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# EDITORIAL

## Science Policy in Japan

In November 1995, the Japanese Diet enacted the Science and Technology Basic Law. The law was introduced by a group of legislators in the Diet itself, rather than being proposed by the government as is usually the case, which is an indication of the level of concern in Japan about national science and technology (S&T) development. The Japanese government has placed a high policy priority on building S&T capabilities and has made a special increase in the S&T budget in spite of the very severe financial situation. In response to the Basic Law, the government is now deliberating a 5-year term plan to promote S&T, which will be finalized soon.

These policy initiatives have been strongly influenced by concerns among members of Japan's economic circles about the future of the nation's economy. Many of them feel that, after World War II, Japan made great economic strides through the development and application of private-sector research based on scientific and intellectual findings introduced from other countries and through the efficient production of economic goods, but that this pattern has become very difficult to maintain. The appreciation of the Japanese yen has caused a shifting of production bases from Japan to abroad, and this has led to an increase in the unemployment rate, which is taken very seriously by the general public. Therefore, it is hoped that increased public-sector funding for basic research, conducted primarily at universities, will help create and accumulate original Japanese intellectual assets.

Japan's ratio of total research expenditure to gross domestic product is the highest among developed countries, but its ratio of public research expenditure to total research expenditure is the lowest. In the past few years, research expenditures by the private sector have decreased, diminishing total research expenditure and intensifying the need to devote more public resources to scientific research. In FY 1992, the Cabinet agreed that public expenditures for S&T should be doubled as soon as possible. The FY 1996 national budget shows a substantial increase in the scientific field: Grants-in-aid of the Ministry of Education, Science, Sports and Culture (Monbusho) will exceed 100 billion yen, and 11 billion yen will be allocated to the Japan Society for the Promotion of Science for its new research projects to be commissioned to universities. The Science and Technology Agency, the Ministry of International Trade and Industry, and other agencies (five ministries in all) have also requested budget increases for research projects to be managed by their affiliated quasi-governmental organizations. The budget for them is about 21 billion yen, most of which will be allocated to university researchers.

One of the most important policy issues is the recruitment and training of excellent young scientific personnel. Monbusho has been making efforts to enrich the quality and expand the scale of postgraduate schools, which are relatively smaller than those of other developed countries. At the same time, greater attention has been paid to the need to immediately increase support for young scientists, both at doctoral candidate and postdoctoral levels, and it is planned that by the year 2000, various fellowship schemes will be expanded to support as many as 10,000 young scientists (including young scientists from abroad), which is 2.6 times the number of FY 1995 fellowships.

In addition, there is increasing demand that the quality of university research be further enhanced, and it is envisaged that the new S&T plan will include measures to respond to that demand. Various organs such as Monbusho's Science Council have already begun to deliberate on appropriate research evaluation systems, measures to establish centers of excellence, promotion of university-industry cooperation and exchange, and so forth, and some concrete steps have already been taken. International scientific cooperation and exchange is one such important area, into which considerable efforts have been poured.

Today, the Japanese people are showing a great deal of interest in the promotion of scientific research. Monbusho hopes to fully respond to such national interest and to further promote, in close cooperation with other agencies, basic science in Japan in order to make important contributions to the international community.

Hideki Hayashida

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