

添付資料 - 2 正式要請書

សាលាខេត្តសៀមរាប
លេខ: ៧៧៧.៧៧.៧៧

ព្រះរាជាណាចក្រកម្ពុជា
ជាតិ សាសនា ព្រះមហាក្សត្រ

021-0100 ECOSC
Siem Reap រដ្ឋសៀមរាប
Siem Reap រដ្ឋសៀមរាប
聯合開發公司

ភ្នាក់ងារស្រុកសៀមរាប

សៀមរាប, ថ្ងៃទី ១៧ ខែ កក្កដា ឆ្នាំ ២០០៣

អគ្គនាយកដ្ឋានស្រុកសៀមរាប
គោរពជូន

កាលបរិច្ឆេទ	12/65	ក.ជ.ម.
លេខ	02	02/02/03
ម៉ោង	14:00	អ.ម.

អគ្គនាយកដ្ឋានស្រុកសៀមរាប អគ្គនាយកដ្ឋានគណនេយ្យ អគ្គនាយកដ្ឋានគ្រួសារ ជំនាញ និងសេវា និងអភិវឌ្ឍន៍
នៃក្រុមប្រឹក្សាអភិវឌ្ឍន៍កម្ពុជា

អម្បាញ់: សំណើសុំដាក់បញ្ចូលគំរោងអាទិភាព ស្តីពីការសិក្សាធ្វើឱ្យប្រសើរឡើងនូវបរិស្ថានក្រុងសៀមរាប
ប្រចាំឆ្នាំ ២០០៤ របស់រដ្ឋាភិបាលជប៉ុន ។

(The Study on Improment of urhan environment of Siem Reap town)

សេចក្តីដូចបានជម្រាបជូនក្នុងកម្មវត្ថុខាងលើ សាលាខេត្តសៀមរាបសូមជម្រាបជូនឯកឧត្តម មេត្តាជ្រាប

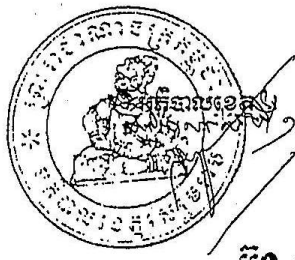
ថា: ការវិភាគល្អិតល្អន់យ៉ាងឆាប់រហ័សរបស់ក្រុងសៀមរាប ដែលជាប្តូលអភិវឌ្ឍន៍មួយនៃ ប្តូលទាំងបី របស់
រាជរដ្ឋាភិបាល បាននឹងកំពុងតែជំរុញយ៉ាងឆ្លងឆ្នាំដល់បរិស្ថានក្រុង ។ ស្ថានភាពនេះនឹងមានសភាពកាន់តែ
ធ្ងន់ធ្ងរថែមទៀតជាមិនខាន ក្នុងអនាគតដ៏ខ្លីខាងមុខនេះប្រសិនបើមានការ សិក្សាឱ្យបានល្អិតល្អន់ ដើម្បីមាន
វិធានការទប់ស្កាត់ និងធ្វើកាន់ឱ្យតែប្រសើរឡើងនូវបរិស្ថានក្រុងទេនោះ ។ ការប៉ះពាល់បរិស្ថាននេះ
នឹងជះឥទ្ធិពលមិនល្អដល់ការ អភិវឌ្ឍន៍ក្រុង និងទេសចរជាតិទៅថ្ងៃអនាគតដ៏ឆាប់មិនខាន ។

អាស្រ័យហេតុនេះ ខ្ញុំសូមឯកឧត្តមអគ្គនាយកដ្ឋាន មេត្តាពិនិត្យ និង ដាក់បញ្ចូលគំរោងសិក្សានេះទៅ
ក្នុងគំរោងអាទិភាព ដើម្បីសុំជំនួយពីរដ្ឋាភិបាលជប៉ុនតាមរយៈ ODA Project ដោយក្តីអនុគ្រោះដ៏ខ្ពង់ខ្ពស់ ។

សូមឯកឧត្តម មេត្តាទទួលនូវការរីកចម្រើនដ៏ខ្ពង់ខ្ពស់អំពីខ្ញុំ ។

ជូនភ្ជាប់មកជាមួយ:

- របាយការណ៍អង្កេត ១ច្បាប់
Inquiry Report



អ៊ុន អ៊ុន

配村先	国内口	派游口	企西口	区盛口
	社盛口	農圃口	鉅開口	鼓盛口
	社開口	農圃口	鉅開口	鼓盛口
一次口	コビ	口	追加口	

INQUIRY SHEET

1) Priority Area: Improvement of Social and Economic Infrastructure
2) Development Issues: Improvement of Urban Environment
3) Cooperation Program: Program for Improvement of Environmental Conditions in Urban Area.
4) Category
a. Technical Cooperation Project
b. Individual Expert.
© Development Study Project
d. Grant Aid Project

1. **Date of Entry:** July 2003
2. **Applicant:** The Government of the Kingdom of Cambodia
3. **Project Title:** The Study on Improvement of the Urban Environment of Siem Reap Town 7/30
4. **Implementing Agency:** Province of Siem Reap
 Address: City Hall, Siem Reap Province
 Contact Person: H. E. Suy San Ph. D, Deputy Governor
 Tel. No.: 012-868-358, 063-760-043
 Fax. No: 063-963-450
 E-mail: -----

5. **Background of the Project**
(Current conditions of the sector, Government's Development policy for the sector, issues and problems to be solved, existing development activities in the sector, etc.)

(1) **Trend of Urban Development**

Siem Reap Town (District) is the administrative and economic center of Siem Reap Province that is located in the northwest of Cambodia, bordering the Tonle Sap Lake. The Angkor Cultural Heritage is located in the northern part of the Town. Tourism is the key industry of the town economy in which most of the town population is engaged. Further, it greatly contributes to the national economy.

The Siem Reap River and National Road No.6 intersect the Town. The River originating on the northern Kulen Mountains runs through the Town from north to south, finally entering the Tonle

Sap Lake. The National Road passes through the Town in east-west direction, crossing the River at the center of the Town. The Town has developed along the River and National Road. The urban development is currently accelerated at a high rate due to the increase of tourists visiting the Angkor Cultural Heritage.

The total town population has increased from 30,000 in 1979 to 85,000 in 1993. Currently, it is estimated to be 118,000, recording the seasonal peak population (including tourists) of 162,000 in January 2002. Yearly number-of-the tourists recorded 0.65 million in 2002. It is expected to reach 1.0 million in the very near future. For this purpose, a large investment is being made in the tourism industry. In fact, the tourist accommodation capacity is increasing at a rate of more than 1,000 rooms per year. This development of tourism industry will create a large job opportunity, resulting in increase of the town population.

(2) Previous Projects

The Government of Cambodia established a governmental authority "APSARA" in 1994 to protect the world cultural heritage of Angkor and to promote the orderly development of Siem Reap Town. They prepared the basic urban development plan of the Town in 1995 and further, standards of the urban land use regulation in 1999 with assistance of French Government. However, development/improvement of necessary urban infrastructures is still insufficient, especially in the sector of urban environment. Only the following urban development projects have been implemented since the recovery of peace.

Project	Status	Donor
Improvement of National Road No. 6	Completed	Japan
Improvement of Priority Town Road	On-going	French
Improvement of International Airport Building	Completed	BOT
Electric Power Generation	On-going	Japan
Water Supply (urgent works)	Completed	French

(3) Necessity of the Improvement of Urban Environment

The rapid urbanization in the recent years has worsened the environmental conditions of the Town. The situation is expected to become more serious in the future due to the accelerated urban and tourism development. Improvement of the urban environment is essentially necessary not only for the attainment of people's good living conditions but also for the development of tourism. Poor environmental conditions will prevent the tourism development of the Town.

The necessary project components for the environmental improvement of the Town include water supply, Siem Reap River improvement (beautification and flood prevention), urban drainage (rain and wastewater drainage), solid waste disposal and relevant supporting project (environmental education). Among them, only the water supply development was planned with technical assistance of the Japan International Cooperation Agency (JICA) in 2000. Its implementation has just started with grant aid of Japan in 2003. However, for the remaining four (4) project components, no improvement plan has been prepared except the conceptual plan of the riverbank landscape. Early implementation of the above-mentioned four (4) project components is awaited. Needs and

problems of the respective environmental project components are as follows.

(a) Improvement of Siem Reap River

The Siem Reap River is one of the important natural resources for the tourism development of the Town. The River flows down through the tourism center of the Town. However, the riverbanks are devastated and water is polluted. The riverbanks and water quality need to be beautified and cleaned so that tourists can enjoy the beautiful scenic view of the River.

On the other hand, the River has flooded the urban area of the Town once in several (3-5) years due to the dam-up effects of the Crocodile weir, which was constructed during the period of Pol Pot regime for irrigation water intake at the southern end of the urban area. In fact, the weir has a very small flow section, roughly 1/5 of the upstream river section. Improvement of the weir and related river channel is necessary.

(b) Improvement of Urban Drainage

The existing rain and wastewater drainage pipes were installed in the 1950's for the limited urban area of the Town. However, they are destructed or clogged at many places and do not function well at present. Rainwater floods the urban area at every time of heavy rainfall. The floodwater gradually recedes on the roads, open spaces and residential/hotel/restaurant yards, finally discharging into the open drainage channels. Even, those open channels have been narrowed or reclaimed by the disorderly housing development in the recent years. This has further worsened the situation of rainwater drainage.

On the other hand, the wastewater of the houses/offices/hotels/restaurants/shops is mostly discharged on the yards or into underground with no treatment or only septic tank. Only two (2) large hotels are provided with proper treatment system. This untreated wastewater contaminates water of the River and channels, and groundwater, affecting the health of town people.

Sanitary conditions of the urban area are bad, especially at rainy time due to the flooding of mixed rain and wastewater. The drainage problems will become more serious according to the urban development in the future. Improvement of the urban drainage system of rain and wastewater is necessary.

(c) Improvement of Solid Waste Disposal

The town office is responsible for the management of solid waste disposal. However, the actual operation is entrusted to a private company. The company collects the garbage from the users (houses, offices, hotels, restaurants, shops, etc.) with collection fee. The collected garbage is currently dumped with no sanitary treatment on the open space located outside the Town. However, this system does not function well and illegal garbage disposal is identified at many places.

Effective and efficient garbage collection system with sanitary disposal should be established for the urban area of the Town.

(d) Enhancement of Environmental Education

For successful implementation and management of the above projects, close cooperation of the citizens is essentially necessary. For this purpose, environmental education to the people needs to be enhanced. Further, publicity or exhibition of the world valuable aquatic lives in the Tonle Sap Lake is considered important for the tourism development of the Town. Their exhibition is currently operated by a NGO at small scale in the Town. This existing exhibition needs to be more developed in cooperation with the NGO.

6. Outline of the Project

(1) Overall Goal

(Development effect expected as a result of achievement of the "Project Purpose" in several years after the end of the project period)

- ① Improvement of sanitary conditions
- ② Contribution to tourism development
- ③ Promotion of public awareness on urban environment
- ④ Technology transfer concerning the improvement of urban environment

(2) Project Purpose

(Objective expected to be achieved by the end of the project period. Elaborate with quantitative indicators if possible)

- ① To improve the riverbank landscape and water quality of the Siem Reap River
- ② To prevent floods of the Siem Reap River
- ③ To improve the drainage system of rain and wastewater
- ④ To establish the garbage collection and disposal system
- ⑤ To enhance environmental education including publicity/exhibition of aquatic lives of the Tonle Sap Lake

(3) Outputs

(Objectives to be realized by the "Project Activities" in order to achieve the "Project Purpose")

- ① Beautification plan of the riverbanks of the Siem Reap River that is well coordinated between conservation of natural scenic view and prevention of bank erosion
- ② Water-pollution control plan of the Siem Reap River
- ③ Reconstruction/improvement plan of the existing Crocodile weir and related river channel in the Siem Reap River
- ④ Improvement plan of urban drainage system including rain/wastewater drainage pipes and open drainage channel

- ⑤ Installation plan of wastewater treatment system
- ⑥ Integrated plan of garbage collection and sanitary disposal system
- ⑦ Publicity and exhibition plan of aquatic lives of the Tonle Sap Lake
- ⑧ GIS database integrating the entire study results for future project and town management

(4) Project Activities

(Specific actions intended to produce each "Output" of the Project by effective use of the "Input")

- ① Preparation of a master plan for improvement of the urban environment of Siem Reap Town
- ② Feasibility study on the priority projects identified in the master plan

(5) Input from the Recipient Government

(Counterpart personnel (identify the name of position of the Project manager), support staff, office space, running expenses, vehicles, equipment, etc.)

H. E. Suy San Ph. D, Deputy Governor, Siem Reap Province
Mr. Chun Sao, Deputy Chief of Cabinet
Mr. Kong Chantra, Deputy Director of PWT Department
Mr. Chev Phal, Director of Environmental Department, Siem Reap Province
Mr. Nuon Kresna, Deputy Director of Department of Water Resources and Meteorology
Mr. Tith Sopha, Department of Urban Development, APSARA

(6) Input from Japanese Government

(Number and qualification of Japanese experts, training (in Japan and in-country courses, seminars, and workshops, equipment, etc.)

The study team will be consist of twelve (12) experts, 1) Team Leader, 2) Flood Prevention/Drainage Planner, 3) Hydrologist/River Engineer, 4) Drainage Facility Engineer, 5) Wastewater Management Expert, 6) Solid Waste Management Expert, 7) Water Quality Analyst, 8) Structural Engineer/Cost Estimator, 9) Socio-economist/Urban Planner, 10) Financial/Institutional Expert, 11) Environmental Expert, and 12) Specialist (Heritage Conservation).

(7) External Conditions

7. Implementation Schedule

July 2004 — December 2005

8. Implementing Agency

(Budget, staffing, etc.)

Annual budget and number of staff members are as follows:

Year	2000	2001	2002
Annual Budget (Riels)	2,288,000,000	2,860,000,000	3,575,000,000
Number of Staff Member	92	92	92

9. Related Activities

(1) Technical Cooperation and Grant Aid Provides by Japan:

- ① Study on Water Supply System for Siem Reap Region (completed in 2000)
- ② Basic Design Study on Water Supply System for Siem Reap Region (on-going)

(2) Activities in the Sector by the Recipient Government:

APSARA conducted the following studies with assistance of French Government.

- ① Ville de Siem Reap – Angkor, Plan D'urbanisme de Reference et Projects Prioritaires, 1995
- ② Assistance pour L'etablissement de Documents D'urbanisme Reglementaire de Siem Reap – Angkor, 1999

10. Beneficiaries

(Population for which positive changes are intended directly and indirectly by implementing the project)

Directly: people of Siem Reap Town (120,000 at present) and tourists to the Town (0.65 million people per year at present)

Indirectly: 11,000,000 people (whole of country)

11. Security Conditions

Siem Reap is one of the safest areas of the country. Access to the Town is easy from Phnom Penh by the domestic flight (required time: 40 minutes), by the speedboat on the Tonle Sap Lake (required time: 5-6 hours), and by land via National Road No.6 (required time: 5-6 hours). The Town is also accessible by international flight from Bangkok, Ho Chi Minh, Vientiane and Singapore.

12. Others

For formulating the environmental improvement plan in this study, the strong collaboration among the related agencies is most essential. In fact the following agencies have a close relation to the study, and furthermore most of them will be implementation agencies in the project

phase.

- (1) Improvement of river environment: Ministry of Water Resources and Meteorology,
- (2) Improvement of urban drainage system: Ministry of Public Work and Transport,
- (3) Improvement of urban solid-waste management: Siem Reap Provincial Government, and
- (4) Entire planning: APSARA Foundation.

Thus the Steering Committee shall be established in the course of the study, in order to attain a close coordination among the related agencies.