

## Road Maintenance Management System

P.J.B.Lenadora<sup>1</sup>

Road Maintenance Management System (RMMS) was implemented to assist the decision making of the Eastern and North Central Provincial Road Management Agencies of Sri Lanka with funding from the ADB.

The road network of Eastern and North Central and Eastern Province comprised of 1100 kms and 2000 kms of Class C and D roads respectively which comes under the purview of the respective Provincial Road Management Agencies. These Class C and D roads provides the connectivity to the rural populations and facilitate the transportation of their agricultural and other produces to the Class A and B National road network maintained by the Road Development Authority.

The system was developed with HDM-4 as the core decision support engine, A simple to operate Geographical Information System with query facilities, Road Information Database, Road Structure database and the software framework to provide the inter-communication between the modules and the other common applications such as MSWord, MSEXcel etc. MSAccess was used as back end database and MSSqlServer was used to support spatial queries in the GIS module. The aims of the endeavor were to develop a highly user friendly "one stop shop" style application for the agencies which was considered important for the sustainability of the system itself. The system provided the tools for optimum road maintenance planning and road prioritizing methodology considering social benefits and equity in geographical distribution.

The outcomes of the projects were the development of complete inventories of the C and D class roads and road structures, maps of the entire road network, tools for systematic road maintenance management and a road information system that provides all the day-to -day information for all levels of staff of the respective provincial road agencies. The development of detailed database can also be considered as a good foundation for further studies and researches such as pavement behavior and the significance of social factors in road development prioritization.

**Key Words:** Road Maintenance Management System, HDM-4

### Authors Details:

1. Deputy Director, Land Acquisition & Resettlement, Road Development Authority.