

## RAJYA SABHA

The House met at eleven of the clock,

-Friday, the 25th February, 1966/tae 6th  
Phalguna. 1887 (Saka).

MR. CHAIRMAN in the Chair.

### ORAL ANSWERS TO QUESTIONS

#### SCIENCE TEACHING IN SCHOOLS

•208. SHRI J. K. VAISHAMPAYEN:; "With the Minister of EDUCATION be pleased to state whether Government have received any proposals from the All India Science Teachers' Association for the improvement of Science Teaching in Schools in the country and, if so, the details of these proposals?

THE MINISTER OF EDUCATION (SHRI M. C. CHAGLA): Yes, Sir. A copy of the Resolutions passed at the 10th Annual Conference of the All India Science Teachers' Association held at Patna during December, 1965 is placed on the Table of the House. [See Appendix LV, Annexure No. 18.]

SHRI S. K. VAISHAMPAYEN: Sir, in the Statement it has been mentioned that the Conference welcomes "the setting up of State Institutes or Units of Science education in nine States. "Which are those nine States?

SHRI M. C. CHAGLA: I am sorry I have not got the names here but I will let the hon. Member know it in the course of the day, if possible.

SHRI S. K. VAISHAMPAYEN: The teaching of science in secondary schools in rural areas is poor as there is no regular teaching done. Is it not high time that steps be taken (1) to offer more attractive pay scales to science graduates, (2) to evolve a pool system of science teachers for each "block and (3) to make teaching for one year compulsory in rural areas for fresh graduates in science?

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SHRI M. C. CHAGLA: Well, Sir, we are short of science teachers and we are doing our best to increase their number and we have in mind the importance of taking science to rural India and we are trying to train teachers. We are trying to offer them better salaries and we are doing our best to make teaching attractive in rural areas. As you know, Sir, 80 per cent, of India lives in the villages and it is a very big problem but we are attaching the greatest importance to it.

SHRIMATI LALITHA (RAJAGOPALAN): May I know in how many regional languages you have science text books?

SHRI M. C. CHAGLA: Well, Sir, the National Council of Educational Research and Training is preparing first class text books in English and Hindi and we send these books to the States asking them to translate them into regional languages. It is easier for the States to translate them.

SHRIMATI LALITHA (RAJAGOPALAN): My question has not been answered. I wanted to know in how many regional languages you have science text books.

SHRI M. C. CHAGLA: As I said, at present we have produced them only in English and Hindi but we hope these will be translated in all the Indian languages.

SHRI JOSEPH MATHEN: Is there any scheme to give higher salaries to the science teachers of this country?

SHRI M. C. CHAGLA: Yes, Sir. As I said we are considering that, Sir, in order to attract as many people as possible into science teaching.

SHRI R. S. KHANDEKAR: In view of the shortage of science teachers, do the Government consider employing retired science teachers who may have gone on pension and, if so, what is the proposal before the Ministry?

SHRI M. C. CHAGLA: We have not considered that but I will certainly bear the suggestion of the hon. Member in mind whether we can employ retired teachers. But they have to be trained; retired teachers are not trained in the modern methods of teaching science. What we are trying to do is to have a body of teachers who are trained in modern methods, who know the modern curriculum and who are familiar with the modern text books. If we can make use of the retired teachers, we will certainly do that.

श्री भगवत नारायण भार्गव : क्या सरकार के विचाराधीन कोई ऐसी योजना है जिसके द्वारा हाई स्कूलों में साइन्स कम्पल-सरी कर दी जायगी ?

SHRI M. C. CHAGLA: It is already compulsory in a large number of secondary schools but we want to go further and introduce science in the primary schools.

SHRI ARJUN ARORA: May I know if the Government is aware of the fact that the teaching of science in secondary and higher secondary schools has suffered a great deal because there are no laboratories and where there are laboratories there is no laboratory equipment and, if so will the Government take some steps to ensure that each school which is supposed to teach science has a laboratory and where the laboratories are provided there is some reasonable equipment?

SHRI M. C. CHAGLA: Well, Sir, I am fully familiar with the problem posed by my hon. friend and we are already working on it. The N.C.R.T. has set up a workshop where prototypes of scientific equipment are being manufactured. The idea is it should be indigenous. And we have achieved a great success in it and we are going to send out these prototypes to different parts of the country so that scientific equipment should be

produced in our own country and our laboratories should be properly equipped.

SHRI P. K. KUMARAN: The hon. Minister stated that science books are produced in English and Hindi. With regard to regional languages, he hopes they will be translated into other languages. May I know whether the Central Government is taking any steps to see that they are translated into regional languages

SHRI M. C. CHAGLA: As you know, Sir, Education is a State subject. All that we can do\* is to send these text books to the State Governments with a recommendation that they should be translated into their own languages; we cannot force them.

SHRI B. K. P. SINHA: Education is a State subject no doubt but if, in spite of the fact that Education is a State subject, the Government of India are trying to see that standard text books in English are written, why is it that they cannot apply the same procedure or the same standard so far as the regional languages are concerned, because the teaching in every State school is now in the regional languages? The Government of India produce books in English; that takes about two or three years. Then they send a recommendation to the States to translate them into regional languages; that takes another three or four years. So it is a long-drawn-out process. Why should not the Government of India produce the books in regional languages also so that the improvement is expedited?

SHRI M. C. CHAGLA: Well Sir, the difficulty is this; We have got 14 Indian languages enumerated in the Constitution and we will have to have 14 translators, readers and correctors and so on. Therefore, we thought it would be easier to send these text books to each State which has got an army of translators, etc. and that can be done very quickly.