

produce deliverable products through a Natural Language Processing Laboratory and constant interaction between industry, academia and the users.

(b) An amount of Rs. 17 crores is estimated for this programme during the VIII Plan; but this is yet to be finalised.

(c) and (d). During the implementation of the TDIL programme, reputed institutions engaged in research in Sanskrit would be associated. To start with, a project was funded jointly at Rastriya Sanskrit Vidyapaith and Jawaharlal Nehru University, New Delhi for the development of Computer Assisted Sanskrit Technology/Learning Environment (CASTLE).

(e) Text-understanding and text-generation are being dealt with as part of language translation. Under the CASTLE project at JNU and Rastriya Sanskrit Vidyapith, basic design of software for teaching alphabet, their properties, Sandhis etc. have been undertaken. A nucleus software system has been designed which will be used in implementing the teaching/learning lessons and exercises. This joint project began in 1988 with a funding of Rs. 10.9 lakhs.

At C-DAC, Pune, programming environments have been developed which allow the use of all Indian scripts including Devnagari. Basic support tools incorporating the grammar rules such as Sandhi, Vighraha, Shabdaroop and Dhataroop have been developed using LISP. The prototype of an expert system shell called 'Visheshagya; has been developed, A Sanskrit intelligent Tutoring System is being developed. This activity began in 1988. The amount spent so far is Rs. 15 lakhs.

At IIT Kanpur, initial efforts have been made in the area of translation from Hindi to Telugu. The project was implemented dur-

ing 1987-88 with a funding of Rs. 11.5 lakhs.

At National Centre for Software Technology (NCST) Bombay, the limited vocabulary machine translation prototype which will translate news stories from English to Hindi is in progress. This activity began in 1986. NCST is executing this as part of the Knowledge Based Computer System (KBCS) project, and estimated expenditure towards the total KBCS project is Rs. 80 lakhs.

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### **Pollution of Damodar River**

2873. **SHRI BASUDEB ACHARIA;  
SHRI SANAT KUMAR MAN-  
DAL:**

Will the Minister of ENVIRONMENT AND FORESTS be pleased to state:

(a) whether Government are aware that the pollution of Damodar river which acts as the life line to vast areas of West Bengal and Bihar has assumed alarming proportions;

(b) whether Government propose to start Damodar Action Plan in consultation with State Government of Bihar and West Bengal; and

(c) if not, the alternative steps proposed/taken to check pollution of Damodar river?

THE MINISTER OF ENVIRONMENT AND FORESTS (SHRI NILAMANI ROUSTRAY): (a) Some stretches of the Damodar; particularly downstream of Dhanbad and Girdih, in Bihar, and downstream of Durgapur and Raniganj, in West Bengal, are polluted due to discharge of industrial and domestic effluents.

(b) Schemes for cleaning the tributaries of Ganga including Damodar can be considered during the eighth Plan subject to availability of funds.

(c) The steps being taken to control pollution include:

- (i) Industries located on the banks of the Damodar river have been directed to install effluent treatment plants within a time-frame, and to treat their effluents to prescribed standards before discharge into the river.
- (ii) Consents are issued to industries to operate subject to their adopting adequate pollution control measures.
- (iii) Task forces have been set up to oversee the progress made by industries in putting up pollution control devices.
- (iv) Regular monitoring of the river water quality is being done.
- (v) Prosecutions are launched against the major defaulting units.

[Translation]

Navodaya Vidyalayas in Bihar

2874. SHRI DASAI CHOWDHARY: Will the PRIME MINISTER be pleased to state:

(a) whether the previous Government had announced that Navodaya Vidyalayas will be established in each district;

(b) if so, the names of districts in Bihar where these Vidyalayas have been established; and

(c) the reasons for not establishing a Navodaya Vidyalaya in district Samastipur in Bihar so far?

THE MINISTER OF STATE IN THE MINISTRY OF HUMAN RESOURCE DEVELOPMENT (SHRI CHIMANBHAI MEHTA): (a) The scheme for Navodaya Vidyalayas provided for the establishment of a Navodaya Vidyalaya, on an average, one in each district of the country, during the 7th Five Year Plan.

(b) A list of districts in Bihar where Navodaya Vidyalayas have been established is given in the statement below.

(c) A Navodaya Vidyalaya in District Samastipur was established in 1986-87.

**STATEMENT**

*Name of the Districts of Bihar where Navodaya Vidyalayas have been Opened*

<i>Sl. No.</i>	<i>Name of the District</i>
<i>1</i>	<i>2</i>
1.	Samastipur
2.	Munger
3.	West Champaran
4.	Dumka
5.	Bhojpur
6.	Madhubani
7.	Gumla
8.	Ranchi
9.	Singhbhum
10.	Navada
11.	Bhagalpur
12.	Saharsa