

(b) No such assistance was sought from the Government of India by these States.

(c) Does not arise.

(d) The financial assistance provided by Government of India during 1990-91 to the State Government of Karnataka and Tamil Nadu exclusively for checking smuggling of Sandalwood has been to the tune of Rs. 20 lakhs and Rs. 40 lakhs respectively.

Pollution by Pesticides

1162. DR. R. MALLU: Will the Minister of ENVIRONMENT AND FORESTS be pleased to state:

(a) whether the Government are aware that Pesticides are causing considerable soil damage and water pollution;

(b) the total quantity of pesticides used in 1960, 1970, 1980 and 1990 indicating the quantities imported and indigenously manufactured;

(c) the estimated annual sales of imported and indigenous pesticides for the years indicated in (b) above;

(d) whether any estimate of human loss due to use of pesticides has been made on account of pest resistance; food contamination; water contamination; poisonings; losses

due to soil fertility, bees and earthworms, etc. and

(e) if so, the details thereof and remedial steps proposed to be taken in the matter?

THE MINISTER OF STATE OF THE MINISTRY OF ENVIRONMENT AND FORESTS (SHRI KAMAL NATH): (a) There are no reports of considerable damage to water and land in the country due to pollution from pesticides; though there are some reports of minor contamination. Regular monitoring of the River Ganga and a few of its tributaries has been started since November, 1986 on a monthly basis by collecting water samples from 27 different locations in U.P., Bihar and West Bengal. The water samples have been analysed for residues of 12 major pesticides and their metabolites/isomers. The analytical data collected so far did not show any definite pattern of variation. The residues of pesticides are also monitored in sediments at 173 stations all along the coast-line of the country.

(b) and (c). Directorate of Plant Protection, quarantine & Storage (PPQAS) has been consolidating information on the consumption of pesticides in the country. As far as sale of imported and indigenously produced pesticides in the country is concerned, it may be considered at par with the following statistics and the consumption of pesticides. As such, the statistics for relevant years are as under:—

(MT Tech. Gr.)

<i>Year</i>	<i>Consumption</i>	<i>Import</i>
1960-61	8,620	N.A.
1970-71	24,320	N.A.
1980-81	45,000	2,486
1990-91	75,000	1,094

(d) Pesticides being toxic in nature, their misuse/abuse can cause hazards. Cases of accidental and non-accidental nature of pesticides poisoning including deaths of human beings are being reported by the State Governments from time to time. During the last three years i.e. 1988-89 to 1990-91, more than 3,000 case of pesticide poisoning were reported by the State Governments, as per available statistics. There are no chances of human loss due to pesticide resistance in different pests. No separate statistics are available for human loss due to food contamination. However, it is presumed that the statistics on pesticide poisoning cases include cases of human loss due to poisoning/contamination as well. Nevertheless, under the Insecticides Act, 1968 and the Rules framed thereunder there is a provision of prohibition on admixing of pesticides in foodgrains legally avoiding thereby the phenomenon of pesticide contamination in foodgrains. There are no reports of considerable damage to water in the country due to pollution from pesticides; though there are some reports of minor contamination. No systematic studies are readily available to quantify the losses in soil fertility due to pesticides. However, some pesticides have been reported toxic in earthworm. Considering the usefulness of bees in pollination of crop plants such a study has been made as an important parameter of registration requirement for insecticides under the Insecticides Act, 1968.

(e) The Government has taken a number of steps to prevent the health hazards due to use/abuse of pesticides. The pesticides which are safe to human beings, animals and the environment, are allowed to be registered for use in the country. Farmers are trained in safe and judicious use of pesticides by Extension Officers of the Government and other voluntary agencies. As a preventive measure, many of the extremely toxic pesticides have been banned or refused registration. To reduce/minimise

the over-dependence on pesticides, Government have adopted Integrated Pest Management approach which *inter-alia* includes need-based application of pesticides at economic threshold levels of pests and diseases. Considerable attention is being paid to this concept of pest control which encompasses the use of cultural, mechanical and biological measures and only limited use of pesticides wherever necessary.

Indo-Venezuelan Cultural Agreement, 1984

1163. SHRI BHOY KRISHNA HAN-
DIQUE: Will the Minister of HUMAN RE-
SOURCE DEVELOPMENT be pleased to
state:

(a) the salient features of Indo-Vene-
zuelan Cultural Agreement, 1984;

(b) the progress made so far in its imple-
mentation;

(c) whether any initiatives have been
under way to achieve joint collaboration in
the fields of agriculture, oil technology and
bio-medicine; and

(d) if so, the details thereof?

THE MINISTER OF HUMAN RE-
SOURCE DEVELOPMENT (SHRI ARJUN
SINGH): (a) The Indo-Venezuelan Cultural
Agreement signed on 13.9.1984 provides
for promotion of better mutual understand-
ing in the fields of art, literature, education,
history, sports and other cultural and aca-
demic disciplines.

(b) Efforts are underway to conclude an
executive programme of cultural exchanges
with Venezuela.

(c) and (d). Do not arise as joint collabo-
ration in these fields are not covered by the
Cultural Agreement.