

The Toyota Foundation
Report for 1977

Prospectus

Sakichi Toyoda, the founder in 1926 of Toyoda Automatic Loom Works, the original Toyota Company, contributed to the good of society through inventions concerning automatic looms. His son Kiichiro carried on his work by diversifying into automobile manufacturing, thus laying the groundwork for the growth of the Toyota Group.

Toyota's guiding philosophy is to make the automobile an integral and beneficial part of a prosperous society. It puts this philosophy into action both through its normal corporate activities and in other ways that directly benefit society, such as by contributing to the construction of facilities for cultural activities, promoting education on transport safety, and working to improve the environment.

This philosophy guided Toyota in its decision to commemorate its fortieth year in the automobile industry by establishing The Toyota Foundation in 1974. The goal of the Foundation is to contribute toward the realization of a more people-oriented society and a resulting increase in human happiness.

The Foundation will view events from a global perspective as it works to support activities for the benefit of society. Its support will be aimed at identifying current problems in the following areas: (1) human and natural environments; (2) social welfare; and (3) education and culture. Grants will be provided for research and projects consistent with these interests. Toyota Motor Company, Ltd. and Toyota Motor Sales Company, Ltd. jointly provided the Foundation's original endowment.

The founders hope that as the Foundation works to achieve its objectives it will play an important role in meeting the demands of contemporary society.

September 19, 1974

Eiji Toyoda

President, Toyota Motor Co., Ltd.

Shotaro Kamiya

President, Toyota Motor Sales Co., Ltd.

Report for Fiscal 1977

April 1, 1977 to March 31, 1978

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Tokyo, Japan

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The Executive Director's Report

Before the Dawn: An Immature Social Infrastructure

"Studying economic progress in relation to the economic structure of different countries, we find a very firmly established generalization that a high average level of real income per head is always associated with a high proportion of the working population engaged in tertiary industries." (Colin Clark, *The Conditions of Economic Progress* [London: 1940], pp. 6-7.)

I

Certainly, after the era in which Clark's book was written, in many countries the development of tertiary industries came to be interpreted as a symbol of economic progress. However, when the quality, not the level, of daily life becomes the main issue—that is, when qualitative fulfillment instead of quantitative growth becomes the focus of emphasis—greater stress is placed on the maturity of the society in question. But indices for assessing qualitative social aspects have been slow to evolve; and today there is no international agreement on criteria for judging social maturity. It can be said, however, that the percentage of a nation's population engaged in the tertiary industries and the percentage of a nation's total income accounted for by the income of such tertiary-industry employees are insufficient as measures of maturity, since these figures alone cannot express quality.

Though this is only my personal opinion, I believe that one sign of social maturity is the degree to which the third sector is firmly established. By "firmly established" I am not referring simply to percentages of working population or percentages of income; I am focusing on a more important issue: the extent to which people engaged in third-sector occupations feel pride in their work and consider their jobs a reason for living. Viewed from this standpoint, Japan can scarcely be said to have attained social maturity.

I have mentioned the third sector. I must now explain what I mean by the term. The first sector is the governmental field in the broad sense

(including many kinds of semigovernmental foundations). The second sector is private business; and the third sector is private, nonprofit activities, which includes diverse kinds of organizations, and grant-making foundations are its paradigmatic form. I have claimed that Japan can scarcely be said to have matured socially because private, grant-making foundations have not taken firm root here. This in turn means that there are still few people who consider work in such an organization a reason for living. This is of course difficult to prove in concrete terms. Although it is possible to learn the increases and decreases that have taken place in the numbers of people working in foundations, statistics cannot reveal the value they place on or the pride they take in what they do. Nonetheless, a careful, objective examination of the position of private, grant-making foundations in Japanese society will lead almost anyone to the same inductive conclusion that I have drawn.

II

As is often pointed out, in comparison with the situation of similar organizations in the West, private, grant-making foundations in Japan are in a disadvantageous position in relation to the system of national taxation. For instance, as a rule, those who endow a foundation enjoy no special tax benefits if the foundation awards grants in the social sciences or the humanities, that is, in fields outside the natural sciences. Furthermore, no tax advantages accrue to those who endow a foundation that supports international projects by awarding grants to foreign organizations or institutions, enabling them to undertake such projects, instead of actually executing the projects itself.¹ Though unthinkable in the West, such hindrances are accepted as the general rule in Japan.

1. In Japan all contributions made by juridical persons [or corporate entities] above a certain fixed portion of income (deficit limit) are not allowable as deductions and are therefore taxable. The following three sets of circumstances, however, are exceptional; in such cases donations are nontaxable. (Tax Law for Foundations, Article 37, Paragraph 3.)

1. Contributions to regional public organizations or the national government.
2. Authorized contributions to public charitable foundations.
3. Contributions to non-profit-making organizations for experiment, research, and so forth. (In this case, nontaxable donations may not exceed the deficit limit.)

Contributions to private, grant-making foundations fall under the third clause. But it is very difficult to be accredited under this clause if the foundation intends to operate beyond the limits explained below. (From Tax Law for Foundations, Article 77.)

1. The Japan Society for the Promotion of Science and other semigovernmental foundations.
2. The following kinds of foundations established under the Civil Code, Article 34:
 - a. Foundations mainly devoted to experiment and research in science and technology (natural sciences only).
 - b. Foundations mainly devoted to making grants to persons or organizations engaged in experiment and research related to the sciences and technology (natural sciences only).
 - c. Foundations receiving governmental financial aid for work in connection with dissemination and development of general knowledge and thought related to science and technology. Not more than five years may have elapsed since the day following the day on which such governmental aid was granted.
 - j. Foundations receiving governmental financial aid for work in connection with economic cooperation (including technological cooperation) with developing regions overseas. Not more than two years may have elapsed since the day following the day on which such governmental aid was granted. Foundations cooperating in work for the

Under these conditions, it is understandable that Japanese private, grant-making foundations are forced to be reluctant in fulfilling their ideal function. Many people advocate convincing the government to amend this unsatisfactory taxation system, and calls for immediate action are being made. Those who urge revision of the tax system are certainly correct, but I feel that some deeply ingrained Japanese attitudes must also be modified.

Often, when Japanese decide to establish a new organization, they first investigate the tax system pertinent to it and then plan a course that will put them in no disadvantage under that system. For example, a newly founded, private, grant-making foundation will commonly either avoid the social sciences and humanities and confine its activities to the natural sciences or will refrain from providing support for international projects in the form of actual funding and will reflect such intentions in its articles of endowment. If such a foundation later went on to enlarge its grant-making activities to include the social sciences and humanities or international projects this approach would be acceptable. Most frequently, however, foundations do not go further but allow their activities to stop at the natural sciences; and they also give up the idea of international grant-making.

An investigating committee from the Organization for Economic Cooperation and Development has noted that in Japan research in social sciences lags behind research in the natural sciences.² Many nations of the world are requesting Japan to decrease its favorable international balance of payments. Furthermore, great criticism is leveled against Japan for failing to live up to the responsibilities of a major economic power. But the Japanese response to such criticism is extremely slow.

Why is this? From the outset, it is apparent that the Japanese taxation system does not favor actions that answer these complaints. Until that system is revised, no matter how strongly people may be aware of the need to take practical steps, they are unable to do so. Hence demands for immediate revision are becoming increasingly persistent. Moreover, it is vital to demonstrate through positive action the social significance of responding to these complaints.

III

In the first year of its existence, the Toyota Foundation instituted its National Division grant-making activities. The grants awarded in 1977, the third year of this program, are listed beginning on page 9. As will be apparent, roughly fifty percent of the grants were in the natural sciences; and the remaining roughly fifty percent, in the social sciences and humanities.

The more objective the evaluation, the more difficult it is to ascer-

management of public facilities in such regions that are receiving unrestricted aid from the Japanese government.

3. School organizations.

4. Social welfare organizations.

2. Organization for Economic Cooperation and Development, *Social Sciences Policy: Japan* (Paris: 1977).

tain whether our grant program serves the purpose for which it is intended. But, as a guide in assessing our activities, we have made certain trials: interviewing the grantees and sponsoring symposiums centered on project results. In 1977, we initiated a program to assist with the costs of printing some of the grantees' reports to make public the fruits of their research and began issuing a newsletter including condensations of these reports to bring the results to a wider audience. Through these attempts, we hope to bring the achievements of our National Division grant program to the attention of society at large.

In our International Division programs—which we instituted on an experimental basis in 1976—we place first priority on response to actual conditions in the region where a project is to be implemented and only second priority on a project's direct relation to Japan. Reflecting this policy, in 1977, we began making available two kinds of grant aid for international conferences. The first, part of the Communications Grant program, is directed toward overseas participants in conferences held in Japan. The other, part of an International Division grant program, is directed toward participants in conferences held in developing countries. In both instances, we offer to specialists from developing countries assistance with travel and accommodation expenses, without considering the relation between the conference and Japan.

In the past, it has been common for Japanese organizations participating in international activities to emphasize direct relations with their own country. Of course, all nations give precedence to their own interests; but this tendency can perhaps be said to have been stronger than usual in Japan.

In both National Division and International Division programs, we have given secondary priority to advantages and disadvantages under the existing taxation system and have attempted to concentrate on awarding grants where they are needed and will be effective.

But acquiring accurate information about the need for grant aid is not always an easy task. We tend to think it is easy to respond to existing needs, but not all of the information flooding our daily lives is accurate; and distinguishing between what is a genuine need for grant aid and what only seems to be a need is difficult. Often, what appear to be urgent social needs are intimately bound to special interests or political movements, which commonly remain skillfully concealed. Though such scandalous misrepresentation occurs only rarely, it is not uncommon for reported social needs to represent only one strand in a complicated web of diverse values, which exist not only in Japan but everywhere, especially in democratic societies. Consequently, it is hard to select the information to which we should respond or to know how to establish an order of precedence among the kinds of information we receive. When we are dealing with grant-making on the international level, we must give first place to information received from overseas sources; but finding a key that will help us know what actions to take entails knowing how to interpret that information.

To find this key, we must make repeated trial-and-error experiments and from the actual experience gained in this way attempt to formulate guidelines. For instance, the interviews we conduct with

grantees are intended to help us find out whether our decisions have been correct and whether what we did responded to the need expressed in the information we received. At the same time, these interviews are a kind of training that assists us in learning to discern real needs for grant aid.

Even though our experience in grant-making activities in general and especially in international grant-making is still slight, we have been able to make some discoveries. For example, though it would be completely possible to do something to remedy the situation, we have learned that channels for international grants are by far too few in Japan today, even when government efforts in this direction are included in the reckoning. Such a lack of interest in international grant-making is all the more depressing in the light of the insistence of world leaders and international conferences that something must be done to reduce Japan's overwhelmingly favorable balance of payments. Moreover, I feel that it is only natural that Japan is the target of international criticism, since private, grant-making organizations here award very few international grants. I suspect that the current taxation system in Japan is partly responsible for this situation in that it inhibits motivation to take part in international grant-making programs.

But this is not the entire picture. The government does not do everything that it should. It is generally agreed that many of the grant applications we receive propose projects that should be supported by the government. Investigations show that, among other shortcomings, the government lacks well-established channels for awarding grant aid. Until something is done to remedy this situation, it will be hard to evolve new policies for reducing the payment surplus. And how is all the foreign currency accumulating in this country today going to be spent? This is a question to which we must give immediate thought.

Because of its economic power, Japan is being required not only to consider its own interests, but also to respond to conditions in other parts of the world. It cannot be said that either the Japanese government or the Japanese people have a sufficiently developed sense of responsibility in these matters. For this reason, the Japanese are often criticized as indifferent to what is happening in the rest of the world. I am deeply convinced that the time has come for all three sectors in this country to concentrate on ways to feed some of its prosperity back to the rest of the world.

IV

It has long been a firmly held conviction in Japan that grant-making foundations should minimize their staffs in order to devote maximum money to grant aid.³ In theory, this is correct. But grant aid must not be given indiscriminately; it must be appropriate. From what I have said above, it should be clear that awarding grants appropriately entails a

3. "Many of the people involved replied that the primary purpose of a foundation is not to spend money hiring additional staff members, but to devote maximum funds to grant-making and to scholarship awards." Japan Center for International Exchange. *Japanese Foundations and Charitable Trusts* (Tokyo: 1973), p. 8.

great deal of work that must not be left to other people. Grant-making foundations must do the work themselves. And that takes people. Consequently, the idea that grant-making foundations must minimize their staffs is not invariably correct. Obviously it is of the greatest importance that the people hired be suitably qualified and motivated, because unsuitable people do things that run directly counter to the basic purposes of philanthropy. Japanese society is not yet clearly aware of the distinction between the two kinds of people.

I should now like to recall what I said at the opening of this article. "I believe that one sign of social maturity is the degree to which the third sector is firmly established. By 'firmly established' I am not referring simply to percentages of working population or percentages of income; I am focusing on a more important issue: the extent to which people engaged in third-sector occupations feel pride in their work and consider their jobs a reason for living."

These feelings cannot be expressed quantitatively. But any private, grant-making foundation—any classic representative of the third sector—that operates on the basis of the ideals I have outlined, that makes an effort to discover what existing social needs are, and that responds to the needs thus identified by appropriate grant-making activities is certain to be both worthy of its own best nature and correctly understood by society. Doing any work at all for a foundation of this kind is a fine reason for living. And such an organization will take root and ultimately come to symbolize the mature society of which it is a part.

Yujiro Hayashi
Executive Director

Grant Program

National Division Grants

In 1977, grants totaling ¥273,950,000 were awarded to fifty-eight applicants. This year we received nine times more applications than the number of grants awarded, and these applications requested thirteen times as much money as was available. In spite of the continued predominance of universities and university-affiliated research institutes among the grantees, the number of national, public, and private organizations receiving grants was greater this year than it has been in the past. Grants for joint international-research projects, too, are on the increase. Institutions receiving grants this year are widely scattered throughout the nation, from Hokkaido, the northernmost island in the Japanese archipelago, to Okinawa in the south. Expanding the geographical distribution of institutions receiving grants is a continuing trend of our program.

In its third year, the National Division grant program is beginning to show results. Two activities were initiated to bring these results to the attention of the general public and for the sake of promoting greater understanding of our activities and of stimulating interested parties to advise us. First, we established a National Division communications-supplement grant program to make public the results of grantees' research by assisting grantees with the costs of publishing reports and convening symposiums. Second, we began sponsoring symposiums on themes covering a group of related fields of research. This year the following symposiums were held:

1. Environmental Monitoring Methods (December 4, 1977)
2. Regional Social-Welfare Problems: Okinawa (February 4, 1978)
3. Scholarly Exchanges Between Japan and Asian Nations Through Three International Joint Research Projects (March 25, 1978)

This year, the Foundation's staff will conduct more interviews with grantees in order to investigate ways to build a firm foundation for future grant-making activities.

Human and Natural Environments

The Effects of Environmental Change on the Stable Isotopic Ratio of Carbon and Sulfur and the Concentration of Atmospheric Carbon Dioxide and Sulfur Dioxide

Hitoshi Sakai, Professor (and six associates)
Institute of Thermal Spring Research, Okayama University
¥7.7 million

Humanity's massive consumption of fossil fuels and its advanced agricultural technology have caused ecological changes and are beginning to seriously disrupt the CO₂-SO₂ geochemical balance. The speed with which this disruption is progressing and its influence on humanity and the environment are important research subjects.

Under this project, a continuation from last year, twenty sampling stations have been established in industrial zones and cities and in farmland, highland, coastal, and volcanic areas throughout Japan to monitor changes in the stable isotope ratios of CO₂ and SO₂ in the atmosphere and thus to determine both the extent to which the atmosphere is polluted and nature's ability to restore its own natural balance.

Last year's work established firm basic methodology for analysis and for observation techniques. This year, systematic observations will be made throughout Japan and samples from major locations in other countries will be analyzed.

Medical Considerations of Density Standards for Permissible Levels of Atmospheric Pollutants

Toshio Toyama, Professor (and three associates)
Department of Preventive Medicine, School of Medicine, Keio University
¥2.8 million

At present there are two different standards for permissible levels of atmospheric pollutants. First are the standards for workers in their working environments, which have existed for some time. Second are the

standards for the protection of the health of the general populace in cities; recently this field has come to be considered especially important.

For the first category, the Threshold Limit Values (TLV) established by the American Conference of Governmental Industrial Hygienists (ACGIH) have been accepted internationally for thirty years. In Japan, since 1950, the Committee on Threshold Limit Values of the Japan Association of Industrial Health has been charged with establishing standards, which are enforced by the Ministry of Labor. Standards for the second category are being developed in the United States by the Environmental Protection Agency, and governmental agencies in Japan are also addressing the problem.

Bearing in mind that there are two standards for atmospheric pollutants, this project will investigate methods and processes of setting and evaluating levels for future guides and standards.

Experimental Studies on the Effects of Air Pollutants on Human Health: Studies on the Dose Response of the Respiratory System

Jun Kagawa, Associate Professor (and one associate)
Department of Environmental Medicine and Occupational Health, Tokai University

¥4 million
The major aim of medical research on atmospheric pollutants is to establish the Threshold Limit Values of these pollutants from dose-response relationships, so that governmental agencies can set air-quality standards to protect the populace from dangerous levels of exposure.

In this study, a continuation from last year, volunteers are exposed for two hours, either at rest or with intermittent exercise, to O₃, SO₂, and NO₂, alone or in combination, in densities recorded in the urban environment (0.15, 0.3, and 0.5 ppm). After the exposure, subjective symptoms and variation in respiratory function are evaluated. From the information thus obtained, various Threshold Limit Values can be established. In addition, following exposure to these pollutants subjects will inhale acetylcholine to determine whether exposure to pollutants causes bronchial hypersensitivity to acetylcholine and if so to what degree. This test will also be used to help determine the relationship between these atmospheric pollutants and the incidence of asthma. Last year's observations were made primarily on the effects of O₃; this year, they will be concentrated on SO₂.

In Vivo Short-Term Screening Test for Carcinogenicity of Environmental Pollutants

Nobuyuki Ito, Professor (and four associates)
Medical School, Nagoya City University
¥8 million

An increasing number of synthetic chemicals are being identified in our environment, and some of them have demonstrated carcinogenic activity in experimental animals and in human beings. Many of these chemicals have never been tested, however, because long-term (two-year) animal carcinogenicity studies are both time-consuming and expensive. Consequently, a

number of short-term *in vitro* screening tests have been established; but they have shown unacceptable levels of false positives and false negatives. A relatively rapid *in vivo* assay for screening chemicals for carcinogenic activity is urgently needed.

This study will attempt to establish an *in vivo* short-term screening test for chemical carcinogens based on quantitative analysis of preneoplastic changes. Rapid production of preneoplastic changes has been induced by a three-phase system: (1) administering a carcinogen as an initiator, (2) administering a test chemical, and (3) stimulating DNA synthesis during administration of a test chemical. This system may be useful as an *in vivo* short-term test for carcinogens, and its use in conjunction with the *in vitro* rapid assay system may provide secondary screening for chemicals to be studied in a long-term (two-year) *in vivo* test.

Basic Research on Vascular Lesions Caused by Chronic Vibratory Stimulation

Takehiko Azuma, Professor (and four associates)
Department of Physiology, Shinshu University Medical School

¥5.11 million

Cardiovascular responses in people who regularly drive vehicles or work with vibrating tools have frequently been noted. For instance, the disease known as "white fingers," which is the result of vascular insufficiency brought on by chronic vibratory stimulation, is well-known. Since it occurs in people who work with vibrating tools and in key-punch operators, this disorder has recently become a matter of public concern, though its pathogenesis is still unknown. It is known, however, that vibratory stimulation causes hypersensitivity to noradrenaline in arterial smooth muscles.

This project employs animal experiments to obtain quantitative information and to analyze the stimulus-response reaction. In this way, the researchers hope to clarify the general effect of chronic vibratory stimulation on the vascular system and to show how its influence is exerted. In addition, utilizing the results obtained from this study, the researchers hope to establish ways of preventing and treating vibration diseases.

Nature's Ability to Cleanse Itself of Pollutants: Hydrodynamic Approaches

Nobunori Oshima, Professor (and ten associates)
Department of Engineering, University of Tokyo

¥9.44 million

Although, by means of wind and rain, nature is able to cleanse itself of small amounts of pollutants, when such substances are continuously discharged in large quantities, their accumulation accelerates and, as environmental pollution, exerts a grave influence on human society and daily life. But since many factors combine to produce it, at present nature's self-cleansing ability is only partly understood.

This study undertakes a quantitative evaluation of the role played in the self-cleansing operation by water in the form of rain and fog. For instance, model

experiments are to be performed to measure the effect of rainfall on the density of NO_x in the atmosphere in order to develop basic theories in relation to the self-cleansing operation. Since the members of the research team are highly experienced in fluid dynamics and continuum physics, it is hoped that their knowledge can be used to produce practical results.

Research Toward Prevention of Environmental Pollution Through Study of Tissue Samples

Yuzo Fukuyama, Professor (and four associates)
Department of Public Health, Asahikawa Medical College
¥4.37 million

The rapid aggravation of environmental pollution accompanying the increasing growth in human population and development in industry and technology is now a worldwide problem. With the assistance of a research team of representatives from many fields, this project intends to develop a system for observing simultaneously environmental pollution and its hazards. This will be done by analyzing tissue samples from animals high in the food chain in order to determine the concentrations of heavy metals and chlorinated hydrocarbons.

Work made possible by grants in the past two years has employed atomic absorption spectroscopy to analyze heavy metals in the organs and hair (or fur or feathers) of human beings, dogs, cats, and fish-eating sea birds and mammals. This work has shown that there is a remarkable difference in the physical distribution of heavy-metal concentrations depending on the species of animal and that the difference is largely caused by an animal's food habits.

This year's project will include analysis of chlorinated hydrocarbons in a greater number of animal species with the aim of developing a better system for the biological monitoring of environmental pollution.

Evaluation of the Effectiveness of Traffic-Safety Facilities for Young Children

Yoshihiro Asai, Director (and four associates)
Research Institute for Traffic Issues

¥5.35 million

In spite of the clear decrease in numbers of traffic accidents in Japan in recent years, accidents involving small children are increasing. One factor contributing to this increase is that currently used safety facilities are designed primarily for adults, and as a consequence young children may not be able to adjust to these facilities and use them effectively and safely.

This project will employ video recordings to analyze the way children actually use traffic-safety facilities, as well as interviews and questionnaires to find out how the children feel about and understand these facilities. In addition, the parents of the children interviewed will be asked to evaluate existing facilities. All this information will be used to determine what kind of facilities are best for small children.

Research on River-Basin Water-Use and Control Systems: A Survey from the Standpoint of Regional Planning

Koichi Tonuma, Professor (and eight associates)
School of Science and Engineering, Waseda University
¥4.5 million

Recent environmental changes have greatly altered regional communities that have evolved over many years on the basis of shared water usage. This study will survey water use, waste-water disposal, and river control in the Sagami River basin from a regional-planning standpoint. Tributary areas will be observed and comparisons will be used to determine relations between regional characteristics and water use and control.

The study will attempt to develop a water-use and control system that will achieve a better natural balance. The energy-resource analysis method will be employed to examine each use and control unit. The results of these analyses will be combined with those of on-site observations in order to define a water-use control system for the entire river basin.

Research on Traffic Capacities of Intersections and Weaving Sections

Kanou Hoshino, President (and six associates)
Japan Society of Traffic Engineers
¥7.7 million

Thorough knowledge of road-traffic capacities is essential to smooth traffic flow and to safety. In a nation like Japan, where traffic is highly congested, such knowledge is essential at all stages of traffic control from planning and designing of roads to management.

A trade-off relation exists between traffic safety and traffic capacity at almost all intersections and weaving sections. Although about half of all road-traffic accidents and most of the traffic congestion in Japan occur at such sites, knowledge of their traffic capacities is entirely insufficient.

The objectives of this project are to generalize the traffic capacities of intersections and weaving sections (through traffic-flow studies and model building) and to develop research methods for assessing the traffic capacities of weaving sections, which are still largely unstudied. The findings of this project will be incorporated into a revised guide for road design, setting standards in Japan.

Development of Techniques for Predicting Changes in the Marine Environment, Especially Changes in Coastal Topography, Resulting from Human Activities in Nearshore Areas

Kiyoshi Horikawa, Professor (and six associates)
Department of Civil Engineering, University of Tokyo
¥7.05 million

The environmental impact of the extensive construction work undertaken in Japan during the high-growth period of the 1960s has gradually become apparent, especially in changes in coastal topography. Recent advances in coastal engineering have made possible the qualitative prediction of coastal changes caused by such coastal structures as breakwaters; however, knowledge is still insufficient for making quantitative predictions.

In order to expand coastal-area activities, accurate long-term predictions of coastal changes are needed;

and to make such predictions, on-site clarification of phenomena related to coastal sediment movement is necessary.

The ultimate aim of this project, which is concentrating on field observations, is to erect a realistic numerical model to assess coastal structures that may affect the surrounding coastal and nearshore environment.

International Comparative Research on Land Ownership, Utilization, and Management

Kazuo Hayakawa, Head
Building Economy Division, Housing and Building Department, Building Research Institute, Ministry of Construction
¥2.4 million

Delay in establishing a planned system of land use in Japan has led to land speculation, haphazard development, and steadily rising land prices and has thus aggravated environmental, urban, and housing problems. Land is a limited natural resource; consequently, the establishment of an effective planned system of land use is important. Though land-use problems arise largely from private ownership, developed capitalistic nations of the world are doing something to solve them. For instance, they are stressing public ownership, establishing strict utilization limitations, and adopting planned-use policies. At the same time, socialist nations, like the Soviet Union and China, are also adopting methods of land use and management.

Because Japan has one of the highest population densities in the world, modernization of land-ownership rights, land-use control, and land management is highly important. In order to establish a planned land-use system in Japan, this project will study land ownership and land-use and land-management systems in capitalistic and socialistic countries through written materials and on-site investigations.

Study of Ideas and Policies on Urban Open Spaces

Hikoe Shirai, Research Associate
Faculty of Horticulture, Chiba University
¥0.87 million

Deterioration of the environment has stimulated an awareness of the importance of open spaces in cities and a social demand for their conservation and development. In recent years, various policies for creating open spaces in Japanese cities have been advanced; but all of them have lacked adequate theoretical foundations. Both the concept of conservation and research in conservation policies began fifty years earlier in Europe than they did in Japan; thus the European experience is of significance to the development of Japanese urban open-space policies.

This project will study urban open spaces in eastern Europe, particularly in Czechoslovakia, where progressive conservation policies have long been maintained. This study will investigate the historical process of development of open-space conservational philosophy and policies in Czechoslovakia with the intention of clarifying current urban open-space conditions and regional characteristics and, through comparisons with this information, to illuminate Japanese thought and policies in this area.

The Effects of Urbanization on the Hydrological Cycle in Tsukuba Science City and Its Surroundings

Masami Ichikawa, Professor (and four associates)

Institute of Geoscience, University of Tsukuba

¥2.36 million

Rapid urbanization in a limited region drastically alters its natural environment. For instance, heavy concentrations of buildings and paved thoroughfares and changes in flora and in land use seriously affect the hydrological cycle and give rise to such changes as: increased peak river-flow resulting from the completion of rainwater reservoirs and/or an increased run-off ratio, shortening of the period of concentrated flow, and fluctuation of the ground-water level as a consequence of increasing impervious areas.

The purpose of this project, a continuation from last year, is to investigate changes in the hydrological cycle in Tsukuba Science City (which is currently being developed) and its surrounding area. In addition, it will attempt to establish methods for future predictions of changes of this kind. To date, this project has already established an observation network and accumulated considerable data; and the results of this study should prove useful in devising an approach to evaluating the environmental effects of urban and regional development planning in relation to the hydrological cycle.

Research on Changes in the Natural Environment Caused by Dam Construction, Including Methods of Predicting Such Changes

Saburo Komura, Professor (and seven associates)

Department of Civil Engineering, Gifu University

¥6 million

The river bed below a series of large-capacity reservoirs constructed on the upper reaches of an alluvial river degrades due to the arrest of sediment transport, and the concomitant decrease in sediment transport from the river basin to the estuary results in beach erosion around the river mouth. Moreover, below the dams water quality is degraded, and water temperatures are lowered. River-bed degradation below dams leaves bridge piers and abutments exposed, decreases water intake capacity because of stage degradation, and lowers ground-water levels.

This project studies the Tenryu River basin and investigates sediment-transport characteristics from the river source to the estuary, as well as water-temperature variations along the river channel and in reservoirs. The research is divided into three areas: (1) sediment deposition in reservoirs and river-bed degradation below dams, (2) beach erosion around the estuary, and (3) longitudinal variations of water temperature.

The Chemistry of Combustion: Free Radical Intermediates and the Mechanism of Atmospheric-Pollutant Generation

Hiroshi Yoshida, Professor (and two associates)

Faculty of Engineering, Hokkaido University

¥12.6 million

Studies of combustion, vitally important both for efficient utilization of energy resources and for preven-

tion of air pollution, have long been conducted from the thermodynamic and thermochemical viewpoints. Although chemical-mechanistic studies of combustion have been rather limited because most aspects of combustion depend primarily on available enthalpy and on the physical natures of reactants, such studies are now highly desirable to elucidate the full mechanism of the generation of atmospheric pollutants as by-products of combustion.

This study aims to establish an experimental methodology for detecting free radicals in flames, using the electron-spin-resonance technique, and to clarify the elementary processes of the chemical reactions in the flame of methane, the simplest model of hydrocarbon flames. Hydrocarbon combustion is believed to be a chain reaction, with free radical intermediates as chain carriers; therefore, the direct observation of free radicals by electron-spin resonance is expected to be a promising, new approach to the study of combustion reactions.

Research on Environmental Legislation and on Human Environmental Problems Caused by Development (Including Urbanization and Industrialization)

Ichiro Kato, President (and seven associates)

Japan Center for Human Environmental Problems

¥3.55 million

In Asia and the western Pacific, development—including urbanization, industrialization, oil-field exploitation, intensification of the forestry industry, construction of oil reservoirs, and increased use of large tankers—is creating serious pollution and other environmental problems. Though environmental-legislation and legal-study movements are under way in many of the countries affected, research into the legal aspects of the issue lags far behind that in the natural sciences and economics.

Under this project, with the cooperation of local researchers, environmental conditions will be observed in various countries; and the policies they have adopted will be studied, particularly from the legal standpoint, in an effort to contribute to solutions of environmental problems in this region, which is closely related to Japan. Further, it is hoped that this study will help lead to substantial international developments in environmental laws so that they no longer center entirely on the industrialized nations, but reflect conditions in the developing nations as well.

Study of the Clean-Energy Process by Means of the Conversion of Light Energy

Ken'ichi Honda, Professor (and three associates)

Department of Synthetic Chemistry, University of Tokyo

¥9.05 million

Because the Japanese economic structure depends on consumption of immense amounts of energy, national growth has inevitably necessitated the use of vast quantities of such fossil fuels as petroleum and coal as energy sources, with the result that destruction of the natural environment as a consequence of primary and secondary atmospheric pollution is steadily growing more serious.

In terms of both environmental conservation and

natural resources, development on a global scale is about to reach an impasse. For this reason, basic research for establishing a pollution-free energy system employing the limitless resources of sunlight is of pressing importance.

This project will study the conversion of light energy into such clean-energy sources as hydrogen fuels and electrical power by means of an electrochemical photocell, based on photoelectrochemical reactions using semiconductor electrodes. Its ultimate aim is to replace fossil fuels with a clean system employing solar energy.

Studies on Photocatalytic Processing of Cyanide and Hexavalent Chromium in Waste Solutions into Nonpolluting Agents by Utilizing Solar Energy and Semiconductor Catalysts

Hideo Tamura, Professor (and one associate)

Faculty of Engineering, Osaka University

¥4.49 million

Increasing industrial activity aggravates environmental pollution and necessitates the consumption of huge amounts of natural resources and energy in order to conquer pollution problems. But progressively greater consumption of energy sources makes it clear that, in the near future, humanity will be forced to find an alternative to the current energy system, based on petroleum. In this regard, effective utilization of solar energy is extremely important.

This research project attempts to put solar energy to effective use in environmental conservation by developing a process in which cyanide and hexavalent chromium ions in waste solutions are converted into nonpolluting agents by using solar energy and semiconductor catalysts.

The members of the research group have already offered a variety of explanations for the phenomena occurring when semiconductor catalysts in solution are exposed to sunlight. Though, in principle, they see a way to render cyanide and hexavalent chromium nonpolluting, they are still concerned by slow processing rates, which this project aims to improve.

Modeling and Interactive Computer Programming for Assessment of Environmental Impact

Hiroyuki Tamura, Associate Professor (and four associates)

Faculty of Engineering, Osaka University

¥6.94 million

Investigations of ways to develop legal frameworks for environmental assessment have recently been conducted by national and regional autonomous organizations. Some of these legal concepts are already in use; but research on the techniques of assessment—that is, on the establishment of a universally applicable methodology—has only begun and will be a matter of great urgency in the near future.

This project will study modeling methodology, especially for long-term, wide-range application to the establishment of environmental capacities in zones where development projects are planned. In addition, it will attempt to develop a universally applicable interactive computer program. Since numerous modeling techniques have been evolved for assessing pollution

of the natural environment, the major significance of this project is the possibility of developing methods of systems analysis not only for the natural environment but also for the economic and social environments.

An Interdisciplinary Study of the Problem of Environmental Pollution in the Shiranuhi Sea Area: A Study in the Changes in Human Life and the Natural Environment as a Result of Modernization and the Minamata Disease

Daikichi Irokawa, Professor (and thirteen associates)

Department of Economics, Tokyo University of Economics

¥3.84 million

Pollution of the environment of the Shiranuhi Sea area, in Kyushu, is a tragic instance of the drastic change wrought by unplanned industrialization in a small area and a stark warning of what may happen to humanity in the future. Though the medical and biological aspects of the situation are partly understood and though the mass communication media have stimulated a certain amount of awareness among the general populace, as of yet, no comprehensive investigations of environmental pollution's sociological elements or impact on society have been undertaken.

Under this project, a continuation from last year, numerous field trips have been made to the Shiranuhi Sea area to survey both individual villages afflicted with a high incidence of Minamata disease and the Minamata plant of the Chisso Corporation, the source of the mercury pollution that caused the disease.

In addition, local agriculture and the fishing industry in the Shiranuhi Sea have been studied. From this fieldwork an understanding of the structure of the regional changes that have taken place over the past twenty years has been gained; and this project should yield an overall picture of the relation between modernization and environmental pollution in a specific area.

Basic Research on Various Regional Planning Methods to Preserve the Natural Qualities of Rivers and Streams Flowing Through Developing Suburban Sprawl Zones

Katsushiro Kudo, Chairman (and nine associates)

Morioka Association for Environmental Preservation

¥4.5 million

Rivers vividly reflect the changes occurring in the natural environment and communities through which they flow. Rivers in most major Japanese cities are already dead, and small streams flowing through many medium-sized and small towns and through many agricultural villages are now dying.

This project selects one specific river—the Morokuzu River, near the city of Morioka—which flows through the outer fringes of the urban sprawl of a provincial city, and investigates the way in which the river is polluted as urbanization progresses and the ways in which the local citizens' attitudes toward the river alter as pollution advances. In addition, it attempts to find ways in which the natural beauty of the river can be restored in order to make the river a

more intimate part of the lives of the people living in the area.

Social Welfare

Research on Ainu Diseases and Traditional Medicine
Yoshihiro Kinoshita, Chief Researcher (and two associates)
Hokkaido Institute of Public Health
¥2.2 million

Living in relative isolation in northern Japan, the Ainu—an indigenous race predating the modern Japanese people—maintained their own culture traits, including their traditional medicine. Today, however, knowledge of traditional Ainu medicine, which had been handed down from generation to generation, is in danger of dying with the aged culture-bearers because younger Ainu have not yet availed themselves of this knowledge.

In this study approximately two hundred Ainu elders (all above seventy years of age) who are still capable of transmitting knowledge of and experience with their traditional therapies will be interviewed. Through these interviews it will be possible to record traditional Ainu medical knowledge and to evaluate the efficacy of Ainu therapies in comparison with modern Western medicine. The research team, which includes an herbalist, a pharmacologist, and an ethnologist, is anxious because the people who can provide the necessary information are now very old; and this may be the last opportunity to obtain knowledge of traditional Ainu medicine.

Study of Production Operations and Safety Among Middle-aged and Elderly Workers from the Viewpoint of Industrial Medicine

Kazuaki Iwata, Professor (and five associates)
Faculty of Engineering, Kobe University
¥10 million

The sudden increase of the percentage of the total national labor force accounted for by middle-aged and elderly workers seriously affects the production and social-welfare structures of Japan. The gradual reduction of the number of skilled older workers as a result of retirement and a simultaneous drop in the number of young people in production areas are problems of special concern. One way to handle this issue is to provide an industrial and social environment in which middle-aged and elderly people can find fulfillment and can continue working in safety.

This study will investigate and attempt to understand basic elements in the creation of such an environment from both the engineering and the medical viewpoints. To its investigations, it adds consideration of factory design and various kinds of production equipment and machinery, especially from the standpoint of operational-movement and visual-

motion functions, in the hope of contributing to a better understanding of the operational industrial environment and the relation between human beings and machines.

Basic Research to Develop a Lightweight Folding Wheelchair

Kenji Tanaka, Professor (and two associates)
Nagoya Institute of Technology
¥2.04 million

To enable disabled people to use public transportation and other facilities with relative freedom, a lightweight portable folding wheelchair is essential; but the usual wheelchair is highly inconvenient, since it is made of steel pipe and weighs roughly twenty kilograms.

This study will attempt to develop a lightweight folding wheelchair constructed of fiber-reinforced plastic (FRP) pipe. To this end, fundamental studies of FRP joints and methods of strengthening them will be made, designs will be drawn up, and a test chair will be produced. Since improvements in wheelchair design involve technical difficulties and the manufacture of wheelchairs is not very profitable, there are limits to what may be expected of private industry in this connection; thus the major significance of this project lies in helping to develop a much needed new product.

Research on Physiological Adaptation to Diverse Stresses in Urban Society

Eimatsu Takakuwa, Professor (and four associates)
School of Medicine, Hokkaido University
¥8 million

The complicated and diversified life in modern urban society creates conditions to which many human beings cannot easily adjust, and these conditions result in stresses. Clarifying physiological changes caused by such stresses is highly important to the discovery of a way to enable human beings to lead less stressful lives in contemporary society.

This study undertakes a physiological and biochemical evaluation of the differences and the influence of stresses in the living and working environments of urbanites and of people living in sparsely populated areas. Methods used in the physiological evaluation include the concentration-maintenance-function test (TAF), and the cold-pressor test (CPT) swing degree method, both developed by the researcher. Biochemical methods include analyses of dopamine- β -hydroxylase, carbonic anhydrase, and corticosteroids. In addition, reference will be made to the stress conditions themselves in order to clarify mutual relations among physiological influences and to discover what environmental conditions are physiologically desirable.

Contemporary Delinquency and Social Problems Among Adolescents in Urban Communities, with Some Proposals for Rehabilitation

Hiroshi Motoaki, Professor (and three associates)
School of Literature, Waseda University

¥5.8 million

Increasing urbanization has led to an increase in socially deviant behavior on the parts of junior and senior high school students. To prevent such behavior, it is essential to discover methods of foreseeing it, of finding the behavioral elements that should be corrected, and of providing potentially deviant youths with effective remedial guidance.

This study, a continuation from last year, will concentrate on junior and senior high school students and their teachers in order to develop indices of deviant behavior and to establish an effective guidance-counseling system at the school level.

In last year's work, emphasis was placed on grasping the cognitive characteristics of deviants, as well as their attitudinal differences at school. This year, the focus is on achievement motives and on the discrepancy between adolescents' self-cognition and their cognition of how others see them. The aim of this study, after analysis of all data, is to construct an indicator, or index, for detecting the trends of deviant behavior among adolescents and to propose treatment for deviants at school.

Individual and Social Reactions to a Mandatory Retirement Age

Kazuo Aoi, Professor (and seven associates)
Faculty of Letters, University of Tokyo

¥6.19 million

In modern Japanese society, older people account for an increasingly large percentage of the population. In conjunction with the current economic slump, the trend toward the nuclear family, and other elements in the social structure, this is making the mandatory-retirement-age issue a matter of major concern to the individual, to business enterprises, to regional autonomous bodies, and to the entire nation. The problem demands not only immediate answers for today, but also basic reforms to reduce its effect in the future.

Though the retirement-age problem ought to be thought of in the light of both the individual and society, until now boundaries between these two realms have been vague. The aim of this research project is to clarify those boundaries. To this end, the researchers will attempt to elucidate how individual workers, business enterprises, and national and regional authorities feel about these two realms and to learn to what extent workers themselves attempt to deal with mandatory retirement. The project hopes to provide a theoretical framework for debate toward resolution of the mandatory-retirement-age problem.

Study of the Development of Ancillary Industries and Elements Stimulating Their Growth

Keinosuke Ono, Associate Professor (and two associates)
The Graduate School of Business Administration, Keio University

¥1.7 million

Policies for stimulating industrial development are vital to the economic growth of most developing nations, but the results of policy implementation have not always been entirely satisfactory. Stagnation and confusion are especially serious in the numerous

small-scale ancillary industries on the periphery of the larger industrial enterprises managed by either national governments or foreign capital.

This project will investigate and make a historical analysis of the experiences of ancillary industries (especially the fabrication of parts) surrounding the Japanese automotive industry, since they have been highly successful. This research should disclose pertinent experiences that will be useful reference material for governments and business enterprises in developing nations. At present, under the aegis of the Council for Asian Manpower Studies, on-site investigations of ancillary industries are being conducted in Indonesia, Malaysia, the Philippines, and Thailand. The results of those investigations will be compared and combined with the results of the study done in Japan.

Small- and Medium-Scale Industries in Japan's Historical Development and in Contemporary Developing Countries: Issues for Comparative Studies

Kazushi Ohkawa, Director (and eight associates)
International Development Center of Japan

¥3.36 million

At present, in connection with economic growth, developing nations face such serious problems as high unemployment rates, foreign currency crises, and stagnation in industrial production. Both international organizations and governments of developing nations are turning their attention to heretofore overlooked small- and medium-scale industries as one way of solving some of these problems. Up to the present, industrialization has been accomplished primarily through foreign-financed, large-scale capital-intensive undertakings. It is expected, however, that small- and medium-scale industries would create new employment opportunities, facilitate the diffusion of technology, and open new areas for industrial activity, thus overcoming the present stagnation of economic development resulting from the concentration on large-scale capital-intensive industry.

This project, a continuation from last year, will compare Japan's experience in the development of small- and medium-scale industries with the experiences of contemporary developing nations in order to clarify basic influencing factors, with the aim of providing guidelines for development policies in this field. Selective development of technology suitable to the type of industry, to its form, and to its scale is vital to small businesses operating in developing economies. Working from this viewpoint, the researchers will analyze statistical materials from the nations being studied and will integrate these analyses with the information obtained during the previous year's work.

Changes in Living Structures and the Fostering of a Participatory Society

Mihoko Matsuyama, Head (and four associates)
Research Group on Living Structure

¥4.26 million

Japanese social structure today is being radically affected by changes in economic conditions, increasing leisure time, increasing numbers of elderly citizens, and increasing numbers of well-educated citizens. In

the light of these changes, the time has come to re-evaluate relations between society and humanity. A new social system taking into consideration the activities of the elderly and uses for the increased leisure of working citizens is needed. This in turn demands study in preparation for the advent of what can be called a participatory society; that is, a society with which people willingly choose to become involved.

This study calls on the services of a staff of specialists from many disciplines in order to understand changes in awareness and in living structures that are the foundation of man-society relations and, on the basis of a comprehension of this foundation, to discover new ways of participating in society, such as through youth activities, leisure activities, and cultural activities. This will be done in the hope of developing practical policies to help prepare for a new participatory society.

A Systems Analysis of Welfare and Medical-Care Programs for an Aging Population

Hiroshi Takamori, Professor (and four associates)

Department of Economics, Aoyama Gakuin University

¥2.24 million

In the next decade or two, the rapid increase in the number of elderly people in Japan will result in a demographic distribution unprecedented in the nation's history and will increase the pressure of demands on various welfare and medical resources and also sharply increase the social burden.

This study attempts a quantitative analysis of the aging of the population, with an eye to forecasting and estimating the social impact of alternative welfare and medical-care policies on future medical demands, resources, and expenditures. The researchers will attempt to analyze future medical demands—especially such primary factors as illness and recovery, which play a major role in increasing the need for medical services. It is likely that, with the aging of the population, cardiovascular diseases and malignant neoplasms will make the greatest demands on therapeutic resources. This study will attempt to forecast the prevalence of such diseases, to estimate the welfare resources demanded by treatment, and to evaluate the financing of such resources.

A Social-Engineering Study of Urban-Policy Formulation Systems: Obtaining Broad Public Support

Yoshinobu Kumada, Associate Professor (and twelve associates)

Faculty of Engineering, Tokyo Institute of Technology

¥4.97 million

A number of causes could be cited for recent popular objection to and opposition movements against construction of large-scale public facilities and urban renewal projects in Japan, but at the base of them all is the lack of an effective system for gaining broad public support in a society in which diverse individual values and needs often conflict.

To gain an understanding of such a system, this project will focus on the following three elements. (1) A study of the present provisions for disseminating planning information in order to develop a practical

system for doing so from the standpoint of obtaining public support. (2) An investigation of the structures and functions of planning boards, civic groups, and such information systems as public announcements and public hearings in order to clarify any factors in them that could make it difficult to win public support. (3) The creation of an urban-development gaming simulation and the establishment of a method of advance evaluation of the system for gaining public support.

Collection and Evaluation of Health and Medical Information on Residents of Isolated Islands in Okinawa Prefecture, with Related Administrative Policy

Masateru Sugiura, Professor and Dean (and eleven associates)

School of Health Sciences, University of the Ryukyus

¥11.25 million

Rapid urbanization in Okinawa Prefecture has resulted in overpopulation in its major cities and a concomitant depopulation of its seventy-odd isolated outlying islands. In comparison with other prefectures of Japan the number of people engaged in health and medical services in Okinawa is very small, with the result that people in remote areas are unable to receive adequate care.

This project, a continuation from last year, intends to improve the quality of the daily lives of the people of isolated islands by gathering information on health and medical services in those islands, analyzing the material thus gained, and proposing administrative action.

This year, the team will gather still more detailed information on the health and medical conditions (nutrition, physical fitness, environment, health and disease, and welfare) of the residents of Hateruma Island, the southernmost island of Japan. The team will attempt to examine and evaluate the area more accurately and will propose solutions for the least difficult problems and will work toward the gradual solution of the more difficult problems. In addition, the researchers hope to develop for this region a comprehensive health-care program making use of modern therapeutic equipment and such innovations in medical technology as computers.

A Study of Household Energy Consumption and Efficiency

Hisayo Shima, Assistant Professor (and two associates)

Faculty of Education, Chiba University

¥4.5 million

In daily life the consumer pays little attention to conservation of natural resources and energy, in spite of their immense importance to Japan today. Urban lifestyles, which stress efficiency and the elevation of people's living standards, include many elements that run counter to conservation. If people were to put more emphasis on resource and energy conservation, however, the criteria by which they judge their actions would undoubtedly change.

This project will investigate household energy consumption, but not merely from the standpoint of

family finances. Consumption will be studied quantitatively and from the viewpoint of the relation between ownership and use of consumer durables. The consumer's activities will be analyzed in terms of kitchen equipment, air conditioning, heating, and lighting. At the same time, the assistance and joint research of specialists in the fields of domestic science and economics will be called on in investigating the relation between energy consumption and nutrition and health.

Research in Social Pathology: Clinical Studies of Suicide Prevention and Crisis Intervention
Hiroshi Inamura, Director (and twenty associates)
Psychiatric Services, Inochi no Denwa
¥8 million

Accompanying urbanization are a deepening of human estrangement and a concurrent increase of suicide, mental illness, crime, juvenile delinquency, drug abuse, and so forth. It is the responsibility of all of society to evolve policies to deal with such problems. *Inochi no Denwa* (Lifeline Telephone) was founded in 1971 to offer both telephone counseling and face-to-face counseling for people in a state of crisis. Since its inception, the system has dealt with over twenty thousand cases yearly.

On the basis of cases dealt with by *Inochi no Denwa*, this study makes a general clinical analysis of sociopathological phenomena in Japan to evolve concrete policies with special emphasis on suicide prevention and intervention. In addition, the researchers will initiate exchanges with similar organizations in other nations to stimulate further growth of the suicide-prevention movement and thus to make possible ways of dealing with a problem that, until now, has been neglected in Japan.

Education and Culture

Contrastive Discourse Analysis of Japanese and English

Seichi Makino, Associate Professor
University of Illinois at Urbana-Champaign
¥1.33 million

The astounding progress made in the past fifteen or sixteen years in linguistics—especially generative-transformational linguistics—has produced results mainly in the field of intrasentential analysis. Much work remains to be done in this basic field, but the outcome of study performed so far has been the realization of the existence of a large number of phenomena that are unintelligible outside the context of discourse. It seems likely that at least one effective way to try to describe these phenomena adequately is through a more intensive study of discourse structure.

This research proposes to analyze discourse structures of both Japanese and English, with a hypothesis that discourse has basic units comparable to sentential units (such as words, noun phrases, verb phrases, relational categories, and so on) and organizing mechanisms comparable to sentential syntax. Through syntactical completion tests administered to both Japanese and American subjects, an attempt will be made to develop a grammatical syntactical theory for both the English and the Japanese languages.

Studies on the Japanese Way of Life
Hyoe Murakami, Managing Director (and three associates)
Japan Culture Institute
¥2.2 million

Still very evident in Japan are the traditional cultural pursuits—music, the composition and reading of short poems (such as haiku), the tea ceremony, flower arrangement, calligraphy, and so forth. Moreover, people do not simply passively appreciate these “arts in daily living,” but participate creatively in these activities.

Under this project, a continuation from last year, surveys are being conducted in cities, towns, and villages to determine the distribution of various arts, their present vitality, and their significance and function in people's daily lives. Similar surveys are being conducted abroad, particularly among Americans of Japanese ancestry, for purposes of comparison and to ascertain how these arts have been accepted and how their spheres of influence have expanded abroad.

The survey data will not only reveal how traditional arts are regarded by and incorporated into modern society, but will also serve as guidelines in preparing materials to introduce these Japanese arts to other societies.

Citizens' Life Styles and Character Building Under the Comprehensive Moscow Development Program
Teruo Matsushita, Professor
Faculty of Law, Kobe University

¥1.1 million

This project, a continuation from last year, examines the Moscow municipal administration—its political, economic, cultural, educational, and institutional organization—under the comprehensive Moscow development program now being implemented.

In this research, which focuses on the existing conditions and prospects in the lives of Moscow citizens in relation to new educational concepts and programs, new socialist institutions are scrutinized from a global point of view.

Analyzed are the ways Moscow's “integrated” city planning, scheduled for completion in 2000, achieves urbanization and the transformation of the social environment as part of the character building required to establish a model communist community.

Influence of Contact with American Culture on Wives and Children of Japanese Businessmen Living in the United States, Including a Study of Their Readjustment to Japanese Society

Ryuro Takagi, Associate Professor (and one associate)
Department of Neuropsychiatry, School of Medicine, Kyoto
University

¥1.85 million

Growing Japanese economic activities overseas in the past few years have sharply increased the number of Japanese businessmen's families who must live for extended periods in foreign cultures where the language and customs are different from those with which they are familiar. The influence of contacts with foreign cultures is strong, especially on young children in whom Japanese cultural patterns have not been firmly established.

This study will explore: (1) how wives and children adjust to the American environment in particular, (2) how exposure to American culture affects children's personality development, and (3) how Japanese children raised in America react to Japanese society when returning after several years' absence. Data will be obtained through interviews of wives and children who have lived in the United States for various periods, and comparative psychological examinations will be made both of Japanese children who were raised in the United States and of children who have never lived in a foreign country.

Comparative Study of Social Structures of Japanese and Korean Villages: Research on the Patrilineal Kinship System

Itsuo Emori, Professor (and three associates)
Department of Humanities, Chiba University

¥4.3 million

One of the principal characteristics of traditional culture in Japan and Korea is the patrilineal kinship system. In both countries, it is not only the foundation of family and kinship but also an important element of village social structure. Although in both countries this system shares certain features—ancestor veneration, patrilineal descent, division of main and cadet families, and mutual assistance among relatives—the Korean system has some features absent in its Japanese counterpart: genealogies that include collateral descendents, primacy established by generation, and a nationwide integration of kinship. It seems likely that comparative study of the patrilineal systems of Korea and Japan can provide a key to understanding the cultural foundations of both nations.

For this investigation, the project selects a representative Korean extended family and examines its historical formation and social function. The research will be conducted by scholars from both Korea and Japan.

Bibliographical and Linguistic Investigations of Ancient Korean Books in Japanese Collections

Yukio Fujimoto, Assistant Researcher
Department of Literature, Osaka University

¥1.5 million

In spite of the ancient cultural ties between Japan and Korea, in Japan there were few specialists in Korean bibliography until recently; and in most Japanese libraries and similar institutions, ancient Korean books have not been fully evaluated and often have not been

differentiated from Chinese books. Although lately the importance of research in Korean culture is being emphasized, insufficient attention has been given to basic materials for such research.

This project, part of a long-term plan, intends to search out old Korean books all over Japan, to examine them bibliographically and linguistically, and to evaluate their importance as research material. The ultimate goals are to compile a bibliography of Korean books in Japan and to study the history of printing in Korea. Furthermore, since some of the ancient Korean books are versions of works known, but lost, in China and editions of works from the Sung and Yüan dynasties, this study can be of significance to the field of Sinology.

A Study of Educational Reorganization of the Community

Yoshihiro Shimizu, Professor
Faculty of Education, University of Tokyo

¥1.99 million

Although the community is an important place for the character development of young people, rapid urbanization in Japan has created areas that are either extremely overpopulated or drastically underpopulated and has robbed communities of the ability to perform their educational duties. One result of this process has been an attempt to make schools assume the educational activities formerly performed by communities. But because of the diversity in capabilities, aptitudes, career aspirations, and interests of young people, schools find it difficult to shoulder the full burden of total education. This means that it is time to think of reinstating the local community as a place for educational activities.

This project undertakes investigations of existing conditions in both community and school educational activities in an attempt to awaken sources of educational energy dormant in community society. It will explore methods of converting the school into a larger community and the community into a school and in this manner to find ways of creating new places of education, centered on schools, that offer meaningful instruction for adults as well as for children.

A Statistical Approach to Cross-National Research: A Comparative Study of Japanese and American Value Systems

Chikio Hayashi, Director General (and eight associates)
Institute of Statistical Mathematics

¥10.27 million

Truly comparative cultural research on human consciousness and value systems is impossible with old-fashioned methods that tend to lapse into superficial, isolated analyses of one-sided research results and is possible only on the basis of comprehensive research founded on scientific, planned investigations; long-term accumulations of data; and the development of suitable analytical methods.

This project attempts a comparative, multidimensional analysis of Japanese and American consciousness of values and is based on twenty-five years of study of the national characteristics of the Japanese

and of people of Japanese ancestry living in Hawaii. In addition, it attempts to establish a cultural-research methodology in terms of analyses of both investigation methods and principles of mathematical statistics. It is expected that the study will not only serve as basic material in research into Japanese and American culture, but will also contribute to the betterment of international mutual understanding.

A Case Study of Musical Acculturation in Urban and Rural Indonesia

Ko Tanimura, Professor (and eight associates)
Musicology Division, Department of Science of Arts, Osaka University

¥1.19 million

Most past folk-musicological studies have dealt statically with the individual musical cultures of different nations and areas. In contrast, this study, a continuation from last year, will analyze and explain the dynamics of musical culture and provide specific, practical materials relating to modern social problems arising from urbanization and depopulation. These will include education as a method of enculturation and syncretism, or acculturation, which advances with changes in transportation, communication, and social and economic organizations.

This project will clarify from a musicologist's standpoint the way in which different artistic value systems have changed in response to population shift and the spread of culture in urban and rural areas of Indonesia. Recordings and films made in Java during last year's work will be organized and analyzed to discover from an examination of musical styles the extent to which outside cultures have influenced and blended with indigenous cultures.

A Comparative Study of Employment Patterns of University Graduates in Southeast Asia

Toshio Toyoda, Councilor (and six associates)
Institute of Developing Economies

¥4.71 million

Higher education has developed steadily in Southeast Asia during the postwar period, and serious attention is now being given to problems related to education and employment, especially to employment among university graduates. The academic world and policy makers responsible for education and labor policies are becoming increasingly concerned about employment for university graduates.

This project attempts to clarify both the employment structure for such graduates and its social, economic, and cultural elements through a comparative international study in four nations: Indonesia, Thailand, the Philippines, and Japan. This year, preparatory investigations will be conducted in the four countries; and a full-scale survey will be undertaken in the Philippines. Comprehensive interviews will be conducted with graduates and university students to determine whether they are employed or have lost their jobs, how they found employment, and what their future career expectations are. About four hundred cases will be sampled.

A Study of the Effects of Urban Expansion and Its Accompanying Rationalization on Achievement Motivation

Eiichiro Tamura, Professor (and nine associates)
Faculty of Education, Tokyo Gakugei University

¥4 million

Changes in achievement motivation (particularly the will to bear part of the burden of social development) reflect the changes social fluctuations cause in the human personality. The desire to succeed, however, is a decisive factor in future economic growth. For forecasts of the future of Japanese society, understanding the extent to which each generation—especially the postwar generations—is motivated to succeed and the relation between achievement motivation and achievement goals is of the utmost importance.

This project will analyze, from the concrete viewpoint of daily life, influences on achievement motivation and individual value criteria and life styles that are exerted by the rationalization and increased efficiency of modern society and the expansion of the consumer market accompanying increasing urbanization. Interviews will be conducted with some three thousand individuals selected at random from various regions and age groups.

Comparative Research on the Creativity and Personality of Japanese and American University Students

Jun'ichi Kobayashi, Professor
Department of Psychology, Sophia University

¥1.75 million

Though it is pointed out that the Japanese system of education—which is oriented toward passing university entrance examinations—has an immense influence on the character development of young people and impairs the development of their creative abilities, as of yet research has been insufficient to prove this assertion. Furthermore, the theoretical relations between creative ability and personality have not been fully demonstrated.

Now in its third year, this continuing comparative study of Japanese and American university students intends to clarify the relationship between creativity and personality factors and to discover personality traits of highly creative students in the hope of finding hints for a reform of the entrance-examination and general educational system in Japan, where increasing numbers of people are receiving a higher education.

The studies of the past two years have already shown that Japanese students display a lower level of creativity than American students and that highly creative students display more developed powers of decision making and greater acceptance of responsibility in their youth.

Developing Cross-Cultural Elements of English-Language Education in Japan

Linju Ogasawara, English-Language Textbook Advisor (and four associates)
Department of Education, Culture, and Science, Ministry of Education

¥2 million

Learning a foreign language entails the acquisition of both linguistic skills and a knowledge of the culture of the nation in which the language is spoken. Though in Japan much attention has been devoted to language skills, cultural information has been confined largely to incidental material included in such sources as textbooks. Foreign-language teaching materials and curricula have failed to adequately reflect the cultures of the nations in which the languages are spoken. Furthermore, the investigative research needed to include cultural materials in foreign-language instruction is not being carried out.

This project will collect and organize observations of cultural features in such English-speaking nations as the United States, England, Canada, Australia, and New Zealand with the aim of abstracting cultural characteristics and including them in an organized, systematic fashion in English-language teaching programs designed for easy use by Japanese English-language instructors.

A Cultural-Anthropological Study of the Patterns of Cultural Adaptation of Japanese Families Overseas: With Special Reference to the Education of Japanese Children Living in Southeast Asia

Kazuhiro Ebuchi, Professor (and one associate)

Faculty of Education, Fukuoka University of Education

¥2.98 million

In recent years, expanding international activities have increased the opportunities for cross-cultural contacts. The growing numbers of Japanese who reside abroad for business reasons often face a new experience when their own Japanese culture and the indigenous culture of the land in which they are living come into direct contact. The children of such families grow in a bilingual, bicultural environment. Such situations involve many problems that will be of great importance for Japanese who will be part of the international world of the future.

The major aim of this project is to investigate from the cultural-anthropological viewpoint the abilities of Japanese living abroad to adapt to indigenous cultures. The focus of investigation will be the schools and sociocultural environments of Japanese families living in Southeast Asian nations and the various elements related to the education of their children.

Comparative Study of the Function and Structure of a Postsecondary Education System

Shigeru Nakayama, Chairman (and five associates)

Association for the Comprehensive Study of Higher Education

¥4.5 million

The current Japanese educational system, centered on universities, is unable to satisfy the ever increasing demand for postsecondary education, with the result that the development of a flexible system capable of meeting diverse changing educational needs is an urgent necessity.

Last year, this research team studied and analyzed situations in Western nations, where research

trials, and practical application of the systems, functions, and concepts of postsecondary education are more advanced than they are in Japan, and compared Western systems with the Japanese system. This year, on the basis of the past work, the researchers hope to evolve a model for the development and systematization of the postsecondary education system in Japan in order that higher education (as an extension of formal education) and continuing education (including adult education and social education) may be interchanged and complement and supplement each other.

The Highly Educated Society: A System Dynamics Approach

Joji Kikuchi, Senior Researcher (and three associates)

Section 1, Research Department 2, National Institute for Educational Research

¥2 million

As Japan moves into a period in which more and more people have higher educations, the social and economic value of such an education is gradually declining; but instead of reducing the desire for such education, this has produced a situation in which competition for entrance into universities and colleges becomes increasingly severe. The growing number of people with a higher education has a great impact on society, economics, and individual life styles, which indicates there is a feedback relation between educational and social structures.

This project will employ system dynamics in order to obtain an accurate picture of the higher-education dissemination pattern and feedback mechanism. Though system dynamics is an effective method for dealing with mutually related operations among many complicated variables and is therefore suitable to analyzing the relation of educational and social structures, it has been used very little in this connection. This project should provide results that can serve as a foundation for forecasts of changes in a future society oriented toward higher education.

Reorganization and Study of the Library of the Temple Shogo-in

Keiki Yamazaki, Professor (and seven associates)

Faculty of Literature, Ryukoku University

¥2.46 million

The temple Shogo-in, in Kyoto, is one of the few remaining temples devoted to *shugendō*, an eclectic form of Esoteric Buddhism. Part of the Tendai sect of Buddhism, the temple was founded by the famous monk Enchin (814-91); and many of its abbots have come from the imperial family. Indeed, on two occasions (in 1788 and in 1854), when palaces burned, it served as a temporary imperial residence. In spite of its historical importance, however, it has remained largely unstudied and unknown.

Although the ultimate aim of this project is a full-scale study of the temple, this year's work focuses on reorganizing and studying the more than five thousand autograph duplicate documents, more than fifteen thousand ancient autograph original documents,

and more than eight hundred diaries that are a major part of its library. It is hoped this investigation will result in: (1) a clearer understanding of *shugendo* practices in the Edo period (1603–1868), (2) new materials on Japanese literature of the early modern period, (3) new information on temple administration in the Edo period, (4) an understanding of the relations between the imperial family and the Buddhist clergy, and (5) a clearer understanding of the relations between *shugendo* and the Tendai sect of Buddhism.

A Scientific Analysis of the Possibility of Introducing Compulsory Upper Secondary Education, Including Policy Proposals

Morikazu Ushioji, Associate Professor (and six associates)
Department of Education, Nagoya University

¥3.77 million

Since more than ninety percent of all young people in Japan now attend senior high school, senior high school education is nearly universal. But the advisability of making it compulsory is still a subject of much discussion, and policy estimations of this possibility are necessary.

This project, a continuation from last year, aims to investigate the possibility of introducing compulsory senior high school education, provide basic materials for further discussion, and in this way help clarify problems connected with such a system. The study will include three major elements: an estimation of costs and necessary facilities, a study of the reasons that a small number of people still do not go on to senior high school, and a survey of the opinions of various experts on the advisability of making senior high school education compulsory. In all three areas, this year's work will continue efforts begun last year; and the researchers will attempt to draw up a comprehensive scientific policy analysis based on the results of their earlier work.

A Comparative Study of Paddy-Growing Communities in Southeast Asia and Japan: A Basic Study of Modernization in Paddy-Growing Societies

Masuo Kuchiba, Professor (and fourteen associates)
Faculty of Letters, Ryukoku University

¥11 million

It has been pointed out that institutions and organizations are more important to development in rice-cultivating villages than is technology. For instance, in Japan, village cooperation has long been effective, whereas, in Southeast Asia, the absence of rural community organization has impeded development.

This project, a continuation from last year, will attempt to illuminate the problem through international collaborative studies from various aspects: ecological adaptability, historical background, economic cooperation, group organization, and value systems. Last year, an international team of researchers, including Japanese members and members from four Southeast Asian nations, made a field study of three Japanese agricultural villages and learned that, though in some respects it has weakened, in other respects the Japanese village cooperative organization adapts to new conditions effectively while maintaining a

core of old traditions. This year similar investigations will be made jointly in four Southeast Asian nations in order to cast light on the characteristic features of community organization from a comparative viewpoint and to attempt to make possible forecasts of future development.

A Study of Diversification in Extralegal Marital Relations Accompanying Urbanization: Protecting Common-Law Marriage

Tadao Miyai, Professor (and six associates)
Faculty of Law, Doshisha University

¥4.38 million

Urbanization, which began in earnest in Japan in the late nineteenth century, has brought about an increase of extralegal marital relations; and, as society has developed, such relations have tended to diversify widely. At present, it is difficult to know how these relations should be treated from the legal standpoint. In Japan, a high degree of legal protection is afforded common-law marriages (which may be concluded with ceremonies but are not registered officially). The attitude toward such unions in Europe, however, tends to be negative. This project will investigate the situation of common-law marriages in Japan and in Europe in an attempt to contribute to the solution of the present difficulties in Japan.

The City and Religion in Southeast Asia: A Cultural-Anthropological Study of Bangkok and Colombo

Tamotsu Aoki, Associate Professor (and three associates)
Faculty of Human Sciences, Osaka University

¥4.06 million

Many of the major cities of Southeast Asia have developed against a Buddhist background and will continue to maintain strong Buddhist characteristics in the future. Bangkok and Colombo have long been symbolic centers of Buddhist tradition, though today, as metropolises, they face the problems of large-scale urbanization.

Through cultural-anthropological investigations, this study attempts to cast light on the similarities of and differences in Buddhist societies in Southeast Asia. Although many approaches to such research are possible, this project will undertake the following: (1) on-site studies of major temples in both cities, (2) questionnaire surveys of the attitudes of ordinary families toward religious faith and practice, (3) interviews to determine the position of religious faith and practice in social groups and organizations in both cities. Work will be done in cooperation with local researchers.

Historical Study of the Formation of Information Systems in Modern Japan

Mitsukuni Yoshida, Professor (and four associates)
Research Institute of Humanistic Studies, Kyoto University

¥3.48 million

Although it is recognized that the increased bulk and diversification of information will have a great impact on all of modern industrialized society, discussions of the information society go no further than indicating

the latest trends of the times and do not consider the nature of the period or social and cultural differences. Outstanding traits of information societies are great social movement accompanying industrialization and scientific sophistication and distinctive historical characteristics of specific societies. Failure to take such things into consideration makes it impossible to formulate an accurate image of the shift toward an information society that is common in advanced industrial societies. This project attempts to make a general study of the formulation of information systems in modern Japan and includes historical consideration of scientific technologies, industry, politics, society, and education. It is expected to cast light on all aspects of the Japanese information-oriented society.

National Division Communications Supplements

Changes in the Distribution of Income and Wealth
Through Economic Growth and Urbanization in
Developing Countries (printing costs)
Toshiyuki Mizoguchi, Professor
Institute of Economic Research, Hitotsubashi University
¥0.85 million

A Comparative Study of Street Life (printing costs)
Hidetoshi Kato, Professor
Faculty of Law, Gakushuin University
¥0.9 million

Observation and Simulation of Urban Weather
Phenomena (symposium)
Itaru Shionoya, Managing Director
Chubu Region Development Research Center, Inc.
¥0.5 million

International Grant Program

The international grant program, which was initiated on an experimental basis in 1976, continued in 1977, with grants being awarded to twelve projects. The following is an outline of application procedures and of the process whereby applications are evaluated.

1. Proposals must be related to the human and natural environments, education, culture, or social welfare.

2. In general, the Foundation does not approve grants for: capital investment, plants, or equipment; endowments; museum or library acquisitions; annual budgets of organizations or institutions, or of established programs; propaganda or lobbying activities; religious activities; or unsponsored individuals.

3. The Foundation suggests that applicants from developed nations coordinate efforts with a Japanese associate, through whom an application written in Japanese should be submitted to the Foundation's National Division, which also supports joint international research projects.

4. Applicants from developing nations should submit to the International Division a concise letter setting forth: the goals of the project; the need for undertaking it at this time; the major participants and their qualifications; the institutional or other facilities available to the applicant; the stage of the project for which funding is sought; an itemized estimate of the total budget required; and where the applicant expects to obtain funds not requested from the Foundation. Proposals should be approved by an appropriate officer of the institution or agency sponsoring the applicant, and should include general information on the institution or agency. This also applies to institutions or agencies submitting proposals in their own behalf.

In the Foundation's International Division there is no standard application form, and there are no fixed deadlines for submitting applications.

5. The Foundation's Selection Committee meets periodically to review and evaluate proposals investigated by the staff and to make recommendations to the Board of Directors.

If a proposal falls within the Foundation's areas of interest, investigation by the staff usually requires up to six months to determine: the need addressed by the proposal and the existence of other past or ongoing attempts to meet it; the capability of the applicant(s) to achieve the expected results; the adequacy of the proposed program; the assurance of cooperation with other concerned groups; the appropriateness of timing; the possibility of future support by other agencies; and the improbability of current support from other agencies. During the course of the investigation, a staff member will meet personally with the applicant(s) and, whenever possible, will make an on-site visit. In all phases of the investigation, Foundation personnel rely on consultation with outside experts in various fields.

6. Because the Foundation receives many applications and has limited resources, we urge potential applicants to seek other funding sources as well.

Rural-Urban Relations: Asian Perspectives on Theory and Strategy of Regional Development—Case Study in Malaysia

Dr. Kamal Salih

Centre for Policy Research and School of Comparative Social Sciences, Universiti Sains Malaysia

¥4.76 million

Industrial development policies—based mainly on large urban centers, the introduction of new agricultural technology, and rapid modernization of agricultural zones—have distorted traditional relations between the city and the rural village. Deteriorating conditions with respect to land, food, and the environment brought on by the growing population have caused rural society to decline. In the cities, two major strata of society exist side by side: the true urbanite, whose levels of living and income have improved as modernization has progressed, and the poor, who flood the cities from rural areas. For the sake of balanced relations between cities and rural areas and of a redistribution of income, this study focuses on the following three points: (1) assessment of agricultural policies and industrial urban policies from the standpoint of their influence on urban and rural development patterns; (2) reestimation of the roles of large, medium, and small cities as suitable linkage within and among regions; and (3) clarification of issues related to the flow of people into cities and of the employment opportunities there.

This project is one of three selected case studies, coordinated by the United Nations Centre for Regional Development, that are being conducted in Southeast Asia.

Rural-Urban Relations: Asian Perspectives on Theory and Strategy of Regional Development—Case Study in Sri Lanka

Dr. S. P. F. Senaratne

Marga Institute, Sri Lanka Centre for Development Studies

¥4.76 million

This is one of the three case studies being conducted in the above-described project coordinated by the United Nations Centre for Regional Development.

Rural-Urban Relations: Asian Perspectives on Theory and Strategy of Regional Development—Case Study in Thailand

Dr. Phisit Pakkasem, Director

Economic and Social Planning Division, National Economic and Social Development Board

¥4.76 million

This is one of the three case studies being conducted in the above-described project coordinated by the United Nations Centre for Regional Development.

Seventh Conference, International Association of Historians of Asia

Dr. Kasem Suwannagul, President

Seventh Conference, International Association of Historians of Asia

¥1.1 million

The International Association of Historians of Asia,

formed on local initiative, holds conferences every three or four years for exchanges of information and opinion and for the promotion of cooperation in many fields of Asian history. The seventh conference, which will adopt as its main theme "Asian History: A Reinterpretation," will discuss such other topics as "Modern Asia's Problems and Outlook," "International Relations in Asia," "Influence of the Historical Heritage on Asian Modernization," "Fusion and Opposition in Asian Value Systems and Ideologies," and "The Role of Women in Asia."

Survey of Unexploited or Underexploited Food-Plant Resources in Asia, Leading to the Effective Utilization, Conservation, and Future Introduction of Asian Food-Plant Resources

Dr. Tetsuo M. Koyama, Curator

The New York Botanical Garden

¥11.88 million

Plants of tropical and subtropical zones are rich potential sources of new food products, fibers, oils, gums, timbers, and chemicals; but it is precisely these tropical and subtropical zones that suffer most from acute shortages of plant products. Especially in Asia, plant resources are being destroyed so rapidly that the damage may soon be utterly irreparable. The danger at present is that, if no positive action is taken, potentially useful plants may be neglected.

This project entails field investigations in Thailand and Indonesia and cultivation and breeding research in the United States, Taiwan, and Japan leading to the compilation of a manual of Asian economic plants. This manual will provide basic scholarly information for future development of useful plant resources. In addition, the project is intended to train people from Thailand and Indonesia to carry out this kind of work independently and to form a technical research cooperative system among Southeast Asia, Japan, and America for still further study of unexploited or underexploited plant resources.

Codification and Indexation of Japanese Environmental Legislative Texts for the Environmental Law Information System

Dr. Wolfgang E. Burhenne, Managing Director

The Fund for Environmental Studies

¥1.52 million

The overall program of the Environmental Law Center, an affiliate of the International Union for Conservation of Nature and Natural Resources, includes the Environmental Law Information System (ELIS), which stores worldwide environmental legislation in a computer data bank. In 1977, no Japanese statutes were included among the 3,500 from 60 nations stored in the bank. Consequently, for some time, the Environmental Law Center has urgently requested that Japan cooperate and send young specialists to work on the project. In response, the Japan Center for Human Environmental Problems selected Hiroshi Hashimoto, who, with grants from the Fund for Environmental Studies and the Toyota Foundation, has initiated work to enter Japanese legislation in the ELIS. Continuing his work from the preceding year, with this year's

grant, Hashimoto is expected to complete codification and indexation of some 280 Japanese environmental laws.

A Study of Current Efforts for the Development of the Social Sciences in Indonesia: From the Viewpoint of International Scientific Exchange and Technical Assistance

Dr. James J. Fox, Professional Fellow

Department of Anthropology, The Research School of Pacific Studies, The Australian National University
¥8.68 million

The establishment of the Suharto government, in 1966, created opportunities for the development of social sciences in Indonesia, especially since, with the institution of the second five-year plan, basic governmental policy emphasis has shifted from purely economic growth to multifaceted social development. Since the numbers of people trained to meet the needs of such study are inadequate, various efforts have been expended to develop the required qualified personnel.

For a number of years, the researcher in charge of this project and Mitsuo Nakamura, his Japanese colleague, have contributed greatly to the development of social sciences in Indonesia. In this project, they will compile a detailed ethnographic record of Nakamura's own experiences in a training program conducted by the Indonesian Social Science Foundation and on the basis of a comparison between this and other programs will evaluate foreign-aid policies (including those of Japan). In addition, they will make suggestions on future assistance to developing nations.

Comparative Fieldwork in Rice-Farming Villages in Southeast Asia

Dr. Leslie E. Bauzon, Associate Professor of History
University of the Philippines

¥3.09 million

This project is closely related to A Comparative Study of Paddy-Growing Communities in Southeast Asia and Japan: A Basic Study of Modernization in Paddy-Growing Societies (conducted by Professor Masuo Kuchiba, Ryukoku University), which has been supported by grants from the National Division of the Toyota Foundation.

Under National Division grants, work by an international team composed of Japanese researchers and colleagues from the Philippines, Indonesia, Malaysia, and Thailand began in 1976; and in the following year, these Southeast Asian researchers joined a Japanese team and conducted investigations in Japan. In 1978, the Japanese team and, under this grant from the International Division, local teams including the researchers who participated during the first two years will conduct similar investigations in the four nations mentioned above.

The purpose of the project is to consolidate the results of the village-level investigations of research workers in all four nations and thus to enable the researchers to develop insight into the situation in neighboring countries.

The Southeast Asian Studies Program Project on the History of Southeast Asia

Professor Sharom Akmat, Deputy Vice Chancellor
Universiti Sains Malaysia

¥5 million

The Southeast Asian Studies Program, conducted with the cooperation of scholars from the entire Southeast Asian region, is currently carrying out three projects: (1) A Comparative History of Southeast Asia, (2) A Comparative Study of Government and Politics in Southeast Asia, and (3) A Comparative Study of Changing World Views and Values in Southeast Asia.

Under the history project, Southeast Asian historians will reconsider and rewrite the history of their own region. The desire to do so reflects the need (felt by scholars and general readers alike) for each nation to have its own history written by its own scholars. Such a history helps establish individual national identity. Historians from several Southeast Asian countries will cooperate on a general Southeast Asian history, and the histories of the individual nations will be written from the viewpoint of indigenous scholars. The resulting work would be of use to university students, educators, policy decision-makers, and the public in general.

Translation of *The Method and Materials of Demography* into the Thai Language

Dr. Boonlert Leoprapai, Director

Institute for Population and Social Research, Mahidol University

¥1.73 million

Thailand is currently devoting great effort to programs related to population, and social psychologists and cultural anthropologists who are familiar with demography are urgently needed. In the past, specialists in this field have been trained in the West; but today the demand to educate them in Thailand is growing stronger. Unfortunately, however, suitable textbooks and reference works on the subject are practically unavailable.

The person in charge of this project and twenty-two demographers and sociologists formed a team to discuss ways of solving the problem and concluded that they must first publish a Thai-language translation of *The Method and Materials of Demography*, which was originally published by the United States Bureau of the Census. The book will serve as a text for university and graduate-school students and as a reference work for specialists. The grant from the Toyota Foundation will be used to defray translation and editing costs.

Local Leaders and Community Activeness in Thailand

Dr. Narong Sinsawasdi, Assistant Professor

Thai Khadi Research Institute, Thammasat University

¥2.98 million

Between 1965 and 1970, study of the influence that community leaders and their senses of values exert on community activities (communal action directed toward a social goal) was conducted under the auspices

of the International Social Science Council (which has its headquarters in Paris). The present project employs interview investigations to pursue the same topic in rural communities in Thailand and to determine the characteristics a leader must possess in order to direct local populations toward activity calculated for the general community good.

The Thai Khadi Research Institute, with which this researcher is affiliated, was reorganized last year and plays a central role in the research activities of Thammasat University. It is currently extremely active in attempting to clarify problems related to development of agricultural villages and is making special efforts to improve the research capability of its staff.

Changing Value Patterns and Their Impact on Economic Structure

Dr. Jacques Lesourne, Director

Interfutures, OECD

¥9.75 million

The OECD Interfutures project deals with the need to include consideration of harmony with developing nations in forecasts of the future industrial and economic structures of the advanced industrialized nations. In attempting to do this, project researchers have discovered the need to do two things: to analyze and theoretically to organize the influences of sociocultural elements on economic development and to reflect adequately the opinions and needs of developing nations.

This project, a continuation from last year, has received a grant for work in connection with systematically identifying sociocultural elements that influence future consumption and production patterns, evaluating the importance of each element, forecasting changes that may take place in each, and compiling a report on findings. The current grant should see that report through to completion.

Communications Grant Program

This year, as part of the communications grant program the Foundation began awarding grants for international conferences convened in Japan. This has been done with the aim of increasing the opportunities for researchers and specialists from developing nations to take part in international academic meetings by assisting with their travel and accommodation expenses. To be eligible for such grants, a meeting must deal significantly with the human or natural environments, social welfare, education, or culture and must be of appropriate scale to stimulate productive dialogue. It is especially desirable that the act of convening the meeting influence and stimulate future developments in the field to which it is related.

This year, grants amounting to a total of 19.96 million yen were awarded to nine of thirty-four applications. The following is a breakdown by nation of the sixty-five participants supported at the conferences that received grants: thirteen from the Philippines; nine from Thailand; seven each from Indonesia, Malaysia, and Taiwan; five from the Republic of Korea; four each from Singapore and Hong Kong; two each from Sri Lanka, India, and Pakistan; and one each from Burma, Nigeria, and Colombia. As this list shows, Asians, especially from Southeast and East Asia, predominate. All the conferences to which grants were awarded were fairly small in scale, and the percentages of foreign participants in them were high. Moreover, all of them were either first conferences, preparatory conferences, or meetings for the sake of planning future research programs.

This was the third year for the Fellowship Program for Japanese Social Scientists, which is part of a program managed by the International House of Japan; and a third series of grants was made, bringing to seventy million yen the total amount of Toyota Foundation assistance to the undertaking.

Grants for International Conferences Convened in Japan

Conference	Organizing Committee Coordinator	Grant Amount	Number of Participants supported
Concepts of Poverty by Stages of Economic Development	Income and Assets Distribution Research Project Toshiyuki Mizoguchi	¥2,910,000	9
Problems and Solutions in Asian Psychology	Japanese Branch of International Council of Psychologists Shinkuro Iwahara	¥1,660,000	7
The First Asian Society of Pediatric Cardiology Meeting	The Asian Society of Pediatric Cardiology Sanji Kusakawa	¥3,170,000	15
Conference on Japan's Historical Development Experiences and Contemporary Developing Countries: Issues for Comparative Analysis	International Development Center of Japan Saburo Kawai	¥1,660,000	2
World Regional Development and Planning Conference	Regional Development Association Koichi Mera	¥1,080,000	4
Geology and Paleontology of Southeast Asia Symposium	The Research Group of Geology and Paleontology of Southeast Asia Saburo Kanno	¥5,320,000	16
Asian-American Conference on Environmental Protection	Japan Center for Human Environmental Problems Nobuo Kumamoto	¥1,310,000	5
The First International Conference on Liquid Atomization and Spray Systems	The Fuel Society of Japan Keishin Matsumoto	¥ 630,000	2
UNCRD Colloquium: Rural-Urban Relations in Regional Development: Asian Reality and Perspective	United Nations Center for Regional Development Masahiko Honjo	¥2,220,000	5
Total		¥19,960,000	65

Concepts of Poverty by Stages of Development

This conference will integrate the results of two years of international joint research to obtain a statistical understanding of conditions of poverty in Asia by attempting to evolve a methodology for defining poverty. Topics of discussion include such indices of poverty as nutrition, expenditure structures, health, consumer durable goods, housing, assets, education, and so on.

Problems and Solutions in Asian Psychology

This is a preparatory conference for the formation of an association of Asian psychologists. Topics of discussion include exchanges among Asian psychologists and psychology students, the stimulation of joint research among Asian psychologists, and the contributions such psychologists can make to education and culture in general.

The First Asian Society of Pediatric Cardiology Meeting

This is a preparatory conference for the formation of the Asian Society of Pediatric Cardiology. Topics of discussion include exchanges of information among research specialists and reports of the results of their work, as well as ways to expand and enrich this field of specialization.

Conference on Japan's Historical Development Experiences and Contemporary Developing Countries: Issues for Comparative Analysis

This conference includes an interim report on five years of research undertaken by Japanese and foreign specialists, as well as considerations of work to be carried out in the future. Comparative discussions will be conducted on the results of an analysis of Japanese experiences in economic development during the past one hundred years and the economic experiences of currently developing nations.

World Regional Development and Planning Conference

This conference, which strives to stimulate still further exchanges in the field of regional development planning, discusses such worldwide topics as an equitable regional distribution of wealth.

Geology and Paleontology of Southeast Asia Symposium

This symposium presents general basic and purely scientific results of fifteen years of research by specialists from various Southeast Asian nations in Southeast Asian geological structures and extinct life forms and discusses future exchanges in the field.

Asian-American Conference on Environmental Protection

For the sake of stimulating future cooperation among the nations of the Asian region in the field of envi-

ronmental protection, this conference makes comparative investigations of the legal aspects of the issue in Japan, Asian nations, and the United States and discusses the possibilities of concrete cooperation in the future.

The First International Conference on Liquid Atomization and Spray Systems

This first opportunity for international exchanges in a field in which study has until now been isolated deals with research results, systematization of the field as an academic discipline, and the stimulation of further exchanges.

UNCRD Colloquium: Rural-Urban Relations in Regional Development: Asian Reality and Perspective

This conference, which offers an interim report on two years of international cooperative research and investigation of the direction further study should pursue, attempts to develop basic conditions and strategies whereby the qualitative differences between city and village can be overcome and balanced development of both can be achieved.

Fellowship Program

Fellowship Program for Japanese Social Scientists

Yoichi Maeda, Managing Director

International House of Japan

¥30 million

The internationalization of Japanese social studies, the promotion of international exchange of social scientists, and an interdisciplinary approach to social problems are of great significance to the future of Japan. This program provides relatively young Japanese social scientists who have as yet little international experience with an opportunity to work in overseas universities or research institutes for two years. It is designed to allow one hundred scholars to acquire a world view of their subjects through participating in the solution of common human problems and also to further develop their communication skills. Six scholars were awarded fellowships in 1975, and nine in 1976; six are scheduled to receive grants this year. These scholars are given chances to study in various parts of the world, including eastern and western Europe, Asia, and America.

The fellowship program receives the support of the Social Science Research Council in America and a number of similar organizations throughout the world. Grants are awarded through the cooperation of the Ford Foundation, the Japan Foundation, and the Toyota Foundation.

Financial Report for Fiscal Year 1977

Settlement of Accounts (April 1, 1977 — March 31, 1978)

	Unit: Yen		
	Fiscal 1977	Fiscal 1976	Fiscal 1975
INCOME			
Balance brought forward			
from the previous year	138,095,340	108,153,416	78,936,538
Interest from the principal endowment	383,923,429	283,879,508	286,571,296
Interest on working endowment	437,914,676	189,253,000	63,355,309
Donations	1,800,000,000	1,000,000,000	2,000,000,000
Total Income	<u>2,759,933,445</u>	<u>1,581,285,924</u>	<u>2,428,863,143</u>
EXPENDITURES			
Grants and program expenses	452,909,725	382,031,196	266,376,269
Administrative expenses	65,452,653	59,132,308	54,333,458
Purchase of fixed assets	901,600	2,027,080	—
Income transferred to working endowment	1,800,000,000	1,000,000,000	2,000,000,000
Total Expenditures	<u>2,319,263,978</u>	<u>1,443,190,584</u>	<u>2,320,709,727</u>
Excess of Income over Expenditures	<u>440,669,467</u>	<u>138,095,340</u>	<u>108,153,416</u>

Note: Of the surplus funds for the current fiscal year ¥400,000,000 has been transferred to the working endowment, and the balance has been carried over to the income budget of the following fiscal year.

Balance Sheet (as of March 31, 1978)

	Unit: Yen		
	Fiscal 1977	Fiscal 1976	Fiscal 1975
ASSETS			
Cash	25,508	15,835	25,469
Bank accounts	26,575,755	36,845,358	35,945,495
Marketable securities	8,342,893,746	6,196,265,833	5,115,009,180
Prepaid expenses	1,622,828	1,622,828	1,420,120
Advance (disbursement)	4,832,436	9,340,600	8,322,192
Suspense payments	1,033,263	—	—
Fixed assets	46,653,463	48,422,407	49,535,125
Total Assets	<u>8,423,636,999</u>	<u>6,292,512,861</u>	<u>5,210,257,581</u>
LIABILITIES			
Accounts payable	105,328,936	85,168,744	41,847,490
Deposits received	985,133	826,370	721,550
Reserves	30,000,000	20,000,000	10,000,000
NET ENDOWMENT			
Principal endowment	3,000,000,000	3,000,000,000	3,000,000,000
Working endowment	5,287,322,930	3,186,517,747	2,157,688,541
Total Liabilities	<u>8,423,636,999</u>	<u>6,292,512,861</u>	<u>5,210,257,581</u>

Endowment Status

	Unit: Yen			
	End Fiscal 1977	End Fiscal 1976	End Fiscal 1975	End Fiscal 1974
Principal endowment	3,000,000,000	3,000,000,000	3,000,000,000	3,000,000,000
Working endowment	5,287,322,930	3,186,517,747	2,157,688,541	133,057,559
Total	<u>8,287,322,930</u>	<u>6,186,517,747</u>	<u>5,157,688,541</u>	<u>3,133,057,559</u>

Note: The working endowment at the end of fiscal 1977 includes ¥46,653,463 of fixed assets.

Articles of Endowment

(Translated from the Japanese)

Section One: General

Article 1. Name

This Foundation shall be called the Zaidan Hojin Toyota Zaidan, and its English title shall be The Toyota Foundation.

Article 2. Address

This Foundation's office shall be located at 2-1-1, Nishi-Shinjuku, Shinjuku-ku, Tokyo 160, Japan.

Section Two: Objective and Programs

Article 3. Objective

The objective of this Foundation is to contribute toward the realization of a human-oriented society by providing grants for research and projects related to the human and natural environments, social welfare, education, culture, and other fields.

Article 4. Programs

In order to achieve its objective, this Foundation shall conduct the following programs:

1. Provide grants for research and projects related to transport safety;
2. Provide grants for research related to the human and natural environments, education, culture, and other fields;
3. Provide grants for projects related to the human and natural environments, social welfare, education, culture, whole-man education of youth, and other projects;
4. Provide grants for research and projects in foreign countries, especially in developing countries, in the fields outlined in 1, 2, and 3 above;
5. Provide grants for other programs as required in order to achieve this Foundation's objective.

Section Three: Assets and Accounting

Article 5. Make-up of Assets

The Assets of this Foundation shall consist of the following items:

1. Assets endowed to this Foundation at the time of its establishment and listed in its Statement of Assets;
2. Assets donated after this Foundation's establishment;
3. Returns from investment of assets;
4. Income from projects;
5. Other income.

Article 6. Categories of Assets

1. The Assets of this Foundation shall be divided into two categories: Principal Endowment and Working Endowment.

2. Principal Endowment shall consist of the following items:
 - (1) Assets listed as Principal Endowment in the Statement of Assets at the time of establishment;
 - (2) Gifts made after establishment and designated as Principal Endowment;
 - (3) Assets included under Principal Endowment by resolution of the Board of Directors.
3. Working Endowment is all Assets other than Principal Endowment.

Article 7. Management of Assets

1. The Chairman of the Board of Directors shall manage this Foundation's Assets.
2. Principal Endowment which is in cash shall be deposited in postal savings accounts, in accounts with reliable financial institutions, entrusted to a trust company, or converted into government bonds or other negotiable securities. The Chairman shall select the method of deposit subject to approval by the Board of Directors.

Article 8. Restrictions on the Disposition of Principal Endowment

Principal Endowment shall not be depleted or encumbered. However, subject to the approval of the competent government agency and the consent of two-thirds or more of the members of the Board of Directors, Principal Endowment may be disposed of when such action is essential for conducting this Foundation's programs.

Article 9. Payment of Expenses

Expenses for this Foundation's activities shall be met by funds from its Working Endowment.

Article 10. Fiscal Period

The fiscal period of this Foundation shall begin on April 1 of each year and end on March 31 of the following year.

Article 11. Programs Plan and Annual Budget

Annual programs and budget proposals of this Foundation shall be resolved by the Board of Directors and submitted to the competent government agency prior to the start of each new fiscal period. The identical action shall also be taken if substantial changes are introduced to programs or the budget.

Article 12. Annual Report and Financial Statements

An Annual Report, Statement of Appropriations and Payments, and Statement of Assets

shall be approved by the Board of Directors and submitted with an Auditors' Report to the competent government agency within three months after the close of each fiscal period.

Section Four: Officers

Article 13. Officers and Their Appointment

1. This Foundation shall have the following Officers:
 - (1) Not less than seven nor more than fifteen Directors;
 - (2) Not more than five Auditors.
2. The Board of Trustees shall appoint Officers.
3. The Directors shall elect from among themselves one Chairman, one Executive or Managing Director, and, when deemed necessary, one Vice-Chairman.
4. No person may serve as a Director and an Auditor simultaneously.

Article 14. Duties of the Officers

1. The Chairman of the Board of Directors shall represent this Foundation and preside over all Foundation affairs.
2. The Vice-Chairman shall assist the Chairman and perform the duties of Chairman when the Chairman is indisposed or the Chairman post is vacant.
3. The Executive Director or Managing Director shall assist the Chairman and Vice-Chairman and perform the duties of Chairman or Vice-Chairman when either is indisposed or either post is vacant.
4. The Directors shall comprise the Board of Directors, and shall deliberate and decide on matters prescribed in these Articles of Endowment.
5. The Auditors shall perform the following duties:
 - (1) Audit this Foundation's current assets;
 - (2) Report on the current performance of duties by the Directors;
 - (3) Report to the Board of Directors and to the competent government agency any suspicion of irregularities they discover in the condition of this Foundation's assets or the performance of its affairs.

Article 15. Terms of Office

1. The term of office for Officers shall begin on July 1 and end two years later on June 30. However, even if their term expires, Officers shall continue in office until their successors replace them.
2. Officers may be reappointed to office.
3. The term of office for an Officer appointed to fill a vacancy or to assume a newly established post shall be the unexpired term

of the former Officer or the same term of office remaining for other Officers.

Article 16. Dismissal of Officers

An Officer may be dismissed from office if the Board of Directors and the Board of Trustees deliberate and resolve that such Officer has behaved in a manner unbecoming an Officer of this Foundation, or in the event of special circumstances.

Article 17. Compensation for Officers

1. Officers other than full-time Officers shall as a rule receive no compensation. However, compensation may be paid if deemed necessary.
2. Provisions concerning compensation and other matters related to Officers shall be deliberated and resolved by the Board of Directors.

Section Five: Board of Directors

Article 18. Board Chairman

The Chairman of the Board of Directors shall preside over Board meetings.

Article 19. Matters for Deliberation and Decision

In addition to the matters prescribed elsewhere in these Articles, the Board of Directors shall deliberate and decide on the following matters:

1. Policy regarding priority of the grants prescribed in Article 4 above to be provided during the fiscal year;
2. Decisions on grants prescribed in Article 4 above;
3. Other matters of importance related to the management of this Foundation.

Article 20. Convening of Board Meetings

1. The Chairman shall convene meetings of the Board of Directors.
2. The Board of Directors shall convene in ordinary and extraordinary meetings.
3. Ordinary meetings shall be convened twice every year.
4. Extraordinary meetings shall be convened under the following circumstances:
 - (1) Whenever the Chairman deems such a meeting is necessary;
 - (2) Whenever one-third or more of the Board members request a meeting with a specific statement of the purpose for the meeting.
5. When a meeting is to be convened, all Board members shall be notified in writing of the matters for deliberation, and of the time and place of the meeting.

Article 21. Quorum

The Board of Directors cannot convene, deliberate, or make resolutions without half or more of its members duly assembled.

Article 22. Board Decisions

Except as prescribed elsewhere in these Articles, decisions of the Board of Directors shall be made by a majority vote of the Directors in attendance. In case of a tie vote, the Chairman shall make the final decision.

Article 23. Proxy and Other Votes

A Board member who for unavoidable reasons is unable to attend a Board meeting may vote in writing on matters communicated to him in advance, or he may appoint another Board member to vote for him by proxy. For the purpose of determining matters prescribed

under Articles 21 and 22 above, such a member shall be considered to be in attendance.

Article 24. Record of Proceedings

1. A record of the proceedings of meetings of the Board of Directors must be prepared and preserved. This record shall include the following items:
 - (1) Date and place of meeting;
 - (2) Current total number of Board members;
 - (3) Names of Board members in attendance, including those who vote in writing or by proxy;
 - (4) Resolutions adopted;
 - (5) Deliberation proceedings.
2. The Chairman, and two or more other Board members representing the members in attendance, must affix their seals to the record of proceedings.

Section Six: Trustees and the Board of Trustees

Article 25. Trustees

1. This Foundation shall have thirty or fewer Trustees.
2. Trustees shall be nominated by the Board of Directors and appointed by the Chairman of the Board of Directors.
3. Trustees of this Foundation may also be Officers.
4. The provisions of Article 15 (Terms of Office), Article 16 (Dismissal of Officers), and Article 17 (Compensation for Officers) shall also apply to Trustees, wherein the word "Trustees" shall be substituted for the word "Officers."

Article 26. Board of Trustees

1. The Trustees of this Foundation shall comprise its Board of Trustees.
2. The Board of Trustees shall appoint Officers, and shall advise the Chairman of the Board of Directors on matters on which he requests advice.
3. The provisions of Article 18 (Board Chairman), Article 20 (Convening of Board Meetings), Article 21 (Quorum), Article 22 (Board Decisions), Article 23 (Proxy and Other Votes), and Article 24 (Record of Proceedings) shall also apply to the Board of Trustees, wherein the words "Board of Trustees" and "Trustees" shall be substituted for the words "Board of Directors" and "Directors" respectively.

Section Seven: Selection Committees

Article 27. Members of Selection Committees

1. This Foundation shall have a number of persons serve on Selection Committees.
2. Members of Selection Committees shall be leading scholars or professionals nominated by the Board of Directors and appointed by the Board Chairman.
3. Members of Selection Committees may also be Officers.
4. The provisions of Article 15 (Terms of Office), Article 16 (Dismissal of Officers), and Article 17 (Compensation for Officers) shall also apply to the members of Selection Committees, wherein the words "Members of Selection Committees" shall be substituted for the word "Officers."

Article 28. Selection Committees

1. The Members of Selection Committees shall comprise the Selection Committees.
2. The Selection Committees shall select can-

didates for the grants prescribed in Article 4 above, and shall refer their selections to the Board of Directors for final disposition.

3. The Board of Directors shall rule on matters necessary for the operation of the Selection Committees.

Section Eight: Secretariat

Article 29. Secretariat

1. This Foundation shall establish a Secretariat to administer its affairs, staffed by a Secretary-General and other staff members.
2. Staff members of the Secretariat shall be appointed and dismissed by the Chairman of the Board of Directors.
3. The Board of Directors shall rule when necessary on matters related to the Secretariat.

Section Nine: Amendment of Articles of Endowment and Dissolution

Article 30. Amendment of Articles of Endowment

These Articles of Endowment cannot be amended without the consent at a Board Meeting of two-thirds or more of all members of the Board of Directors and the approval of the competent government agency.

Article 31. Dissolution

Except for reasons prescribed in Clause 3 or Clause 4, Paragraph 1, Article 68 of the Japanese Civil Code, this Foundation may not be dissolved without the consent of three-fourths or more of all members of the Board of Directors.

Article 32. Disposition of Residual Assets

With the consent at a Board Meeting of two-thirds or more of all members of the Board of Directors and the approval of the competent government agency, the residual assets of this Foundation at the time of its dissolution shall be donated to organizations with interests similar to those of this Foundation.

Section Ten: Supplementary Provisions

Article 33. Implementation of These Articles

The Board of Directors shall rule on matters necessary in order to implement these Articles of Endowment.

BYLAWS

1. Despite the provisions of Article 10 herein, the first fiscal year of this Foundation shall begin on the day that this Foundation's establishment is approved and end on March 31, 1975.
2. Despite the provisions of Article 13 herein, the Officers of this Foundation shall be those persons listed on attached sheets.
3. Despite the provisions of Article 15 (Clause 1), Article 25 (Clause 3), and Article 27 (Clause 3), herein, the terms of office for Officers, Trustees, and Members of Selection Committees shall extend until June 30, 1976.
4. Despite the provisions of Article 11 herein, the Programs Plan and Proposed Budget of this Foundation for its first fiscal year shall be as described on attached sheets.

Chronological Data

- 1973 *Sept. 10-11*: Boards of Directors of Toyota Motor Co. (Sept. 10) and Toyota Motor Sales Co. (Sept. 11) adopt resolutions to establish foundation *Oct. 12*: Organizing Committee formed
- 1974 *Apr. 22*: submission to Prime Minister's Office of Prospectus, Articles of Endowment, Programs Plan, and Budget Proposal *Aug. 10-20*: ten Directors and two Auditors appointed *Oct. 15*: Prime Minister's Office approves establishment of the Toyota Foundation; Foundation is registered *Oct.-Nov.*: twenty-one Trustees and twenty-one Selection Committee members appointed *Dec. 5*: dissolution of Organizing Committee *Dec. 20*: first meeting of Board of Directors
- 1975 *Mar. 19*: activity program and budget established for fiscal 1975 *Apr. 21*: first acceptance of grant applications *Jun. 30*: final acceptance of grant applications; total: 349 for Human and Natural Environments; 143 for Social Welfare; 186 for Education and Culture *Jul. 1*: Auditor Fumio Nakamura deceased *Oct. 1*: Susumu Nakagawa assumes office as an Auditor; fiscal 1975 grants decided; for Human and Natural Environments, 14 recipients, ¥92,250,000; for Social Welfare, 12 recipients, ¥61,900,000; for Education and Culture, 13 recipients, ¥61,830,000 *Oct. 15*: first grants awarded
- 1976 *Apr. 1*: acceptance of grant applications for fiscal 1976 program *Jun. 25*: final acceptance of grant applications; total: 331 for Human and Natural Environments; 146 for Social Welfare; 150 for Education and Culture *Oct. 4*: fiscal 1976 grants decided: for Human and Natural Environments, 18 recipients, ¥124,050,000; for Social Welfare, 14 recipients, ¥83,000,000; for Education and Culture, 20 recipients, ¥84,500,000; for Fellowship Program for Japanese Social Scientists, ¥25,000,000 *Oct. 15*: fiscal 1976 grants awarded
- 1977 *Mar. 16*: ninth meeting of Board of Directors; fiscal 1976 grants decided: for International Division Grants, 2 recipients, ¥15,183,000; activity program and budget established for fiscal 1977 *Apr. 1*: acceptance of grant applications for fiscal 1977 National Division Grant Program; acceptance of grant applications for fiscal 1977 grants for international conferences convened in Japan *May 31*: final acceptance of grant applications; total: 242 for Human and Natural Environments; 132 for Social Welfare; 136 for Education and Culture; final acceptance of grant applications for grants for international conferences convened in Japan; total: 34 *Jun. 15*: tenth meeting of Board of Directors; fiscal 1977 grants decided: for International Division Grants, 4 recipients, ¥15,380,000; second meeting of Board of Trustees; approval of the appointment of Hidetaro Mori as a member of Board of Directors *Oct. 5*: eleventh meeting of Board of Directors; fiscal 1977 grants decided: for National Division, Human and Natural Environments, 22 recipients, ¥122,620,000; for Social Welfare, 14 recipients, ¥74,510,000; for Education and Culture, 22 recipients, ¥76,820,000; for International Division Grants, 3 recipients, ¥22,080,000; for international conferences convened in Japan, 9 recipients, ¥19,960,000; for Fellowship Program for Japanese Social Scientists, ¥30,000,000 *Oct. 15*: fiscal 1977 grants awarded
- 1978 *Mar. 15*: twelfth meeting of Board of Directors; fiscal 1977 grants decided: for International Division Grants, 5 recipients, ¥22,550,000; for National Division Communications Supplements, 3 recipients, ¥2,250,000; activity program and budget established for fiscal 1978