

THE 1962 PROGRAMME OF TECHNICAL ASSISTANCE

The IAEA Board of Governors has authorized a total expenditure of US \$757 550 for the provision of experts and equipment during 1962 to help the atomic energy programmes of the Agency's Member States. In addition, under the United Nations Expanded Programme of Technical Assistance (EPTA), \$952 450 are available to the Agency for this purpose for the two-year period 1961-62.

So far as the Agency's own resources are concerned, technical assistance is financed out of the Agency's General Fund which is made up of voluntary contributions from Member States, and the programme of assistance approved by the Board is subject to the availability of funds, i.e. adequate voluntary contributions to the General Fund. At the last session of the Agency's General Conference the target of voluntary contributions was set at \$2 000 000, but the contributions made or pledged to date fall far short of this target. Unless the General Fund is substantially augmented, the proportion of the resources allocated to the provision of experts and equipment will have to be reduced. In other words, it will not, in that case, be possible to carry out all the technical assistance projects approved by the Board. In fact, with the funds available at present, less than 60 per cent of the requests for assistance can be met, and this underlines the urgent need for more voluntary contributions to the General Fund.

This, however, does not affect the technical assistance projects to be financed out of EPTA funds.

Experts and equipment are provided by the Agency in response to requests from Member States after the requests have been examined by technical, financial and other relevant criteria. Under the 1962 programme to be financed with the Agency's own resources, assistance in the form of services of experts and equipment will be given to the following countries: Argentina, Brazil, Burma, Ceylon, Chile, Denmark, El Salvador, Ghana, Haiti, Indonesia, Iran, Iraq, Israel, Japan, Korea, Mexico, Pakistan, Paraguay, the Philippines, Portugal, Thailand, Tunisia, Turkey, the United Arab Republic, and Yugoslavia.

As in previous years, the specific fields of work for which assistance is to be given vary from one country to another, depending on the individual requirements of the countries concerned. Some of the requirements are, however, common to many of the States. Several countries have requested the services of experts in the use of radioisotopes in agriculture, which is obviously a subject of primary importance in many areas of the world. Requests for assistance for isotope applications in medicine as

well as in biological studies have also been received from some countries. A number of countries have asked for experts and equipment for radiation protection and health physics, a fact that apparently reflects a growing awareness of the need for taking adequate measures of safety from the very start of an atomic energy programme.

Quite a few experts and a substantial amount of equipment are intended to assist national programmes for the development of nuclear raw materials. Another subject of fairly widespread interest is nuclear instrumentation, especially electronics. Some countries have also asked for assistance in more advanced fields of work, such as reactor operation, fuel processing, and neutron dosimetry.

Some details of the individual projects of assistance to be financed with the Agency's own resources are given in the following countrywise analysis.

Argentina, Brazil, Burma, Ceylon

Argentina is to receive equipment valued at a total of \$20 000. In addition, it will have the services of four experts who will work in the following fields: (a) nuclear instrumentation, (b) prospecting for and evaluation of nuclear raw materials, (c) non-destructive testing of nuclear fuel elements, and (d) uranium ore processing.

Brazil will receive an expert in the preparation of labelled compounds. It will also be given equipment worth \$35 000, the main item being a neutron crystal spectrometer for the Atomic Energy Institute at São Paulo.

The services of an expert in the agricultural applications of radioisotopes and of an expert in radiation protection services will be provided to Burma. Equipment worth \$14 000 will also be supplied.

Some equipment will be supplied to the Radioisotope Laboratory and the Radiochemical Laboratory of the University of Ceylon, the total cost of the equipment being \$14 700. The Radiochemical Laboratory will also have the services of an electronic technician.

Chile, Denmark, El Salvador, Ghana

Chile is to receive an expert to advise on programmes of radiation protection.

An expert in solid state physics is to be sent to Denmark, especially for research on radiation

damage to solids and/or structural analyses of solids by means of neutron and roentgen spectroscopy. The Danish Government will reimburse the Agency the cost of the expert's services, estimated at \$17 400.

An expert in power engineering with experience of reactor technology and nuclear power costing is to go to El Salvador to study the power situation and future power requirements with particular reference to the possible role of nuclear power.

A health physicist and an expert in isotope applications in agricultural research, especially in soil fertility studies, will be sent to Ghana.

Haiti, Indonesia, Iran, Iraq

Equipment up to \$7000 and an agricultural expert with experience in the use of radioisotopes are to be sent to Haiti.

A health physicist, and some health physics equipment valued at \$5000, will be sent to Indonesia.

A health physics expert is to go to Iran in connexion with a reactor project at Teheran University. Equipment worth \$4600 will be supplied for the University's Nuclear Centre.

Iraq is to receive the services of three experts. One of them will train and advise biochemists in radioisotope techniques while another will be a radiochemist for the Nuclear Centre in Baghdad. The third will be an expert in nuclear instrumentation.

Israel, Japan, Korea, Mexico

An expert in the organization of a film badge service is to be sent to Israel. Equipment worth \$6200, needed in connexion with this service, is also to be provided.

An expert in the reprocessing of spent nuclear fuel is to be assigned to Japan to assist in the operation of a test unit as well as to advise on the processing of the plutonium solution and on processing apparatus.

The services of two experts will be made available to the Republic of Korea. One of them will be required to advise on nuclear instrumentation and reactor control problems as well as on the design and construction of detecting and counting equipment, while the other will be a specialist in the medical applications of radioisotopes. Several items of equipment, at a total cost of \$15 000, will also be provided.

The provision of two experts has been approved for Mexico. One of them will be an expert in aerial prospecting for uranium and the other a geneticist to help in the work of a genetics radiobiological laboratory established by the Mexican National Commission

of Nuclear Energy. An aerial scintillation counter, complete with accessories, valued at \$14 500, will be provided.

Pakistan, Paraguay, Philippines, Portugal

An expert in the agricultural applications of radioisotopes is to be assigned to work at Tandojam in West Pakistan. Various items of equipment, at a cost of \$10 500, will be provided for this work.

For the development of isotope applications in medicine, the services of an expert as well as some equipment, up to a value of \$7500, will be provided to Paraguay.

A variety of equipment will be supplied to the Philippines at a total cost of \$28 000. The country will also have the services of an expert in neutron dosimetry and reactor testing.

An expert in reactor operation will be sent to Portugal for the research reactor at the Laboratory for Nuclear Physics and Engineering on the outskirts of Lisbon. The Chemistry and Metallurgy Division of the Laboratory will also be supplied with \$30 000 worth of equipment which will supplement the basic facilities already installed and help in the work of a visiting professor to be provided under IAEA's exchange programme for this year.

Thailand, Tunisia, Turkey, UAR, Yugoslavia

An expert in research reactor programmes for the reactor facility being built near Bangkok as well as a health physicist are to be provided to Thailand. The country will also have the services of an expert in plant genetics and the use of radioisotopes in agriculture, as well as \$1000 worth of equipment for his work.

Tunisia will have the services of two experts and some equipment valued at \$4100. One of the experts will deal with isotope uses in agriculture, and the other with radiation protection.

Four experts are to be assigned to Turkey. One of them will help in evaluating uranium production through the stages of mining and pilot plant treatment, while another will assist in elaborating a programme of reactor research and utilization. The other two will be experts in the agricultural applications of radioisotopes and in nuclear physics.

An expert in prospecting for radioactive raw materials is to be sent to the United Arab Republic, and, in connexion with his work, equipment valued at \$12 650 will be supplied.

A health physicist will be sent to Yugoslavia to help with the radiation control measures at the Boris Kidrič Institute at Vinča.