

**GOVERNMENT OF INDIA
HOUSING AND URBAN POVERTY ALLEVIATION
LOK SABHA**

UNSTARRED QUESTION NO:2994
ANSWERED ON:13.12.2011
FLY ASH IN CONSTRUCTION NO
Maadam Shri Vikrambhai Arjanbhai

Will the Minister of HOUSING AND URBAN POVERTY ALLEVIATION be pleased to state:

- (a) whether the research on use of fly ash for part replacement of sand for construction purpose has been taken up;
- (b) if so , the details thereof ;
- (c) the present status thereof; and
- (d) the success rate achieved thereon ?

Answer

THE MINISTER OF HOUSING & URBAN POVERTY ALLEVIATION (KUMARI SELJA)

(a) & (b): No research on use of fly ash for part replacement of sand for construction purpose has been taken up by this Ministry. However, this parameter has been studied in projects related to "use of high volume flyash in concrete" and in projects like "maximizing the use of flyash in cement and concrete" etc. by the National Council for Cement and Building Materials under Ministry of Commerce and Industry. In addition some limited research work on use of bottom ash which contains varying percentage of flyash as part replacement of sand has been done.

(c): Presently , only one project is in progress at the National Council for Cement and Building Materials which is an Indo-Norwegian project wherein use of bottom ash as part replacement of sand is being studied and results are not yet available.

(d) In the studies conducted by the National Council for Cement and Building Materials on high volume flyash concrete, it has been found that in low and medium grade concrete i.e. upto M20, while replacing part of cement with flyash, additional replacement of sand (5-10%) with flyash conforming to IS:3812-Part-I is advantageous. In studies on use of bottom ash it is seen that to make the part replacement of bottom ash (say up to 30%) as tecno-economically viable alternative, sieved bottom ash after removal of 150Åµ and 300Åµ down size shall be preferable for usage in concrete. The bottom ash after part removal of 150Åµ and 300Åµ sieve size can also be used in mortar making for use in masonry and plastering work.