

CHAPTER 5
CROSS BORDER DEVELOPMENT
COOPERATION PROGRAMS

CHAPTER 5

CROSS BORDER DEVELOPMENT COOPERATION PROGRAMS

5.1 Agenda for Cross Border Development Cooperation

5.1.1 Conceptual Flows

In the previous chapter, development visions for the cross border region are presented in the context of geo-economic position and characteristics. These visions are shared as starting point for both SKR and NBR master plans. Conceptual flows of SKR Master Plan, NBR Master Plan, and present CBR Report are as summarized as the following figure.

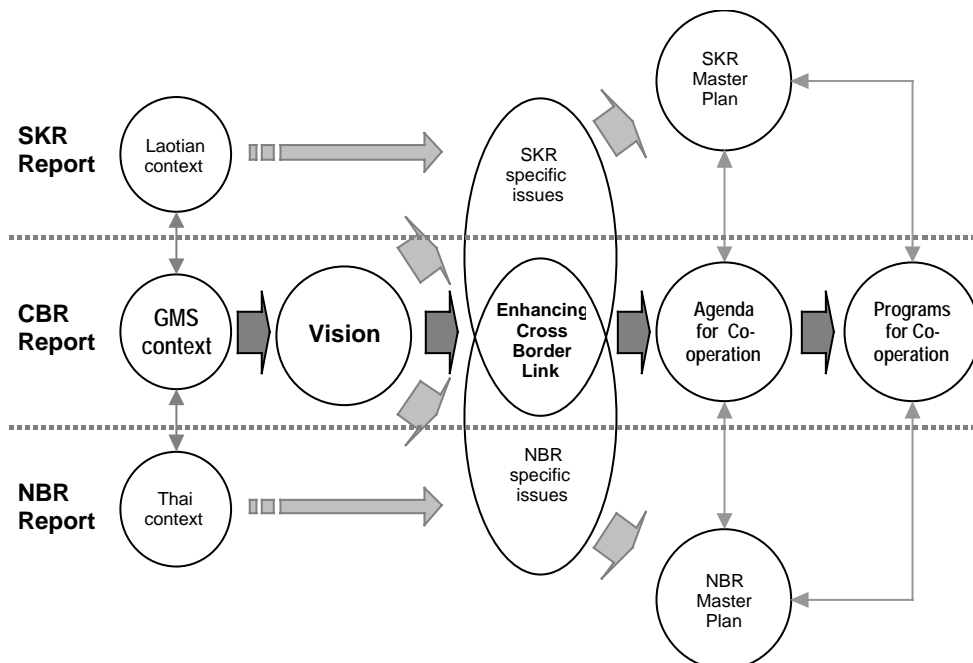


Figure 5.1 Conceptual Flow of SKR, NBR and CBR Reports

As shown in the figure, the visions have implications for both country specific issues

and cross-border cooperation. SKR or NBR specific issues and strategies are extensively addressed in respective master plans as summarized in the next section. At the same time, there are some issues that can only be tackled with cooperation and interactions between SKR and NBR. This kind of issues is addressed later in this CBR Report.

5.1.2 Development Strategies for SKR and NBR

Development strategies for SKR and NBR are defined in respective master plan as summarized in table 5.1. These strategies put focus on region specific development within SKR or NBR. Identified development potentials and constraints for SKR and NBR are as summarized in table 1.9 of Chapter 1 (details are extensively addressed in the respective master plan),

Table 5.1 Development Strategies for SKR and NBR

	SKR Master Plan	NBR Master Plan
Natural Resource Development		
Issue	Abundant but Sensitive	Detriorated and No More Frontier
Objectives	Protection of the environmer	Sustainable Natural Resource Management
Strategies	Resource Management: Focus on Forest management	Rehabilitation of Natural Resources and Sustainable Land Use Management
Human Resource Development		
Issue	Lack of Basic Qualification	Good but Need to Upgrade
Objectives	Closing living standard gap between rural and urban areas	Enrich Human Resources for next step industrialization.
Strategies	Capacity Building: Fullfill Basic Education	Increase of Technical and Managerial Workers in Middle-class
Economic Development		
Issue	Very Small Non-Agriculture Sector Need More Links to Markets	Insufficient Urban Economies Need to Diversify Rural Economies
Objectives	Enhancement of livelihood through income generation in the rural area	Well-reformed Agriculture
	Closing living standard gap between rural and urban areas	Taking Advantage of Emerging GMS Indochina MKT
	Promotion of partnership with neighbouring countries	Decentralization and Public Participation
Strategies	Income Generation: expand production of commercial crops	Diversification of Local Products: mixed farming, cottage industries
	Land-locked to Land-linked: promote trade	Promotion of New Leading Industries
	Creating a New Identity of SKR: Ecotourism products.	Urban Centers and Infrastructure Development

Source: SKR Master Plan, NBR Master Plan

Strategies for Natural Resource Development:

As already described in Chapter 1, there is a clear contrast between SKR and NBR

Cross Border Development Cooperation Programs

regarding natural resources. SKR has very good potentials in natural resources, whereas population pressure is increasing. It is proposed to take measures to utilize forests, water, and land resources more efficiently and thus in sustainable manner.

In contrast, NBR has no more room for agricultural expansion. Much of existing natural resources are already deteriorated after years of over-exploitation. For NBR, rehabilitation and careful land use management is recommended.

Strategies for Human Resource Development:

Lack of educated human resources is one of the largest bottlenecks for development of SKR. Expansion of basic education should be given utmost priority. As to meet more immediate needs, it is also recommended to strengthen technical training.

On the other hand, NBR has readily available human resources for commercial activities and industrial workers. What NBR need is to further upgrade quality of training and education to create more technical and managerial workers that shall be core population of middle-income-class in urban sectors.

Strategies for Economic Development:

In SKR, agricultural sector has very different profiles in highland and lowland. In highland areas, agriculture remains as subsistent (non-commercial) livelihood, and income level is very low. In many remote places, provision for BHN is insufficient. In these areas, measures to generate cash income are proposed. In lowland, agriculture is very much preoccupied with rice production. It is needed to expand linkages between agriculture and urban demands or processing industries, including those in NBR.

Non-agriculture sector is very small in SKR reflecting very low concentration of urban economies in the area. Given very limited financial capacity of Lao PDR, it is too costly for them to have rapid urban expansion. Instead of holding large urban centers by themselves, it is better for SKR to have access to urban services and market on the side of NBR.

In NBR, the agricultural sector is very much dependent upon few low-value added crops. Without additional land for expansion, agricultural reform is the only way to

improve productivity, including farmland integration and crop conversion.

Given higher level of human resources and good provision of infrastructure, NBR has higher potentials to hold larger urban segments of economies than SKR. It is proposed to strengthen non-agricultural sectors by promotion of new leading industries and infrastructure development of urban centers. Upgrade of HRD is also intended to promote urban development by supplying more workers for urban services.

5.1.3 Necessity for Cross Border 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 as shown in the figure 5.2. Detailed discussions are as described in the following sections.

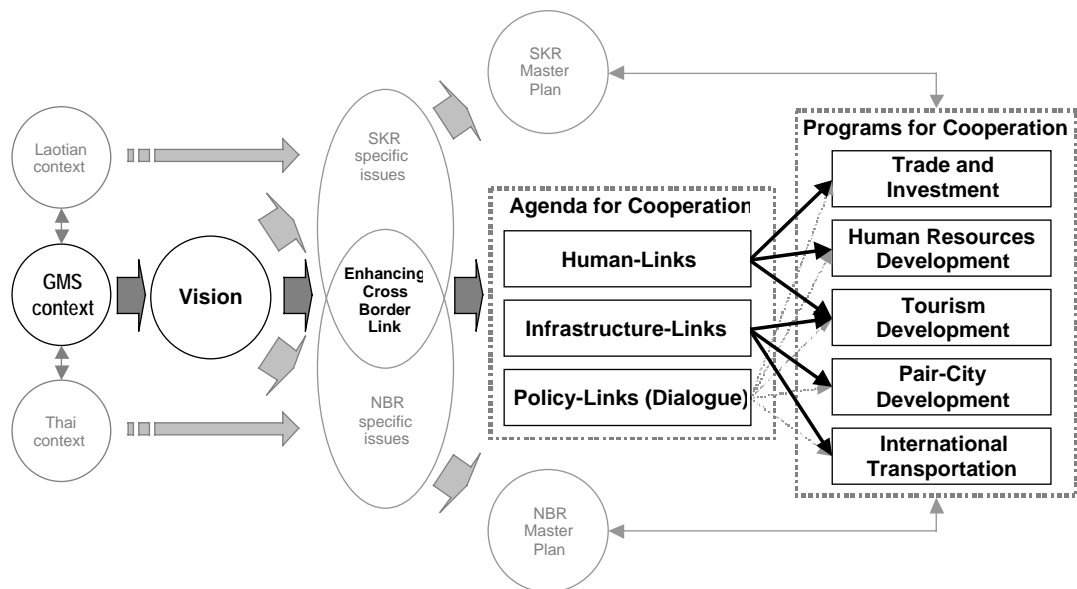


Figure 5.2 Agenda and Programs for Cross-Border Cooperation

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 (as presented in Chapter 1 of this report),
- International trends such as AFTA and GMS Programs that further encourage freer international business (as presented in Chapter 2 and 3), and
- Complementary characteristics of two regions that can be a basis of "win-win" economic relationship (as presented as Vision 3 in Chapter 4).

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.

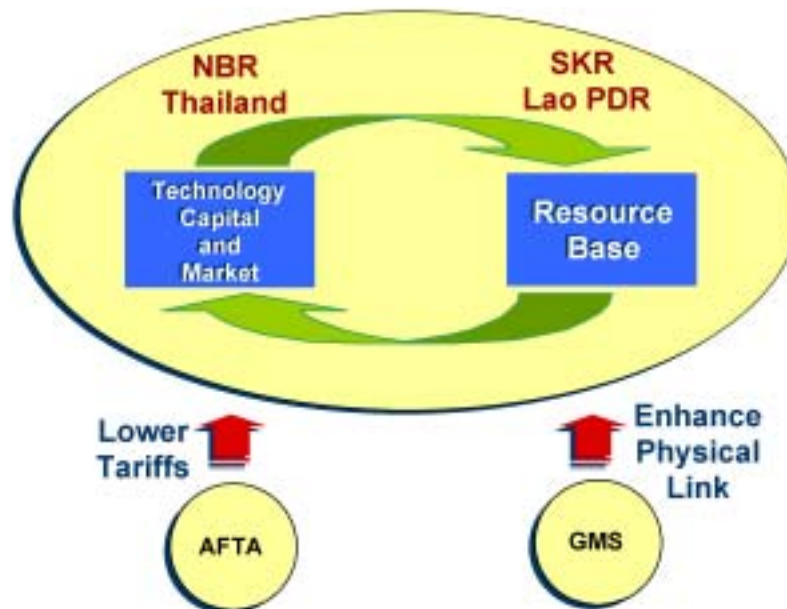


Figure 5.3 Concept of Complementary Settings of SKR-NBR

[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 for further cooperation.

- **Business Links:** Technical cooperation through private business activities is some of the typical outcomes of information sharing. Having the complementary advantages as well as mutually communicable languages, NBR can effectively provide technical cooperation for the development of SKR, which in turn would benefit NBR. Viable fields of the technical cooperation through business activities would include the agricultural extension as a package of contract farming or livestock raising between Thai companies and Laotian farmers.
- **HRD Links:** It is also recommended to have technical cooperation for the public human resource base such as social services, project planning and environmental management and the infrastructure maintenance.

[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. Bridge and highway projects should be very selective in terms of GMS development, since a few overland links would be sufficient between major metropolitan cities along the coast of the GMS. However, 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. Of particular importance would include the following subject matters.

- The inter-city linkages across the river; Mukdahan-Savannakhet and Nakhon Phanom-Thakhek.
- Strengthening of maintenance capacity for international transportation infrastructure.

Cross Border Development Cooperation Programs

- Tourism should be regarded as a strategic means to better manage and upgrade infrastructures for regional development, e.g., cross-national use of airport and related public transportation.
- Upgrading urban environment.

[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.

- **Deregulation of Interaction:** Deregulation should be continued at the national level to further streamline the movement of goods, people and capital between the two countries. Potentials of Cross-Border links between SKR and NBR cannot be realized without more open institutional settings. Given more open settings, it is quite probable that agriculture on the NBR side should be specialized in more technology/ capital intensive one and be prepared to give way the production of uncompetitive items to SKR under the common tariff system of AFTA. On the SKR side, manpower training is warranted for the purpose of either inviting good investments from neighboring regions including NBR or effectively acquiring the technical and market information from the neighboring regions through Lao people working there.
- **Issue-by-issue coordination:** Negotiations have been conducted between the two countries in various issues such as electric power trade, trucking industry, residential permit and cost sharing in the infrastructures for common use. It is unavoidable to negotiate these on issue-by-issue basis between the line authorities that are in charge of representing the so-called national interest within their jurisdictions on the respective sides.
- **Comprehensive coordination:** Issue-by-issue approach alone may not necessarily be effective to promote the regional development across the border. It is at this juncture that more comprehensive approach should also

be taken to enable a package of "give-and-take" compromises on long-term basis. The comprehensive approach would call for a greater role to be played by policy coordinating agency such as NESDB and SPC.

- **Environmental Management:** It is also important for SKR to strengthen land use control so that the investment inflows, which are expected to be rapid after the implementation of AFTA, will not cause excessive resource exploitation and serious environmental degradation. In this regard, it is recommended to explore a possibility of adopting a beneficiary pay principle in maintaining the natural environmental resource, forest in particular, of the Mekong River Basin. Depletion of this resource would seriously undermine the economic base of not only SKR that own the resource but also NBR that use the resources whether directly or indirectly, in the form of lumber and electric power.

5.2 Cross Border Cooperation Program

To translate the above agenda into concrete actions, this study proposes programs for SKR-NBR cooperation. Cooperation programs (and constituent projects) were listed based on the following requirements.

- The programs that enhance or facilitate "Human-Links", "Infrastructure-Links", and "Policy-Links".
- The programs which need resources from both sides. This is to emphasize programs of "equal base partnership" and to exclude those of uni-directional "assistant". Each party should participate in a project with something with their hands. Such resources include human, financial, and land or natural resources.
- The programs which benefit the both sides. The fruit from cooperation project should be shared by both. It is better to have tangible incentives for both parties to ensure sustainability of the project.
- The programs need direct collaboration. It is preferable to have a program that involves components of working "face-to-face". Collaborative projects will increase the mutual understanding of the two regions.

As shown in the figure 5.2, following five cross border cooperation programs are drawn as media to translate the agenda into concrete actions.

- (1) Trade and Investment Environment Improvement Program
- (2) Human Resources Development Program
- (3) Pair-City Development Program
- (4) Tourism Development Program
- (5) International Transportation Development Program

Contents of each programs are described as following sections. Table 5.2 is a list of all programs and projects for cross border cooperation.

Table 5.2 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 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 between 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

5.2.1 Trade and Investment Environment Improvement Program

Program Objectives:

New investment from outside will be an engine to industrialize the region. This program intends to improve trade and investment in the CBR by facilitating resources from private investors.

Major Components of Program:

The program includes following major projects.

- **Cross Border Business Development Forum**

The program focuses to provide a common meeting ground for business community to express their opinions and to organize themselves. This will be a round-table styled forum for businesspersons on both sides of the Mekong. This project is further described in Chapter 7 as one of the priority projects.

- **Cross Border Contract Farming**

Another focus is an effective business link on agro-industry. Although agro-industry has been identified as a potential subsector of industry, systematic linkage among business activities in SKR, NBR and Bangkok has been weak for a long time.

This program will utilize the advantage of CBR by adopting cross-border contract farming system into agro-processing industry. Cross-border contract farming system requires a cross-border arrangement for technology transfer and to make agricultural products to be in compliance with a specific qualification at the market. The products of focus are livestock, fruits and vegetables.

5.2.2 Human Resources Development Program

Program Objectives:

From a viewpoint of long term, human resources development is an important element for development. 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.

Major Components of 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. Following projects are given higher priority. For detail, please see SKR or NBR Master Plan.

- (1) Establish sister-school relationships between Savannakhet Technical School and Thai schools such as Rajabhat Schools in NBR.
- (2) Establish sister-school relationships between Savannakhet Agricultural College and Rajamangala institute in NBR.
- (3) Mutual support as one school system, regular exchange-programs, and sharing teaching staff and curriculum.

5.2.3 Pair-City Development Program

Program Objectives:

The CBR has no urban centers as large as Ubon Ratchathani or Udon Thani. 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. Two major pairs are Savannakhet-Mukdahan and Nakhon Phanom-Thakhek. The basic idea on this program is to share urban infrastructure by institutional arrangement, including airports, electricity, telecommunications especially mobile phone services, water, hospital and etc.

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. In addition to mutual economic benefits, this program will also promote mutual understanding of both people by encouraging daily interaction.

Major Components of Program:

There are following projects.

- **Savannakhet Airport utilization:** Projects under this program begin with Savannakhet Airport utilization (see Chapter 7 for detail). Then, the same scheme can be applied to Nakhon Phanom Airport.

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- **Secondary Crossing Points Project** is to establish several crossing points over the Mekong for local residents. This is applied to smaller cities than Mukdahan-Savannakhet and Nakhon Phanom-Thakhek. Such crossing points are unmanned with limited immigration functions. It accepts only local people with border passes and without any declaration for customs. Piers for small boats are necessary but a car ferry is not required.
- **Telecommunications** can be involved in this program. Once optic fiber connects Mukdahan and Savannakhet, it will benefit not only local area but also regional users. Telecommunications Gateway Project includes mobile phone common station, a diverted Lao domestic connection during interruption and high-speed Internet service provision (See Sector Report in each Master Plan).
- **Emergency Medical Service Improvement Project** is motivated for humanitarian purpose. Once new bridge is open, it will decrease the passing time dramatically. This will improve emergency medical service for Savannakhet residents. The project requires mutual agreement on medical service, including expense, and an ambulance on Savannakhet side. A similar scheme is now in operation between Nong Khai and Vientiane.

5.2.4 Tourism Development Program

Program Objectives:

Tourism is one of the key subsectors of service industry. This program is to promote tourism in CBR through various projects. Although CBR is enriched in tourism resources, the remoteness from Bangkok region decreased attractiveness as tourist destination.

The construction of the Second Mekong International Bridge, improvement of Route 9 of Lao PDR, and cross-national use of Savannakhet airport will improve transportation access to the CBR. It is, however, not enough to increase the tourists in the CBR. The project aims at promotion of the tourism industry in the CBR that calls for joint promotion activities among Thailand, Lao PDR, and Viet Nam.

Major tourist target in the CBR is the tourist from GMS area. 95% of tourists to the CBR are from Thailand. And, 80% of tourists to SKR (Lao side) are day-trippers from NBR(Thai side) which means that if the number of tourists of one side grows, the

other grows as well. This also implies that joint tourism promotion shall be very effective.

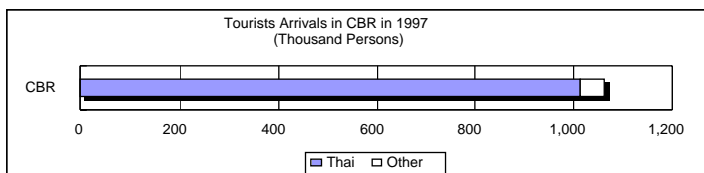


Figure 5.4

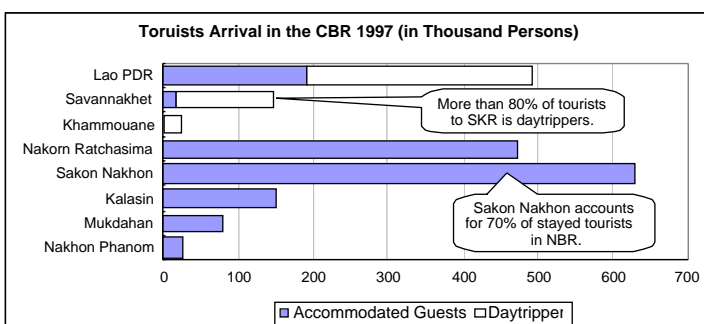


Figure 5.5

Future Direction for Tourism Promotion:

There are some existing tourism resources. These resources are, however, scattered in the region, and do not have strong image to attract new tourists. Considering this present conditions, future perspectives are boiled down to following two aspects.

- Integration of the cross boarder as "Mekong-and-its two-River sides":
Mekong River is the most well known name in the CBR. But, this is not fully utilized to generate publicity. Publicizing existing tourism resources as integral parts of one larger image of "Mekong-and-its two-River sides" is the best way to strengthen impression of somewhat scattered existing tourism resources.
- Increase publicity of the CBR within a tourism industry:
Find out, or even create brand new tourism resources to increase publicity of the CBR as a tourist destination. Existing resources alone are not enough to generate publicity.

Major Component of the Program

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

Activity 1. Cross-border integration of tourism:

The Mekong River is the most well known name in the CBR. It is natural to promote the river and two riversides as one package of tourist destination. Thus, a basic concept of integration is to create conditions to make tourism resources in the CBR into one large image of the tourism of "Mekong and its two river sides". In practice, it is important to make things easier for Thai-Lao Cross-border excursion.

- Coordination of transportation links
- Deregulation of tour operators in the CBR.
- Visa-waiver entry is attractive for international tourists. At least, multi-visa issuance for the Mekong tour international tourist should be simplified.

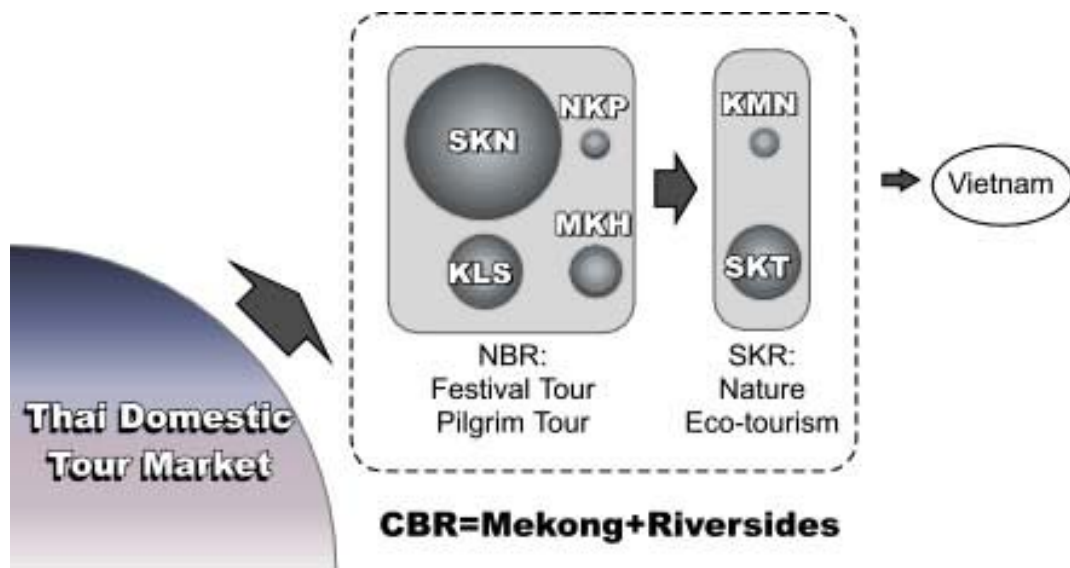


Figure 5.6 Concept of Tourism Integration

Activity 2. Joint Publicity Campaign:

The second group of activity is joint publicity campaign under one image of, such as, visit "Mekong -and- Riversides."

CBR Tourism Promotion Committee, National Tourism Organizations of Thailand and Lao PDR will jointly work out the marketing activity for the promotion of the international tourist arrivals of Mekong Tour.

Possible joint programs are:

- (4) Familiarization trip for travel writers and tour operators
- (5) Introductory seminar of GMS East-West Corridor Mekong Tour in Bangkok and Vientiane.
- (6) Enhancement of advertisement
- (7) Joint Tourism Information Booklet
- (8) TV programs, novels, history book, movies associated with the CBR.

Activity 3. Creating new tourism centerpiece:

It is needed to create symbolic events that will be new tourism centerpieces in the CBR. It is important to have new events that have some direct image links to the Mekong River and the new bridge.

- International Bicycle Race: “Tour de GMS”. (i.e. Danang-(R9)-2nd Bridge-Bangkok)
- Mekong River Fireworks Festival (could be international competition)
- Dragon Boat Racing
- Craft Village
- Herbal Spa and eco-tourism package.

And could be something else...

Activity 4. Upgrade Tourism Supporting Facilities:

Lastly, it is also needed to upgrade essential tourism supporting facilities, namely restaurants and restrooms. Improvement of these facilities really essential to everyone of us will very much improve impression of the CBR.

Tourism Promotion Committee shall give incentives to improve by authorizing and awarding good practices.

- Clean and Comfortable Restrooms: Rating and awards for cleanliness.
- Restaurants: issue “tourists class certificate”

All these ratings and awards are used to publicize in the tourists booklet by the committee.

Organizational Settings for Tourism Promotion: CBR Tourism Promotion Committee

As already mentioned, we propose to Establish the CBR Tourism Promotion Committee as a Sub-group of Cross-Border Business Development Forum:

Core members of the committee shall be as follows.

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- Members of Cross-Border Business Development Forum (Hotels, Restaurants, Gift Shops, Taxi, Tuk-tuk operators)
- Province
- Municipality
- TAT
- NTA

Table 5.3 Who do what for Tourism Promotion (descriptive example):

	Members of the Forum	Province and Municipality	TAT and NTA	National Government Agencies
Activity 1: Cross-border integration				
● Thai-Lao Cross-border Excursion	✓✓	✓		
● Deregulation of tour operators	✓		✓✓	✓
● Coordination of transportation links		✓		✓
● Visa-waiver entry				✓✓
Activity 2: Joint Publicity Campaign				
● Familiarization and introductory seminar	✓✓	✓	✓	
● Enhancement of advertisement	✓✓		✓	
● Joint Tourism Information Booklet	✓✓		✓	
● TV programs, novels, history book, movies associated with the CBR.	✓✓			
Activity 3: New Tourism Centerpiece				
● International Bicycle Race	✓✓	✓	✓	
● Mekong River Fireworks Festival	✓✓	✓	✓	
● Dragon Boat Racing	✓✓	✓	✓	
● Craft Village	✓✓	✓	✓	
Activity 4: Tourism Supporting Facilities				
● Clean and Comfortable Restrooms	✓✓	✓✓		
● Restaurants	✓✓	✓✓		

5.2.5 International Transportation Development Program

Program Objectives:

This program is closely related with the East-West Corridor development. The rehabilitated Route 9 and the Second Mekong International Bridge will bring a new era of international transportation to CBR around in the year of 2005-6. At the same time, people also concern how to improve the advantage of CBR in international context from a land-locked to a land-linked area. This program intends to improve international transportation in CBR and to assist tourists and traders to move and carry cargoes more smoothly and sustainably.

Major Components of Program:

This Program mainly focuses on the post-completion of EWC. Thus, it does not include a large-scale infrastructure project. Rather this program emphasize "operation and maintenance" projects. One is the maintenance of Route 9, and the other is Joint Custom Operation.

Route 9 Joint Maintenance:

The Route 9 will be rehabilitated by the year of 2005 but another issue will be raised: how to sustain the route. The project intends to maintain good condition of the route by the international efforts (see Chapter 7 for detail).

Joint Custom Operation:

In addition to physical barrier, institutional barrier is also a big issue for the Corridor. Especially, the time-consuming custom clearance on each border is a headache for many shippers. This project facilitates custom offices to operate by single window basis. It means their custom operations are conducted jointly on the site of departing side country. Other border crossing procedures such as quarantine, immigration, and vehicle inspection should be conducted at the same window. This can be done only by institutional arrangement.

CHAPTER 6
INSTITUTIONAL FRAMEWORK FOR
IMPLEMENTATION

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6.1 Basic Ideas for Implementation

This chapter presents some basic ideas for implementation, especially on organizational and financial alternatives. Institutional framework of implementation for the cross border activities will be very different from ones proposed by regional masterplans. Once SKR and NBR regional masterplans are handed over to the respective counterparts, SPC and NESDB work as organizing institution for implementation within each country. With the ownership of counterparts, the masterplans can be modified or adjusted for implementation.

This study proposes two levels of interactions; programs and projects. Cross-Border Programs describe the packages of interactions. Cross-Border Projects present specific development schemes over the two countries.

Currently, there is no public organization to oversee both Thailand and Lao PDR. Nonetheless, two countries have many communication channels besides its diplomatic route. Many line ministries and agencies, including SPC and NESDB, on both sides meet on bilateral base. In addition, ASEAN and GMS sectoral forums provide chances to discuss multilateral issues. Creating a new institution exclusive for Cross-Border Programs is not a welcoming idea for both SPC and NESDB.

In addition, the scope of each program is so wide that the establishing an implementing organization is not viable. Rather, the Development Visions and the concept of Cross-Border Programs should be shared by the many stakeholders in CBR.

6.2 Implementing Schedule and Organizations for Program and Projects

The following Figures express the implementation schedule and related agencies for Cross-Border Programs and projects. One of the most important milestones is the completion of the Second Mekong Bridge. Some projects should start early to meet the completion of the bridge. Some projects should start after the completion of the bridge.

Table 6.1 Schedule and Implementing Organizations for Trade and Investment Environment Program

Projects	Schedule				MOFA SPC NESDB	MIH (Lao) MOI(Thai)	Province and Municipality	FIMC (Lao) BOI (Thai)	Private Sector
	2001- 2004	2005- 2009	2010- 2014	2015- 2020					
Investment Promotion									
Joint Promotion								XX	
Incentives								XX	
Operation									
CrossBorder Business Dev. Forum									
Arrangement					X	X	X	X	X
Secretariat									XX
Participation							X	X	XX
Governor Forum									
Arrangement					X		XX		
Secretariat							XX		
Participation							XX		
Venture Business Support									
Plan and Implementation						XX		X	
Utilization								X	XX
Livestock Development									
Arrangement							X		
Vaccination						X (M. of Agriculture)	X		
Contract Farming									XX
Vegetable and Fruit Development									
Arrangement						X (M. of Agriculture)	X		
Contract Farming									XX

XX: Responsible organization X: Related organization

Table 6.2 Schedule and Implementing Organizations for Human Resources Development Program

Project	Schedule				MOFA SPC NESDB	MOE (Thai, Lao) MOUA (Thai)	Province and Municipality	New Authority/ Agency	Private Sector
	2001- 2004	2005- 2009	2010- 2014	2015- 2020					
Savannakhet Tech. Training									
Arrangement						XX	X		
Implementation						X	X	X	
Deregulation of Labor									
Government Negotiation					XX				
Implementation								XX	X
GMS International University									
Arrangement					X	XX (MOUA			
Implementation								XX (University)	

XX: Responsible organization X: Related organization

Institutional Framework for Implementation

Table 6.3 Schedule and Implementing Organizations for Pair-City Development Program

Project	Schedule				MOFA SPC NESDB	MCTPC (Lao) MOTC (Thai)	Province and Municipality	New Authority/ Agency	Private Sector
	2001- 2004	2005- 2009	2010- 2014	2015- 2020					
Savannakhet Airport Utilization									
Government Negotiation					XX	X			
Construction of MCAT and Runway Extension								X	
O & M								X	XX
Nakhon Phanom Airport Utilization									
Government Negotiation					X	XX			
O & M								X	XX
Third Mekong Bridge									
Government Negotiation					X	XX			
Plan and Design						XX			
Construction						XX		X	X
Secondary Crossing Points									
Government Negotiation					X	XX			
Construction of Piers						X	X		
Ferry Operation							X		X
Telecom Gateway									
Government Negotiation					X	X			
Optic Fiber Extension								X X (CAT and LTC)	X
O & M								X	
Emergency Medical Service									
Government Negotiation					X	XX (Min. of Health)			
Budgetary Setup							X		X
O & M									X

XX: Responsible organization X: Related organization

Table 6.4 Schedule and Implementing Organizations for Tourism Development Program

Projects	Schedule				MOFA SPC NESDB	NTA (Lao) TAT(Thai)	Province and Municipality	FIMC (Lao) BOI (Thai)	Private Sector
	2001- 2004	2005- 2009	2010- 2014	2015- 2020					
Deregulation of Immigration									
Government Negotiation					XX				
Implementation					XX				
Joint Promotion									
Arrangement					X	XX	X		X
Implementation						XX	X		XX
Pilgrim Tour									
Arrangement						XX	X		
Secretariat						XX	X		
Participation							X		XX
Tourism Free Zone									
Government Negotiation					X	XX		XX	
Implementation						X		XX	XX

XX: Responsible organization X: Related organization

Table 6.5 Schedule and Implementing Organizations for International Transportation Development Program

International Transportation									
Project	Schedule				MOFA SPC NESDB	MCTPC (Lao) MOTC (Thai)	Province and Municipality	New Authority/ Agency	Private Sector
	2001- 2004	2005- 2009	2010- 2014	2015- 2020					
EWC O&M Form									
Arrangement					X(STF)	XX			
Secretariat						X	X	X	
Participation						X	X	X	
Route 9 Joint Maintenance									
Arrangement						XX			
Operation						X (Technical cooperation)		XX X	
Joint Custom Operation									
Government Negotiation					XX (Tripartite Agreement)	XX (Customs Dept.)			
Joint Operation						XX (Customs Dept.)			

XX: Responsible organization X: Related organization

6.3 Implementing Organizations for Projects

Contrary to the Programs, the Cross-Border Projects require specific institutional arrangement for implementation. Table 6.6 indicates the proposed institutional setup for Cross-Border Programs here and in Chapter 7.

Table 6.6 Institutional Arrangement for Cross-Border Programs and Projects

Item		Name	Institutional Setup
Visions and Programs		--	The concepts should be share b both.
Cross-Border Projects	Priority Projects	Cross-Border Business Development Forum	United private institution from bot sides.
		Savannakhet Airpor Utilization	Nonpublic Authority. PFI can b introduced.
		Route 9 Joint Maintenanc	Lao agency for operation with The technical assistance.
	Other Projects		G-G Base or Private.


For institutional arrangement, the following three categories have been considered.

Public - Private

A public organization is not appropriate for implementation of Cross-Border projects because it is subject to a single country.

For projects that have revenue, a private organization works better. On the other hand, the project without revenue, such as a center for technical cooperation, should be implemented through public-based organization.

Table 6. 7 Public - Private Scale and Institutional Options

Range of Responsibility	Menu of Institutional Options
Public	Government Department
	Parastatal
	Service Contracting
	Management Contracting
	Leasing
	Concessions (including BOT/BOO, etc)
Private	Cooperative/ Communal Arrangements
	Private Entrepreneurship

Source: Kessides, Christine.1993. *Institutional Options for the Provision of Infrastructure.* World Bank Discussion Papers.

If a project can attract private concessionaires, Private Finance Initiative (PFI) would be suitable.

Unified Organization - Divided Organization

Then the organization has a scale of unified – divided. A unified organization has advantages in responsible decision making and distribution of resource over the countries. Cases of unified organizations over more than two countries are as follows:

- International Organizations
- NGOs
- Some religious organizations
- Multilateral Corporations.

For divided organizations, each side has different organizations based on each law. As the purpose of the both organizations is same, they have regular meetings. Followings are the cases:

- Thai-Lao (Lao-Thai) Friendship Association
- Friendship Bridge Administration.

Permanent – On-demand

The last scale for Cross-Border projects are permanent – on-demand. An organization is not necessary to have a permanent office or secretariat. Board and

its permanent office are also an option for the organization. The executive members, committee or board, who consists of members from both countries, can meet on demand basis.

The interaction of two countries needs a long process of communications and understandings. For the purpose of deregulation by existing line ministries and agencies, it is appropriate to establish a communication channel between the two besides the official diplomatic route. Cross-Border programs are to be realized through the communication channels on demand base for the following line agencies of the two countries.

- Immigrations
- Customs
- Quarantine
- Aviation
- Land transport
- Foreign investment
- Etc.

6.4 Financing Sources for Projects

The Cross-Border Projects are designed to be implementable at the minimum cost. They do not require huge investment. However, the programs and projects necessitate some financial sources as initial seeds.

Possible Financial sources are as follows.

Public Budget of Each Country

Each Government finances some part of the projects. Especially, it will be easy to finance for routine work. Naturally, the foreign projects are not eligible for public budget unless they are classified for international cooperation.

In addition, government budget is also required for local contents and recurrent portion of foreign assistance. If the loan amount is as large as the Second Mekong International Bridge or EWC, the local portion will be 5~15% in general. It is necessary to prepare the local budget to match foreign-assisted projects.

External Sources

Finance from foreign donors can be financial sources of projects. Loans and grants from international donors require specific recipients responsible for repayment. In the case of the Second Mekong International Bridge, Thailand and Lao PDR are responsible to the repayment of each half of the bridge. For Cross-Border Projects, each government is eligible individually or jointly in proportion to the area of responsibility.

Investment from Private Sector

Profitable projects can attract private sectors for investment. If a cross-border project has some revenue, a PFI (Private Finance Initiative) scheme is available. Some projects especially the infrastructure projects should be considered for PFI.

CHAPTER 7
PRIORITY PROJECTS FOR
CROSS BORDER COOPERATION

CHAPTER 7

PRIORITY PROJECTS FOR CROSS BORDER COOPERATION

7.1 Selection of Priority Projects

Based on the above program and sector analysis, here presents the following project list. Some projects are cross-related to other programs, even to programs of SKR and NBR Masterplan.

7.1.1 Criteria to Select Priority Projects

Table 5.2 (P.5-10) lists the all projects for cooperation by program. Three projects have been identified for preliminary feasibility studies (Pre F/S) during the Phase III of this study. The criteria to identify the projects are as follows:

Local needs are more prioritized than long-term, international or national needs

The GMS Program has already incorporated the projects prioritized from long-term, international and national viewpoints. This study enhanced the local needs, which may be submerged under huge projects. Such huge infrastructure projects alone will not necessarily benefit the local community. It is needed to supplement the large projects by programs based on local needs.

More private investment is encouraged

This criterion is derived from Vision 4 Private Sector Led Interactions. The CBR has been accepting a large amount of public investment. Now, the region welcomes private investors. Additionally, the region expects quick activities of private investors.

Existing activity and investment are fostered

The local people have the wisdom about the seed of the project idea. The study intends to help and raise the seed to the specific project ideas.

7.1.2 Programs and Project Prioritization

Projects in Trade and Investment Environment Improvement Program

Cross-border Business Development Forum has been prioritized within the Trade and Investment Environment Improvement Program because the local business communities are very active to organize themselves around the Provincial Chamber of Commerce. The selection of the Forum facilitates this movement. Based on the provincial governors' voices, Tourism Development is significant for the CBR region. Most components are organized into the Business Development Forum and the Forum promotes various tourism-related activities including joint promotion.

Projects in Human Resources Development Program

Projects under Human Resources Development Program are of importance in the long run. As some HRD projects have been selected under SKR and NBR masterplans, the cross-border HRD activities are designed to realize under each SKR and NBR priority project.

For example, the following pairs of schools are designed to make linkage under each masterplans of SKR and NBR.

- Savannakhet Agricultural College - Kalasin Ratchamangala Institute
- Savannakhet Technical School - Sakon Nakhon Technical School
- Mukdahan Ratchaphat Institute (Accepting Lao students)

Accordingly, this CBR report has not selected a project under HRD Program.

Projects in Pair-City Development Program

Among this Program, the Secondary Crossing Points and Emergency Medical Service projects can be implemented by the local efforts with nominal cost. Telecom Gateway Project is implementable by the telecommunications corporations in both countries.

Priority Projects for Cross Border Cooperation

Savannakhet Airport Utilization should be implemented in the first priority to fulfill existing local passenger demand in Mukdahan. In addition, it can attract more investment into the region.

Projects in International Transportation Program

Under the International Transportation Program, the Joint Maintenance of Route 9 has been prioritized because the first section, 20km, of rehabilitated Route 9 is already in use and the establishing an appropriate system for maintenance is in urgent need.

EWC Operation and Maintenance Forum will be a part of Business Forum.

Joint Custom Operation is now in progress by the finalization of Protocols by the Tripartite Agreement.

Priority Projects for Preliminary Feasibility Studies

In total, three projects were shortlisted for examination of preliminary feasibility studies.

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

These projects are shaded on the project list of Table 5.2.

7.2 Cross-Border Business Development Forum (CBBDF)

7.2.1 Background

Existing Cross-border Business and Trade Activity in CBR

If there were free trade and investment in CBR, there would be huge opportunities for cross-border business and trade development. The reasons to impede the free activities are considered as follows:

- Institutional barriers. Tax, custom, time and paperwork.
- Physical barriers. The Second Mekong Bridge will reduce the passing time on the Mekong.
- Limited information on the other side.

On the course of the study, our team found the following facts on the information gaps in CBR.

- Unexpectedly developed mistrust or misunderstanding between businesspersons in Thailand and Lao PDR. A stereotyped image of Thai businessperson as an *exploiter* and prejudice toward Lao workers are the cases.
- Conservative attitude of people in CBR on promoting cross-border business and trade development.

To facilitate more trade and investment in CBR, the above constraints should be solved through appropriate two major communication channels: public and private.

Government Based Discussion for Trade and Investment Facilitation

Thai and Lao governments have been working to improve trade and investment relationship through diplomatic channel. Among the effort, the "Tripartite Agreement¹," which also involved Viet Nam, is of importance toward the trade facilitation in these years (See also 7.4.1). The protocol for traders to cross borders will be dramatically deregulated under the scheme. The public sector has significant role to improve trade and investment environment.

¹ "Agreement Between and Among the Governments of the Lao People's Democratic Republic, the Kingdom of Thailand, and the Socialist Republic of Viet Nam for Facilitation of Cross-Border Transport of Goods and People" signed on November 26, 1999.

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On the other hand, the public based facilitation has had the following limitations in the trade and investment facilitation:

Firstly, each country is bound to national interest. If one investor transfers a factory from Thailand to Lao PDR, the workers in original factory in Thailand will lose jobs. Thai BOI would encourage the investor to relocate the factory to other region in Thailand rather than in Lao PDR. From a viewpoint of the investor, it is not the best solution. CBR development sometimes conflicts with national interests as above.

Secondly, G-G (Government – Government) based discussions tend to take long process before actions. Investors are required to meet themselves to rapidly changing international environment. For example, private investors can open Internet cafes long before the governments provide their information technology (IT) related measures to the region.

Thirdly, there are also conflicts in the interests among the ministries in each country. So, the protocols in the Tripartite Agreement cannot be finalized yet by the conflicting domestic interests.

Fourthly, senior officials working in the public sector (including both the central and local administration) are not permanently positioned. Accordingly, continued and consistent discussions are often interrupted. Businesspersons, who stay longer in the region than government staff, are sometimes disappointed by changing policies in short time.

Demarcation between Government and Private Channels

Naturally, the roles of government and private discussion channels are different. Discussion by government channel contributes to improve overall trade and investment environment and private sectors are expected to play as investors and traders.

In addition, because the G-G based discussions include diplomatic and political matters at national level, they are beyond our focus, regional development. Then, this study focuses on the private sector led institutional mechanism in CBR.

Private Sector Led Institutional Mechanism

Having recognized the above situation, it is necessary to have a private sector led institutional mechanism, in cooperation with the local administration, for discussing business development in CBR. It is better to have a single institution in CBR than to have different organizations in SKR and NBR. That is true from the aspect of the easiness of institutional arrangement, since there is no need to coordinate internationally as well as inter regionally between SKR and NBR. However, the objective of this project will not be achieved with such an arrangement. That is because the complementary characteristics of SKR and NBR cannot be fully utilized under the two separate institutional mechanisms in SKR and NBR. SKR has an advantage in a local resource base. On the other hand, NBR has a better market access. The two advantages need to be well linked. Therefore, a single institutional mechanism covering SKR and NBR is necessary.

Highlighting Businesspersons

To link local resources on the Lao side and a market access on the Thai side, it is needed to bring a package of capital investment and technology transfer into the CBR.

The businesspersons in SKR and NBR are highlighted to facilitate the complementary package within the local socio-economic context. Additionally, they also work to provide the capital-and-technology packages.

7.2.2 Objectives

The objective of Cross Border Business Development Forum (CBBDF) is to create driving force for private sector development in CBR by connecting CBR with potential markets, direct investment inflows, management technologies and local resources.

7.2.3 Roles and Function in Masterplan

Role of CBBDF in two Masterplans

This Forum is derived from "CBR Vision 4 Private Sector Led Interaction." It is one of the major components of "Item 1 Establish Cross-Border Human-Links."

The Forum also aims to realize the NBR strategy 3 of "Promotion of manufacturing and distribution industries by utilizing GMS market." It also fulfills the SKR objective of "Promotion of partnership."

Public Investment and Private Investment

The masterplan presents directions and measures for regional development in CBR including various types of public investment projects. Although public investment projects are crucial for the development of CBR, they can have impacts on the region's economic development only when massive private direct investment follows the public investments. For example, the two governments can prepare industrial estates in CBR, but they cannot force private sectors to settle in the region. Unless there are incoming private investors, those industrial estates will be useless.

Investment Promotion by the Government

In the master plan, CBR needs to have a mechanism for creating driving force for private sector development in the region. There are two kinds of approaches for inviting private investment. One is a traditionally used approach of investment promotion by the governments, such as the ones conducted by BOI or FIMC. This approach is considered as a government led investment promotion, and necessary for preparing institutional measures for investment promotion including tax incentives.

Private Sector Led Investment Promotion

The other is an approach in which private sector people initiate and work on preparing an investor friendly investment climate. Major activities within this approach are lobbying for achieving a good business environment, establishing fair and ethical business practices, and capacity building of local small and medium scale business entities to the internationally acceptable business standards so that they can be good business partners for outside investors. When the public sector is really to respond to the needs of the private sector, business environment can be improved in a bottom-up manner. In that sense, this can be called a private led investment promotion.

Contribution of Business People

This approach has not been well established in the form of standard procedures. However, since business people know more about the behavior and interests of investors than those in the government, they can tell under what conditions investors are willing to invest in CBR. Therefore, CBR will be able to provide investors with a better investment climate through this approach. In the case of CBR, local business

people and outside companies interested in doing business in CBR are the core constituencies of the private led investment promotion.

Learning as well as Business Opportunities for Local Business People

In addition to the importance of the above mentioned private led investment promotion, CBBDF provides local business people with world business perspectives and information on sound management practices. Since the local business people themselves are the potential investors in CBR, they will be able to reinvest in the region based on what they learn through CBBDF. That will also contribute to the private sector development in CBR.

7.2.4 Project Description

Concept

CBBDF is an institutional mechanism for achieving the stated objectives. The Forum is to be formed in order to manage or influence on the following four key factors to increase investment and cross border trade in CBR. The first one is the relationship between the Thai and Lao businesspersons in doing cross-border business. The second is the role of cross-border traders. The third is connections and channels of local businesspersons in CBR with companies mainly in Bangkok. The last one is the government policies on cross-border trade and businesses, particularly in CBR. If these four key factors are well managed, cross-border businesses and investment can increase in CBR. Therefore, a certain management mechanism on the four key factors should be introduced. The Cross-Border Business Development Forum is one of the mechanisms to be used for that purpose.

The concept of the Cross-Border Business Development Forum can be described in the activity/function chart (See Table 7. 1).

Priority Projects for Cross Border Cooperation

Table 7. 1 Activity / Function Chart of Cross-Border Business Development Forum

5 Purposes of the Forum	10 (or 11) Activities	6 Functions					
		Getting to know each other	Learning business and management	Sharing information and resources	Collaborating each other	Influencing and lobbying	Arbitrating and solving conflicts
Local Resources Development and Utilization	Semi-Annual General Meetings						
	Annual Public-Private Joint Meetings						
	Thematic Group Meetings						
	Directory Services						
Improvement of Business Environment	Policy Recommendation and Lobbying						
	Arbitration Service between Members						
Invitation of Direct Investment	(Inviting Lecturers and Observers)						
	Issuance of News Letters						
Market and Marketing Channels Development	Exhibitions						
	Study Tours and Reporting						
Management Capacity Building	Quarterly Seminars and Workshops						

: Primary purpose, : Secondary purpose, : Tertiary purpose

In order to effectively manage or influence on the four factors, there are 10 major Forum activities. They are:

- (1) Semi-annual general meetings,
- (2) Annual public-private joint general meetings,
- (3) Thematic group meetings,
- (4) Directory services on Forum members, lecturers, business and trading rules and public and private business support services,
- (5) Policy recommendation and lobbying,
- (6) Arbitration service mainly between Forum members,
- (7) Issuance of newsletters,
- (8) Exhibitions,
- (9) Study tours and reporting, and
- (10) Quarterly seminars and workshops.

Additionally, invitation of lecturers and observers is also important to invite direct investment, because the first step of direct investment can be personal contacts of investors with the local people.

As a result of the Forum activities, four intermediate goals should be achieved.

They are:

- (1) To collectively eliminate constraints on business and trade development in CBR,

- (2) To eliminate emotional barrier in developing cross-border businesses in CBR,
- (3) To share business information both inside and outside CBR, and
- (4) To trigger off new business development in CBR.

The aforementioned objective of the project can be achieved by achieving the above four intermediate goals.

In order to achieve the four intermediate goals, the following five guiding questions are useful.

They are:

- (1) How can we develop and utilize local resources in CBR?
- (2) How can we improve the business environment in CBR?
- (3) How can we invite direct investment in CBR?
- (4) How can we develop market and marketing channels?
- (5) How can we upgrade our management capacity?

The 10 Forum activities are organized with the 5 questions in mind.

Because business development is the matter of the private sector by its nature, private sector persons and institutions in CBR, members of the chambers of commerce and the industrial federations should take initiatives of the Forum together with the six governors of CBR. Particularly, the role of indigenous businesspersons and institutions is important to maintain the original purpose of the Forum, although participation of businesspersons in Bangkok, Vientiane and other cities is necessary for the achievement of the intermediate goals of the project.

Expected Participants

(1) Members:

To be a member of the Forum, the person has to be a member of the Chamber of Commerce or the Federation of Industries. However, this rule is not applied to honorable members such as the Governors, and associate members such as representatives of related associations and public sector organizations.

- Entrepreneurs and representatives of the private companies in CBR
- Interested businesspersons outside CBR

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(2) Associate members:

- Representatives of the national associations and industrial societies such as TCC, FTI, LCC and Bank Association
- Representatives from the municipalities in the 6 provinces

(3) Honorable members

- The Governors of the 6 provinces in CBR

(4) Observers

- Representatives of NESDB, CPC, BOI, FIMC, both Ministries of Industry, both Ministries of Commerce, both Ministries of Finance and concerned government offices as observers
- A consultant/advisor who provides technical advice and support to building up the Forum
- The press

Expected Organization

- (1) Secretariat (in SKR and/or NBR)
- (2) Executive Board members (Chairpersons of the Chambers of Commerce, the Governors)
- (3) Members including honorable members and associate members
- (4) Observers (Supporting institutions)
- (5) Mediator/advisor

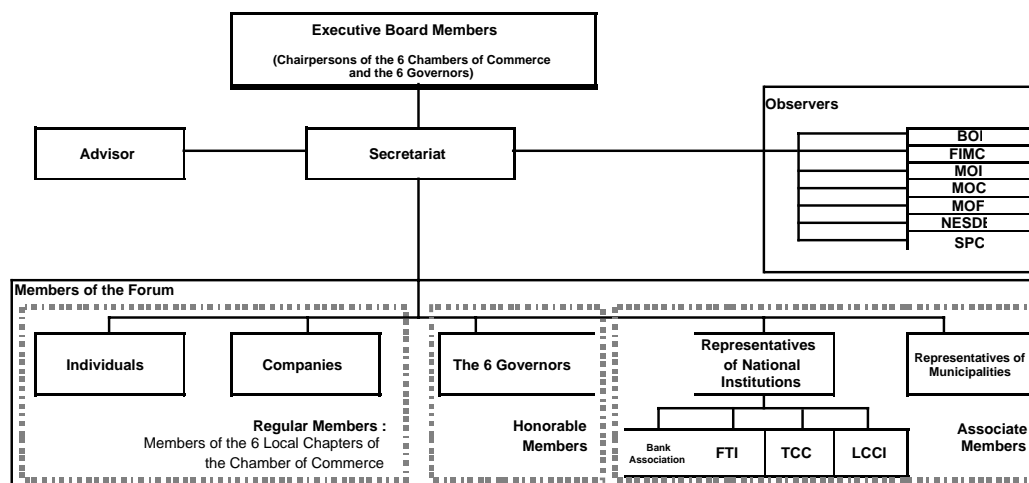


Figure 7. 1 Organization of the Forum

Tentatively Found Important Issues

- (1) Elimination of constraints for cross-border business and trade development
- (2) Establishment of mutual trust and rapport among businesspersons in SKR and NBR
- (3) Establishment of mutually agreeable business ethics and practices between SKR and NBR
- (4) Development of business channels with business entities outside CBR
- (5) Human resource development and introduction of cutting edge management methods and technologies to CBR
- (6) Increasing knowledge about the GMS market

For discussing those issues, the viewpoints based on the industrial sub sectors are important. Thematic groups may be formed for some of the industrial sub sectors such as agro processing, livestock farming and processing, labor-intensive manufacturing, indigenous natural resource based, and so forth.

What To Be Determined

- (1) Coordinating Body

The coordinating body should be formed with the initiative of the local chapters of the Chamber of Commerce and the Governors in cooperation with business institutions

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such as the chambers of commerce. In order to facilitate organizing and institutionalizing the Forum, a consultant should be dispatched.

(2) Location of the Secretariat

The office of the Forum should be located in one of the 6 provinces in CBR.

There are options for the location of the office.

- Option 1: The office moves from one province to another periodically.
- Option 2: The office is located in Mukdahan or Savannakhet, and each takes its turn.
- Option 3: The office is located permanently in one of the 6 provinces.

(3) Scope of Activities

Not all the activities and accordingly actions mentioned above need to be included at the beginning of the Forum. Activities should be determined selectively.

(4) Tentative implementation schedule

Year 2001

- Soliciting contributions for financing start-up cost
- Inviting participants
- Establishing the secretariat consisting of 2 to 3 officers (Setting up offices)
- Forming the executive board
- Initiating semi-annual general meeting, annual joint meeting and quarterly seminars
- Starting issuance of newsletters

Year 2002

- Introducing study tours
- Forming thematic groups
- Initiating development of the database for directory services
- Starting arbitration service
- Starting policy recommendations

Year 2003

- Conducting exhibitions
- Continuing the above activities as routine

(5) Budget and Financial Source

Financial sources are member fees, contribution by the provincial governor's offices and potential international donors. The annual budget of the Forum is determined based on the rate of the member fee and number of members. However, a part of the start-up cost as well as administrative cost of the Forum may be partially financed by the provincial administration and other viable government or non-government organizations either in Lao PDR, Thailand or elsewhere. It is hoped that a relevant Japanese public institution would make the contribution in the form of technical assistance by dispatching consultant with necessary equipment and financial arrangement.

7.2.5 Alternatives

With regard to the investment promotion, the government led one and the private led one should be used complementarily. Also, CBBDF encompasses promotion of direct investment inflows and reinvestment within CBR through investment promotion, business channels development with outside business entities, improvement of the business environment and capacity building of local businesses. Therefore, there are no other alternatives to CBBDF for the purpose of private sector development in a strict sense.

In the aspect of regionally focused investment promotion, an alternative may be a regional investment promotion organization that functions from the viewpoint of the region. If the regional investment promotion organization for CBR is established, it can take the role of CBBDF partially. However, BOI and FIMC cannot take the role. Since BOI and FIMC are the central institution for investment promotion, they cannot be dedicated promoters of CBR.

7.2.6 Demand Forecast and Cost Estimate

Demand Forecast

In NBR, there are a number of local business people who are interested in participating in CBBDF. Also, some Thai companies located in Bangkok and other

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cities are looking for business opportunities in CBR. In SKR, the local private sector is still very small and the public sector is playing a major role in business development due to the economic regime of Lao PDR. Nevertheless, people in SKR, not only the private sector people but also those in the public sector, are looking forward to participating in CBBDF, according to the interview results of the study team. Although there is no quantitative evidence of existing demand for CBBDF, it should be appropriate to consider that CBBDF is welcomed to the people in CBR. Furthermore, the size or the number of participants of CBBDF is not the matter. The initiative of the private sector people in the private sector development is important.

Cost Estimate

Semi-annual general meetings	\$ 8,000	(\$4,000 * 2 times / year)
Annual public -private joint meeting	\$ 1,000	(\$1,000 * 1 time / year)
Thematic group meetings	\$ 3,000	(\$1,000 * 3 groups / year)
Directory service	\$ 5,000	
Policy recommendation and lobbying	\$ 5,000	
Issuance of news letters	\$10,000	(\$2,500 * 4 times / year)
Exhibitions	\$20,000	(\$20,000 * 1 time / year)
Study tours and reporting	\$15,000	(\$1,500 * 10 persons)
<u>Quarterly seminars and workshops</u>	<u>\$ 6,000</u>	<u>(\$1,500 * 4 times / year)</u>
Sub Total	\$73,000	(annually)
<u>Advisor or facilitator (if necessary)</u>	<u>\$150,000</u>	<u>(annually)</u>
Grand Total	\$223,000	(annually)

7.2.7 Initial Environmental Examination

Because the project is to establish a Forum, which is an institution, there is no impact on physical environment. The following table shows the IEE for the Forum.

Table 7. 2 IEE for Business Development Forum

No.	Environment Item	Evaluation	Reason
Social Environment			
1	Resettlement	D	No one will resettle by the Project.
2	Economic Activities	B	Positive impact on business community.
3	Traffic/Public Facilities	D	Traffic problem is not caused.
4	Split of Communities	D	No split of communities.
5	Cultural Property	D	No influence on cultural properties.
6	Water Right and Common Right	D	No influence.
7	Public Health Condition	D	No influence.
8	Waste	D	No influence on waste.
9	Hazards (Risk)	D	No hazards by the forum.
Natural Environment			
10	Topography and Geology	D	The forum has no physical facilities.
11	Soil Erosion	D	The forum has no physical facilities.
12	Groundwater	D	The forum has no physical facilities.
13	Hydrological Situation	D	No influence on hydrology.
14	Coastal Zone	D	The area is far from coast.
15	Fauna and Flora	D	No influence on fauna and flora.
16	Meteorology	D	No influence on meteorology.
17	Landscape	D	No influence on landscape.
Pollution			
18	Air Pollution	D	No influence on air quality.
19	Water Pollution	D	No influence on water quality.
20	Soil Contamination	D	No influence on soil.
21	Noise and Vibration	D	No influence on noise and vibration.
22	Land Subsidence	D	No influence on land subsidence.
23	Offensive Odor	D	No odors.

A: Serious environment impact is anticipated.

B: Environment impact is anticipated in certain extent.

C: Extent of impact is uncertain. (Examination is needed.)

D: Little impact is anticipated. EIA is not necessary.

E: Necessary to consider mitigation method afterward.

7.2.8 Preliminary Forecast of Benefit

- 1) Increase of private investment in CBR (not quantifiable)
- 2) Increase of job opportunities in CBR (not quantifiable)
- 3) Sales increase of locally produced products outside as well as within CBR (not quantifiable)

7.3 Savannakhet Airport Utilization

7.3.1 Background

Currently, the CBR has three airports. Thai side holds two airports: Nakhon Phanom and Sakon Nakhon. Lao side has only Savannakhet Airport. Table below summarizes the outline of the three airports.

Table 7. 3 Existing Airports in Cross Border Region

Airport	Runway (m)	Weekly Flight (2001 Summer)	Annual Passengers (1999)
Nakhon Phanom	2,440	7	43,472
Sakon Nakhon	2,600	7	47,938
Savannakhet	1,500	7	7,313

Source: Airport Development Masterplan in Thailand (JICA, 2000)
 Dept. of Civil Aviation, MCTPC, Lao PDR

The air service network in CBR is under the national hierarchy. Three airports have scheduled flights only to the capital of each country. Within and around CBR, there is no route to connect between local airports. Thus, civil air service in CBR is not active due to lack of appropriate airport and sufficient demand.

The scheduled flights to Nakhon Phanom and Sakon Nakhon are only from Bangkok. As the passenger demand is low, five flights out of weekly seven flights stop both Nakhon Phanom and Sakon Nakhon in one round trip from Bangkok.

The situation is similar on Savannakhet side. Although Savannakhet Airport and Pakse Airport had different flight to and from Vientiane, three flights of weekly seven flights between Savannakhet and Vientiane go to Pakse due to low load factor.

Thus, the Mukdahan-Savannakhet area is one of the most remote areas from civil air service in GMS.

Figure 7. 2 shows scheduled air transportation network in CBR.

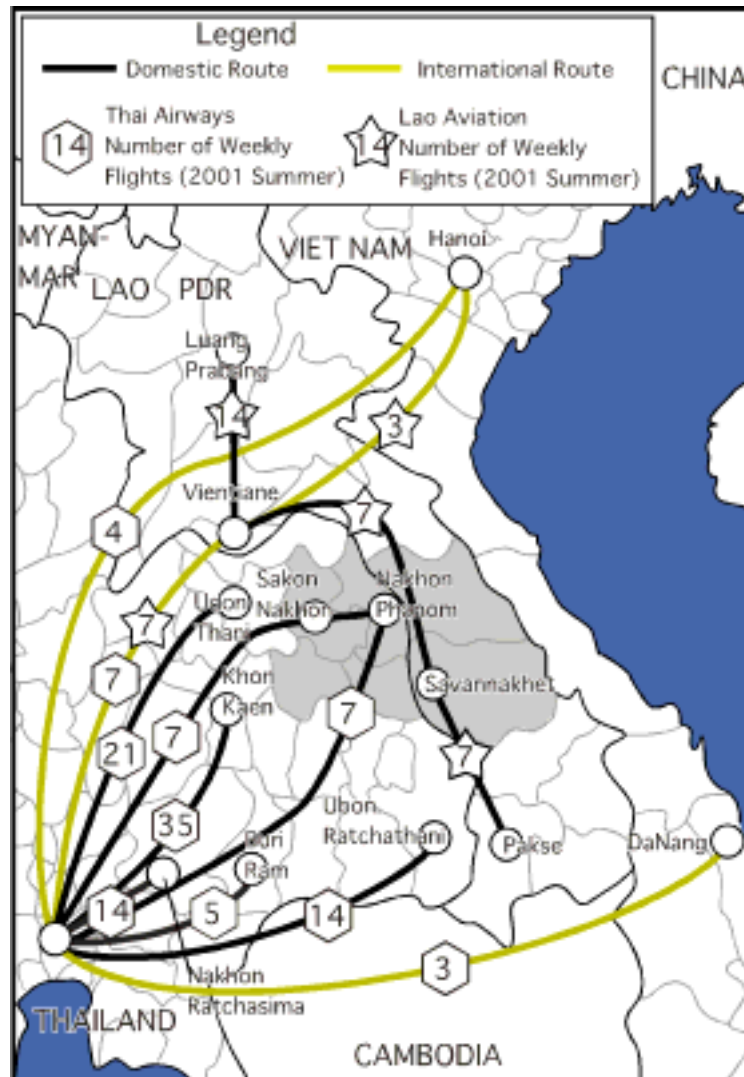


Figure 7. 2 Scheduled Flights around CBR

On the other hand, demand side for air service is changing. The Second Mekong International Bridge and East West Corridor will open the region to new international environment in 2005. Considering the future change of the region as above, the region is necessary to be connected directly with Bangkok International Airport.

7.3.2 Objective

This project is intended to utilize the existing Savannakhet Airport for passengers from and to both Mukdahan and Savannakhet.

7.3.3 Roles and Function in Masterplans

The primary role of the project is to improve air service in the area at reasonably nominal cost. It will provide a solid base for tourism development and business activities.

In addition, it also intends to deregulate immigration control between the two countries for daytime stay. The new bridge will enable people on both sides to interact each other more casually.

Extending from the current border pass system, the daytime or short time stay without any documentation, even under certain conditions, will enhance the advantage of the Pair City. Additionally, it will be a spearhead towards the operation of other projects in Pair City Development Program.

7.3.4 Alternatives

The Table below indicates the alternatives for airport usage for Savannakhet – Mukdahan Area. Currently, the Savannakhet Airport is the only one airport in the area. The residents of Mukdahan seldom use the airport because the airport has flights only to Vientiane and Pakse.

Table 7. 4 Alternatives for Airport Operation in Mukdahan-Savannakhet Pair City

Alternative	Savannakhet	Mukdahan	Advantage	Disadvantage	Necessary Actions
Current Situation	1,500m Domestic	None		Inconvenient for all cities.	
1	1,500m Domestic	New, Domestic	Smooth operation	Construction cost. Far from Mukdahan. Inconvenient from ZVN.	New Mukdahan airport construction
2	1,500m Domestic	Former Air Force Base utilization. Domestic	Cheaper than new airport.	Rehabilitation cost. Far from Mukdahan.	Rehabilitation of AFB.
3	1,500m International. Open to Mukdahan residents.	None	Efficient usage. Close to Mukdahan.	Complex protocol.	Cross-border arrangement.
4	2,200m International	None	Holds larger aircraft. Efficient usage. Close to Mukdahan.	Uncertain demand. Runway extension cost.	Runway extension. Cross-border arrangement.

Alternative 1

The first alternative is to build a new airport in Mukdahan. The JICA Study on Airport Development Masterplan in the Kingdom of Thailand (2000) proposed a new Mukdahan Airport by 2002 at the site 16km north of Mukdahan City. The Study prioritized the construction of Mukdahan Airport as well as Mae Hong Son and Betong Airports. The cost of Mukdahan Airport is estimated as approximately Baht 600 million.

Alternative 2

The second alternative is to utilize the existing Air Force Base in Roi Et Province. The rehabilitation cost will be smaller than a new airport but it is far from Mukdahan City.

Alternative 3

The third alternative is the main and the most recommendable alternative of this section. The Savannakhet Airport is to be open to international usage from and to Mukdahan.

For an aircraft to Bangkok: Passengers from Mukdahan City check in at Mukdahan City Air Terminal (MCAT) and then pass the Second Mekong International Bridge on designated bus without immigration control to Savannakhet Airport. Passengers from Mukdahan are marked with small seal badges to waive immigration control. Savannakhet residents pass custom, immigration and quarantine (CIQ) at Savannakhet Airport Terminal to board the same airplane. After arrival at Bangkok Airport, Airport or immigration staffs sort out domestic and international passengers by the small seal badges. The passengers are divided to domestic and international terminals by buses². Although the above protocol is based on a mixed case of passengers from Savannakhet to Bangkok, this can be applied to other cases as follows:

- Separated flights for domestic and international: One flight is for international passengers (Savannakhet – Bangkok) only and the other flight is for domestic (Mukdahan – Bangkok). As the passenger demand increases, it is possible to operate different flights by passengers' origins.

² This protocol for mixed passengers on a single plane is currently in operation at Bangkok International Airport for the Da Nang-Ubon Ratchathani – Bangkok and Singapore – Phuket – Bangkok flights.

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- Destinations outside of two countries: In principle, the above scheme assumes the flights to and from Bangkok. In the future, other destinations are also possible based on passengers' demand. Hong Kong, Singapore and Hanoi are possible new destinations. In this case, passengers from Mukdahan are also required to pass CIQ at MCAT.

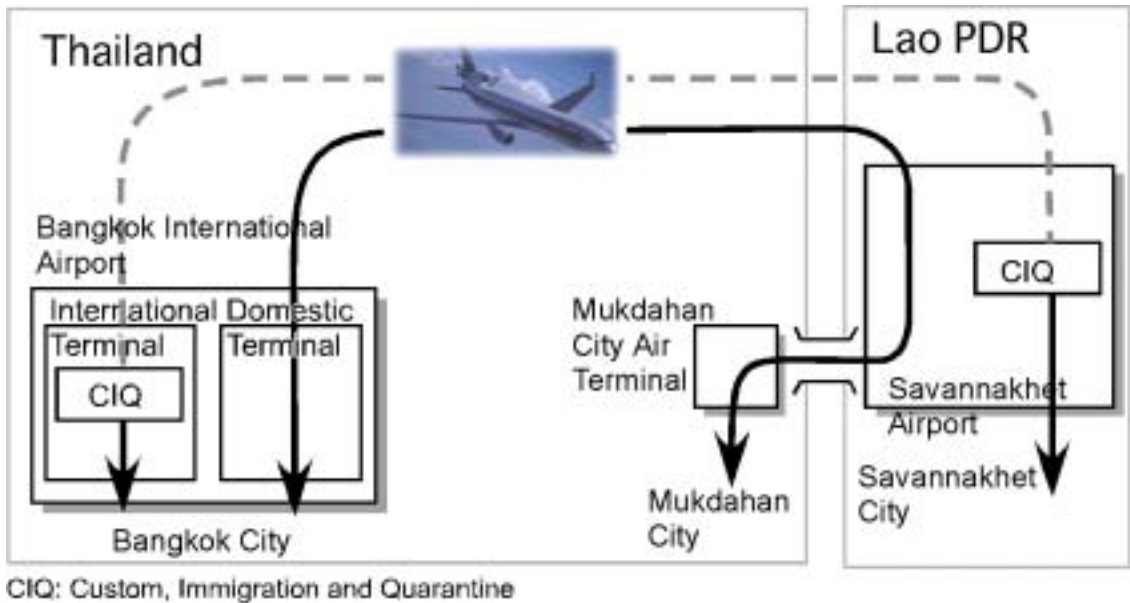


Figure 7. 3 Operational Scheme

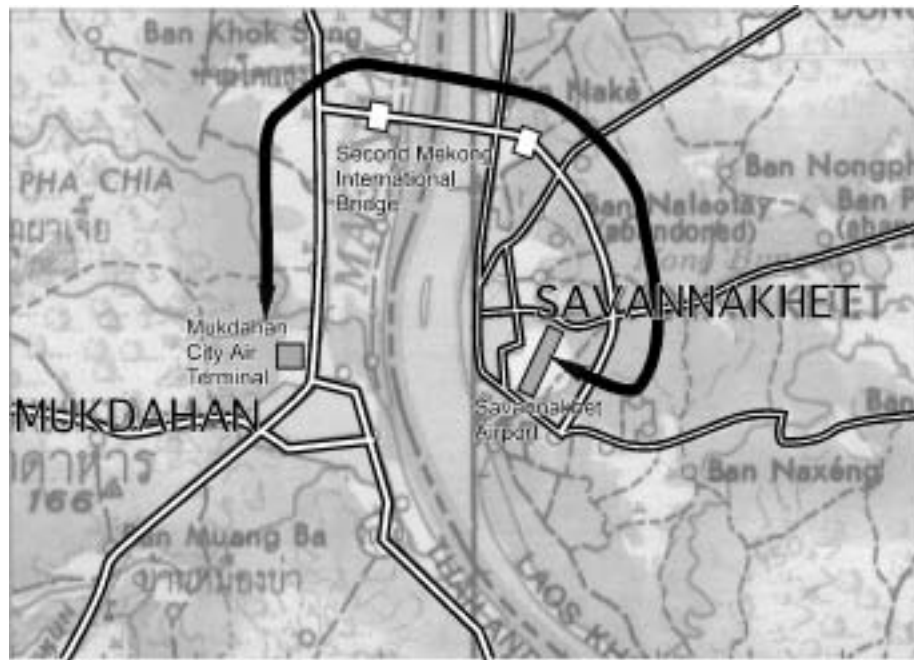


Figure 7. 4 Mukdahan – Savannakhet Pair-City and Airport Utilization

Alternative 4

The Alternative 4 is the extended version of the third alternative. The runway of the airport is extended to 2,200m to hold a B737-sized aircraft.

The current length, 1500m, of the Savannakhet Airport runway is too short to accept a jet plane. Specifically, small jet airplanes such as Boeing 737 require the length of 2,120m³ (See Table below).

Table 7. 5 Design Aircraft and Necessary Runway Length

Aircraft Class	Large Jet	Medium Jet	Small Jet	Turbo Prop	STOL
Typical Aircraft	B747-400	B767 A300-600	B737-400 A320	ATR-72	Do 328
Number of Seats	400	250	150	65	30
Runway Strip (m) (Runway+Overrun)	2,620	2,120	2,120	1,720	1,420

Source: JICA Airport Development Masterplan (2000) Vol. 2-(1). p.8-10.

The extension is not a precondition for the Alternative 3. This can be considered as the next phase after the commencement of operation of the Alternative 3.

7.3.5 Demand Forecast and Cost Estimate

Passenger Demand Forecast

The passenger demand forecast is based on the following assumptions.

(1) Savannakhet - Vientiane

In 1998, 7,313 passengers flew between Savannakhet and Vientiane. The aircraft was as small as ATR72, which has 65 seats. The number of passengers is assumed to increase at the annual rate of 9.7%. The rate is derived from the growth rate of service sector in the SKR macroeconomic frame.

(2) Savannakhet - Bangkok

Because there is no flight between Savannakhet and Bangkok at present, this study assumes the number to be 10% of passengers between Vientiane and Bangkok. As the GRP (Gross Regional Product) of Savannakhet is almost half of Vientiane

³ By ICAO Recommendation. 2,000m(Runway) +2 x 60m (Overrun).

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Municipality and the population is at same level, this assumption is acceptable as conservative numbers.

(3) Mukdahan- Bangkok

The JICA Airport Development Master Plan (2000) forecast the passenger demand at the Mukdahan Airport as follows:

Table 7. 6 Demand Forecast for Mukdahan Airport

Year	2007	2012	2017
Annual Passenger (unit person)	112,800	202,535	318,600
Peak Hour Passenger (unit person/hour)	222	248	273

Source: JICA Airport Development Master Plan (2000) Vol. 2-(1). p.8-146.

Nonetheless, the forecast is effective if the route keeps the following assumptions:

(1) Airfare is based on domestic route. It is almost B1,500 for one way by current rate. If the airfare is based on the IATA rate, it will be around B3,000, which is enough to discourage the passengers.

(2) Passengers can utilize the Savannakhet Airport without immigration control. The waiting time to board should be as same level as the case of Mukdahan Airport.

The total passenger demand will be as follows:

Table 7. 7 Annual Passenger Demand for Savannakhet Airport

Unit: Person

Year		1998 (Actual)	2007	2012	2017
Vientiane-Savannakhet-Vientiane	Domestic	7,313	15,336	24,364	38,707
Bangkok-Savannakhet-Bangkok	International		24,336	39,194	63,122
Bangkok-Mukdahan-Bangkok	Domestic		112,800	202,535	318,600
Total		7,313	154,479	268,105	422,446

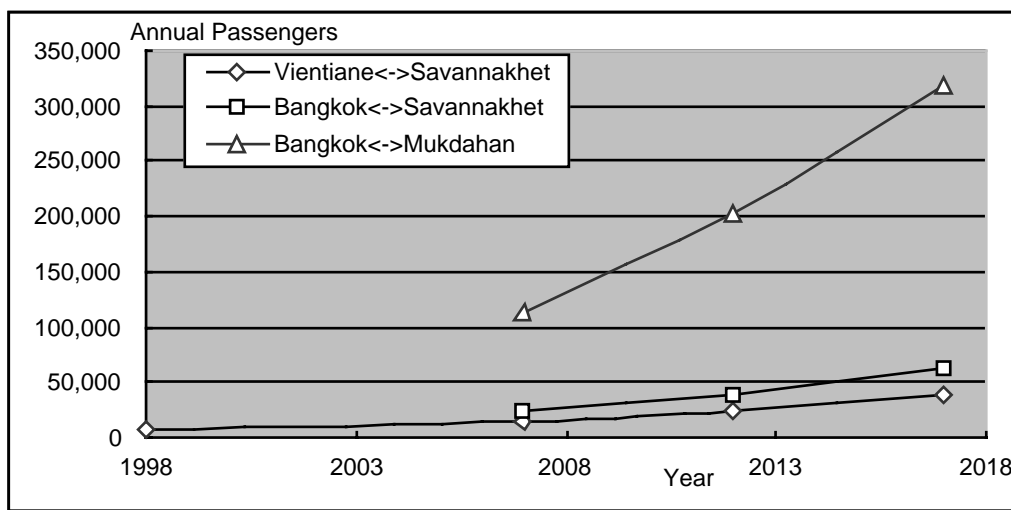


Figure 7. 5 Passenger Demand for Savannakhet Airport

Revenue of Airport

The following table shows the revenue for the airport operation in the year 2005 based on the demand forecast and current revenue base. Airport tax structure is tentative.

Table 7. 8 Revenue of Airport in 2007

Landing Fee and Navigation Fee

Aircraft	Flight	Landing Fee(\$)	Navigation Fee (\$)	Annual Number of Flights	Annual Revenue(\$)
ATR-72	Domestic	26	32	330	19,140
B737	International	226	320	330	180,180

Airport Tax

Destination	Airport Tax (Baht)	Annual Departing Passengers in 2007	Exchange Rate (B/\$)	Annual Revenue(\$)
Vientiane	50	7,668	41.4	9,261
Bangkok	100	68,568	41.4	165,624

Total

374,205

Cost

Some initial investment is necessary for smooth operation. MCAT (Mukdahan City Air Terminal) and runway extension of Savannakhet Airport are required by the following specification:

Priority Projects for Cross Border Cooperation

Mukdahan City Air Terminal (MCAT)

MCAT has a full functional passenger terminal building with necessary parking lots and bus yard.

Table 7. 9 Cost Estimate for MCAT

Item	Quantity	Unit Price(B) ⁴	Amount (B)	Amount (\$)
Site Acquisition	60,000 sq.m	50	3,000,000	72,464
Site Development	60,000 sq.m	300	18,000,000	434,783
MCAT Building	3,000 sq.m	8,000	24,000,000	579,710
Engineering and supervision			3,600,000	86,957
Equipment and furniture			2,400,000	57,971
Airport Buses	4 vehicles	10,000,000	40,000,000	966,184
Subtotal			91,000,000	2,198,068
VAT		7%	6,370,000	153,865
Total			97,370,000	2,351,932

Engineering cost and supervision cost is assumed as 10% and 5% respectively of building construction cost.. Equipment and furniture are assumed 10% of building cost.

Savannakhet Airport Extension

The runway extension is a major component of Savannakhet Airport side.

Table 7. 10 Cost Estimate for Savannakhet Airport Runway Extension

Item	Size	Unit Price (Baht)	Amount(Baht)	Amount(\$)
Site Clearing and Grubbing	600mx100m	16	960,000	23,188
Earthwork (Excavation and Embankment)	50,000cu.m	105	5,250,000	126,812
Runway Extension	600mx45m	765	20,655,000	498,913
Expansion of Existing Runway	1,600mx7m	765	8,568,000	206,957
Overrun	60mx45m	399	1,077,300	26,022
Reinstallment of Landing Light			4,000,000	96,618
Engineering and Supervision			6,077,000	146,787
Total			46,587,300	1,125,297

Land acquisition cost is not included above.

Total investment cost for both works will be US\$ 3.2 million.

⁴ Unit cost in Airport Development Masterplan.

Cash Flow

Based on the above revenue and cost, the following table indicates the cash flow of the project.

Table 7. 11 Cash Flow of Savannakhet Airport

Unit: Thousand US\$

Year	Cost			Revenue		Net Profit
	MCAT	Runway Extension	O&M	Landing and Navigation Fee	Airport Tax	
2004	77.5					-77.5
2005	465.2					-465.2
2006	1,809.2					-1,809.2
2007		150.0	40.0	199.3	174.9	184.2
2008		975.3	40.0	199.3	195.6	-620.3
2009			40.0	199.3	218.9	378.2
2010			40.0	199.3	244.9	404.2
2011			40.0	199.3	274.0	433.4
2012			540.0	199.3	306.7	-34.0
2013			40.0	379.5	336.0	675.5
2014			40.0	379.5	368.2	707.7
2015			40.0	379.5	403.4	742.9
2016			40.0	379.5	442.1	781.6
2017			1,040.0	379.5	484.4	-176.1
2018			40.0	379.5	530.8	870.3
2019			40.0	379.5	581.6	921.1
2020			40.0	379.5	637.3	976.8
2021			40.0	379.5	698.3	1,037.8
2022			540.0	559.7	765.2	784.9
2023			40.0	559.7	838.5	1,358.2
2024			40.0	559.7	918.8	1,438.5
2025			40.0	559.7	1,006.8	1,526.5
2026			40.0	559.7	1,103.2	1,622.9
2027			40.0	559.7	1,208.9	1,728.6
Total	2,351.9	1,125.3	2,840.0	7,969.5	11,738.4	13,390.7

IRR=	14.9%
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The internal rate of return (IRR) is acquired as 14.9%. The level of IRR is sufficient to attract investment from private sector.

7.3.6 Initial Environment Examination

Because this project utilizes the existing airport facilities, the potential large impacts are limited to MCAT and runway extension. The following list shows the IEE for this project.

Table 7. 12 IEE Checklist for Mukdahan Airport Utilization

No.	Environment Item	Evaluation	Reason
Social Environment			
1	Resettlement	B	Some land acquisition is necessary for runway extension and some resettlement will be necessary. MCAT may require some resettlement.
2	Economic Activities	B	Positive impact on economic activities.
3	Traffic/Public Facilities	C	Shuttle services will increase traffic.
4	Split of Communities	C	No split of communities.
5	Cultural Property	D	No influence on cultural properties.
6	Water Right and Common Right	D	No influence.
7	Public Health Condition	D	No influence.
8	Waste	C	Waste material will increase.
9	Hazards (Risk)	D	No risk on hazards.
Natural Environment			
10	Topography and Geology	D	Topography will not be changed.
11	Soil Erosion	D	No influence.
12	Groundwater	D	No influence.
13	Hydrological Situation	D	No influence.
14	Coastal Zone	D	The area is far from coast.
15	Fauna and Flora	D	No influence.
16	Meteorology	D	No influence.
17	Landscape	C	Nominal influence on landscape.
Pollution			
18	Air Pollution	C	Airplanes and buses increase air pollution.
19	Water Pollution	D	No influence.
20	Soil Contamination	D	No soil contamination.
21	Noise and Vibration	C	Some influence during takeoff and landing.
22	Land Subsidence	D	No influence.
23	Offensive Odor	D	No odor.

- A: Serious environment impact is anticipated.
 B: Environment impact is anticipated in certain extent.
 C: Extent of impact is uncertain. (Examination is needed.)
 D: Little impact is anticipated. EIA is not necessary.
 E: Necessary to consider mitigation method afterward.

Here show the additional items on IEE for the runway extension.

Land

Some land will have to be acquired. About 16 ha for the extension and 3-4 ha for the airport lights.

The road that forms the northern boundary of the existing airstrip will have to be closed. There are existing diversionary roads in close proximity. Diverting the traffic will cause a minor inconvenience.

Part of the proposed extension site has a seasonal stream running through it. This would have to be diverted and appropriate drainage made.

The few trees on the site would have to be cleared and any temporary buildings removed.

There are some buildings on the 3-4 ha needed for landing lights. These buildings would have to be acquired. There are also trees that would have to be removed.

On the far side of the NW-SE road, there is a building, a builder's yard and trees. These are elevated and on the flight path of landing jets. Therefore, the building and builders yard may have to be acquired and removed and some of the tall trees will have to be felled.

Traffic lights may have to be installed on the NW-SE road and the new dual carriageway. This will be activated during landing and take off (2 to 3 times per day).

Noise

The noise level will be minimal, but houses within the vicinity could be offered soundproofing.

Navigation

The Mukdahan Tower on the other side of the Mekong River in Thailand is relatively low lying and would not be an obstacle to approaching or taking-off planes. There is one tall communication tower on airport property as well as a navigational tower, but these are on either side of the runway.

Environmental Impact

The environmental impact on the proposed runway extension is modest. About 20 ha of land will have to be acquired, a few houses will have to be moved and appropriate draining undertaken. It is strongly recommended that the land be acquired without delay in order to prevent more houses being built in this area. It is also recommended that government designate the land on the flight path for non-building use only. This IEE should be sufficient and no Environmental Impact Assessment is required.

7.3.7 Institutional Settings

It is necessary to design carefully the operating organization. Because the current Savannakhet Airport Authority (SAA) is a public authority under the National Airports Authority, it will be difficult for SAA to operate in Mukdahan. Then, this study recommends establishing a new authority, such as "Savannakhet – Mukdahan Airport Authority (SMAA)," for the integrated operation over the two countries.

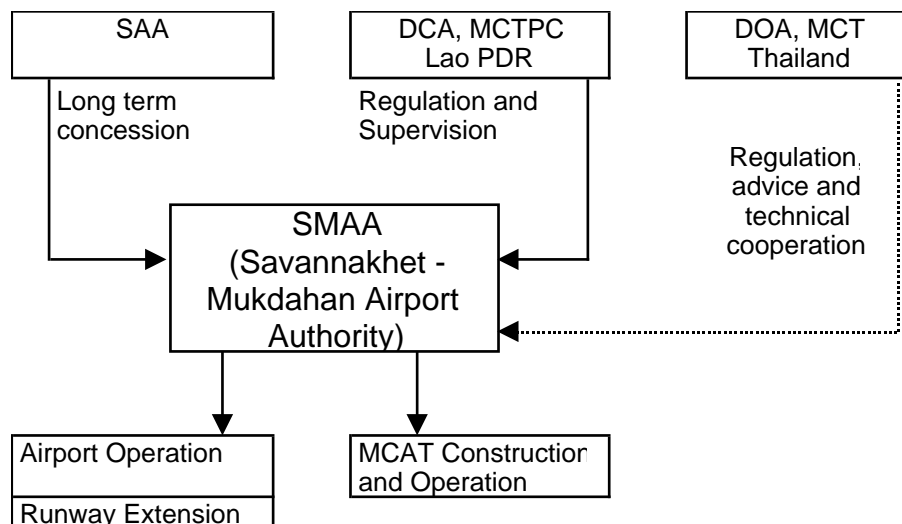


Figure 7. 6 Savannakhet-Mukdahan Airport Authority

SAA can concede the most operation and facility to SMAA and SMAA receives regulation and supervision from DCA. The authority should be registered as juridical person in both countries but its board should be unique. It can be a joint venture among interested agencies from both private and public. If possible, it can be operated on PFI (Private Finance Initiative) base.

Basically, the SMAA pays utilization fee of most facilities because some of fixed assets of airport are still in collateral to ADB loan. On the other hand, SMAA is responsible to contract MCAT and runway extension by its budget or loan from external resources.

7.3.8 Necessary Actions

Immigrations and Customs of Both Countries

This negotiation should start first of all. The immigration offices of both countries should negotiate the specific protocol to waive immigration procedure. The same negotiation is also necessary for custom operations. Specifically, the following actions are necessary.

The Thai Immigration should allow air passengers to go to the airport.

The Lao Immigration Office at the Bridge should accept the passengers without normal immigration procedure. The passengers should be on the designated buses. The passengers may step off only on the site of Savannakhet Airport.

Aviation Departments and Airport Authority

The aviation departments of both countries are as follows:

Lao PDR: Department of Civil Aviation (DCA), MCTPC

Thailand: Department of Aviation, Ministry of Transport and Communications.

First of all, DCA should reclassify the Savannakhet Airport to the international airport from the domestic airport. Based on this decision, custom, immigration and quarantine staff should be dispatched from each agency on-demand basis.

There are many issues to negotiate between both departments. The first is the agreement on numbers of international flights. Because the agreement is mutual, each country will be likely to have limit of one flight per day between Bangkok and Savannakhet. Thai Airways International Public Company Limited and Lao Aviation Co. Ltd. are the most likely carriers for this route. The carriers should decide flight frequency and timetable on market basis.

Airlines (Thai International Airways and Lao Aviation Co. Ltd.)

The air carrier companies should consider the profitability of the route. First flight can be as small as ATR72, but the airport will be able to hold a jet after the runway extension.

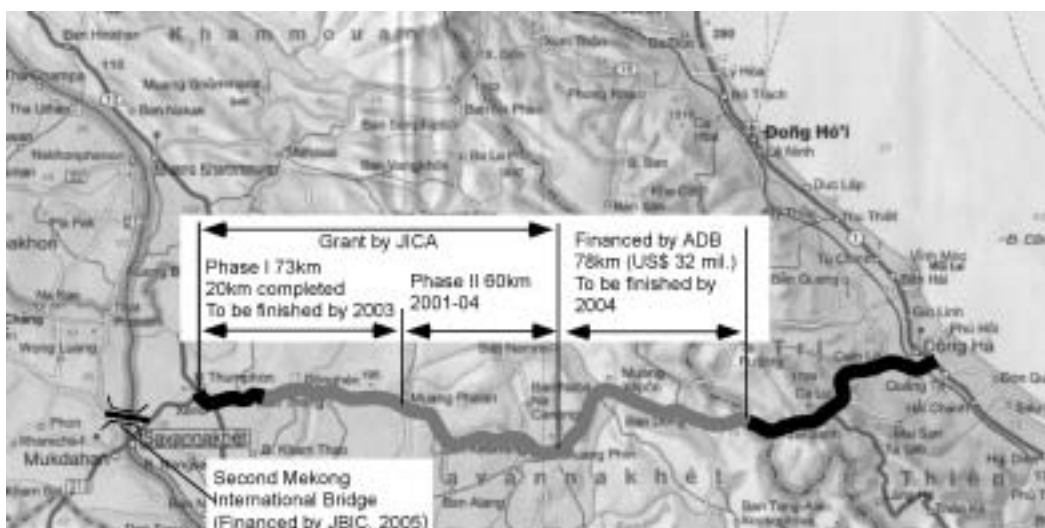
It is also necessary to consider how to share the route between the two companies. Two flights per day are appropriate but code sharing is also possible for smaller number of passengers.

7.4 Route 9 Joint Maintenance

7.4.1 Background

Progress of East West Corridor Development

The Second Mekong International Bridge and the East West Corridor will be completed around the year of 2005-6 (Figure 7. 7). The 20km section from Xeno to west has been completed and in use (Figure 7. 8). The road section by JICA will be completed in 2004 . The Second Mekong International Bridge will be completed at the end of 2005 in the earliest case. It may be delayed to later period. The physical development of EWC now appears on the horizon.



Source: MCTPC and JICA Study Team

Figure 7. 7 Lao Section of EWC and Donors



Figure 7. 8 Completed Section of Route 9 at Xeno

Institutional Barriers and "Tripartite Agreement"

For institutional aspects, the "Agreement Between and Among the Governments of the Lao People's Democratic Republic, the Kingdom of Thailand, and the Socialist Republic of Viet Nam for Facilitation of Cross-Border Transport of Goods and People" (hereafter referred as "Tripartite Agreement") signed on November 26, 1999 is the most important diplomatic agreement to facilitate the freer flow of commodity and people on the corridor. It stated an ideal protocol under the current system such as:

- Single window inspection. Passport/visa, driving license, foreign exchange, customs quarantine, vehicle registration and goods shall be checked all at once.
- Single stop inspection. Two adjacent national authorities will carry out their inspections jointly and simultaneously.
- Coordination of hours of operation.
- Advance exchange of information and clearance.
- Assurance of duty exemption on transit goods.

The ratification of all protocols is the current issue for the related line ministries in each country. Although three Governments are supposed to have taken all actions required to finalize key provisions for the Annexes and Protocols of the Tripartite Agreement by the end of 2002, its process is behind the original schedule.

Because the finalization of all protocol within each country is quite domestic and political issues, it is beyond the scope of this study. Nonetheless, it is expected to be done on schedule for the purpose of CBR development.

Even the Protocols are prepared, the actual implementation will require another irregularity. The implementation of the Tripartite Agreement will reduce the transit time along the EWC dramatically.

Operation and Maintenance

As mentioned above, the physical road development will be completed by 2006 and it is under way to lower institutional barriers. Then, the remaining issue is how to maintain and how to repay the loan for the bridge and ADB section of Route 9.

In principle, the beneficiaries should owe the maintenance cost duty by the form of gas tax or tolls (Beneficiary-pays-principle, BPP). In this case, the road users are the main beneficiaries.

The maintenance of Lao section of East Corridor, Route 9, will remain as a users' concern because of the following reasons:

- Hilly terrain raises the maintenance cost. The Route 9 will be the first rehabilitated highway in the mountainous area. Due to the technical difficulty and earthworks, unit cost will be higher than that of other major highways in Lao PDR such as Route 13.
- Heavy trucks damage the road. As the route is an international corridor, the average axle load will be heavier than that on the Route 13. Especially, the road shoulders will be damaged easily.
- In 2001, the Government of Lao PDR launched the road maintenance fund⁵ by the help of the World Bank. However, the gas tax is not appropriate form of financial sources for the maintenance of Route 9 because trucks go through borders with its gas full.
- As an "international public goods", it is better to have involvement of Thailand and Viet Nam in maintenance. There is a discrepancy between the beneficiaries and maintaining organization.
- Although ADB assured Lao Government to prepare user charge system by the form of "Transit Fee⁶," its introduction has not been certain yet.

This is not only a domestic matter of Lao PDR but it is also a big issue for Thailand and Viet Nam. Next Table summarizes the various impacts that the EWC shall have on three countries.

⁵ The fund is based on the gas tax and to be allocated exclusively for road maintenance. The Government levies the tax additional to the import duty, general sales tax, excise taxes and other charges on fuel. The current rate of the tax is 40 Kips per liter of gasoline and diesel. Although it is designed to increase annually, the tax is not sufficient to the necessary level to maintain the roads.

⁶ The due of proposal of "Transit Fee" is December 2001.

Priority Projects for Cross Border Cooperation

Table 7. 13 Impacts of East-West Corridor in the International Context

	Thailand	Lao PDR	Viet Nam
Direct Beneficiaries			
Truck operators and shippers	Large	Small	Medium
Bus operators and passengers	Large	Small	Medium
Individual car users	Large	Small	Small
Residents along the route 9	-	Exist but small	-
Indirect Beneficiaries			
Industrial sector of each country	Large	Small	Small
Service sector (trade company, restaurant etc)	Large	Medium	Small
Agricultural sector	Nominal to traditional produces. Large to new produces.	Export to Thailand	Nominal
Real estate developers along the route 9	None, but possibly some Thai investors	Exclusive, but small	Almost none
Direct Cost			
Vehicle Operation	Vehicle operating costs (road users)	Vehicle operating costs (road users)	Vehicle operating costs (road users)
Highway Management		Road patrol, traffic control, traffic accident etc.	
Maintenance (current situation)	The second Mekong bridge (1/2)	The second Mekong bridge (1/2) + Route 9	No responsibility
Other Factors			
Environmental Impacts along the Route 9	Nominal.	Noise, air pollution, drainage, etc.	Nominal.
Other Countries' Segment	Part of the EWC (Route 2042, 213, 209) is freeway, fully maintained by DOH		A toll gate will be established nearby the national border on the EWC within Viet Nam
In General	Benefits generated by the Bridge and Route 9 are relatively large, while a burden of maintenance is small	Benefits largely depend on economic development (business promotion) within Lao PDR	Benefits largely depend on industrial development of the Central area of Viet Nam
Repayment to External Debt for Each Country's Segment	JBIC (About US\$ 25 mil.)	JBIC (About US \$ 25 mil.) and ADB (US\$ 32 mil.)	None.

7.4.2 Objective

As a part of International Transportation Program, the project is intended to establish a fair, sustainable and affordable maintenance system for the Lao section of East West Corridor. To establish the system, involvement of adjacent countries is necessary in technical and financial aspects.

7.4.3 Alternatives

For the ADB loan repayment, the Lao Government has primary responsibility and a part of toll can be allocated to it.

For the Maintenance cost, there are three major alternatives as follows:

Table 7. 14 Alternatives for Source of Maintenance Cost

Alternatives	Source of O&M Cost	Major Points
Alternative 1	Simple User Charge at a few toll gates	Semi-access controlled toll-road. Full maintenance cost recovery by road users
Alternative 2	Cost sharing by three countries (national budget)	Ordinary Highway (Freeway) Full O & M costs are covered by national budget or road special account of each country. And the cost is shared by each government in proportion to traffic volume (by registered country) or other indicators (vehicle-km, amount of exports etc.).
Alternative 3	Combination of User Charge and National Budget in reflection to each national conditions	Lower tariff charge (semi access controlled toll way) based on affordability of Lao users Supplemental cost sharing by Thai or by two countries (Thai and Viet Nam). Thailand : Lower user charge + National Budget Lao PDR: Lower user charge Viet Nam : Lower user charge + National Budget

7.4.4 Demand Forecast and Cost Estimate

Demand Forecast

There are several traffic demand for the East- West Corridor. Maunsell forecast 397 thousand trucks for medium/heavy two-way trucks per year in the year of 2010⁷.

Here refers the demand forecast by the SAPROF (Special Assistance for Project Formulation) Team for the Second Mekong International Bridge Project by the former OECF.

⁷ Maunsell etc. 1996. *East-West Transport Corridor Study Final Report*. Asian Development Bank and Mekong River Committee. Executive Summary, p.iii.

Table 7. 15 Traffic Forecast

	2005	2010	2020
Low	126	175	343
High	210	385	1,300

Heavy Vehicle, Average Daily Traffic

Source SAPROF Report (1998).

The traffic forecast is based on the middle of two scenarios.

Unit Cost for Maintenance

The unit prices for Route 9 maintenance are assumed as follows:

Routine Cost: US\$ 694 /km/year⁸:

(Vegetation control, clearing drainage, potholes patching, edge repairs)

Periodic Maintenance: 2-lane road⁹:

In addition to the routine maintenance, periodic maintenance will be required after rehabilitation work. Initial reseals ("reseals after reconstruction") will be required where cracking has commenced or asphalt concrete overlays where roughness is high. In addition, maintenance work with earthwork ("reseals with shape correction") is necessary depending on the traffic volume. Two types of periodic maintenance work are assumed to occur alternatively.

(1) Reseals after reconstruction

US\$13,000/km every 7 to 10 years depending on traffic volume

(2) Reseals with shape correction

US\$28,000/km every 3 to 7 years depending on traffic volume

The following table shows a typical maintenance cycle in light traffic case

⁸ World Bank. 2001. *Project Appraisal Document for ... Road Maintenance Project*. P.41.

⁹ Maunsell etc. 1996. *East-West Transport Corridor Study Final Report*. Asian Development Bank and Mekong River Committee. Appendix M.

Table 7. 16 Typical Maintenance Cycle (Light Traffic Case)

Unit: US\$/km/2 lanes

Year	Routine	Periodic	
		Reseals after Reconstruction	Reseals with Shape Correction
1	694		
2	694		
3	694		
4	694		
5	694		
6	694		
7	694		13,000
8	694		
9	694		
10	694	28,000	
11	694		
12	694		
13	694		
14	694		13,000
15	694		
16	694		

Source: Maunsell etc. 1996. *East-West Transport Corridor Study Final Report*. Appendix M.

Traffic Volume and Maintenance Cost

Based on the above unit prices, the maintenance cost is given by the function of traffic volume on the road. As the traffic volume increases, the total maintenance cost increase accordingly. However, the unit cost for maintenance will decrease.

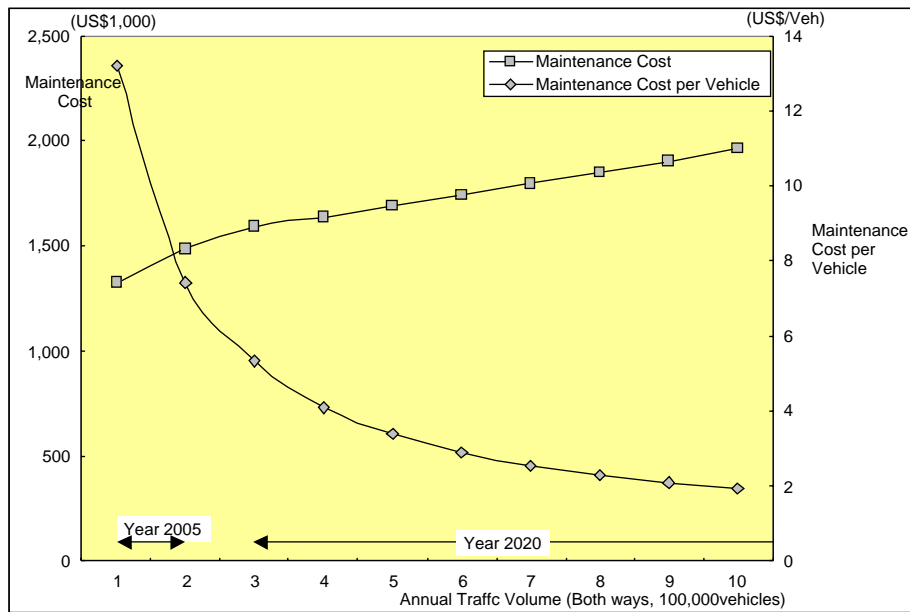


Figure 7. 9 Traffic Volume and Maintenance Cost

Priority Projects for Cross Border Cooperation

The Figure below expresses the relationship between traffic forecast and required cost for maintenance and capital repayment per vehicle. The total maintenance cost for the whole route is shown in the following table.

Table 7. 17 Total Maintenance Cost

Year	Average Annual Maintenance Cost (thousand US\$)
2005-2009	171
2010-2020	1,885

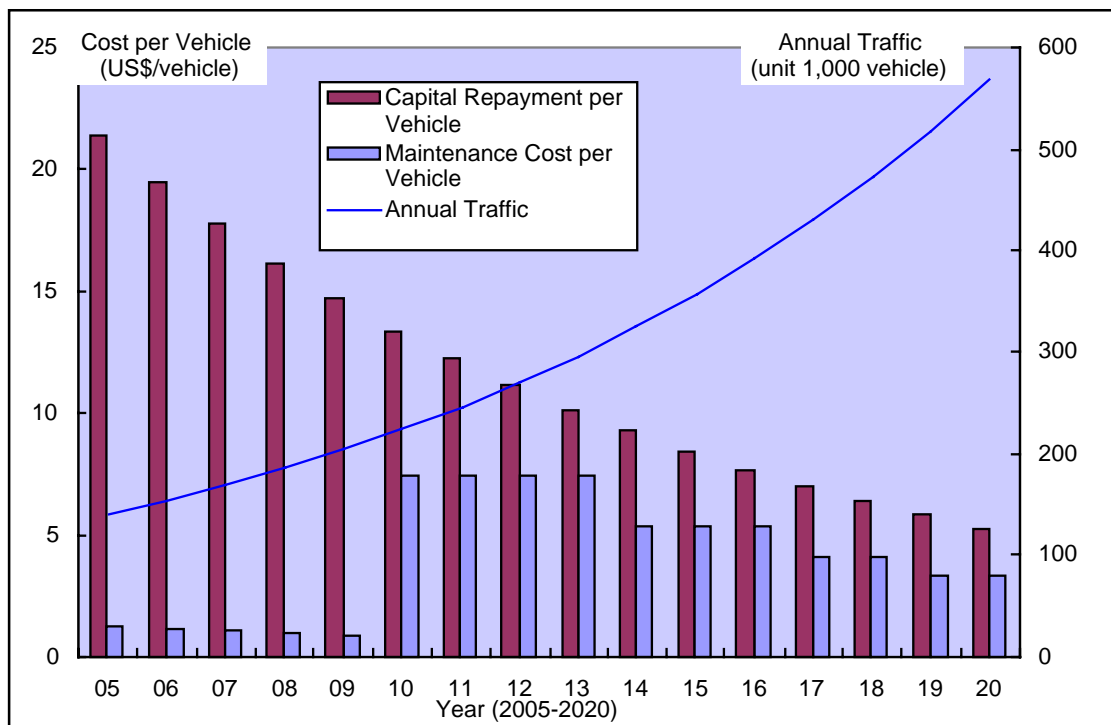


Figure 7. 10 Unit Cost for Maintenance and Toll Structure

Toll Revenue

Under the beneficiary-pays-principle (BPP), this section considers toll structure, which is enough to cover the maintenance cost only. Although the Lao Government should repay the ADB loan from other sources, this section indicates the toll levels under the assumption of full charge of capital repayment on users for reference.

Based on the maintenance cost per vehicle in the figure above, US\$ 5 is set as an initial toll level. Later in this section, it is checked for feasibility in cost benefit analysis.

The vehicles are assumed to have two categories, namely heavy truck and passenger car. The traffic volume of passenger cars is assumed to be 30% of total traffic. In addition, toll for passenger cars is set to be 1/4 of heavy trucks. Under BPP, the toll should be charged progressively on the axle load. The 80% of total toll revenue will be allocated to road maintenance and 20% will be used for the overhead of operation.

Table 7. 18 Toll Structure and Financing Alternative

	ADB Loan Repayment	Maintenance Cost
Heavy Truck	Baht 500	Baht 250
Passenger Car	Baht 125	Baht 75

Cash Flow

The cost benefit analysis is suitable for a project with huge initial investment. Because this Maintenance Project is focused only for recurrent flow, the purpose of cost benefit analysis is to examine the validity of toll structure. The table below shows the cash flow for Route 9 Maintenance.

Table 7. 19 Cash Flow for Route 9 Maintenance

Unit: Thousand US\$

Year	Maintenance Cost		Toll Revenue	Net Profit
	Routine	Periodic		
2005	171		537	365
2006	171		589	418
2007	171		647	475
2008	171		710	538
2009	171		779	607
2010	171	1,488	855	-805
2011	171	1,650	938	-883
2012	171	1,827	1,030	-969
2013	171	2,022	1,130	-1,064
2014	171	1,554	1,240	-485
2015	171	1,722	1,361	-532
2016	171	1,906	1,494	-584
2017	171	1,591	1,640	-123
2018	171	1,763	1,799	-134
2019	171	1,578	1,975	225
2020	171	1,749	2,168	247
Total	2,743	18,849	18,890	-2,701

IRR=	16.0%
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For the first five years, only the routine maintenance work is required. From the sixth year, the periodic work starts and the cash flow of each year will be in red. As the

traffic volume increases in the late 2010s, the cash flow generates surplus in each year. This is because the maintenance cost per vehicle is decreased as the traffic volume increases (See Figure 7. 9).

The IRR is 16.0%, which is sufficient level compared to the opportunity cost of the fund of US\$ or Thai Baht. Thus, the toll structure on Table 7. 18 is confirmed to be sufficient to cover the required maintenance cost.

7.4.5 Initial Environmental Examination

Prime Minister Decree 50/PM of April 1st, 1995 erected Environmental Guidelines for Road Construction and Maintenance Project. The current and ongoing projects both from ADB and JICA follow the Guidelines. Additionally, ADB and JICA also have different guidelines as donors.

Basically, the maintenance project does not include rerouting. There will be problems of erosion control, dust and noise control, handling and disposal of hazardous materials and solid waste disposal during the maintenance work.

The following list shows the IEE checklist for this project.

Table 7. 20 IEE Checklist for Route 9 Joint Maintenance

No.	Environment Item	Evaluation	Reason
Social Environment			
1	Resettlement	D	No one will resettle by the project.
2	Economic Activities	B	Generation of income opportunities.
3	Traffic/Public Facilities	C	Traffic volume will grow continuously.
4	Split of Communities	D	No split of communities.
5	Cultural Property	D	No influence on cultural properties.
6	Water Right and Common Right	D	No influence.
7	Public Health Condition	D	No influence.
8	Waste	C	Waste material should be treated properly.
9	Hazards (Risk)	C	Maintenance work reduces hazards.
Natural Environment			
10	Topography and Geology	C	Topography will not be changed.
11	Soil Erosion	C	Maintenance work prevents soil erosion.
12	Groundwater	C	No influence on ground water.
13	Hydrological Situation	D	Little influence on hydrology.
14	Coastal Zone	D	The area is far from coast.
15	Fauna and Flora	D	No influence.
16	Meteorology	D	No influence.
17	Landscape	D	No influence.
Pollution			
18	Air Pollution	B	Traffic volume will grow continuously.
19	Water Pollution	C	No influence on water quality.
20	Soil Contamination	D	No soil contamination.
21	Noise and Vibration	B	Some noise and vibration during works.
22	Land Subsidence	C	No subsidence.
23	Offensive Odor	D	No odor.

A: Serious environment impact is anticipated.

B: Environment impact is anticipated in certain extent.

C: Extent of impact is uncertain. (Examination is needed.)

D: Little impact is anticipated. EIA is not necessary.

E: Necessary to consider mitigation method afterward.

7.4.6 Joint Operational Scheme

Operational Aspect

The above analysis indicates that the toll level to cover the necessary maintenance cost on the Route 9 should be B250 for a truck and B75 for a passenger car. This study suggests installing three tollgates along the Route 9. The locations are Xeno, Muang Phin and Lao Bao. Because the route is an international corridor, the toll can be paid in US\$, Kip, Baht and Dong. The area along the Route 9 has so few financial service available, that the toll operation itself will require some cooperation from Thailand.

Priority Projects for Cross Border Cooperation

In addition, traffic police, axle load control (truck scales), and tourist related service require cooperation from Thailand.

Technical Cooperation

For technical cooperation, DOH in Thailand has advanced experience in road maintenance. The MCTPC in Lao PDR has limited ability to maintain the whole route. The technical cooperation in the specific fields below is necessary.

- Road inventory management
- Routine road patrol
- Pavement work
- Earthwork
- Drainage
- Bridge
- Road maintenance machinery operation and maintenance

Technical cooperation to unskilled people can be done at the Construction and Maintenance Course in the Savannakhet Technical School (See SKR Report Part 3 Chapter IV).

The DOR staff and other contractors require the practical OJT training.

7.4.7 Institutional Settings

We propose that a new agency under the Department of Roads, MCTPC, will be a responsible agency for the Route 9 maintenance. The agency, temporarily named as "Route 9 Agency," will function as follows:

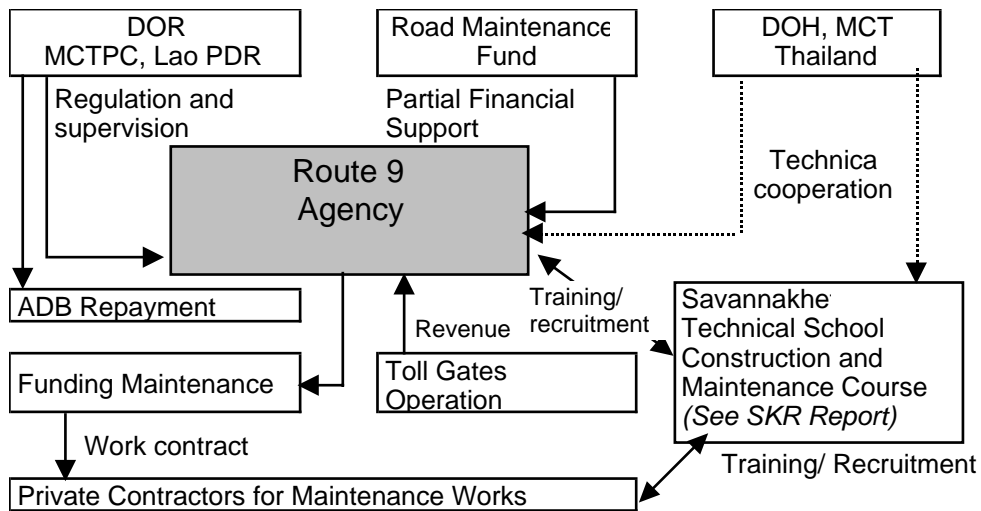


Figure 7. 11 Route 9 Agency

One of the key factors for Route 9 is an effective linkage with the Diploma Course of Road and Bridge Construction in Savannakhet Technical School. The School and the Agency can be the counterpart organization for technical cooperation from Thailand and other countries.

7.4.8 Necessary Actions

Department of Roads in Lao PDR and Department of Highways in Thailand

DOR in Lao PDR should prepare the institutional set up for Route 9 maintenance. At the same time, DOR should request technical cooperation from foreign donors.

DOH in Thailand should prepare the possible participation measures for operation and maintenance. DOH can be a window to other related department and ministries within Thai government. Specifically, Department of Land Transport and Customs Department are the related authorities.

Road Fund Board in Lao PDR

The Board should revise the current maintenance system. It should decide how much of collected gas tax can be allocated to Route 9 maintenance.

International Donors

ADB should ask DOR to prepare and submit the proposal of "Transit Fee." Not only the toll level, it should ensure how to impose the charge. In addition, ADB should observe DOR for repayment schedule.

Based on a request from Lao PDR, Ministry of Foreign Affairs of Government of Japan should consider technical cooperation or grant for a road maintenance core facility in the region if necessary.

Private Contractors

The private contractors, even Lao or foreign, engaged in the Route 9 rehabilitation are encouraged to remain for the maintenance work. At the same time, foreign contractors should transfer technology to Lao people through the rehabilitation work. It is necessary to raise responsible Lao foreman and managers.

7.5 Plan of Project Implementation

Table 7. 21 expresses a timetable for Cross-Border Project implementation. Two important milestones are as follows.

Year 2004: Route 9 completion.

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 7. 21 Project Implementation Timetable

Year	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011-15	2016-20
External Environment				Rt9 completion		Second Mekong Bridge						
Cross Border Project	Business Development Forum 01 Activation 02 Study tours etc. 03 Exhibitions 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 instalment for western section 04 Tollgate instalment for other sections 04 Start routine maintenance and technical cooperation 07 Start periodic maintenance											