

NEC to be taken up in a phased manner, covering 597.20 Kms, at an estimated cost of Rs. 742.27 crore, within the available resources of NEC.

No proposal of the 9th/10th Plan period is pending with the Planning Commission for in-Principle approval. As regards the status of implementation of the approved projects, as per available information one road project of 9th plan is still on-going and would be completed in the current year i.e. 2011. As regards, 10th Plan road projects, 38 projects are still ongoing, completion of which would require an amount of Rs. 300 crore. Out of 38 projects, 10 projects would be completed by 2011-12. Out of 25 projects approved "in principle" for the 11th Plan by the Planning Commission, 16 projects have been sanctioned and are under implementation. The project reports of the balance 9 projects are under process.

#### **Models of road construction**

†1630. SHRI RAM JETHMALANI:

SHRI RAVI SHANKAR PRASAD:

Will the Minister of ROAD TRANSPORT AND HIGHWAYS be pleased to state:

- (a) whether it is a fact that the construction of roads in the country is going on the basis of three models presently;
- (b) if so, the details of these three models and the percentage of construction projects that are underway during 2010-11 under each model;
- (c) the role of public and private sector in the above said each model; and
- (d) whether there is any proposal to make a change in the above said arrangement; if so, the outline of the proposal thereof?

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

(b) and (c) Procurement of works for projects under National Highway Development Project (NHDP) are being carried out under these three modes of contract (i) Built Operate Transfer (BOT) (Toll) basis, (ii) Built Operate Transfer (Annuity) basis, and (iii) Engineer, Procure and Construct (EPC). Prior to 2009, a number of projects had been undertaken on EPC basis also, however. In 2009-10, after substantial deliberation it has been decided in future to undertake 60% of the overall

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†Original notice of the question was received in Hindi.

projects on BOT (Toll) basis, 25% on BOT (Annuity) basis and 15% on EPC basis. Currently out of 219 projects under implementation, 42% of the projects are under BOT (Toll) mode, 12% under BOT (Annuity) and 46% under EPC mode. In the year 2010-11 alone, so far 43 projects have so far been awarded out of which 41 are being undertaken with private sector participation in which the private concessionaire would construct and maintain the road as well for the period of the concession. Role of public sector is to provide Land, facilitate all utility shifting and undertake rehabilitation and re-settlement as part of pre-construction activities at public costs.

(d) No Sir.

#### **Import of large quantity of bitumen**

1631. SHRIMATI JHARNA DAS BAIDYA:

SHRI TAPAN KUMAR SEN:

Will the Minister of ROAD TRANSPORT AND HIGHWAYS be pleased to state:

- (a) whether India is importing large quantity of bitumen for construction of roads;
- (b) if so, the quantity imported during last three years;
- (c) whether any cost benefit analysis on life cycle and cost of bitumen and concrete roads, has been made;
- (d) if so, the details thereof; and
- (e) if not, the reasons therefor?

THE MINISTER OF STATE IN THE MINISTRY OF ROAD TRANSPORT AND HIGHWAYS (SHRI JITIN PRASADA): (a) and (b) This Ministry is not importing bitumen for National Highway projects.

(c) to (e) As per manual of specifications and standards for 4 laning of National Highways through PPP (IRC:SP 84-2009) flexible pavements are designed for a minimum design period of 15 years or operation period whichever is more and rigid pavement are designed for a minimum period of 30 years. The cost of construction of concrete and bitumen roads for National Highways is dependent upon several factors such as design period, sources of construction materials like aggregate, bitumen, cement, labour, construction technique and machinery used, terrain and traffic conditions etc.