विधान के ग्रन्तगंत काम करते हैं, चाहे कम्यु-निस्टों का या ग्रीर किसी दल का हो, उसके बारे में सरकार को कुछ करना भी नहीं चाहिये ग्रीर सरकार विधान के ग्रनुमार कर भी नहीं सकती। लेकिन जो संगठन इस प्रकार के हैं कि जो कांस्टीट्यूगन की धाराग्रों का उल्लंघन करके वायलेंस प्रीच करने हैं, हथियार इकट्ठा करते हैं, धावा बोलते हैं ग्रीर जिनकी विधान में कोई श्रद्धा नहीं है, इस प्रकार के दलों के ऊपर सरकार जरूर कार्यवाही कर सकती है ग्रीर

तो में मन्त्री महोदय से पूछता चाहता हूँ और ग्रापने ग्रभी कहा कि हमारे भी कुछ सोसेंज ग्राफ़ इनफारमेशन हैं उमके ग्रनुसार यह जो लोक सेवा दल है, हालांकि न यह लोक है, न सेवा है दल का पता नहीं है कि है भी या नहीं, होगा दल, तो यह जो लोक सेवा दल ग्रपने ग्रापको कहलाने वाला है क्या ग्रापके सोसं ग्राफ इनफारमेशन के ग्रनु-सार यह विधान के ग्रन्तगंत काम करते हैं? या विधान का उल्लघन करके काम करते हैं? ग्रगर उल्लंघन करके काम करते हैं? ग्रगर उल्लंघन करके काम करते हैं तो इनकी ऐक्टिविटीज क्या क्या है यह जनता को बताइये ग्रीर इनके खिलाफ सरकार क्या कार्यवाही करेगी?

दूसरा सवाल यह है कि इस तरह की ऐक्टिविटीज में लोग इनका साथ न दें उनके लिये सरकार लोगों को एजूकेट करने के लिये या लोगों को बताने के लिये इनकी ऐक्टिविटीज खतरनाक हैं, सरकार क्या कार्यवाही कर रही है ?

SHRIY. B. CHAVAN: I think the honmember is advocating a very dangerous principle that Government should undertake to say which organisation is reactionary, which is progressive, which is good and which is not. Now, for example, Government have taken a decision about the RSS that government employees should not associate themselves with it. Does he agree with it or not? SHRI KANWAR LAL GUPTA: Let me make my point clear. I asked which are the organisations working within the framework of the Constitution

SHRI Y. B. CHAVAN: I would say that this matter will ultimately have to be left to the people. As for those organisations which are work etc., I think Government are bound to take action.

SHRI KANWAR LAL GUPTA: Is this organisation working within the Constitution or not?

SHRI Y. B. CHAVAN: On present information, there is nothing to prove that it is working against the Constitution.

SHRI YOGENDRA SHARMA: I can give him the constitution of the organisation.

MR. DEPUTY-SPEAKER: No.

## Weather Forecasting for Agriculture

\*422. SHRI D. N. PATODIA: Will the Minister of TOURISM AND CIVIL AVIATION be pleased to state:

- (a) whether it is a fact that severe loss is caused every year to crops either due to untimely rains, excessive rains in parts of the country, floods etc. and much of it can be avoided if the facilities for weather forecasting are made available to the agriculturists in a more scientific and efficient way than at present according to the experts;
- (b) if so, whether Government have considered the matter; and
- (c) if so, the particulars of the steps taken, if any, to improve the communication system?

THE DEPUTY MINISTER IN THE MINISTRY OF TOURISM AND CIVIL AVIATION (DR. SAROJINI MAHISHID: (a) to (c). Whether forecast sare available to agriculturists through the radio and the press. Farmers' Wheather Bulletins are broadcast through the All India Radio in regional languages at fixed times. The question of improvement in weather forecasting on the basis of latest research and development in this field is always kept under review by

Government. The Department of Meteorology has maintained steady improvement in anticipating and issuing timely warnings about floods, cyclones, heavy or untimely rainfalls, and untimely drought. It will take an active part in the World Weather Watch scheme drawn up by the World Meteorological Organisation, which is aimed at improvement of weather forecasts on a world-wide scale.

SHRI D. N. PATODIA: Before I put my supplementary, I would submit that my question has not been answered. I asked whether it is a fact that severe loss is caused every year to crops. The reply is silent on that.

THE MINISTER OF TOURISM AND CIVIL AVIATION (DR. KARAN SINGH): It is obvious that there is loss caused by weather vagaries. It is hardly necessary to rejerate that

SHRI D. N. PATODIA : Enormous benefit can be derived by agriculture by utilisation of meteorological and scietific developments. This has been recognised all over the world. Many countries have also taken advantage of it. In India, two eminent scientists, Dr. L. S. Mathur, Director General of Observatories and Dr. Swaminathan, Director, IARI, have said from time to time that if proper co-ordination can be effected between Meteorological developments and agriculture-planning, 20 per cent production can be raised in agriculture (according to Dr. Mathur) and in the area covered by the south-west monsoon, production can be doubled from Rs 10 000 crores to Rs. 20,000 crores (according to Dr. Swaminathan). In spite of this, we in India neglect these developments. As early as 1967, there were certain proposals, one of which was to set up four special type radars on the coastline to make good and dependable forecast with regard to weather. The other proposal was that a hydro-meteorological division was proposed to be set up to predict drought as well as flood. I should like to know from the hon. Minister whether in respect of these two specific proposals any advance has been made and if so, wha: progress has been achieved? If not, what are the reasons for the delay and why are such matters permitted to be neglected?

DR. KARAN SINGH : There is a

scheme in the meteorological department m set up eight eyclone warning stations on the coastline. The radar equipment for one of these has arrived and is under installation in Visakhapatnam and it is likely to be completed by the end of this year. We are hopeful of completing the remaining seven stations in the course of the Fourth Plan Orders for these radars are being placed on the Bharat Electronics because previously all the equipment used to be imported from abroad. Now we are able to manufacture this equipment within the country. The orders will be placed soon and within the Fourth Plan period the scheme of eight stations on our coasiline is likely to be completed. Once that is done our ability to predict cyclones and thereby help in weather forecasting will be greatly improved. The second part of the hon. Member's question with regard to the department of hydro-meteorology is also included in the Fourth Plan and work on that is being undertaken.

SHRI D. N. PATODIA: My question has not been answered. This was proposed as early as 1967. Why has there been so much delay in implementing it? Why this slow progress?

DR. KARAN SINGH: The delay is there because the Fourth Plan, as the hon. Member is perhaps aware, started only on the 1st April of this year and before the plan was finalised, it would not be possible for us to undertake the scheme, because we do not have the resources.

SHRI D. N. PATODIA: I heard the hon. Minister say something about India participating in the world plans. It is known that there is a World Weather Watch scheme and according to that plan. Melbourne, Moscow and Washington will be the main trunk circuit. India is expected to be one of the regional centres and from India 24 important centres will be fed. With regard to the setting up of the centre in India, is it likely to be completed by 1971? If so, what progress has been made? If it is not likely to be enmpleted by 1971. what are the reasons for the delay and by what time is it expected to be completed?

DR. KARAN SINGH: In my reply I have made specific mention of the world

weather watch—WWW—and this scheme has been included in the Fourth Plan and a provision of Rs. 8.75 crores is made and work on it is likely to start soon. I do not think that such a major scheme can be completed in the course of one or two years. My understanding is that by the end of the Fourth Plan we should be able to implement at least the first part of this internationnal project, WWW...(Interruptions.)

SHRI SHIVAJIRAO S. DESHMUKH: is the Government aware of the fact that the weather forecast machinery is almost 100 years old and they forecast weather in a terminology which is hardly understood by the persons who forecast the weather as to what they are forecasting and is of no help to the farmers to whom it is intended. with the result that the farmers in India have come to rely more on Panchang as a reliable forecast machinery than the machinery at the disposal of the Government and the weather bulletins broadcast in India and if so, have the Government any idea of broadcasting panchang forecasts which is more reliable in comparison?

DR. KARAN SINGH: It so happens that apart from the department of meteorology being in my ministry the Rashtriya Panchang is also brought out by my ministry. So, the hon. Member is most welcome to take advantage of that also. As far as broadcast is concerned, it is made in English, Hindi and other regional languages, in as simple terms as possible so that the agriculturists can follow it.

SHRI SHRI CHAND GOYAL: The hon. Minister seems to be a little ignorant of the subject and that is why he has brought in the idea of Panchang. I wish to remind him-and I am talking on very good authority-that Shri Biswanath Das who was the former Governor of Uttar Pradesh and a former Chief Minister of Orissa, once addressed the Thinkers' Forum at Chandigarh, and he said that our forefathers had developed this science to such an extent that we could make weather assessment for the next 10 years and our cropping pattern used to be based on this weather assessment; we knew as to how much rain was going to fall in a particular area of the country, and we decided our crop pattern on the assessment which could

be made for 10 years. So, may I know whether the Government is making any use of such useful knowledge which an institution started by Mr. Biswanath Das has already imparted to human knowledge?

DR. KARAN SINGH: The Thinkers' Forum of Chandigarh, of which the hon. Member is a distinguished participant,—if they would offer to give me the benefit of their specialised knowledge in this regard I would be happy to take into consideration

SHRI S. M. SOLANKI: Mav I know whether the Government is aware of the fact that last year, the floods had created great havoc and tremendous loss to the country in different parts of our land? This destruction was caused by Narmada and Tapti. Last year, in his statement, Dr. K. L. Rao had said among other things, that for a remedy of this flood situation in India, he was consulting the Secretary-General of the United Nations Organisation, Mr. U Thant. Apart from that aspect, in view of the severe loss of numerous human beings and loss of goods and valuable materials, which was due to the absence of the facility of weather forecasts and our unadvanced communication system, may I know from the Government whether the Government is going to take suitable steps to advance credit and create such facilities at the time of the monsoon in the areas where damage due to floods is caused every year?

DR. KARAN SINGH: As I pointed out, it is true that because we lack the proper cyclone warning system on our coastline, a great deal of damage is done, which could perhaps be avoided had we installed this system. Therefore, in the Fourth Plan, as I have submitted, we have got a proposal to instal these eight weather watching stations, and once they are installed, I am hopeful that the prediction situation would improve cousiderably, and the tremendous loss of life and property which takes place every year could be minimised.

SHRI B. P. MANDAL: May I know if the hon. Minister is aware that the weather forecast is so faulty that when there is a forecast of rainfall, there is bright sunshine, and when there is a foreast of fair weather, there is rainfall?

DR. KARAN SINGH: I do not think such a sweeping statement is really justified. It is true that forecasts sometimes turn out to be wrong, but a forecast, by its very definition, is an intelligent guess, and guesses also can sometimes turn out to be wrong. There is no way yet devised even in the most advanced countries of the world to predict infallibly what the weather is going to be. This we find in the United States and the Soviet Union; even there, it is difficult. Therefore, while I am not denying the fact and saying that we do not make mistakes—I think it would be wrong to condemn the entire department.

## SOME HON MEMBERS rase-

MR. DEPUTY-SPEAKER: The question has been sufficiently covered. You have had sufficient information. Everytime if 1 go on for 20 minutes with each question, I cannot possibly conclude even three questions. Shri Lobo Prabhu. Next question.

## Industrial and Scientific Research in the 3rd Plan

- \*423. SHRI LOBO PRABAU : Will the Minister of EDUCATION AND YOUTH SERVICES be pleased to state :
- (a) the return in terms of discoveries for the expenditure of Rs. 58 crores on Industrial and Scientific Research in the in the third Plan;
- (b) whether any of the discoveries were commercially utilised; if so, the details thereof with figures of the value of resulting production:
- (c) what is the plan for utilisation by the National Research Development Corporation and will it undertake this after commercial concerns have declined to give trials: and
- (d) whether there are organisations similar to National Research Development Corporation in other countries ?

THE MINISTER OF EDUCATION AND YOUTH SERVICES (DR. V. K. R. V. RAO): (a) and (b). Contributions made by the National Laboratories/Institutes towards scientific research and industrial development are described in the brochure

entitled '25 Years of CSIR', and the progress of utilisation of research results is given in the following publications brought out by the CSIR:—

(i) Research for industries 1964

(ii) Data on Research Utilisation 1965

Data on Research
Utilisation 1966

Copies of the above publications are available in the Library of Parliament.

Data on Research Utilisation for the year 1967 is under print and a copy of the same will be supplied to the Library of Parliament.

Till 1966-67, 120 processes were reported to be in production. The value of the product was approximately Rs. 453.00 lakhs during 1966-67.

(c) Normally, processes developed by the National Laboratories are released by N.R.D.C. to the Industry for commercial exploitation by advertisement or through negotiations. In selected cases where industry does not take up commercial exploitation, the N.R.D.C. itself sets up pilot plants for the exploitation of research results from Laboratories.

(d) Yes, Sir.

SHRI LOBO PRABHU: Sir. the learned Minister has referred me to learned publications, This House and I would have liked him to mention at least one discovery from research which has been commercially exploited. It is not enough so say that you have earned Rs. 450 lakhs in one years as against an investment of Rs. 53 crores. It is not even ten per cent of the investment. What is important is that it should be known that our research has proceeded in the last twenty years to the point of making import of foreign research unnecessarily. I would like to know, therefore, from the Minister, first, of some discoveries of commercial value and, secondly, to what extent our research has proceeded to make it unneessary for us to import so largely from abroad?

DR. V. K. .R. V. RAO : Sir, I would refer the hon. Member to the publication