

traffic is suspended in this location also. To keep the alternative route (Rohini Short Cut Road) in traffic worthy condition, an estimate of about Rs.4.85 crore is under sanction in the Ministry. Besides this consultancy work for preparation of Detailed Project Report is under preparation for rehabilitation and upgradation to 2 lane with /without paved shoulder configuration and strengthening of entire NH-55 in West Bengal to be under taken has been taken up with World Bank Assistance. Consultant has been asked to carry out detailed study and submit a Comprehensive solution for rehabilitation of these damaged slipes. Work of rehabilitation will be taken up after detailed study.

Use of plastic waste in road construction

1799. SHRI R.C. SINGH: Will the Minister of ROAD TRANSPORT AND HIGHWAYS be pleased to state:

- (a) whether the Central Road Research Institute has carried out or is carrying out any research on use of plastic waste in road construction;
- (b) if so, the details of such research; and
- (c) the cost comparison between the roads constructed with the help of plastic waste, concrete roads and conventional bitumen roads?

THE MINISTER OF STATE IN THE MINISTRY OF ROAD TRANSPORT AND HIGHWAYS (SHRI JITIN PRASADA): (a) Yes, Sir.

(b) Central Road Research Institute (CRRI) has developed guidelines for use of waste plastic in bitumen road construction and also developed process technology to manufacture waste plastic modified bitumen. It has been patented. A number of roads under jurisdiction of Public Works Department, Government of Delhi, under the supervision of CSIR-CRRI has been constructed and are performing well.

(c) It is premature to compare the cost of roads constructed with the help of plastic waste, with concrete roads and conventional bitumen roads, based on research projects.

By-pass projects in KBK districts of Odisha

1800. SHRI RUDRA NARAYAN PANY: Will the Minister of ROAD TRANSPORT AND HIGHWAYS be pleased to state:

- (a) the action that has been taken by Government till now for the completion of the 'By-Pass' projects coming under KBK (Koraput-Bolangir-Kalahandi) districts in Odisha;