

State of Water Quality and Countermeasures in Siem Reap Province

Environmental Department
Siem Reap Province

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1. Causes and effects to water environment in Siem Reap Province

- ❑ A tourism boom in Siem Reap town, which caused the demand of hotels, guesthouse, restaurants and other tourism facilities in addition to a rapid population increase, which causes unplanned development and urbanization.
- ❑ Consistent with unplanned tourist boom, the public service and infrastructure, e.g. water supply, sewerage, drainage, and solid waste management, is so-called as unsustainable way, unless environmental legal instruments is strictly and widely applied.

1. Causes and effects to water environment in Siem Reap Province (cont.)

- Rapid growth of urbanization which is beyond the land use planning, and without a central wastewater treatment, therefore, domestic wastewater are directly discharged into sewage system, and finally run off to receiving water.
- Solid waste and garbage still found along the Siem Reap Stream and at public water areas – that is not merely cause water pollution, but also the loss of civic aesthetics.

1. Causes and effects to water environment in Siem Reap Province (cont.)

- Wastewater from hotels, guesthouses and households are freely discharge into receiving sources, including permeable into ground.
- Very simple dumpsite of Siem Reap town is recognized to release leachate into water sources (both surface and ground water)

1. Causes and effects to water environment in Siem Reap Province (cont.)

- Agricultural development by using agro-chemical which is more popularly consumed in paddy fields, specially in gardens along and/or closed to watercourses.
- High sedimentation load resulted from soil erosion at local watersheds.

2. Water quality in Stoung Siem Reap

- Upper part of Siem Reap Stream (Stoung Siem Reap) commonly has not yet polluted, because it is located far away from residential and developing areas.
- But the middle and down parts of Sounng Siem Reap, including the Tonle Sap Great Lake, are recognized to be polluted (survey results, JICA 2004), which may cause serious impacts to consumers and aquatic species, especially fishes where Cambodian around 80% use as a daily protein.

3. Existing countermeasures

- ❑ To maintain and protect water quality in Srong Siem Reap, including its aesthetics, some available countermeasures have been applied. These include as follows:
 - The governor issued an announcement to halting the discharge of wastewater from households and other pollution sources into river (in earlier 2007), excepted public drainages.

3. Existing countermeasures (cont.)

- ❑ The Royal Government of Cambodia with supporting from ADB loan (Mekong Tourism Development Project) via the Ministry of Public Work and Transport, establish the central wastewater treatment plant for Siem Reap town. It started in June 2007 and will complete next year.

3. Existing countermeasures (cont.)

- Public campaign in the Environmental Day towards the picking up of solid waste and garbage along Soung Siem Reap and at selected areas in town.
- Public dissemination of environmental legal instruments by available means, e.g. TV, Radio, poster, leaflets, and so on.
- Capacity building to local implementers (district environmental officers and commune councils).

3. Existing countermeasures (cont.)

- Strengthen the application of environmental legal instruments to pollution sources to deal with the environmentally management of solid waste and garbage, and wastewater.
- Regularly monitor and control water environment of the Soung Siem Reap and its tributaries to ensure it is not polluted – that is a main contributor of provincial development.

3. Existing countermeasures (cont.)

- ❑ Strengthening and promoting the monitoring programme of environmental pollution at point and non-point sources of pollution in the province in closed collaboration with line institutions.
- ❑ To abide by the environmental legal instrument, wastewater treatment is being boosted and promote within pollution sources before disposing into receiving sources.

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