

Shri Gadkari Launches Indian Bridge Management System : Says It is a major step towards ensuring Safety of Bridges

A major step was taken towards ensuring safety of bridges in the country, when the Minister of Road Transport & Highways and Shipping Shri Nitin Gadkari formally launched the Indian Bridge Management System (IBMS) in New Delhi today. IBMS is being developed to create an inventory of all bridges in the country and rate their structural condition so that timely repair and rehabilitation work can be carried out based on the criticality of the structure.

Speaking on the occasion Shri Gadkari said that a lack of any data base on bridges in the country has led to a situation where we are neither clear about the exact number and location of nor have we been able to maintain this asset in proper working condition. Poor condition of bridges hampers efficient transport and has also led to accidents and loss of lives on several occasions. He said IBMS aims to fill this gap by preparing a data base of all bridges in the country and detailing their structural condition so that timely action can be taken to repair the structures or build new ones in their place.

IBMS is the largest platform in the world owned by a single owner, with database that could exceed 1,50,000 bridge structures. So far 1,15,000 bridges have been inventorized, of which 85,000 are culverts and the rest are bridges. During inventory creation each bridge is assigned a unique identification number or **National Identity Number** based on the state, RTO zone and whether it is situated on an National Highway, State Highway or is a district road. Then the precise location of the bridge in terms of latitude-longitude is collected through GPS and based on this, the bridge is assigned a **Bridge Location Number**. Thereafter, engineering characteristics like the design, materials, type of bridge, its age, loading, traffic lane, length, width of carriage way etc are collected and are used to assign a **Bridge Classification Number** to the structure. These are then used to do a structural rating of the structure on a scale of 0 to 9, and each bridge is assigned a **Structural Rating Number**. The rating is done for each component of the structure like integral and non integral deck, superstructure, substructure, bank and channel, structural evaluation, deck geometry, vertical clearance, waterway efficiency etc. In addition to the structural rating, the bridges are also being assigned **Socio-Economic Bridge Rating Number** which will decide the importance of the structure in relation to its contribution to daily socio-economic activity of the area in its vicinity.

Based on this inventory IBMS will analyse data and identify bridges that need attention. Further inspection will be carried out wherever required to improve the operational availability of the structure, enhance its life and prioritize repair and rehabilitation work. The data will help to decide which bridge needs critical attention, or which needs to be rebuilt.

Shri Gadkari also informed that the states of Rajasthan and Maharashtra have taken initiatives to work on Railway Over Bridges. He also stressed upon the need for technological innovation in the area so that functionally useful and appropriate structures can be built at reasonable costs. He stressed upon the use of waste material and locally available raw material for construction so that costs can be brought down. There is a need for extensive research in this direction he said, for which we have to involve IITs and other Engineering colleges.
