

civilian needs is kept in view, consistently with the paramount needs of Defence.

Increase in Political Murders

2992. SHRI HUKAM CHAND KACHWAI: Will the Minister of HOME AFFAIRS be pleased to state:

(a) whether it is a fact that there has been a considerable increase in the number of political murders in the country during the past few months;

(b) the State-wise figures of such murder; and

(c) the broad outlines of Government's future Scheme and policy for checking the same?

THE MINISTER OF STATE IN THE MINISTRY OF HOME AFFAIRS (SHRI S. D. PATIL): (a) and (b). Information is being collected from the State Governments/Union Territory Administrations.

(c) While the law enforcement agencies are vigilant, the evil can be effectively checked only when all political parties eschew violence and exercise the necessary self-restraint.

भारतीय प्रशासनिक सेवा और भारतीय पुलिस सेवा के अधिकारियों का निलम्बन

2993. श्री हुकम चन्द कछवाय : क्या गृह मंत्री यह बताने की कृपा करेंगे कि गत आठ महीनों में आपत्तिजनक गतिविधियों में भाग लेने के लिये देश में भारतीय प्रशासनिक सेवा और भारतीय पुलिस सेवा के कितने अधिकारी निलम्बित किये गये ?

गृह मंत्रालय में राज्य मंत्री (श्री एस० एस० डी० पाटिल) : सूचना एकत्रित की जा रही है और उसे सदन के पटल पर रख दिया जाएगा ।

आपात स्थिति के दौरान पुलिस कार्यवाही में मारे गये व्यक्ति

2994. श्री हुकम चन्द कछवाय : क्या गृह मंत्री यह बताने की कृपा करेंगे कि :

(क) क्या सरकार ने आपात स्थिति के दौरान पुलिस कार्यवाही में मारे गये कुल व्यक्तियों की संख्या के बारे में राज्य सरकारों से जानकारी एकत्र कर ली है ; और

(ख) यदि हां, तो तत्संबंधी ब्योरा क्या है ?

गृह मंत्रालय में राज्य मंत्री (श्री एस० डी० पाटिल) (क) और (ख) जी हां, श्रीमान । अतारोकित प्रश्न संख्या 110 तारीख 6 अप्रैल, 1977 के उत्तर में सदन के पटल पर पहले ही रखी गयी सूचना के अनुसार आपातस्थिति के दौरान देश में पुलिस गोलीबारी में 178 व्यक्ति मारे गये थे ?

Expenditure incurred on research and Development Programmes of Science and Technology

2995. SHRI MADHAVRAO SCINDIA: Will the Minister of PLANNING be pleased to state:

(a) the total amount spent by the Central and State Governments on Research and Development Programmes of Science and Technology during the last two years;

(b) whether the achievement is commensurate with expenditure; and

(c) if so, the salient features thereof?

THE PRIME MINISTER (SHRI MORARJI DESAI): (a) It has been estimated that the total amount spent by the Central and State Governments on R&D during the years 1975-76 and 1976-77 is of the order of Rs. 290 crores and Rs. 340 crores respectively.

(b) In spite of some time lag between investment in R&D and its impact on the economy and the difficulty of quantifying achievements, the latter can be taken as fairly commensurate with the expenditure.

(c) Some salient features of the achievements are in the area of agriculture, medical research, atomic energy, space, electronics and several S&T programmes. Improvements in genetic and agronomic practices, improvement in engineering and irrigation genetics and in management and communication methods have considerably increased the production of foodgrains, fuel and fodder. Subsoiling has increased the yield of sugarcane upto 30 tonnes/ha in problem soils. Wheat production has gone upto 28 million tonnes per year. High production has been registered in crops like Maize, Barley, Coarse grains, Pulses and some oilseeds. The productivity of castor has become 500 kg/ha showing a 100 per cent increase. Several research schemes in areas like communicable diseases, nutrition, fertility control, health delivery systems, medicinal plants, viral fungal and parasitic infections have been sponsored by the Indian Council of Medical Research. Preparation of a new vaccine for cholera, which provides 100 per cent protection to children and 70 per cent to adults, eradication of small pox, introduction of Armadillo for detailed investigations and preparation of vaccine for leprosy, development of a virus lyophilizer with a built-in shell freezer, complete set of equipment for contract extraction, a rapid *invitro* method for determining the bio availability of food iron are notable in this area.

In the area of Atomic energy, development of four prototype fuel cluster assemblies, a 60 kw radio frequency Oscillator, 100 kw plasma cutting torch, hydrogen dynamic computer model and the basic design for the Fast Breeder Test Reactor have been successfully completed. Pulse Neutron Logging for oil and gas ex-

ploratory well, a new UO pellet sintering furnace, radio immuno assay kit for early detection of pregnancy complications, a one tonne per day ship borne pilot desalination plant and a reverse osmosis pilot plant have also been installed and tested.

Development of Rohini sounding rockets upto 560 mm diameter, development of Satellite Launch Vehicle-3 (SLV-3), completion of Phase-1 of Reinforced Plastics Centre project, development of Pressure Transducer Unit, and work on satellite for earth observations have commenced. Satellite instructional television experiment was completed in 1976-77 and the tele-communication experiment has become operational. The ARAINE Passenger Payload Experiment Project is under implementation.

Production of TR Cells, antenna for community TV receiver, solid state, oscilloscope, tantalum electrolytic capacitors, computer peripherals like paper tape punches, project for development of cockpit voice recorder and the project for liquid crystals materials and display devices, development of digital multimeter have been completed in the area of electronics.

During 1976-77, 72 industrial units based on technologies developed at national laboratories commenced production operations. Starting a factory for alkaloids from opium, dyes for acrylic fibres, PM-I alloy conductor, sealed type Ni-Od. Cells, band knife splitting machine, fruit packaging boxes from waste pine needles, development of technology for direct chlorination of feminites to titanium tetrachloride and establishment of a pilot plant of 25 Kg/ day for furfural, development of some select pesticides, etc. have been completed.

The National Research Development Corporation of India issues almost 200 licences every year for commercialisation of indigenously developed technologies.