

SHRI T. BASHEER : I would like to know from the Hon. Minister.

AN HON. MEMBER : Brain Drain !
(Interruptions)

SHRI T. BASHEER : Whether the Government proposes to have a compulsory national service for a prescribed period for those scientists who are desirous of going abroad.

SHRI SHIVRAJ V. PATIL : This proposal was made. But then our approach to this problem is very much enlightened and it was explained to the House by the Hon. Prime Minister also. We would like the scientists and technologists who are abroad to acquire knowledge and come back also. They will be very much welcome. If they come back we will try to provide them all the facilities. If some of the scientists would like to go to foreign countries to acquire more knowledge and get acquainted with new things that are happening in the world, the question is whether we should stop them going abroad. Between these two interests we have to strike a balance and by striking a balance we have allowed them to go as well as we are trying to create a situation in which they will come back.

SHRI THAMPAN THOMAS : My question is that has it come to the notice of the Government, because the age of superannuation is 58, the noted scientists who have a good reputation like Directors in BARC go to the United Nations on deputation and from there they go out to other countries. In this context I would like to ask the Government whether they will relax the age of superannuation in the case of these noted scientists to serve in this country.

SHRI SHIVRAJ V. PATIL : In fact, we are allowing the scientists to serve not upto 58 years of age, but beyond that also. The question of their leaving the service at the age of 56, does not arise, I am not aware of the fact that they leave at 56 and go to some other countries. If there are some individual cases, we will look into them. Our intention is to retain the scientists at the top as well as to induct the young scientists also. Because the young scientists get themselves acquainted with new things, they provide a very great strength for the development of science and technology. Our approach is to have the scientists who are of young age as well as to retain the scientists who are exceptionally

good and not to throw them out before a certain age.

DR. CHINTA MOHAN : The Hon. Prime Minister while addressing Indian National Congress of America on the 15th of June said, "we will tempt you and take you back home". At this juncture I would like to bring to the notice of the Prime Minister that a young scientist from Andhra Pradesh who has invented "third eye" for silocon chip of the computer is being harassed by the Professors of the Michigan University. He had come to meet the Prime Minister; but failed to get the interview. At this juncture I would request him to intervene and do something for this young scientist.

SHRI SHIVRAJ V. PATIL : It is an individual case. If the particulars are given to us, we will examine.

Therapeutic Value of Garlic

*515. **SHRI P.R. KUMARAMANGALAM :** Will the PRIME MINISTER be pleased to state :

(a) whether it is a fact that garlic is being thought of in respect of treatment of fungal and other ailments in Western countries like U.K., USA;

(b) whether it is also a fact that therapeutic value of garlic was established in CSIR laboratories in Lahore in the forties and antibacterial compounds isolated;

(c) whether steps have been taken to carry out controlled field trials in this regard by CSIR/ICMR; and

(d) if so, the results thereof ?

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 (d). A statement is given below.

Statement

(a) Yes, Sir, there are press reports to this effect.

(b) In the forties, S. Siddiqui, N.L. Datta and A. Krishnamurthi of CSIR carried out a systematic reinvestigation of garlic and active principles were separated by fractionation and partitioning. Two distinct

active substances, one equally active against *Staphylococcus* and *B. Coli* and the other more active against *Staphylococcus* were isolated.

(c) Yes, Sir.

(d) Steps taken include :

1. Antibacterial and antifungal properties of garlic and its principles were investigated at DFTRI (CSIR) in 1957, 1958 and 1960. Active principles of garlic is inhibitory to the growth of gram positive, gram negative and acid fast organisms and also to yeasts and moulds. Other attributes of garlic include inhibition of several metabolic enzymes, Hypoglycemic activity, enhancement of blood calcium and anti arthritis activity. Since many effects of garlic were reported mainly after animal experimentation, they require further examination to warrant firm conclusions.
2. Studies were carried out in RRL, Jammu (CSIR) for use of garlic for cholesterol lowering activity. As a result of these trials know-how was provided to one of the Indian Drug manufacturers.
3. Studies carried out have indicated that garlic exhibits antifungal activity against as many as 25 plant pathogenic fungi.
4. Clinical studies on human beings has shown that water extract of garlic applied locally on fungal lesions in the skin twice a day for 10-20 days lead to the disappearance of the lesions.

SHRI P. R. KUMARAMANGALAM : Mr. Speaker Sir, the wonder root by the name Garlic has the qualities ...*(Interruptions)*... Mr. Chatterjee does not believe in Garlic.

The qualities of this wonder root are very clear as enunciated in the reply. But unfortunately it looks as if it is being used as a medicine only in so far as cholesterol is concerned which is obviously an upper class problem and not really a problem that belongs to the majority of the masses, what about really introducing it as a drug in the field especially that which deals with metabolic enzymes, Hypoglycemic activity,

enhancement of blood calcium, etc. which are problems that face people of our country? I would like to know from the Minister when they are going to use garlic genuinely for the purpose of solving many major problems or is it going to be only in the R and D laboratory?

MR. SPEAKER : Can there be a non-genuine way to use garlic?

SHRI SHIVRAJ V. PATIL : The properties of garlic are very well known to the people who are living in villages and who are very poor. Generally onion and garlic they consume and when they consume onion and garlic probably they act as a sort of medicine also for the stomach ailments and other things. The properties that garlic has are the properties which can provide some relief in stomach ailments and to the extent possible we would like to take this to the people also.

SHRI P. R. KUMARAMANGALAM : Sir, my question is when they take it up whether it will be brought under allopathic or ayurvedic. The Minister's answer to the first supplementary sounds ayurvedic but the answer in the original statement sounds allopathic. Which side is he going?

SHRI SHIVRAJ V. PATIL : Rose by any name will smell the same. The qualities which are available in garlic will be the same. At present it is being used as ayurvedic medicine and not allopathic medicine.

SHRI C. K. KUPPUSWAMY : What is the total production of garlic in our country?

MR. SPEAKER : Are you getting it in short supply?

SHRI SHIVRAJ V. PATIL : I will collect that information from the Agriculture Department.

SHRI C. P. THAKUR : Sir, many properties of garlic have been mentioned in the Ayurveda but so far no scientific trial has been undertaken. Before any drug is introduced in the market it has to go through many phases of trial. Will the Minister order for the trials on garlic? As has been pointed out by the hon. Member it has to undergo different phases of trial before it comes in the market as a drug. Will some properties mentioned in the ayurvedic medicine satisfy its coming in the market? It has to go through different phases of trial. Will the Minister undertake

such phases of trial so that garlic is introduced as a medicine ?

SHRI SHIVRAJ V. PATIL : There are different standards laid down for introducing the medicine into the market. The standards which are laid for introducing allopathic medicine are a little stringent. The standards which are applicable to the ayurvedic medicine are a little different because they are generally derived from herbs and plants and things like that. As far as this medicine is concerned some experiments have been done at RRL Jammu laboratory in Kashmir and they have produced the technology for producing some garlic pills. They are calling it garlic pearls and they are sold in the market as ayurvedic medicine. But before doing that they have experimented this medicine in a manner in which it should be done.

[*Translation*]

Machinery for Implementation of Tribal Sub-plan Programmes

*517. **SHRI DILEEP SINGH BHURIA :** Will the Minister of WELFARE be pleased to state :

(a) whether any assessment has been made of the works carried out under the tribal sub-plan programmes initiated during the Sixth Five year Plan by Government;

(b) if so, whether the expected results have been achieved; and

(c) if not, whether Government propose to set up a separate machinery for the implementation of tribal sub-plan programmes instead of only providing funds therefor ?

THE MINISTER OF STATE OF THE MINISTRY OF WELFARE (DR. RAJENDRA KUMARI BAJPAI) : (a) Yes, Sir.

(b) The Working Group on Development of Scheduled Tribes during the Seventh Plan period reviewed the Sixth Plan programmes. It observed that, amongst others, family oriented programmes for poverty amelioration, implementation of protective and anti-exploitation legislations, flow of institutional finance to tribal sector received good attention during the Plan

period. Among important deficiencies noticed by it was the inadequacy of the per family quantum of assistance.

(c) No, Sir.

SHRI DILEEP SINGH BHURIA : Mr. Speaker, Sir, my question was in very simple and in a straight forward language. What I wanted to know from the hon. Minister was that how it was so that even after such huge funds had been spent, it is the Adivasis who account for the largest number of backward people or those living below the poverty line in the country. While working with an agency or with a contractor, the Adivasis are the most exploited lot. They are kept as bonded labour. When it comes to getting loans from the banks, their thumb impressions are taken and loan in their names is pocketed by others. We have not been able to achieve the desired results in the matter of development of Adivasis in spite of spending huge amounts. Besides, the Government have themselves admitted that the Working Group on the development of Scheduled Tribes have, after reviewing the programmes, observed that there are some deficiencies. I want to know that if there is some deficiency, why do the Government not remove that deficiency by setting up a separate machinery.

DR. RAJENDRA KUMARI BAJPAI : Mr. Speaker, Sir, so far as the question of setting up a separate machinery is concerned, Tribal Sub-Plan, called T.S.P., was formulated during the Sixth Five Year Plan. Under this scheme, separate project officers are appointed for Tribal Development Blocks. These officers have their small offices to look after all the works, block-wise, and through them the entire work relating to the development of Tribal Areas is undertaken. There are two types of blocks in it. The first is where there is large concentration of tribals and the other is Modified Area Development Approach which has some pockets of tribals. 245 such areas have been identified where this programme is yet to start. Apart from this, special assistance is also provided by the Government through the financial institutions in the tribal areas from time to time. As such, there is no proposal to create a special machinery distinct from general administration specifically for this purpose.

SHRI DILEEP SINGH BHURIA : Mr. Speaker, Sir, the hon. Minister has stated