# Transformation from force account to contracting out

## of road maintenance works in Sri Lanka

University of Tokyo, Student Member, Yusuke Kai University of Tokyo, Member, Takashi Matsumoto

### Background

Infrastructures are considered to be bases of economic development. In the road sector, contracting out maintenance works is considered to be one of the main solutions to achieve better road condition. However, routine maintenance works are currently done through force account in Sri Lanka.

#### Objectives

The objectives of this research are (i) to identify the reasons why maintenance works are done through force account, (ii) to analyze transformation from force account works to outsourcing works, and (iii) to propose recommendation for a new system.

#### Methods

This research relies mainly on the results of field investigation and the review of past projects. Based on them, Causality Analysis and Argumentation are carried out in order to propose a new system.

#### **Results and Analysis**

**Reasons:** The reasons why public officers are negative to shift to contracting out works are (i) strong worry about corruption because of their past experience, (ii) worry about high bid price due to inadequate private sector development, and (iii) national policy on unemployment problem. These factors are strongly relating to each other. Causality image can be shown in Figure 1.



**Transformation:** In order for transformation, based on Causality Analysis, it can be said that private sector development is strongly needed. Then, public officers' negative attitude can be changed. At the same time, private sector needs works for the development of itself. These two issues relate and affect each other. From this view, introduction of Each Asset Performance Based Contract is proposed as a first step. In future, All Assets Performance Based Contract, PFI, etc should be introduced because it is more effective and economical.

#### Each Asset Performance Based Contract (EAPBC):

Effectiveness and obstacle should be considered to minimize ineffectiveness and to get profit from private sector's participation when packages of contracted assets are defined. In this research, the routine to decide packages of assets is proposed and it can be applied for any cases. This routine considers similarity and obstacle level as indexes of profit and risk derived from packaging assets. For example, the output result obtained when the routine is applied for Sri Lankan case is shown in Figure 2.

Though EAPBC is useful in terms of risk-transfer from public sector to private sector, encouraging private sector's development and data collection, which is expected to improve contract conditions by feeding back to contract terms, casual workers should be kept directly employed by public sector because of national policy on unemployment problem and private companies' exploitation of workers. As a solution for this trade-off problem between contracting out works and direct employment, a system combined "providing labor force for private contractors" and "direct payment with setting some penalty and reward for the workers" can be proposed. This system image is shown in Figure 3. This system contributes not only to solving the trade-off problem but also to giving workers incentives to improve their works and to watching other workers among workers in order not to take penalty.



#### Conclusion

Private sector in Sri Lanka needs to develop and the system like contracting out which encourages such development has a great meaning. However, just contracting out works cannot be applied because it will bring rather inefficient result due to private sector's inadequate skill in terms of both technical and financial aspects. "Each Asset Performance Based Contract" can avoid such problems and can be a system which can satisfy some conditions derived from risk consideration. In addition to it, using a new wage system can allow public sector to directly employ casual workers as a solution for unemployment and exploitation problem.

#### Acknowledgement

Cooperation from staffs working on Asia Development Bank, especially Mr.Prodyutt Dutt and Mr.Hideaki Iwasaki is highly appreciated. The contribution of data collecting and answering questionnaires by Mr. A.M.Jawzi, Director of Maintenance Management and Construction Department, Road Development Agency in Sri Lanka, is highly acknowledged.

#### References

- Contracting for Road and Highway Maintenance, March 2003, Geoffrey F. Segal, Adrian T. Moore, and Samuel McCarthy
- 2) Final Report Volume A Analysis, ADB TA SRI 3110 Re-engineering of Road Sector Institutions, June 2002, ND Lea Consultant Ltd., and Resources Development Consultants Ltd.
- Final Report Volume B Action Plans, ADB TA SRI 3110 Re-engineering of Road Sector Institutions, June 2002, ND Lea Consultant Ltd., and Resources Development Consultants Ltd.
- Monthly Progress Report, Technical Assistance No.4315-SRI Road Sector Master Plan, September 2004, Resources Development Consultants Limited.
- 5) Global Experiences for the Public Private Partnership for Highway Development, 30 August 2005, Shuso Tsukada