1	0.9	1.2	1.1
Sales workers	3.7	3.4	3.6	11.0	13.3	9.2	12.3	11.3
Farmers, fishermen, hunters, loggers and related workers	89.9	88.4	89.5	67.0	59.8	60.1	52.2	58.4
Workers in transport and communication	0.9	1.8	1.1	1.6	1.8	2.7	5.3	3.2
Craftmen, production process workers	1.3	1.5	1.3	7.4	16.6	20.7	21.3	18.4
Service, sportand recreation workers	0.5	0.7	0.6	3.7	3.0	1.5	1.5	2.1

Source: Lao PDR Statistic Office, Population Census 1995.
Source: Statistic Office, Changwat Statistic 1999.

1.3 Economic Structure

Macroeconomic outlook:

The volume and structures of economies in SKR and NBR are as shown in the following table and figures.

Table 1.7 Economic Structure of SKR and NBR

	NBR (1998)	SKR (1999)
GRP by industrial origin at current price (millon US$)		
AGRICULTURE	426	171
INDUSTRY	176	42
SERVICES	1,008	94
Import duties	-	2
GRP total	1,609	307
GRP Per Capita (US$)	517	295
GRP Share		
AGRICULTURE	26%	56%
INDUSTRY	11%	14%
SERVICES	63%	31%
Import duties	-	
Population (000)	3,115	1,046
Urban Population	498	153
Rural Population	2,617	893

US$1=41.4 Bahts (1998 Bank of Thailand reference rate)
US$1=7700kip (Estimate from 1999 IMF reference rate)

Source: Study Team estimates from Data provided by Thailand
NESDB, Lao PDR Statistic Office

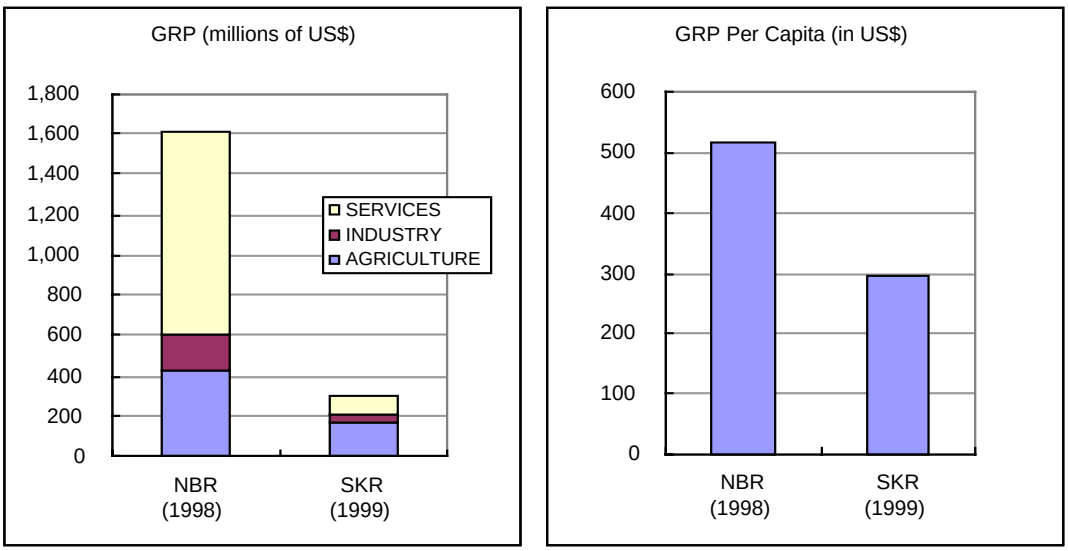


Figure 1.6 Economic Structure of SKR and NBR

GRP of NBR is 5.2 times as much as the one of SKR. Per Capita GRP in NBR is 517 US$ (or 21,390 Bahts) that is 1.8 times as much as the one at 295 US$ (or 2,270 thousand Kips) in SKR.

Composition of GRP by industrial origin is farther different between SKR and NBR. In short, NBR has larger non-agricultural contents in the economy than SKR does. In NBR, the agricultural sector accounts for only 26% of GRP whereas in SKR it accounts for 56%. The service sector has a share of 63% in NBR in contrast to 31% in SKR. Low profile of the industrial sector is somewhat in common. The industrial sector accounts for 11% in NBR and 14% in SKR.

In NBR, farm households depend on non-agricultural income:

In NBR, farm household cash income is largely dependent upon non-agricultural sources, such as seasonal or part-time off-farm jobs. Farm households in the Northeastern region of Thailand, including NBR, shows the highest dependency on non-agricultural cash income that accounts for almost 75% of total cash income. This reflects the fact that agricultural production is restricted in a large portion of areas during dry season due to lack of water, and thus the people should find income sources other than agriculture. In addition, agricultural income itself is restricted by its higher contents of low-value added crops such as cassava.

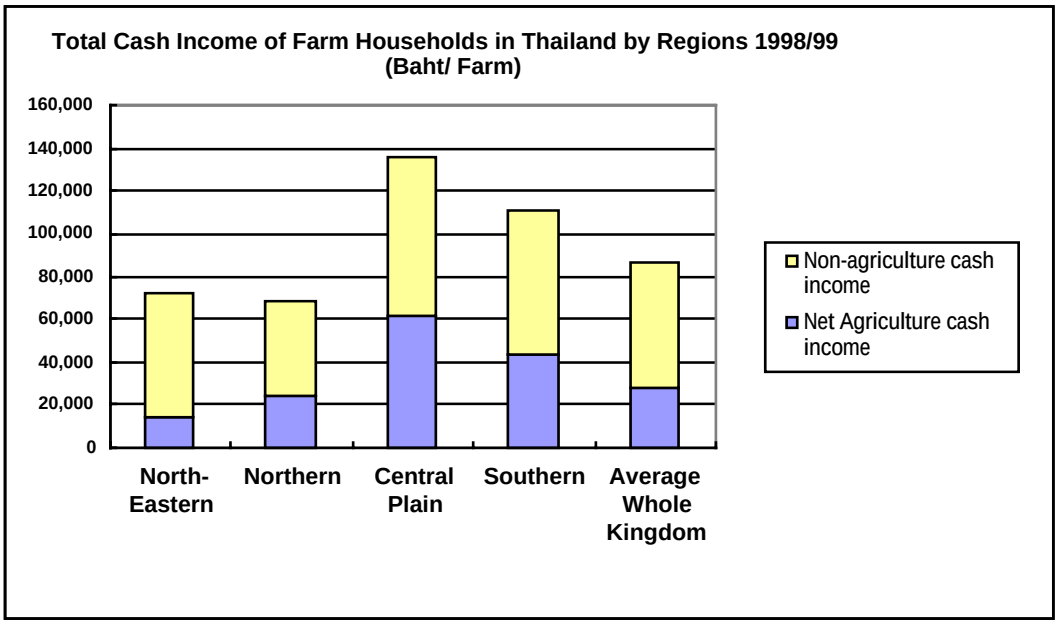


Figure 1.7

In SKR, agriculture is "Low-input and low-return":

Regarding the agricultural sector in SKR, Savannakhet is the largest rice-producing province in Lao PDR. In 1998, total rice harvested area in the province accounted for 30% (or 96,600 hectare). Due to low land productivity, production share was 19% (or 316,000 ton) in Lao PDR. In terms of value added, on the other hand, rice is one of low value added commodities reflecting current low price at international market. Agriculture in SKR has a low-input-and-low return structure.

Income level of a farm household in SKR is lower than the other provinces in Lao PDR where crops are more diversified other than rice. Especially, those provinces that have better access to urban markets, such as Vientiane Province, shows more diversity in production and higher levels of revenue.

Table 1.8 Agricultural Revenues and Expenditure per Household by Region in Lao PDR 1997/98 (in 000 kip/Household)

Region/ Province	Revenue	Grain	Fruit Veget.	Meat and Fish	Wood	Others	Costs	Seed, Fodder	Equip	Wages	Other	Profit
Lao PDR	1,299	605	154	449	9	82	211	98	21	46	46	1,088
North	1,230	616	155	360	8	91	138	79	12	22	25	1,092
Center	1,312	574	156	491	13	78	297	128	21	73	75	1,015
Vientiane M.	1,506	462	206	644	8	186	349	160	6	126	57	1,157
Xiengkhuang	1,460	670	166	561	14	49	362	336	2	4	20	1,098
Vientiane P.	1,650	871	206	478	27	68	421	139	39	155	88	1,229
Borikhamxay	1,427	619	204	548	28	28	177	78	17	21	61	1,250
Khammouan	**1,019**	**394**	**116**	**447**	**25**	**37**	**167**	**74**	**44**	**28**	**21**	**852**
Savannakhet	**1,073**	**584**	**100**	**356**	**1**	**32**	**279**	**82**	**20**	**51**	**126**	**794**
Xaysomboon SR	1,273	489	122	540	10	112	233	58	42	26	107	1,040
South	1,378	662	146	490	5	75	122	58	35	19	10	1,256

Source: Households of Lao PDR, Social Economic Indicators, Lao Expenditure and Consumption Survey 1997/98 (LECS2)

Better Urban Market Access in NBR:

On the other hand, NBR has a better access to urban market than SKR. As already described in the previous section, the urban sectors in SKR are far less developed in comparison with NBR that holds more existing urban activities and better infrastructure to accommodate farther urbanization. This implies that NBR has a potential to take complementary role on the demand side, first by offering more urban markets to SKR, and then in the future, create spreading effects to grow urban sectors on the side of SKR. For example, if the agricultural sector of SKR can tap urban

demands in NBR, a potential growth margin could be much larger that the one with limited market within the Lao PDR. Urban market on Thai side is much closer than Vientiane market.

1.4 Land Use

Forests were already converted to farmlands in NBR:

Although the people's life once depended on the forestry for a long time in NBR, the population increase promoted expansion of agricultural area. Consequently, the forest coverage had been decreasing drastically over the years. Currently, the forest coverage rates in each province in NBR are between 9 to 31 %. The total forest coverage rate in 1995 is 15% and it is considered to be very low level. The deforetration in NBR is at the final stage.

The expansion of farmland has been the main cause of deforestation in NBR. Current agricultural area is 43% (Figure 1.9). As the share of agricultural land is stable in the late 1990s, farmland expansion has reached its saturating level under the present socio-economic situation.

Better resource endowment in SKR:

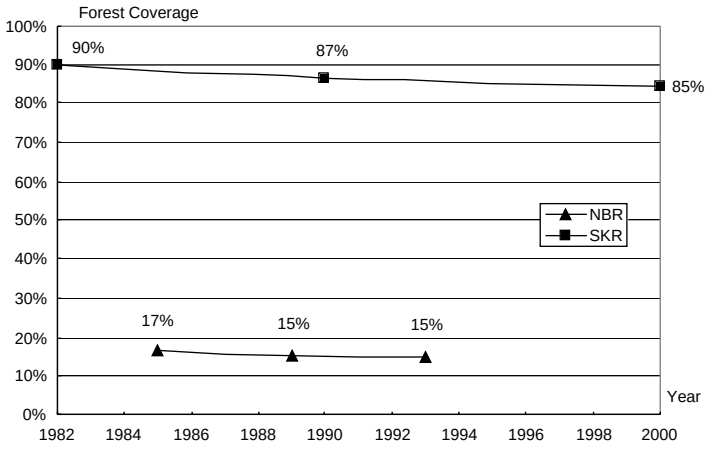
In contrast to NBR, the forest keeps its important role in people's livelihood in SKR. Whereas the forest coverage is gradually decreasing, it still remains very high at the level of 85%. These forests in the mountainous areas are one of the major sources for the wood processing industries in NBR. Given low population density, SKR has an advantage in land resources.

With these land resources, SKR has a potential to take the complementary function over NBR. For example, some of the food processing industry in NBR suffers from insufficient supply of raw materials for food processing to bring a factory up to full operation. SKR with less constraints with land and young labor can take complementary role in agro-processing, in short term, by supplying raw materials. In medium to longer term, SKR will eventually accommodate more processing factories if supply of skilled labor and other investment conditions are improved.

Population pressure is increasing in SKR:

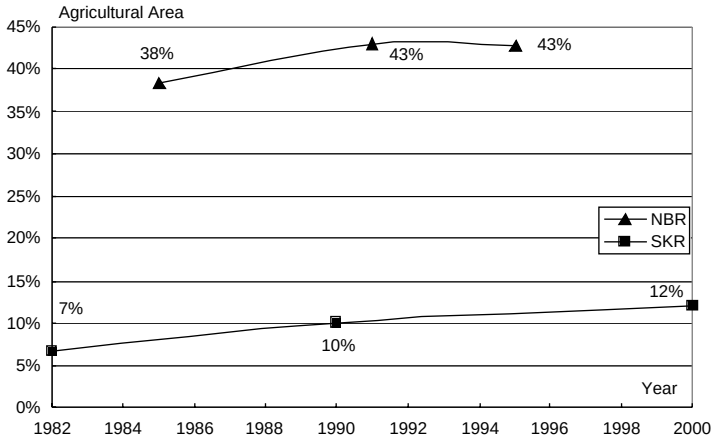
It should be noted, however, the agricultural area in SKR is growing rapidly. Even in the future, the population, especially the growing population of younger generation, continues to add more pressure to convert the forest the farmland.

A decreasing trend of forest and an expanding trend of farmland indicate that SKR has a risk to follow the same deforestation path of NBR. In addition, the negative impact of deforestation in SKR could have more spreading effects than the one in NBR. Given the mountainous terrain of SKR, the loss of forest covered area in mountainous SKR shall cause serious soil erosion problem.



Source: NBR: Agricultural Statistics of Thailand., SKR: GIS Survey 2000.

Figure 1.8 Forest Coverage in SKR and NBR



Source: NBR: Agricultural Statistics of Thailand, SKR: GIS Survey 2000.

Figure 1.9 Agricultural Area in SKR and NBR

1.5 Available Development Resources in SKR and NBR

Potentials and constrains:

Table 1.9 summarizes views and insights into development potentials and constraints with regard to existing resources for regional development in SKR and NBR. For more detail, please see the reports of SKR or NBR master plans.

Table 1.9 Existing Development Resources Analysis of SKR and NBR

		SKR	NBR
Natural Resources		**Abundant but Sensitive:**	**No More Frontier:**
	Potentials	-Rich forestry resources -Rich water resources -Available land resources	- - -
	Constraints	-Shifting cultivation -Forest reserve to protect	-No more forests -Insufficient water -No more land for agriculture
Human Resources		**Lack of Basic Qualification:**	**Good but Need to Upgrade:**
	Potentials	- -	-Good quality of industrial workers -Experience on border trade practices
	Constraints	-Rapid population growth -Shortage of qualified manpower -Slow Social Integration -Lack of entrepreneurship	-Shortage of highly skilled workers
Economic Activities		**Very Small Non-Agriculture Sector, Need More Links to Markets**	**Insufficient Urban Economies, Need to Diversify Rural Economies**
	Potentials	-Diverse local products -Proximity to Indochaina Market	-Diverse local products -Proximity to Indochaina Market -Good provision of infrastructure
	Constraints	-Dependence on rice production -No capital and technology -Isolated from market -Dominance of the subsistent economy	-Dependence on mono-cultural cropping -Insufficient industrial base -Remote from sea ports and urban centers

Source: SKR Master Plan, NBR Master Plan

Regarding natural resources, there is a clear contrast between SKR and NBR. SKR has good potentials in natural resources including forests, water, and land, whereas NBR has no more room for agricultural expansion. As it will be elaborated in Chapter 4, this rich natural resource base in SKR could be one of the bases of complementary relationship with NBR.

On the other hand, it is an advantage of NBR that it holds a readily available cluster of human resources for commercial activities and industrial workers. Given these human resources and good provision of infrastructure, NBR has more immediate potentials to hold larger urban segments of economies than SKR. What really lacks

is capital inflow and natural resources that can maintain the size of processing industries up to the competitive scale of production.

As already noted in the previous sections, lack of educated human resources is one of the largest bottlenecks for development of SKR even at the level of basic education. Lack of business experience is also a serious problem, especially for SKR to develop small but important urban economies along the Mekong River. In short to medium term, Thai traders on NBR side are the most immediate agents to bring business links and market-based know-how to SKR.

Economies of SKR and NBR share some common constraints. Firstly, agricultural sectors are very much dependent upon few low-value added crops. This is mainly due to the fact that linkages between agriculture and urban demands or processing industries are limited. Secondly, both economies are far from major economic centers. This is a typical issue of landlocked economies.

1.6 Perspective on Socio-Economic Change

1.6.1 Population

Rapid population growth continues in SKR:

The economic frame for SKR assumes its population to grow at 2.6% from 2000 to 2020. Urban population growth rate, 3.7%, is more than rural population growth rate, 2.4%. This high rate of population growth is changing the SKR's population structure. For example, the cohort of aged over 60 years old accounts for 5.7% of the total population, the age 15 to 59 is 50.1%, and the age under 15 is 44.1% in 1995. However, people under age 15 are considered to increase more in the future. This represents a typical high-population growth pattern in the developing countries. Although the death rate is decreasing, the birth rate has not been decreasing yet. The demographic transition is still undergoing.

Urban shift is expected in NBR:

In contrast, NBR's annual population growth rate is assumed to be 0.8% during projected period. It is unlikely to have rapid population growth. However, population movement from rural area to urban area within NBR is set to be high

reflecting the fact that promotion of non-agriculture economies is assumed to be one of the major NBR development strategies.

1.6.2 Economy

Population growth based expansion in SKR:

SKR's economy is likely to expand rapidly. Rapid population growth is one of the major factors of expanding economy. In 2020, GPP is estimated to increase 4.8 times as much as the current level. However, GPP per capita is not growing as much because of huge population growth. In SKR, industry and service sectors are to be developed until 2020 and the GPP share in those two sectors increases from 33% to 67% (Table 1.10). However, the agriculture sector is still dominant in terms of employment because there are large number of population living in rural area, especially in high-land area closer to the border with Viet Nam.

Structural change based growth in NBR:

It is also assumed for NBR to have rapid economic growth from 2000 to 2020. In 2020, GPP is likely to be almost twice as much as the current level. With a low population growth rate, a growth factor should be improved labor productivity based on structural changes in the economy. GPP per capita shall increase significantly, which is 62% increase from the current level (Table 1.10). In addition, with steady population movement from rural to urban area, NBR's economy is assumed to shift to "higher-value added" one. For example, construction of East-West Corridor will provide more chances for NBR to have urban-sectors associated with international transportation system.

Urban growth is a key to rural growth:

With larger urban sector, agricultural sector in both SKR and NBR shall have more chance to diversify products to fulfill urban consumption, such as vegetables and dairy products.

Table 1.10 Perspective of Population and Economic Situation

		1998	2005	2010	2015	2020
SKR	Population (,000)	1,022	1,209	1,363	1,514	1,682
	Urban (,000)	153	197	234	278	330
	Rural (,000)	869	1,012	1,129	1,236	1,351
	GPP (1998=100)	100	169	272	378	476
	GPP/capita (1998=100)	100	143	204	255	289
	GPP Share of Agriculture (%)	56	51	40	35	33
	GPP Share of Industry (%)	13	15	18	19	20
	GPP Share of Service (%)	30	33	41	46	47
NBR	Population (,000)	3,115	3,311	3,459	3,607	3,754
	Urban (,000)	498	666	813	961	1,107
	Rural (,000)	2,617	2,646	2,646	2,646	2,646
	GPP (1998=100)	100	126	150	173	196
	GPP/capita (1998=100)	100	119	135	149	162
	GPP Share of Agriculture (%)	26	23	21	19	18
	GPP Share of Industry (%)	11	13	14	15	16
	GPP Share of Service (%)	63	65	65	66	67

Source: Frameworks for NBE and SKR master plans

CHAPTER 2

INTERNATIONAL SETTINGS:

ECONOMY AND SPACE

CHAPTER 2

INTERNATIONAL SETTINGS:

ECONOMY AND SPACE

In the previous chapter, present conditions of SKR and NBR are reviewed. In addition to knowing the inside, it is also important to know surrounding conditions of SKR and NBR. This Chapter 2 puts focus on key information about international settings surrounding SKR and NBR with two different aspects. Firstly, international economic environments are reviewed. Secondly, spatial structure of the Indochina Peninsula is summarized.

2.1 International Economic Environment

There are two different levels of international context surrounding the economy of Cross-Border Region. Firstly, a bilateral economic relationship between Thailand and Lao PDR. This is the most immediate international factor for both SKR and NBR. Secondly, the settings of the ASEAN economy also affect the region.

2.1.1 Lao-Thai Bilateral picture

(1) Baseline Picture

Two countries have very different profile of endowment as reviewed in Chapter1. In short, these are as follows.

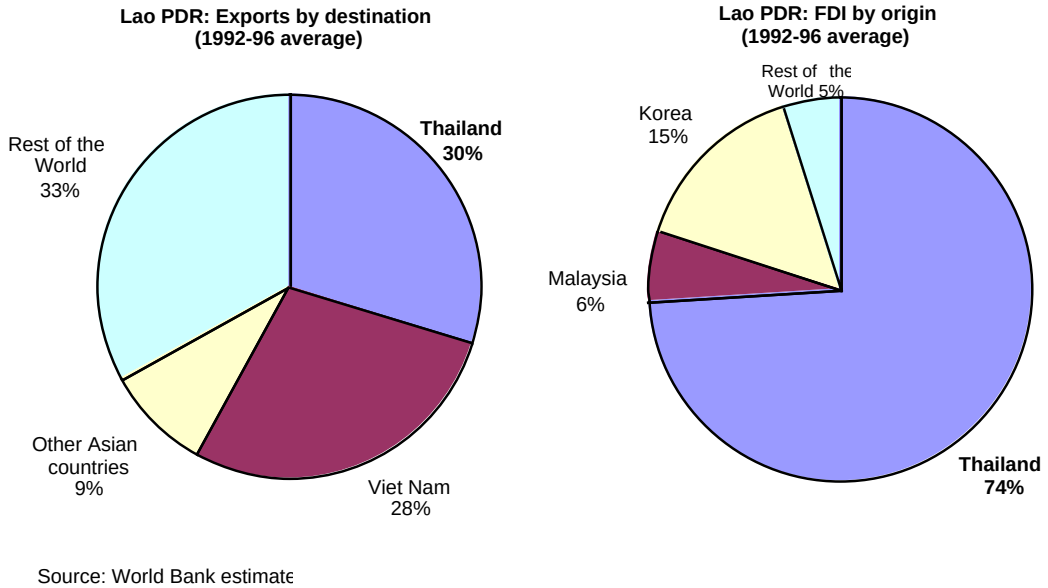
- Endowments of Lao PDR: Resources (water, electricity, forests, and land)
- Endowments of Thailand: Capital, technology (human resources and institutions), consumer market.

Given these characteristics, a present baseline picture of Thai-Lao economic relationship is the fact that the Lao economy is largely dependent upon the Thai economy.

Foreign direct investment (FDI) is nearly the only source of private capital investment in Lao PDR, given very low level of savings at a macro level. As shown in the figures, 75% of foreign direct investment (FDI) to Lao PDR is from Thailand. International trade of the Lao economy largely depends upon Thailand. One third of export from Lao PDR goes to Thailand. A half of Lao imports are from Thailand.

Links to Thai capital and markets are lifelines for private sector development in Lao PDR. This is also reflected in the fact that virtually all of major urban centers in Lao PDR are concentrated along the Lao-Thai border areas. In contrast, there is no significant urban concentration in mountainous areas along the border with Viet Nam.

Although contents and extent of interdependency could vary in medium to long term perspectives, there is no doubt that Thai-Lao economies will continue to be linked very closely. On the side of a Laotian economy, this implies that the Lao-Thai border gateway areas, such as SKR, are the places where economic activities are most concentrated and thus foreign capital inflows are most likely to be accommodated.



Source: World Bank estimate

Figure 2.1 Export and FDI of Lao PDR

(2) Positive and Negative Linkages

Under these settings, Thailand and Lao PDR have experienced both positive and negative linkages in natural resources and capital movement, and more recently, the movement of consumer goods and manpower.

Electricity Trade:

Power supply to Thailand is a major source of foreign exchange earnings and government revenue of Lao PDR. At the same time, it is an indispensable source of the Thai energy-mix. In exchange, Thailand supplies power to Lao PDR in order to augment the inadequate domestic power grid of Lao PDR. However, terms of the electric power trade used to be often controversial between two countries.

Forest Products:

Forest is another important source of foreign exchange earnings and government revenue for Lao PDR, SKR in particular. Lao supply of logs and lumber meets an expanding demand for wood products of Thailand which suffers from excessive deforestation.

However, the forest product export undermines the natural environmental base of Lao PDR unless some arrangement is made to balance supply of forest products and renewal of forest.

Investment Flows:

Investment flows have been intensive from Thailand to Lao PDR, especially in the textile manufacturing field. These FDI, and thus non-agricultural activities have been highly concentrated in Vientiane Municipality, the Capital City area where educated labor force are most concentrated. Vientiane provides 54% of industry sector employment and 30% of the service sector employment in Lao PDR.

In the short-term, these investments have helped Laos earn foreign exchange and absorb rapidly expanding labor. This also shows that lower labor cost is a comparative advantage of a Lao economy.

However, one cannot expect these positive aspects of the present Thai investments in long-term perspectives. The investments for textile manufacturing field have been

made mainly for avoiding the current import quota of the US on Thai-made textile products. In sometime, investors of these so-called foot-loose industries may disappear away from Laos after import quota is lifted. Thus, it is important to have investments of industries that seek not only low cost labor or short-term "work around for trade" but also local resource-base within Lao PDR, such as agro-processing or construction materials.

Labor mobility:

An emerging trend is that people of Lao PDR as well as those of Viet Nam migrate into Thailand both legally and illegally. This migration will inevitably expand as aging of labor force will take place not only in Bangkok but also in the Northeast Thailand, and as labor surplus will continue to grow both in Laos and Viet Nam. A number of investors in Bangkok plan to expand their factories in border provinces for the sake of securing low wage workers. This trend will contribute to the economies of the two countries/ regions.

But at the same time, it will give negative social and environmental effects on the both sides, unless a long-term positive arrangement is made between the two countries.

2.1.2 ASEAN Economy: AFTA

(1) Broader Picture of AFTA

The ASEAN countries signed the Common Effective Preferential Tariff (CEPT) Scheme for the ASEAN Free Trade Area (AFTA) in 1992. Currently, the CEPT includes more than 96,000 items, equivalent to more than 90% of all commodities. "Free Trade" will be realized by lowering or eliminating the tariff rates on CEPT items. On the other hand, the member countries can also protect their domestic agricultural sector by listing competitive agricultural products on its own "Sensitive List" or "Highly Sensitive List." These lists are scheduled to phase into the current CEPT scheme by the middle of 2010s.

AFTA will liberalize not only commodity trade but also investment from ASEAN and other countries by AIA (ASEAN Investment Area) scheme. Especially the investment to following seven areas will be given higher priorities: (1) tourism, (2)

telecommunication, (3) air transportation, (4) sea transportation, (5) business, (6) finance and (7) construction.

Table 2.1 GMS Countries and International Trade Affiliations

Country	GMS	ASEAN	Trade libelizatior under AFTA	WTO
			CEPT Items	
Thailand	Member	Member	2003	Member
Laos	Member	Member	2008	Accession in process
Viet Nam	Member	Member	2008	Accession in process
Cambodia	Member	Member	2008	Accession in process
Myanmar	Member	Member	2008	Member
Yunnan (China)	Member			Accession in process

Source: ADB, WTO and ASEAN

The above Table shows the GMS countries and two international trade affiliations, namely AFTA and WTO. The position of Yunnan Province (China) is an exception among GMS countries because China is not within ASEAN, and thus will not be affiliated with AFTA.

In the national level context, the AFTA will have following impacts:

- AFTA will boost intra-ASEAN trade.
- In addition to trade, AFTA includes liberalization of investment and service provision. Especially, existing investors can easily move from one country to the other within AFTA
- It could trigger the emergence of ASEAN protectionism.

(2) AFTA in the Context of SKR-NBR

In the regional context, AFTA will influence the SKR and NBR as follows:

Table 2.2 Potential Influence of AFTA on the Two Regions

	SKR	NBR
Border Trade	More active movement of primary products across the border as gateway areas. SKR and NBR will have to put more emphasis on the products with comparative advantage over the other side.	
Investment	Attract investments, including FDI, especially those industries with preference for stronger inland-links with GMS markets	
Industrial sector	Potentials to accommodate up-stream portion of local-resource based industries	Potentials to accommodate down-stream portion and supporting urban services
Service sector	Induce growth of service sector that serves operation of both domestic and international trade network	

AFTA regime could significantly widen market access of both Lao and Thai economies within ASEAN member countries. On-going development of the East-West Corridor (EWC) that is one of the major projects among Greater Mekong Sub-region (GMS) Program shall promote this trend by strengthening international transportation linkages among Myanmar, Thailand, Lao PDR, and Viet Nam (GMS Program is reviewed in the following Chapter3). CBR will be a major international gateway of the East-West Corridor. AFTA and EWC will have four implications for CBR development, in short to medium term.

- Firstly, given above-mentioned efforts for accelerating liberalization programs under AFTA, it shall be easier for SKR and NBR to trade primary products across the border. Agricultural products, gypsum, and forest products are some of the major products. Thus, SKR and NBR will have to put more emphasis on the products with comparative advantage over the other side.
- Secondly, CBR could attract investments, including FDI, especially those industries with preference for stronger inland-links with GMS markets, such as agro-processing or sanitary ceramics.
- Thirdly, within CBR, SKR where more natural resources and lands are available shall have more potentials to accommodate up-stream portion of local-resource based industries, whereas NBR shall have down-stream portion and supporting urban services such as banks for business transaction.

- Fourthly, expansion of trades will induce growth of service sector that serves operation of both domestic and international trade network.

In longer term, markets surrounding CBR will be much larger than today. Thailand as a whole could be in a range of medium-income by year 2020. Central Viet Nam will also grow and bring a sizable market. The East-West Corridor will serve as a backbone to integrate CBR with these two major markets.

(3) Competing Interests of SKR and NBR in Agricultural Trade

Short-term competing interests:

On the other hand, there are quite a few remaining arguments to what extent agricultural products trading should be free. Under these "border-less economy" settings, SKR and NBR have competing interests in some agricultural products in the short run. This issue could be more controversial in the socio-economic context of CBR where agricultural employment is the centerpiece of its economy.

No return from open market:

Overall trend, however, is heading towards border-less economy even for agro-based products. Some processed agricultural products, that once classified as sensitive and highly sensitive by member countries and had been granted longer liberalization timeframes, are now under reconsideration for accelerated tariff reductions.

New orientation under integrating market:

In the medium to long term perspectives, however, it has already come to the point where restructuring of agriculture is even more important, and needed to re-examine comparative advantage and sustainability of resource based production in diverse settings within SKR and NBR. This is one way to explore complementary roles to play between SKR and NBR under forthcoming more open-economy environment, and thus to bring up competitiveness of CBR as a whole.

For example, present agriculture sector in NBR often fails to supply enough raw materials to make existing processing industries in full operation. For dry season, many agro-processing factories are largely left idle. If products from SKR where more land and water is available can fill this shortage of raw material supply, agro-processing industries can expand production and employment. For SKR, this

will be a good opportunity to tap on urban demand and to diverse agricultural production.

2.2 Spatial Structure

This section reviews the physical settings of the Indochina Peninsula that surround SKR and NBR. The spatial structures of Thailand, Lao PDR and Viet Nam are the basis of the present geo-economic position and characteristics of CBR.

2.2.1 National Land Structure and Development Axes

(1) North-South Orientation of Existing Land Structure

Thailand, Lao PDR and Viet Nam have unique structure of national land development patterns as illustrated in the following figure.

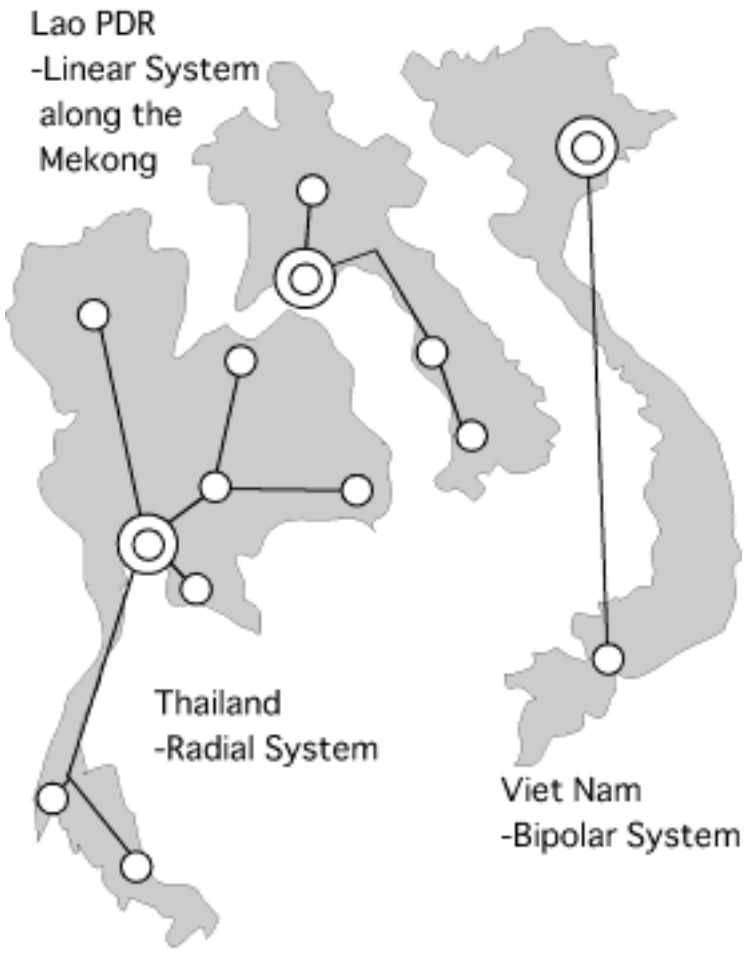


Figure 2.2 National Development Axes in Three Countries

Thailand has a centralized national land structure. Population and economic activities are concentrated in Bangkok. The system is basically a radial network centered in Bangkok.

Contrary to Thailand, Lao PDR has a decentralized land system. Not only Vientiane but also Savannakhet and Pakse work as urban cores in the country. The population distribution of the country is skewed to the Mekong riverside. The axe is still very weak and some part of regional economy has stronger tie with the other side of the Mekong, Thailand, rather than Lao PDR.

Viet Nam has two economic centers, namely Hanoi and Ho Chi Minh City. The former, Hanoi, works as a political center and the latter, Ho Chi Minh City, holds economic activities.

The above development axes and national system have been of importance for national integration within each country.

(2) East-West Orientation of Emerging international axes

In addition to the national context, there are emerging international axes. The new trends in the world economy, such as AFTA, are to lower national borders allowing freer flow of people, goods and capital. On-going GMS Projects are some of the major infrastructure projects to facilitate international economic links within Indochina. Towards 2020, new development axes at the level of Indochina will likely to emerge.

In short, national axes are more or less North-South orientation, whereas international axes in Indochina shall be East-West orientation. The East West Corridor (EWC) will be the first axe to penetrate the existing national axes based on international context. CBR is right on the crossroads of this new emerging development axis and have a good potentials to make full use of its strategic position.

2.2.2 The Mekong River and its Watershed

The Mekong, the 12th longest river in the world, runs through the Indochina Peninsula for 4,200km. From the high Tibetan plateau at 4,900m, the name of the river changes from *Lancang Jiang* (Chinese), *Menam Khong* (Laotien), *Mae Nam Khong* (Thai) to *Song Tien Giang* (Vietnamese). The river drains more than 810,600 sq. km of land in China, Lao PDR, northeastern Thailand, Cambodia and Viet Nam.

Although the Mekong symbolizes the Indochina Peninsula, the river actually has not served to unify the economic activity along its course. Historically, Khong Phapheng Falls in the southern most part of Lao PDR near Cambodian border, has been the natural barriers for inland water transportation between up-stream to the Mekong Delta and South China Sea. In addition, the war and political conflicts became more significant in the modern age.

The Northeastern Region of Thailand, which extends across the most area of the Korat Plateau, belongs to the Mekong River basin by its tributaries. Divided by mountains, the Northeastern Region lies in a different river basin from the Central Region that belongs to Chao Phraya basin. The relatively flat terrain within the Korat Plateau enables people to extend their agricultural land by deforestation.

The SKR is also located in the Mekong River watershed. Figure 2.3 shows the cross section along the East West Corridor. Located in the same watershed, SKR and NBR are sharing the benefit from the Mekong.

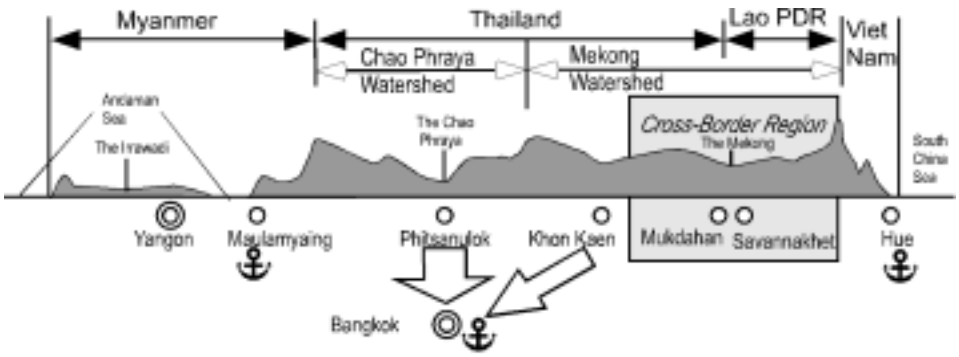
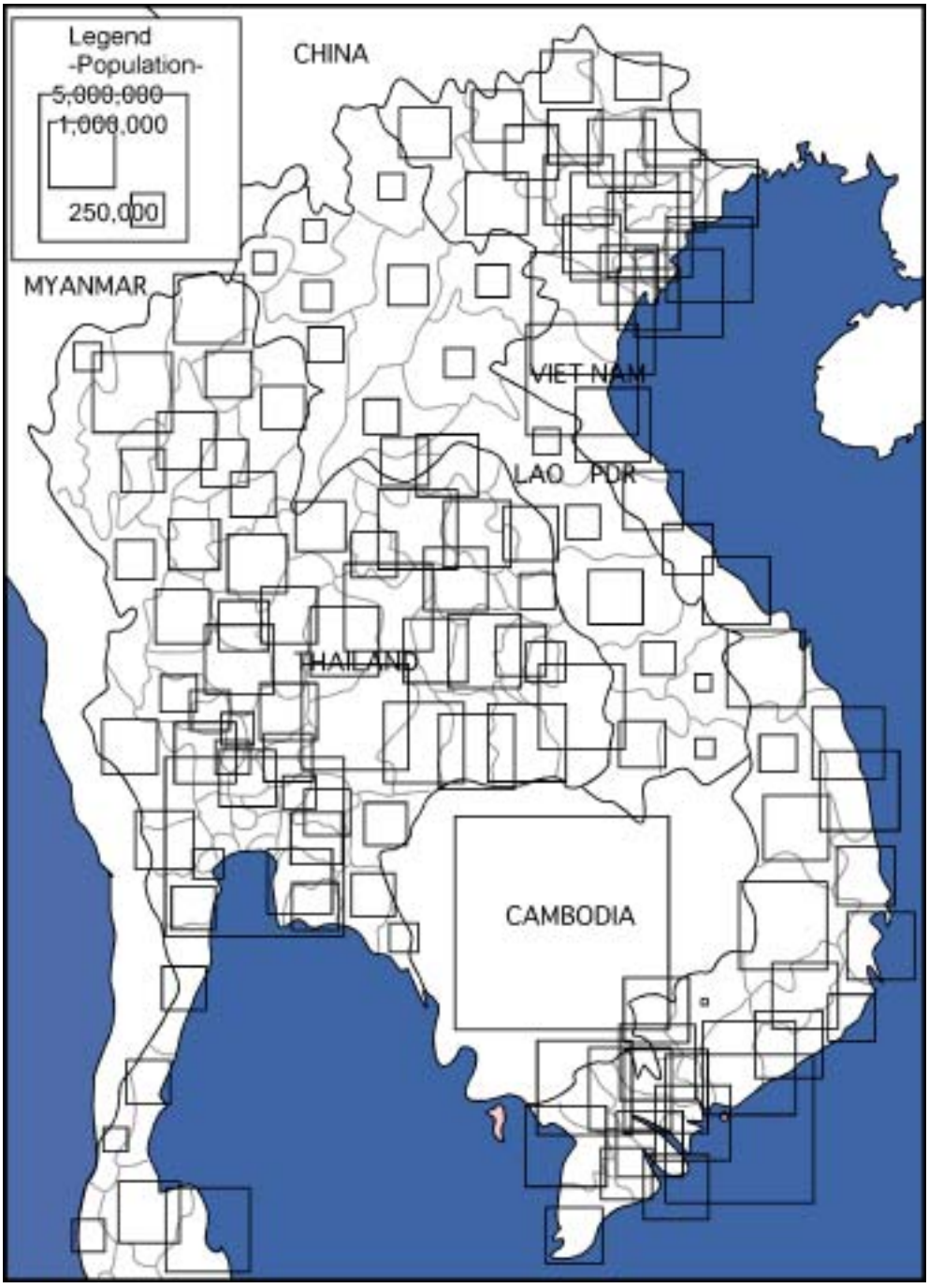


Figure 2.3 Cross-Section Along East West Corridor

2.2.2 Population and Economic Activity Distribution

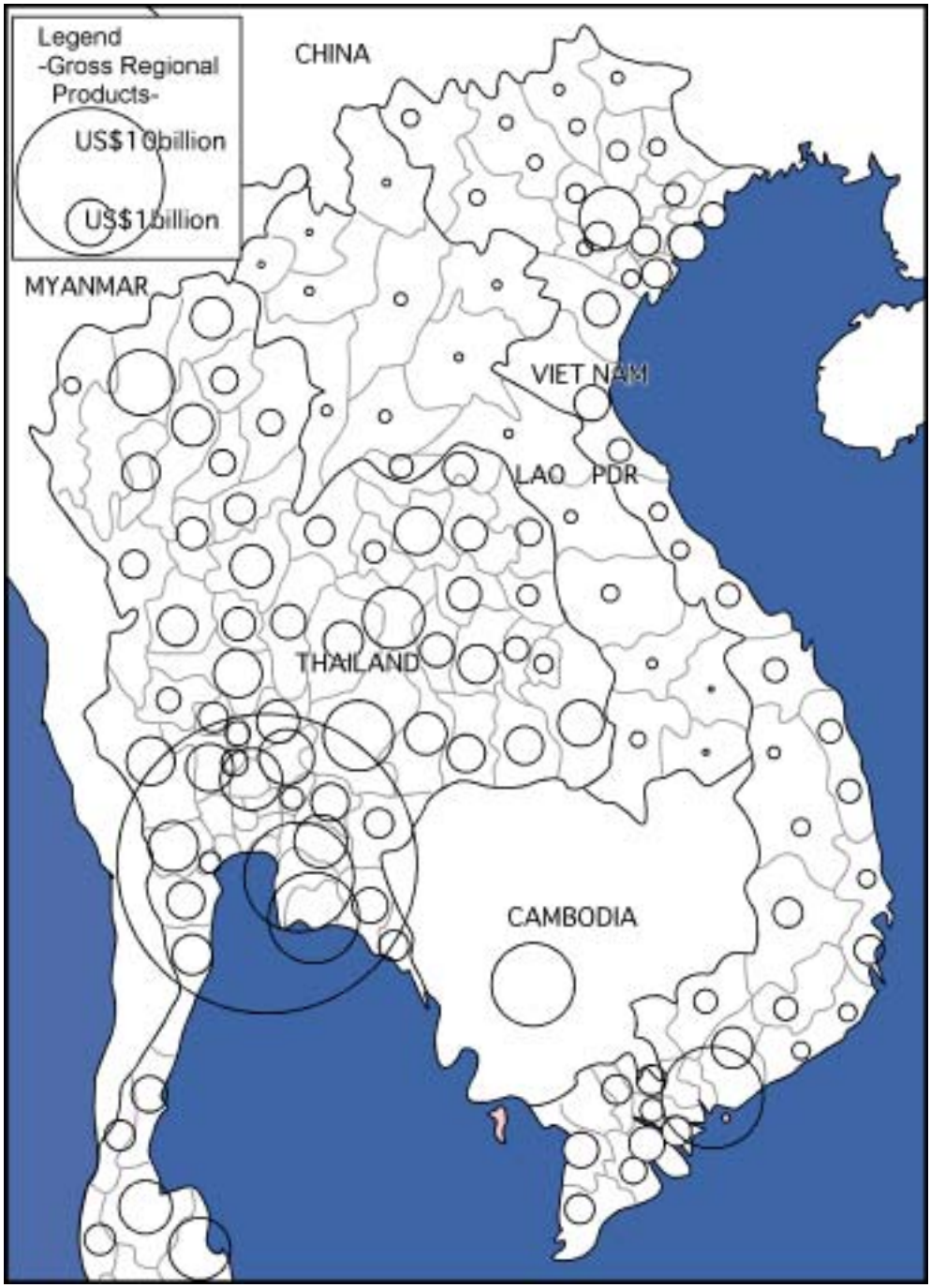
The human settlement pattern differs by country. Figure 2.5 shows the population distribution pattern in Thailand, Lao PDR, and Viet Nam.



Source: Thailand in Figures 2000-2001, etc.

Figure 2.4 Population Distribution by Province

Although the sizes of provinces are different by country, Figure 2.4 illustrates the scattered population distribution in Lao PDR especially in the northern region. Densely populated areas are limited to the Bangkok, Hanoi and Ho Chi Minh region only.



Source: Thailand in Figures 2000-2001, etc.

Figure 2.5 Distribution of Economic Activities (1998-1999)

Figure 2.5 expresses the distribution of economic activities by gross regional products (GRP). The primacy of Bangkok Metropolitan Region is quite large in the region. There are two economic centers in Viet Nam, Hanoi in the north and Ho Chi Minh City in the south. These three urban centers shall continue to be major economic centers at the level of Indochina. The scale of economic activity in Lao PDR is very small in comparison with the other areas.

Within this larger picture of Indochina, SKR, NBR, and the Central Viet Nam are a row of areas where economic activities are less concentrated in comparison with the other areas.

CHAPTER 3

EXISTING PROJECTS AND PROGRAMS IN INDOCHINA

CHAPTER 3

EXISTING PROJECTS AND PROGRAMS IN INDOCHINA

3.1 Review of Existing Projects and Programs

This Chapter reviews existing projects and programs in Indochinese countries in order to show the possible changes in provision of major infrastructure in Indochina Peninsula toward 2020. The area reviewed is limited to GMS that consists of five countries and one province as shown in Figure 3.1 and has immediate links with SKR and NBR.

3.1.1 GMS Program

The Greater Mekong Subregion (GMS) Program is a major existing international movement that promotes integration of the Indochina into one regional economy. The Greater Mekong Subregion (GMS) comprises Cambodia, Lao People's Democratic Republic, Myanmar, Thailand, Viet Nam, and Yunnan Province in the People's Republic of China. The Cross-Border Region is right on the axes of crossroads of the Indochina as shown in Figure 3.1.

The GMS program has major contents including following things.

- Better linkages among 6 intra-subregional countries by developing networks of transportation, telecommunication, and energy.
- Better networks inducing more integrated sub-regional market both in terms of trade and investment.

- Chances for policy dialogue among the sub-region countries, especially for issues related to international infrastructure management, labor movement, and trade and investment rules and regulations.

Figure 3.1 Cross-Border Region in GMS Countries

projects. A number of these subregional initiatives have now entered implementation stage. Approved ADB-financed GMS loan projects are as shown in the table.

Table 3.1 ADB financed GMS Loan Projects

COUNTRY	PROJECT NAME	APPROVED DATE	LOAN AMOUNT ($ million)
PRC	Yunnan Expressway	29-Sep-94	150.0
Lao PDR	Theun Hinboun Hydropower	8-Nov-94	60.0
Lao PDR	Champassak Road Improvement	31-Aug-95	48.0
Lao PDR	Nam Leuk Hydropower Development	10-Sep-96	52.0
Cambodia	Siem Reap Airport	12-Dec-96	15.0
PRC	Southern Yunnan Road Development	24-Jun-99	250.0
Cambodia	Phnom Penh-Ho Chi Minh City Highway	15-Dec-98	40.0
Viet Nam	Phnom Penh- Ho Chi Minh City Highway	15-Dec-98	100.0
Lao PDR	East-West Corridor Project	20-Dec-99	32.0
Viet Nam	East-West Corridor Project	20-Dec-99	25.0
TOTAL			**772.0**

Source: ADB, A Wealth of Opportunity, Development Challenges in the Mekong Region.

To ensure effective project implementation and to sustain cooperation, the six countries established an institutional mechanism as part of the GMS Program. Working groups and forums have been set up to discuss and recommend approaches to issues affecting both the "hardware" and "software" aspects of implementation. A ministerial body coordinates subregional cooperation and provides overall policy guidance and support. A National Coordinating Committee in each country coordinates participation in GMS activities. Consistent with its facilitating role, the Bank has been providing technical, administrative, and logistical support to these forums and working groups.

Limitations of GMS:

While GMS Program is promoting integration of economies in the subregion, there are some limitations as follows.

Limitations of GMS:

While GMS Program is promoting integration of economies in the subregion, there are some limitations as follows.

- Lack of clear development scenarios: GMS Program is essentially a package of infrastructure development for international networks. It does not have scenarios for economic development with explicit roles for different actors (countries) in the subregion.

- Weak local context: GMS Program has very low profile of local level participation. The program focuses on a broader international picture rather than local contexts for development.

- Lack of an adequate basis for local-to-local policy coordination: GMS Program does not provide an adequate basis to share information for policy making among countries at the local-to-local level, such as discussion between neighboring provinces of two different countries.

- The gap between national and GMS priority: Although some of member countries, including Lao PDR, require their national integration, the projects under GMS prioritize development in marginal area remote from urban concentration surrounding capital.

New directions:

To supplement limitations of GMS Program, it is needed to include following aspects into development agenda.

- **Promotion of local socio-economic** activities, especially by improving conditions for private business investment.

- **Local initiatives enhancement**, especially through capacity building for development administration and participation for development policy making.

- **Sharing planning information**, especially through seminars and public relation within policymaking process.

- **More explicit urban-rural linkage**, especially through intra-regional market oriented investments.

These aspects are in line with a new policy of ADB, a major promoter of GMS, to encourage more private participation in the Program that used to calculate heavily on the public funds.

We hope that the present twined studies will contribute to bringing these new aspects into the development agenda of the cross-border region.

3.1.2 Ongoing Projects and Programs

Port Development:

JBIC (Japan Bank for International Cooperation) has been financing several projects around Da Nang in Central Viet Nam. Among them, Da Nang Port Improvement Project and Hai Van Tunnel Construction Project are of strategic importance to the development of central Viet Nam where income is at the lowest level in the country.

It is however, Da Nang Port likely to remain as a feeder port due to lack of hinterland even after the completion of Da Nang Port Improvement Project. Timbers and other bulk cargo can charter a direct ship to Japan and other countries, but other containers needs to transit at other large container hub ports, such as Hong Kong, Singapore, and Kao-hsiung. Given the fac that even Laemchabang port in the Easternseaboard of Thailand is a feeder port, Da Nang Port, although at the eastern end of EWC, will remain unchanged as a local port of central Viet Nam.

At the other end of EWC, the Andaman Sea, the port development is very slow in Myanmar. Because the Mawlamyine Port, the third largest port in Myanmar, has only 4.2m depth water during spring tides, only small coastal vessels can anchor in the harbor. It does and will not work as an internationally important port.

Instead, a new deepwater port is examined by the following four options:

- Kalegok Island as part of proposed Baht 21 billion investment an economic zone
- Ten miles west of Mudon (Kadonbaw) which itself is about 15 miles south of Mawlamyine

- Fifty miles south of Mawlamyine, part of the Southern Myanmar Integrated Project, costing US$ 5.3 billion and including a new airport and satellite towns.
- Dawei, well to the south of the EWC.

(Source: Pre-Investment Study (ADB))

Unfortunately, none of them seems attractive enough yet to conduct further physical or economic analysis for real implementation.

Thus, the ports at the both sides of EWC unlikely to function as two ends of a new "Indochina Landbridge" as initially expected. This means that function of EWC is rather to connect the economic centers within the Indochina Peninsula than to connect Andaman Sea and South China Sea.

Civil Air Transportation:

Linkage by air transportation is becoming more important than ever in Asian countries. Asian airports are competing against one another to establish the status of international hub airport. Since the late 90s, the new airports have been developed to absorb the growing international passenger demand in Asia. Currently, however, it is not certain which airport will survive towards the future.

The Bangkok International Airport (Don Muang Airport) is one of the most important hub airports in the Southeastern Asia. The completion of New Bangkok International Airport (Nong Ngu Hao Airport), which is scheduled to open in 2004, will strengthen the attractiveness of the Bangkok region as the international air hub.

The superiority of Bangkok region as an international hub has two implications for the Cross-Border Region. Firstly, the access to outside of the Indochina Peninsula will be so improved that the region will accept more tourists and investors than now. Secondly, the SKR is required to link Bangkok region by air directly in order to improve accessibility.

At the same time, the growing importance of new Hong Kong Airport at Chek Lap Kok, opened in 1998, as a gateway to China, implies the locational advantage of CBR. Because the Hong Kong Airport handles more passengers than the Bangkok International Airport, CBR can utilize the advantage of its location by direct flights.

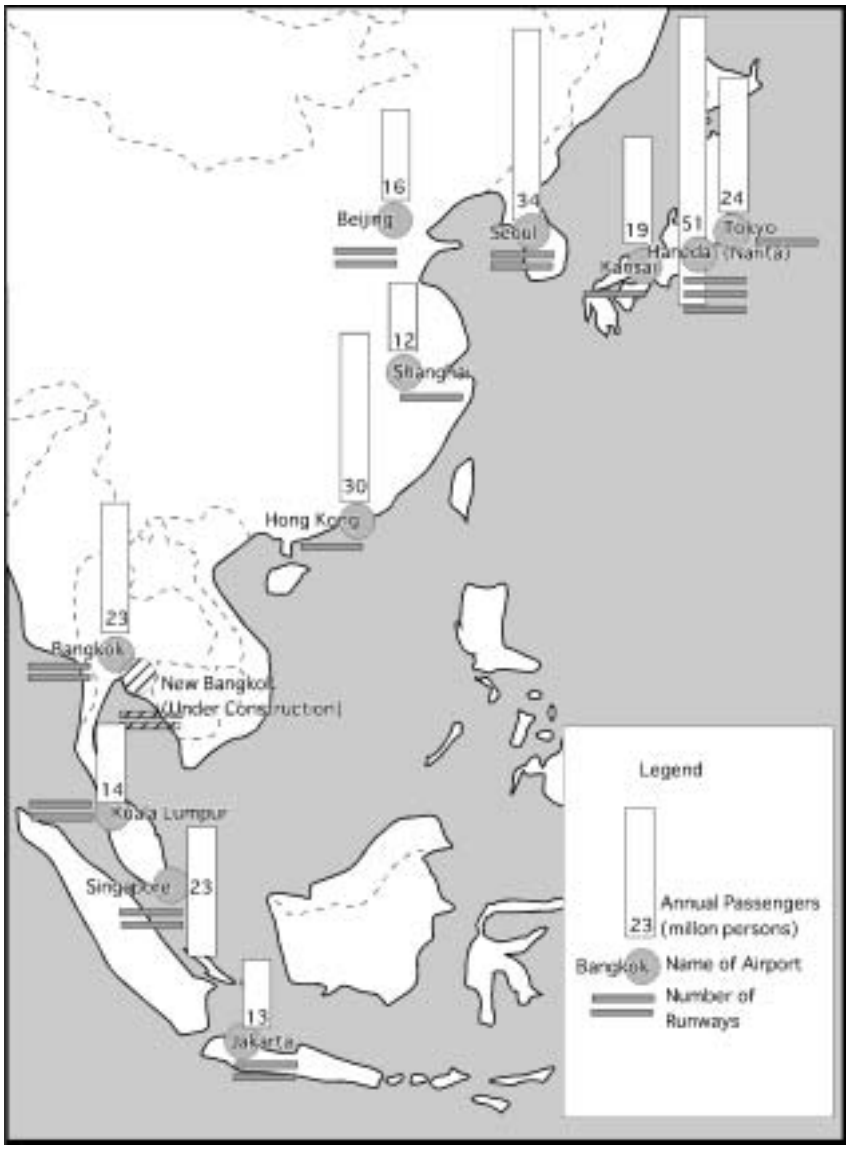


Figure 3.2 Hub Airports in Asia

Railways:

The current role of railway is very limited in Indochinese countries. Especially, CBR holds no railway network. However, its importance is emphasized if considered future trade with China, the country with highly developed railway system. The Chinese railways currently connect to only Viet Nam. On the other hand, the railways from Singapore end at the rail network in Thailand. The railway projects under GMS program seem to connect the both networks with minimum distances. The most viable connection is the one through Cambodia. The rail connection will be most likely to promote cargo transportation on the network between China and Thailand.

Power Supply:

Electricity is one of the most traded "items" among the GMS countries. Viet Nam and Thailand sell electricity from their grids to central Lao PDR. At the same time, Lao PDR sells power from north. Several hydropower projects, such as Nam Theun 2 and Nam Ngum 2-4, in Lao PDR will multiply the annual generated energy from 3,677 to 18,570 GWh by 2010 if the projects complete as scheduled (See also Part II Chapter IV of SKR). The new supply will be mostly consumed in Thailand and Viet Nam.

The electricity grid in Lao PDR, a crossroad of international power grid, can not fully defined without considering the grid at GMS level. Therefore, it is appropriate to develop a plan to make maximum use of existing and forth-coming subregional network based on the subregional capacity and demand, rather than to seek separate national networks.

3.2 Economic Corridors under GMS Program

ADB definition of "Economic Corridor":

The most important feature of GMS Program is international corridor system spread over the boundaries (Figure 3.3). ADB defines "Economic Corridor" as follows:

> "An economic corridor is a well defined area where infrastructure improvements are linked with production, trade and other development opportunity in order to promote economic development and cooperation among contiguous regions or countries[1]".

This is a holistic approach to development and cooperation on the linearly defined belt. A corridor includes road, railway, power transmission line and optic fiber cable.

Four priority economic corridors:

Specifically, GMS Program identified the following four economic corridors for cooperation.

- East West Corridor

[1] ADB. A Wealth of Opportunity. P. 32.

- Phnom Penh – Ho Chi Minh City Corridor
- Kunming – Chiang Rai Corridor
- Kunming – Hanoi – Haiphong Corridor

All corridors have the similar combination of infrastructure projects. EWC was activated as a pilot project. Other three corridors are classified as the "second tier" and waiting for implementation.

Figure 3.3 GMS Economic Corridors

The role of EWC defined by ADB:

ADB expects the role of EWC as follows:

> "The East West corridor as conceived would provide the Central regions of Viet Nam, Laos, and Thailand and the southern region of Myanmar with a direct outlet

for trade with southern China, Philippines, Korea and Japan to the east of and with Bangladesh and eastern India to the west. The combination of the improved access to international trade and reduced impediments to cross-border trade would accelerate the economic development of the less development areas located along the corridor[2] "

The transportation components of the EWC:

The transportation components of the EWC are as follows:

- The Second Mekong International Bridge (Financed by JBIC)
- Route 9 improvement (Financed by JICA and ADB)
- Route 1 improvement from Dong Ha to Da Nang (Financed by the World Bank)
- Da Nang Port upgrading (Financed by the JBIC)

Note that above components do not include projects between Mawlamyine Port and Mukdahan.

EWC as part of Indochina inland network:

As observed in the previous sections, more immediate function of EWC is likely to be a new inland corridor of Indochina Peninsula, rather than to be a new land-bridge. The present study did not find a strong evidence that suggests EWC has a potential to bring dramatic changes in international transportation to and from Indochina. On the other hand, EWC is significant as the first major corridor with East-West orientation within Indochina where existing corridors are all North-South oriented. Thus, EWC has more immediate potentials as a part of inland network to connect economic centers within the GMS, namely Bangkok, Hanoi, and Hanoi rather than to provide outlets to connect GMS to the outside world.

[2] ADB. Pre-Investment Study. Annex on Infrastructure. P.2.

CHAPTER 4
DEVELOPMENT VISION OF CROSS BORDER REGION

CHAPTER 4
DEVELOPMENT VISION OF CROSS BORDER REGION

4.1 Geo-economic Characteristics of CBR Development

There are many aspects and factors related to the future development of the CBR as described in the previous chapters. In this chapter, we first reorganize these aspects and factors to draw a picture of geo-economic characteristics of the CBR. In short, there are several key factors that define present and future geo-economic positions and characteristics of CBR when we see SKR and NBR as one geographical area.

(a) Landlocked area

Within the economic context of Greater Mekong Subregion, the present development constraints of the Cross Border Region (common to both SKR and NBR) are largely boiled down to the fact that CBR is a landlocked area in the inland of Indochina peninsula. The CBR is geographically remote from both seaports and major economic centers along the coastal areas of the GMS, namely Bangkok, Hanoi, and Ho Chi Minh City. The primary issue for CBR development is how to develop landlocked areas.

(b) Tail end economy

The CBR is located in **"tail ends of economic network"** stretching out from Bangkok as shown in the figure 4.1. This implies that the area is at the most upstream of "value added chain" of economic activities where raw materials are processed minimally. As a result, the CBR economy has small margin of value-added and low profile of non-agricultural economic activities. Given these "tail end" characteristics, urban services are still underdeveloped in the area. As long as urban economies stay small, demands for high value added agricultural products, such as vegetables, fruits and livestock products, remain low within the CBR. As shown in the Figure 4.1, the size of economic activities in CBR is much smaller than the other areas along

existing economic corridors. Sizable urban centers readily accessible from the CBR are Udon Thani and Khon Kaen to the west, and to the less extent Ubon Rachathani to the south.

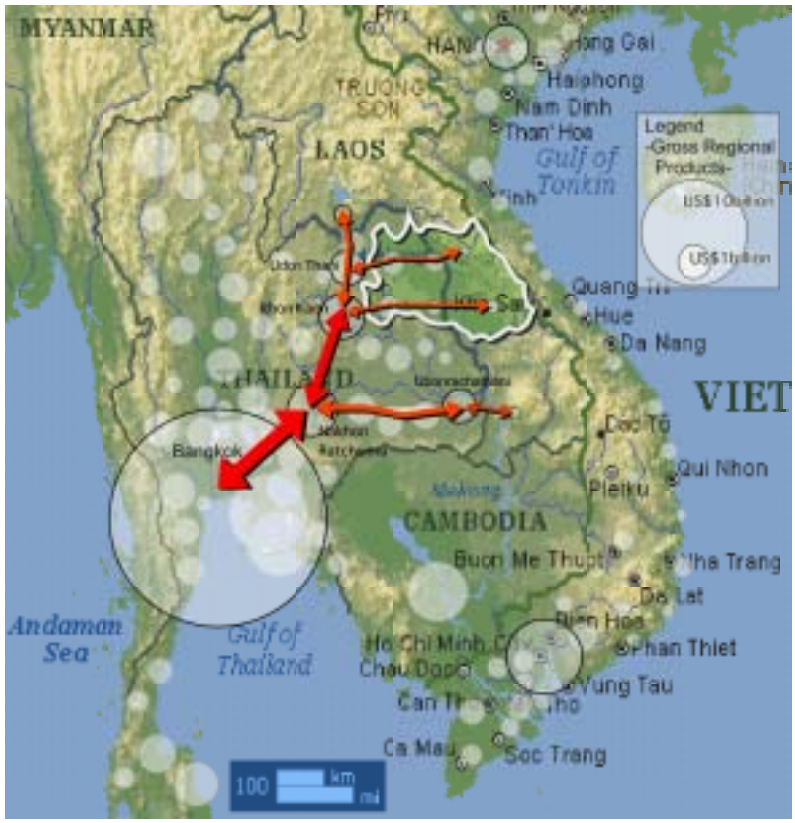


Figure 4.1 Conceptual Image of Present Economic Network

(c) Implications of East-West Corridor to CBR: Inland network

East-West Corridor is a major factor to change geo-economic position of the CBR. There are two implications to the CBR. Firstly, the area has a better access to the Da Nang port as a direct outlet for trade with outside of the GMS. Secondly, and more important for the future of the CBR, the area will be at the crossroads of inland transportation network in GMS.

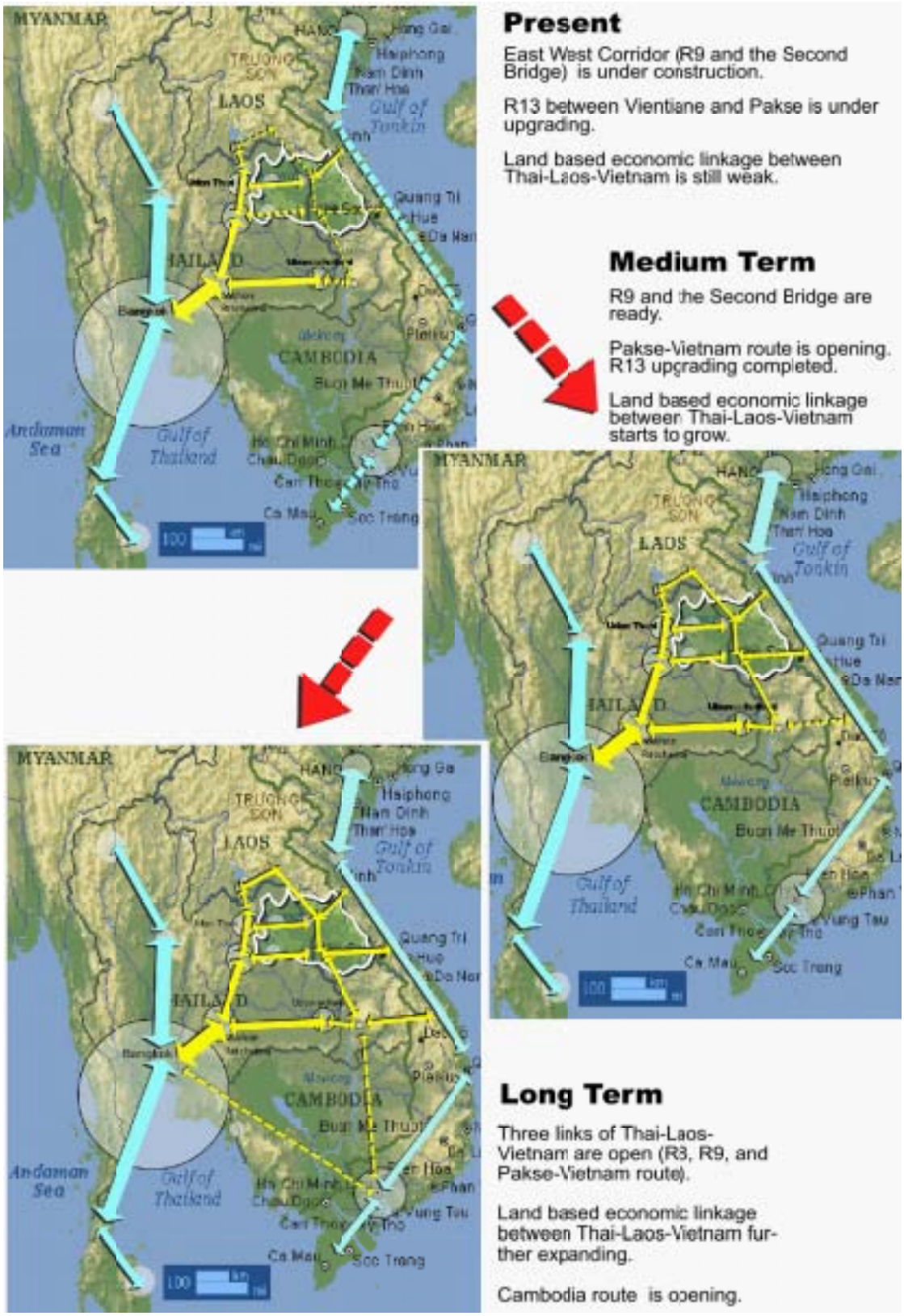


Figure 4.2 Structure of East-West (Thai-Laos-Viet Nam) Network

As discussed in the previous chapters, EWC has an important role to connect economic centers within the GMS rather than to connect GMS and the outside world. To be more specific, immediate function of EWC at the level of GMS is to formulate network between a Thai economy and a Vietnamese economy. In this sense, a notion of EWC is not limited to a single corridor along the Second Mekong Bridge and Route 9 towards the port of Danang but rather a set of growing network of inland transportation between Thailand, Lao PDR, and Viet Nam. Given this inland transportation network in place, the CBR will have at least two major crossroads at the center of the network. Thus, it is natural to assume that CBR has more immediate potential markets within GMS rather than international trade outside of the GMS.

(d) Gap between Lowland and Highland

Market-based Livelihood and Private Sectors in the Lowland:

Within CBR, there is a large income disparity between advanced and underdeveloped parts. Advanced parts are the lowland belongs to Khorat Plateau that includes both the Northeastern Thailand and the Western lowland of Lao PDR along Mekong River. Within this lowland part, economies are already integrated in market based economies more or less. Between SKR and NBR, private traders are the main agents of integrating cross border markets. Regarding agricultural production, plains along the Mekong River are endowed with comparatively perennial rainfall and rich surface water resources together with fertile land.

Non-market Based (subsistent) Livelihood in the Highland:

In contrast, there are remote and subsistent (non-market based) economies under shifting agriculture in the mountainous areas of the further eastern areas of CBR. These inner parts suffer from the relatively low agricultural potential due to higher risk of erosion during rainy season and shortage or unstable availability of water especially during dry season. On the other hand, these are the areas that hold rich forest resources. Interactions between the highlands and the lowlands are limited for lack of road connections to the lowland. Fulfillment of basic human needs is the highest priority in these areas. In longer terms, improvement of rural household income in underdeveloped areas is essential to bring up the level of the regional economy as a whole.

Economic Boundary is Between Lowland and Highland:

It is important to note that, unlike a national statistical data book, a real spatial boundary of local livelihood is not along Mekong River (a national boundary) in terms of economic structure. A real boundary of local economic space lies somewhere between lowland and highland in SKR.

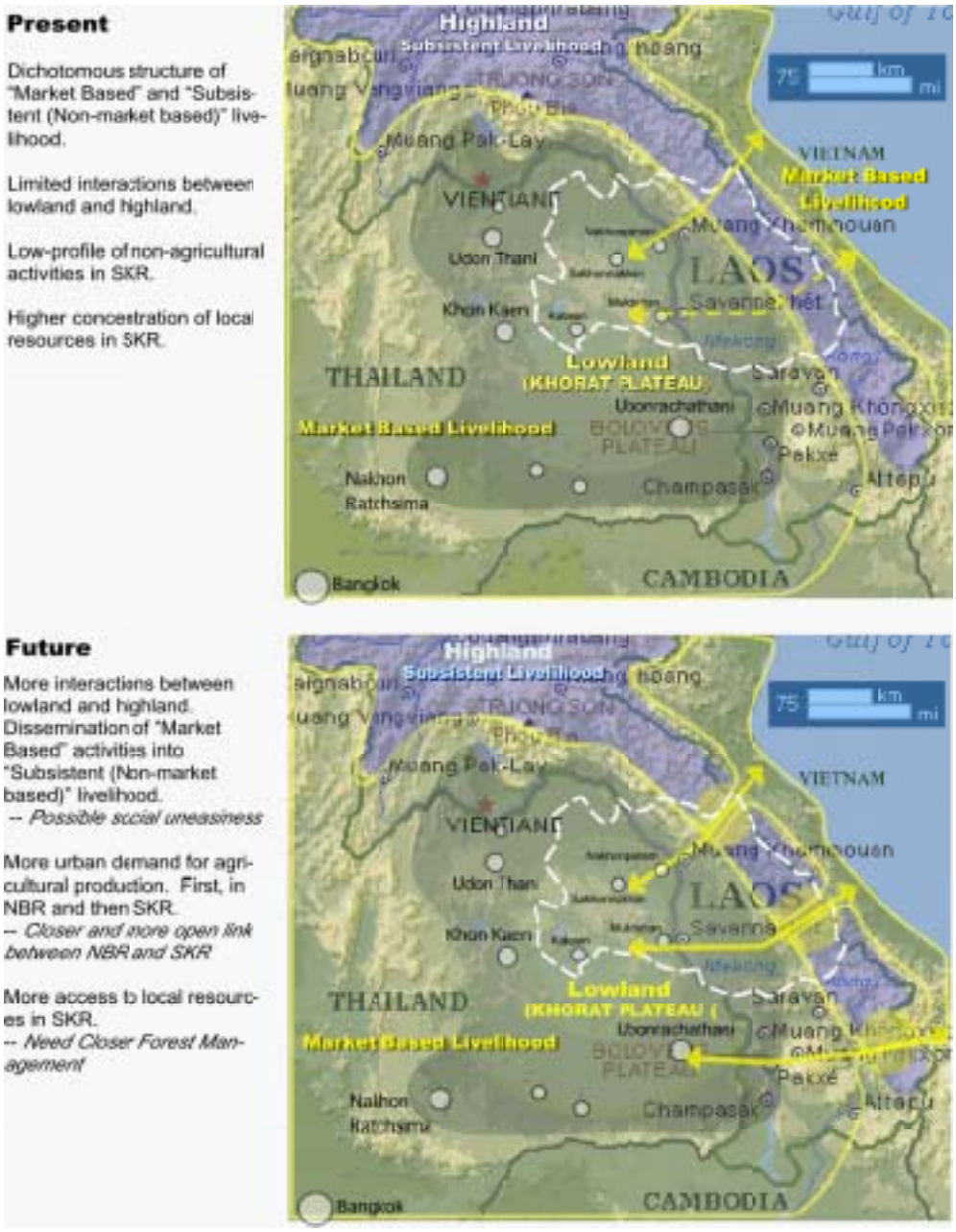


Figure 4.3 Spatial Image of Geo-economic Structure in the CBR

(e) Risk of Social Uneasiness and Resource Degradation in Highland

It is also probable that a market-based economy (that requires cash income to acquire consumer goods) quickly penetrates into once closed and self-reliant community as Thai-Lao-Viet Nam road network is developed. This transition of livelihood pushes up demand for cash income among the people in the mountainous areas. Without preparing alternative ways of production other than shifting cultivation, introduction of money based economy may result in social uneasiness and higher pressure on forest resources. Degradation of forest resources in SKR has negative impacts on NBR as well. For example, many local wood processing factories in NBR depend on supply of raw materials from SKR.

4.2. Development Vision for CBR

With above mentioned five key factors of geo-economic characteristics in mind, following five development visions for CBR are drawn as common ideas to be shared by both SKR and NBR.

[Vision 1] Landlocked to Land-linked: Best use of local resource base and new access to inland GMS market.

SKR and NBR have been faced with various development challenges that are common to each of them. One prominent common factor is that the regions are both land-locked. There are some key strategies to develop the land locked regions.

- **Focus on Local Resources:** Being land-locked with limited external access, both SKR and NBR are in a disadvantageous position in international trade, especially trade associated with sea transportation. It is too costly to bring in bulky materials or intermediate goods all the way from the coastal areas. This is one of the major reasons why SKR and NBR have not been attractive destinations for investors of the “importing materials, processing, and export products” type of industry. Rather, industries that best utilize available local resources are more viable for these land-locked regions.

- **Inland Market of GMS:** The east-west corridor, on the other hand, would provide the region with much better road access to multiple market places within

GMS. It means that industries with target markets within GMS, within the range of land transportation from SKR and NBR, may find locational advantage to invest in these regions. It would be a common target for SKR and NBR to collectively make full use of this strengthened comparative advantage.

- **Maintain good conditions of Route 9 and other GMS network:** Good roads and safe and efficient trade environments are key factors to transform CBR from present "tail end economy" to "crossroad economy".

[Vision 2] Urban based development: Urban-rural linkage

Within CBR, there is a large disparity between advanced and underdeveloped parts. Improvement of rural household income is essential to bring up the level of the regional economies. At the same time, it is also true that rural development alone is not good enough to alleviate the situation. In this regard, the urban sector development is important not only to these riverside urban areas themselves but also to the underdeveloped parts on respective sides. There are two aspects to note.

- **Diversification of market demand for the agricultural sector:** Firstly, urbanization is an important factor to promote diversification of agricultural production in the surrounding areas. As an urban economy grows, it generally diversifies its demand for food, such as more demand for fresh vegetable and livestock products.

- **More-value added within the region:** Secondly, it is particularly important to bring more downstream portion of "value-added chain" of agricultural production into the regional economy. For example, activities related to simple agricultural processing that brings in more value-added to the agricultural sector tend to concentrate in the vicinities of urban economies.

[Vision 3] Maximum Use of Complementary Roles: Opportunities of Being Different

Basically, NBR has advantage in technology and market access, while SKR has advantage in natural resource base. As a baseline strategy, it is natural to create

effective combination of respective advantages for the purpose of benefits on both sides.

- **Better Urban Market Access in NBR:** For example, the urban sectors in SKR are far less developed in comparison with NBR. If target markets of the agricultural sector of SKR can include urban demands in NBR, a potential growth margin could be much larger that the one with limited market within the Lao PDR. NBR with more urban activities can take complementary role on the demand side, first by offering more urban markets to SKR, and then in the future, create spreading effects to grow urban sectors on the side of SKR.

- **Better Resource Endowment in SKR:** On the other hand, NBR can benefit from the complementary function of SKR. For example, the food processing industry in NBR suffers from unstable supply of raw materials for food processing. Given the fact the share of younger generation in the labor force continues to decrease in NBR, some traditional crops, especially those require intensive use of labor or extensive use of land, are less and less viable to produce. SKR with less constraints with land and young labor can take complementary role in agro-processing, first by supplying raw materials.

- As technology transfer goes on through private investments in SKR and the level of consumption in Lao PDR rises, investments for the higher level of processing shall be more viable on the side of SKR. In the medium to long term, SKR will eventually accommodate more processing factories. Proposed "Special Economic Zone" in Savannakhet is a place to attract these investments.

[Vision 4] Private Sector Led Interactions

Interactions of SKR and NBR should be promoted with a more emphasis on the private sector initiatives. The official cooperations at the national level are vital to further promote non-official interactions. For example, there are immediate needs for streamlining rules and regulations for cross-border investment, trades, and banking. National level policy coordination, however, is still in the early stage where basic policy framework is under consideration. Without national level agreement, cross-border cooperation remains to be somewhat sensitive matter at the level of local administration as well. To facilitate official efforts for cooperation, it is a good idea to

start private sector cooperation wherever possible. There are following two reasons to do so.

- **Existing private interactions are firmly rooted in the local society:** There are various existing cross-border interactions, especially between trading partners on the both sides. Ties between them are not only business relationships but also embraced in ethnic and cultural commonality. It is better to enhance these private interactions with practical functions firmly rooted in the local socioeconomic activities rather than to install arbitrary entities without any social background.

- **Private initiatives are more flexible:** Regarding inter-local cooperation, private initiatives, when applicable, are often more flexible and efficient than the official channels. The official channels often require to go through a long list of formalities to initiate cross-border activities in order to secure legitimacy of national representation.

[Vision 5] Better Management of Natural Resources

Steady supply of natural resources to the processing industries will be a key factor to attract investments to CBR. As already mentioned, it is quite important for CBR to have more open and efficient move of resources and products between SKR and NBR. “Open economy" however, is not equal to allowing over-exploitation of resources. Rather, it is more important to install closer and transparent control over natural resources when trading is under market mechanism.

- It is primarily a responsibility of a resource owner country to install sound control measures over use of natural resources, such as in forms of open conditions with concessions of forest resources.

- At the same time, it is much more effective when surrounding countries collaborate with a resource owned country such as introduction of border-control over unauthorized timbers.