

## Environmental Impact Assessment of the Bangkok Subway Construction Project - Introduction of Environmental Accounting in Infrastructure Projects -

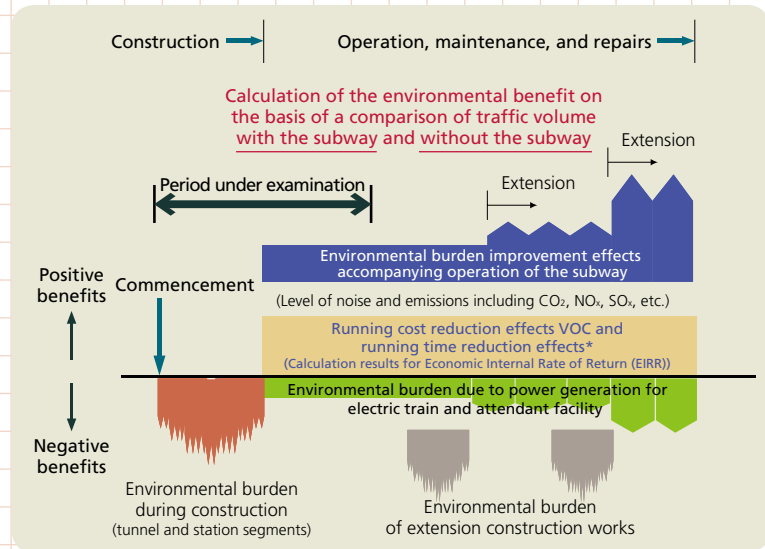
In FY2006, CO<sub>2</sub> reduction effects accompanying the promotion of an energy efficiency policy in the manufacturing industry in Thailand were estimated using environmental accounting (see "Thematic Evaluation" on page 53). Following the report's recommendations, the introduction of environmental accounting in infrastructure projects is being trialed in FY2007, using the Bangkok Subway Construction Project as a model case.

Following the rapid economic development of the 1990s, traffic congestion and related air pollution have become issues in Bangkok. To alleviate this problem and to realize sound economic growth, the Government of Thailand formulated a master plan for developing a mass transit network under the country's National Economic and Social Development Plan. The Bangkok Subway Construction Project, whose ex-post evaluation is being conducted in FY2007, is part of this mass transit network plan and commenced operation in July 2004 as the MRT Blue Line, Bangkok's first subway (with a total length of 20 km and 18 stations).

JBIC commissioned Professor Hiroyasu Ohtsu of Kyoto University to undertake not only an ex-post evaluation in line with the five DAC criteria, but also a quantitative trial evaluation of the environmental burden caused by the subway, which overall is regarded to be an "environmentally friendly means of transportation," taking into consideration the entire project life.

The evaluation is currently in progress and the specific areas which it covers are: 1) the environmental burden attributable to the construction of the tunnel and station areas at the subway construction stage, 2) improvement in the environmental burden due to reduction in emissions and noise accompanying a decrease in traffic volume due to the subway, and 3) the environmental burden due to power generation for electric train and attendant facility (see Figure 1).

Figure 1: Plan for Examining the Environmental Burden



## Conservation Management of Lake Biwa Shared with the World - Intellectual Contribution at the 12th World Lake Conference -

With the announcement of the Water and Sanitation Broad Partnership Initiative in March 2006, the Japanese government expressed its support for developing countries in securing sustainable water use.

At the time of ex-post evaluation based on the five DAC criteria for the "Lake Bhopal Conservation and Management Project" in India, a trial evaluation using the Integrated Lake Basin Management (ILBM) framework\* was conducted.

In environmental conservation projects for enclosed static water systems such as lakes, the effects in the short term are limited. To bring about tangible outcomes, such as the reduction of the inflow pollution load and improvement of the ecological environment both in the lake itself and lake shore areas, long-term initiatives are necessary. The long-term commitment of stakeholders across a wide spectrum is also essential. ILBM is a framework that promotes such comprehensive initiatives and was developed on the basis of Japan's



Workshop participants listen with keen interest to explanation of executing agency.

s experience in environmental improvement schemes applied in Lake Biwa and other water systems.

At the 12th World Lake Conference held in Jaipur, India in October 2007, JBIC supported the organization of ILBM sessions and introduced its initiatives in this area. The sessions also fostered a vibrant exchange of opinions among donors and international organizations, such as the United Nations Environment Programme, on the importance of initiatives in lake environment improvement based on ILBM and related issues.

To provide valuable feedback to executing agencies from the World Lake Conference, workshops were subsequently held at Lake Bhopal in November with the participation of specialists in lake conservation in India and from neighboring countries. In addition to discussing common issues in promoting ILBM, the workshop also examined issues involved in applying ILBM in ex-post evaluations of lake conservation management projects.

The discussions confirmed a shared awareness of the need for multifaceted initiatives within a more comprehensive framework of lake basin governance, encompassing policy formation, organizational structure, participation, scientific information, technologies, and sustainable budget.

\* For the definition and general outline of ILBM, please refer to the thematic evaluation on page 55.