ORAL ANSWERS TO QUESTIONS

[Translation]

Measures to Prevent Pollution in Korba (Madhya Pradesh)

*867. DR. PRABHAT KUMAR MISHRA: Will the PRIME MINISTER be pleased to state:

- (a) the extent to which Korba, the industrial city of Madhya Pradesh, has been polluted; and
- (b) the steps being taken by Government to check this pollution?

[English]

THE MINISTER OF STATE IN THE MINISTRY OF SCIENCE AND TECHNOLOGY AND IN THE DEPARTMENTS OF OCEAN DEVELOPMENT, ATOMIC ENERGY, ELECTRONICS AND SPACE (SHRI SHIVRAJ V. PATIL): (a) and (b). A Statement is given below.

Statement

(a) and (b). Pollution in Korba is primarly due to high levels of particulate matter in the air. According to the State Pollution Centrel Board, suspended particulate matter (SPM) in different places at Korba varies from 25 to 675 microgrammes per cubic metre of air.

The following steps have been taken :--

- —The township under the Korba Area Development Authority has been declared as an air pollution control area;
- —A sub-regional office has been set up at Korba to study and monitor the air quality levels;
- Two out of the three Thermal Power Stations in Korba have installed the necessary air pollution control devices. The third one has been directed to instal bag filters and electro-static precipitators; and
- —A committee has been constituted by the State Government to monitor the pollution control scrivities.

[Translation]

DR. PRABHAT KUMAR MISHRA:
Mr. Speaker, Sir, according to the statement laid on the Table of the House,
pollution in Korba is due to the suspended
particulate matter in the air. Through you,
I would like to know from the hon. Minister
whether the carbon monoxide and sulphurdioxide content in the air has increased
in Korba and is causing damage to the
living beings and plants? Are the Government aware of it?

SHRI SHIVRAJ V. PATIL: Sir, the carbon monoxide and sulphur dioxide content in the atmospere has increased a bit but not to the extent of causing a hazard. The pollution is due to high level of suspended particulate matter in the air, as has been stated in the statement.

DR. PRABHAT KUMAR MISHRA: Mr. Speaker, Sir, this pollution is not only causing damage to the living beings but also causing economic loss. I would like to give an example in this regard. Due to the increase of carbon monoxide and sulphur diexide content in the atmosphere. the saal seed trees in the area are on the way to extinction. Last year, a revenue of Rs. 9 crores was collected from saal seeds in Bilaspur division, out of which Rs. 3 crores were allocated for the development programmes in the tribal areas. Thus, our saal seed trees are on the verge of extinc-These trees are found only in six countries in the world and India is one of its principal producers. This area is known for saal seed trees. It is exported for being used in chocolate. Therefore, I would like to know from the hon. Minister whether increase in atmospheric pollution is also affecting the saal trees?

SHRI SHIVRAJ V. PATIL: This is a highly technical question. It will have to be specifically seen whether sulphur dioxide in the atmosphere has any effect on the saal seed trees. But this type of pollution does have some effect on that. No study in this regard has so far been made and it has been stated that the level of pollution in that area is not so high as to cause such bad effects.

[English]

SHRI PRATAP BHANU SHARMA: Is it a fact that the thermal power station

creates serious pollution problems and according to one survey 1000 MW thermal power station discharges about 40-80 metric tonnes of sulphur dioxide everyday? Apart from leading to acid rain, this is a serious health hazard. So I would like to know what effective steps Government are taking to keep such environmental pollution under control and whether NTPC or any other State Electricity Board has installed such type of equipment to prevent this type of pollution.

SHRI SHIVRAJ V. PATIL: Sir, I have answered this supplementary in the written statement itself. The steps that are being taken by the Government are enumerated there. There are three power plants. One is with NTPC. The other one is with Madhya Pradesh State Electricity Board and the third one is thermal power station with Madhya Pradesh State Electricity Board. As far as the two power plants are concerned they have the equipment the NTPC and super power plant.

SHRI PRATAP BHANU SHARMA: How are you going to control the excess quantity?

SHRI SHIVRAJ V. PATIL: As far as the third plant is concerned—those are old plants—there are three houses and in one of the houses there is a plant, that is, electroelectro-static static precipitators. The precipitators reduce the sulphur content and bring it down to an acceptable level. These instruments are available in the two power plants. In the third power plant also in one of the houses it is available but in the other two they are not available. We have asked the Government to put up those kind of instruments and devices there so that the content of the sulphur can be reduced.

SHRI SURENDRA PAL SINGH: May I know if it is a fact that BARC at Trombay has during the past one or two years carried out certain experiments in the application of radiation sources for the control of water and air pollution? If so, may I know the results of the experiments and whether it will be possible to use the new technology for the purpose in view?

SHRI SHIVRAJ V. PATIL: This question relates to pollution but as far as pollution by radiation is concerned BARC does carry on experiments at certain levels. We all know there is radiation in the atmosphere but whether that radiation is at acceptable level or it has gone upto the dangerous level that is the question. But this kind of experiments and examinations are carried on by BARC. In thermal power stations some sort of radiation is emitted but it does not cross the dangerous level.

Exploration of Ocean Remains

*868. SHRI SRIBALLAV PANIGRAHI†: SHRI CHINTAMANI JENA:

Will the PRIME MINISTER be pleased to state:

- (a) the progress made by India in the field of Ocean Science;
- (b) the names of the Ocean Science Institutes in the country engaged in the field of exploration of Ocean remains; and
- (c) their achievements in the field of exploration of ocean remains and ocean deposits till date?

THE MINISTER OF STATE IN THE MINISTRY OF SCIENCE AND TECHNOLOGY AND IN THE DEPARTMENTS OF OCEAN DEVELOPMENT, ATOMIC ENERGY, ELECTRONICS AND SPACE (SHRI SHIVRAJ V. PATIL): (a) to (c). A statement is given below.

Statement

- (a) India has made significant progress in different branches of ocean science. Our country has a very advanced institutional base in marine science. It has a very well trained team of scientists and two highly sophisticated research vessels. In all there are 958 marine scientists in the country in about 25 research organisations engaged in marine scientific investigations.
- (b) The names of the key institutions engaged in marine scientific