

The Toyota Foundation
Report for Fiscal 1982

The Toyota Foundation is a private, nonprofit, grant-making organization established by the Toyota Motor Company and the Toyota Motor Sales Company (which merged to form the Toyota Motor Corporation on July 1, 1982) and chartered by the Prime Minister's Office on October 15, 1974.

Annual Japanese and English reports on the Foundation's activities have been prepared and distributed widely since fiscal 1975 from the standpoint of the nonprofit foundation's social duty to make this information public.

This annual report was compiled on the basis of the "Report of Activities for Fiscal 1982" (in Japanese), covering the Foundation's programs during fiscal 1982 (April 1, 1982, to March 31, 1983) and approved at the thirty-first meeting of the Board of Directors, held June 15, 1983.

The information on individual grants is current as of the date the grants were approved. Subsequent adjustments are not reflected; however, changes made in grant budgets are listed separately in this report.

The descriptions of grant projects are not reports of project results but summaries of the project proposals submitted to the Foundation by the grantees and edited by the Foundation staff. The Foundation is responsible for the content of the summaries; however, project results do not necessarily reflect the Foundation's opinions or thinking.

The Japanese edition of this annual report and our quarterly *The Toyota Foundation Report* (also in Japanese) are available on request, as is our English-language *Occasional Report* series.

Report for Fiscal 1982

April 1, 1982, to March 31, 1983

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Tokyo, Japan

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The Executive Director's Report

Three Guidelines for Foundation Activities

I

In his study *The Big Foundations*, Waldemar A. Nielsen offers the following checklist for assessing the developmental stage of a foundation:¹

1. Nucleus of staff
2. Fuller staff development
3. Development of defined programs; sophisticated grant making
4. Significant investment diversification
5. Significant innovative programming
6. High degree of independence of donor family and company
7. High degree of board diversification

Comparing U.S. foundations by checking the number of criteria they satisfy, Nielsen concludes that the Rockefeller and Ford foundations have evolved furthest, followed by Carnegie and Sloan. Japanese foundations as well could no doubt be ranked by employing these easily understood criteria without modification. But while the checklist may be useful as a measure of a foundation's stage of evolution, it does not serve as a standard for foundation activities.

I argued in last year's annual report that the establishment of such a standard would be invaluable, especially for Japanese foundations. In Japan it is not sufficient to prescribe merely that a foundation should serve society, for *society* is a concept that even today is muddled in the Japanese consciousness. Lacking a clear grasp of how society should be served, many Japanese foundations are at a loss as to what guidelines to follow and what

1. Waldemar A. Nielsen, *The Big Foundations*, New York, Columbia University Press, 1972, p. 293. Nielsen uses the seven criteria to compare thirty-three major U.S. foundations as of 1972. His laborious and intriguing analysis of how private grant-making foundations have developed and how they should continue to evolve has received wide critical acclaim in the West. The fact that no Japanese translation is available even now, a decade later, is evidence of how Japan's foundations are behind the times. To help remedy this, the Toyota Foundation will be publishing a Japanese edition of the book in the near future.

priorities to set, giving rise to the danger that programs may assume a very arbitrary character.

Corporate activities are directed toward profit making, a goal that everyone can comprehend. To check the degree of goal attainment, the yardstick of productivity is available. In politics and government the checking function is performed by voters and taxpayers. Here, as well, activities are guided by visible standards, such as elections and spheres of responsibility. But when we come to the activities on behalf of the public interest by nonprofit organizations, we find that the requisite operating standards are fuzzy. Foundations established to carry out a specific undertaking or research project may face little uncertainty, but foundations engaged primarily in grant making exhibit considerable confusion over how activities should be guided.

I have long held that a standard of some sort should be formulated to help eliminate this confusion. To bring such a standard into being, trial and error is the only path available. The best results in the short run can probably be achieved not by aiming from the start at a cross-sectional, generalized standard for all activities but by attempting to develop guidelines for the specific activities of each foundation. Accordingly, I have cast my mind back over the eight years of the Toyota Foundation's existence to see if any common guidelines can be identified, in the process coming up with three conditions that have guided and should continue to guide our grant-making programs. In a word, what we look for can be termed *foresight*, *participatory orientation*, and *internationality*. To bring these rather abstract conditions into focus, I will discuss the implications of each in turn. Needless to say, I do not claim to have the final word, for the trial-and-error process has but begun.

II

Foresight: This is the power to see into the future, but Japanese studies purporting to be in the field of futurology have an unfortunate tendency to be mere projections of things to come. Research on the future tends to deal only with how many years can be expected to elapse before such-and-such happens or how such-and-such will have changed by the twenty-first century. True foresight does not arise from a slavish devotion to forecasts. It requires free conception unburdened by restraints and proceeds by means of an open-minded, ingenuous, and scrupulous inquiry into immediate realities and past patterns, with the objective of finding therein important clues on the future that have been overlooked to date.² Even a research project on documents or materials left behind by our ancestors may yield results with foresight, despite the study's apparent lack of a futuristic ori-

2. Research on the environment, for example, demands a high degree of foresight. The Toyota Foundation's application brochure for the Research Contest on the Theme "Observing the Community Environment," which is one of our regular programs, contains the following passage: "Changes are constantly occurring all around us. Some are manifestations of the cyclic periods of nature; others are the outcome of human activities. Among these changes are many that have gone unnoticed in the course of daily life. By closely observing these changes from the scientific perspective, sometimes we may detect the first small signs of a major transformation about to commence." Foresight requires an examination of our immediate surroundings today for clues on how to build a better environment tomorrow. The community environment should be a laboratory for refining foresight.

entation. Within the wisdom of ancient sages we can hope to come across extremely useful although long forgotten suggestions for the future. The inflexible premise that history and archaeology have no bearing on futur-ology must be rejected.

Excessive reliance on established authorities and disciplines can also be harmful to foresight.³ On the one hand, established authorities are apt to fall into conservative ways; on the other, established disciplines do not keep pace with advances in learning and changes in society, and in any event it is these advances and changes that should be seen as defining each discipline. If we place too much faith in a discipline in its present form, we may end up with an erroneous understanding of a subject and without perceiving some of its key facets. To be sure, intentional disregard or vain rejection of any existing authority or discipline can also be risky. This is why one's approach must be open-minded, ingenuous, and scrupulous. My point, in short, is that to make the most of foresight, one must avoid both deliberate defiance of and excessive faith in the prevailing configuration of authority and scholarship.

It is a short step from this observation to awareness of the continual need to give priority to individuals over organizations.⁴ The overwhelming inclination in Japan is to place reliance on established organizations, for risks are thereby reduced, but I believe that this robs society of its youth

3. Our system of selecting recipients for research grants employs public soliciting of applications followed by screening by our selection committees. Academic societies and similar institutions play no part. Some applicants append endorsements from scholarly organizations to which they belong, but these endorsements do not influence our selection process. And we never entrust the screening to an outside institution. Selection committee members, including the committee heads, serve a term of two years, and half the membership is replaced each term, this arrangement preventing members from becoming permanent. Research grants are made in three regular fields—the human and natural environments, social welfare, and education and culture—and also in special subjects that we designate whenever a need arises. The special subjects are selected with a view to encouraging interdisciplinary research. Beginning with our fiscal 1982 program, moreover, we created a new classification in each field called Category I research, which is intended to aid young researchers conducting individual studies. Provided that the research proposal has sufficient promise for the future, it will be supported even if the researcher has yet to reach maturity or lacks experience in some respects. Last but not least, we have opened our doors wide to grant applications from foreign researchers.

4. Again, mention might be made of the Category I research within each of our research grant fields. We set up this category as an incentive to promising young researchers who have not yet reached their full stature. This point aside, attention should be focused on the vital role of the program staff. For a foundation to function as it should, it must secure a competent team of program officers and supporting staff members. The first job of the staff is program development, the key here being the scouting of talent. The search must extend to individuals with exceptional abilities who have not yet made a name for themselves or gained social recognition.

Staff members ideally should have three attributes. First, they need a clear understanding of the goals the foundation has set. Second, they should also have a spirit of inquiry and an unbridled curiosity. Third, they should not be too excitable, for calm reasoning is needed at all times. Personnel prone to overexcitement, though they are fully qualified in other respects, may have difficulty maintaining their composure. Caught up in enthusiasm, they are apt to see white as black and to act in a biased way. Program development will suffer as a result. A person whose eyes are not dazzled even in the presence of glittering personalities and whose sense of direction is not lost even in a whirlpool of activity will always be able to make calm and detached observations and decisions. In a complex and confusing situation, that person will be capable of correctly identifying the underlying currents. Other people, meanwhile, will see such a staff member as an entirely reliable individual in whom complete confidence can be placed. Ever since its creation, the Toyota Foundation has been striving to foster a competent program staff. Since people with experience in this vocation are few and far between in Japan, we have had to educate ourselves on the needed attributes through on-the-job training. We hope to complete this education process as quickly as possible, but we still have some way to go.

and poses a grave threat to foresightedness. Despite the risks always attendant, we must seek out and support fresh talent—even if incomplete—that has ample promise of development.

Failure must be neither feared nor repeated. This, in my opinion, should be the watchword of the private foundation engaged in grant making.

III

Participatory orientation: Our grant programs naturally must be open to all people. This is not to say that we should take egalitarianism to a ridiculous extreme by trying to treat each and every person uniformly. In Japan as elsewhere, today's governmental programs fall easily into this trap. Since the government is seen as providing services for taxpayers, perhaps it cannot eliminate the tendency for administrative services to be provided to all citizens on a uniform basis. But the result is often an abuse of egalitarianism, for uniform treatment is not always equal treatment. A society that misunderstands this point will eventually lose its vitality and grow old and rigid.

For a foundation, a policy of trying to provide financial assistance for everybody is a fundamentally mistaken course from the beginning. It is also impracticable, for unlike governments, even large foundations are far too small to finance projects in every field. Foundations must instead establish priorities and channel their efforts accordingly. But their doors must be thrown open wide to all people under all circumstances. No contradiction arises between one policy of setting priorities and another of soliciting applications from anybody. No abuse of egalitarianism is inherent here, for financial support is not provided to everybody uniformly. Grants are made only in priority fields, but everybody is eligible to become a recipient.⁵ Whatever the circumstances, certain specialists must not be given all the opportunities, and special privileges or rights must not be awarded to anybody. In short, avoidance of inflexibility in all forms must be a guiding principle of the private foundation. This principle must inform the policy of a participatory orientation.

One kind of inflexibility is rigidity of thought. Consider the trends of thinking on the fostering of wholesome young people. In the course of the social activities of the government and nonprofit organizations, the question of sound character building is constantly being raised.⁶ This attention is

5. Though the environment is one of the regular fields for research grants, we initiated as a parallel program the aforementioned Research Contest on the Theme "Observing the Community Environment" partly because of a desire to stimulate environmental studies with even wider participation by ordinary citizens. Our expectation is stated as follows in the application brochure: "Research activities concerned with a community's living conditions and necessitating intensive observation over the long term are best not left entirely to specialists. Preferably, active participation should be sought among residents who know the community well. This would be of significance not only to research but also to environmental education and practical environmental training." The goal is not the passive one of token participation by community members. We hope instead that by means of wide and active involvement, discoveries that specialized researchers have failed to notice will be forthcoming.

6. The Toyota Foundation as well is active in this area, for as stipulated in Article 4 of the Articles of Endowment, the "whole-person education of youth" is one of the fields for grants.

fine as far as it goes, but deficiencies in the shape of the debate can be noted. For example, around the time of Coming-of-Age Day on January 15, both governmental and nongovernmental organizations sponsor various essay contests, speech contests, and so forth, the objective being to instill in young people a sense of what is expected of them. The image of the ideal youth that is extolled, however, is invariably a resurrection of the studious, self-sacrificing, and well-mannered honor-roll student of days long past. I have nothing against the old-fashioned model of the honor-roll student, but during the transformation of the social and economic environments since World War II, the values molding young people have also been undergoing a radical restructuring. Are youths who conform to the model of the former honor-roll student still the best students today? If not, what kind of person is the modern honor-roll student? Without bothering to conduct any empirical studies on such questions, people have taken it into their heads that the superior student of the present must be the mirror image of the superior student of the past. This rigidity of thought is most disturbing.

If we stop to think, we can discern many other examples of rigid thinking in the world around us. Our first duty is to try to rid our own thought processes of fixed and inappropriate ideas. Because of our policy of offering everybody a chance to participate in our programs, it is only to be expected that quite a few of the many people who approach us exhibit thinking that has ossified in one area or another. Ours is a society in which a multitude of values coexist. Although this diversity, which is so great that virtually any group of ten individuals will have ten different value systems, may be inescapable, we should try to avoid encouraging the many people who rigidly assume that their own particular value system is absolute. Given this situation, if we go overboard in seeking wide participation and open our doors indiscriminately, our programs will soon lose their effectiveness. We must formulate an explicit set of goals consistent with our own value system, and beyond that, we must be as flexible and adaptable as possible in striving to achieve our goals through our participatory orientation.⁷

7. As a concrete example of our aim of participatory involvement in grant programs, mention might be made of the Traveling Symposium on the Theme "Cities and Architecture: Western-Style Architecture in Japan During the Meiji, Taisho, and Early Showa Eras (1868-1941)." This series of symposiums held during 1980 in cities throughout Japan took as its point of departure an earlier survey on extant Western-style architecture, led by Professor Teijiro Muramatsu of the University of Tokyo and partly funded by the Toyota Foundation. The objective was to elucidate ways of both preserving and making continued use of Western-style buildings erected in Japan between the Meiji Restoration of 1868 and World War II.

So far, a great amount of effort has gone into so-called static preservation, in which relics of past ages are simply conserved and put on display. An example is the Meiji Village Museum, an outdoor exhibit featuring representative structures of the Meiji and Taisho eras. Since the mode of life changes from era to era, contemporary urban communities face increasing difficulty in making use of old structures, and eventually most of them are torn down or replaced. This obliteration of the past, however, is objectionable to many people. Throughout Japan community movements have sprung up in defense of local buildings, and serious rethinking of city life and urban architecture has been much in evidence.

It seemed to us that in place of static preservation to safeguard old structures, possibilities were inherent in a formula of dynamic preservation, that is, preservation in the course of continued use. The traveling symposium was put in motion to explore this path. Another consideration was that whereas instances of static preservation, which has spread deep roots in Japan, were already numerous, attempts at dynamic preservation were still at a rudimentary stage. Structures deserving of conservation, meanwhile, had been identified in many cities by the project team under Professor Muramatsu. The traveling symposium, accordingly, was able to involve numerous community

IV

Internationality: In contemporary Japan perhaps no word is more grievously misunderstood and widely misused than *internationalization*. Even people supposedly representing Japan's internationalist camp quite easily and in all seriousness make shallow statements to the effect that to internationalize Japan, mastery of the English language is essential. Internationalization is not such a simple affair. At one time opinion had it that liberalization was merely a matter of lowering tariffs, but then complaints about nontariff barriers—the hidden walls within Japan—began to be heard. Opinion also held that the eagerness with which people in foreign countries purchased Japanese products was proof that Japanese exports would always be welcomed, but then serious trade disputes erupted. Such developments demonstrate that Japan cannot be internationalized by clever tricks.

If we adopt an international perspective, we can spot many contradictions and irrationalities within Japan. The government, for example, while on the one hand allocating an increasing volume of budget funds to programs designed to enhance international understanding, is on the other hand maintaining a tax system that rewards abstention from international activities.⁸ This is a patent contradiction. A less obvious inconsistency can

groups struggling to find ways to both preserve and make continuing use of venerable architecture. Assisted by this wide participation, symposiums were held in eleven major Japanese cities over a one-year period. (From north to south, the cities were Hakodate, Morioka, Kanazawa, Tokyo, Nagoya, Kyoto, Osaka, Kobe, Kurashiki, Takamatsu, and Fukuoka.) The project served as one attempt to put a participatory orientation into practice in our activities.

8. For a country of Japan's economic might, the development of domestic foundation activities is far from adequate, but an even more critical deficiency is the extremely small number of foundations implementing international programs. One reason is that international activities are not encouraged by the existing tax system. The chief obstacle is the Corporation Tax Law. Article 37, Section 3, of this law specifies that donors are entitled to an exemption from taxation for "donations to experimental research corporations," but the definition of what a foundation must do to be certified as an experimental research corporation is very restrictive. In the international field, Article 77 of the law's enforcement ordinance limits the foundations to "corporations whose main function is economic cooperation (including technological cooperation) with overseas regions in the process of development and which, in the execution of their economic cooperation, have received a state subsidy within the last two-year period, measured from the day after the receipt of the subsidy, or which, in connection with a state grant, are engaged in the administration or operation of public facilities within the region in question." The reasoning is that since the foundations receiving tax benefits are Japanese, they should be putting Japan's national interests first even if they are operating in the field of international grants. Accordingly, donations are exempted from taxes only if they fund projects already supported by the Japanese government through subsidies or grants.

This qualification appears reasonable as long as Japan's interests are considered first, but it is not reasonable from the viewpoint of promoting internationalization, particularly that involving developing countries. From the third world's perspective this taxation practice may seem to run counter to internationalization. Japan may be seen as a country that talks grandly about its promotion of internationalization but acts in a self-serving way. Some people may even harbor the suspicion that internationalization as Japan practices it is deceitful. To be sure, no country in the world fails to put its own interests first, and little can be done about the self-serving tendencies of government activities in the first sector. But the third-sector activities of foundations should not be placed under the same restraint. This will not serve, and may even actively harm, the country's true interests.

(In the March 31, 1983, revision of the Corporation Tax Law's enforcement ordinance, the subsidy condition was eliminated from Article 77. The foregoing therefore applies to circumstances prior to the revision. The revision, which will already be in effect when this report is issued, may have been late in coming, but it is a welcome development. It is also hoped that the "economic cooperation" mentioned in the article will be given a broad definition that includes cooperation in cultural fields.)

be found in the realm of international cultural exchange: compared with the efforts being made to introduce Japanese culture to developing countries, the reciprocal efforts to introduce the cultures of these countries to Japan are insubstantial.

Recently the government has finally begun to recognize the crucial role that nongovernmental organizations can play in the international arena. At this late date the government seems to have noticed the great effectiveness of the programs run by nongovernmental organizations in countries of the industrially advanced West. These activities are, in a word, the work of the third sector. Compared with the government's first-sector activities, the international involvement of the third sector can be far more flexible, adaptable, and finely tuned. Yet despite the theoretical rationality of this proposition and the abundant corroborating evidence provided by the activities of Western organizations, Japan's third sector is lagging far behind. Herein lies the best proof of Japan's slowness in internationalizing. The consequent damage to Japan's reputation has been considerable.

In order to augment the internationality of our own programs, we determined to take the following steps:

1. To clarify the kinds of activities that are appropriate for a private grant-making foundation with a goal of internationalization.
2. To identify those points in Japan's tax system, laws, customs, and other areas that obstruct or discourage these activities.
3. To implement an action program designed to overcome the obstacles and guide grant making in proper directions.

When we consider that the third sector by nature should be leading the first-sector activities of the government and the second-sector operations of the business world, we can appreciate more sharply the predicament of Japan's third sector. Its efforts to internationalize are being hampered in many respects by tax arrangements, legislative provisions, and the obeisance to the government still rooted firmly in the people's consciousness. If we wish to overcome all the obstacles to international grant making in a true third-sector spirit, our first need is for considerable resolve and determination. Instead of balking in the face of existing tax disadvantages and legal constraints, we should forget about benefits that are not presently available and get on with the business of improving our programs.⁹

Our second need is for a rethinking of what internationalization is about, beginning with the essentials. We should make international programs an integral pillar of our operations, and we should incorporate elements of internationality in our other programs as well. We should also strive to rid all our activities of even the slightest contradictions and irra-

9. As explained in the preceding footnote, the tax system permits donors supporting an experimental research corporation to exempt their donations from taxation, but there is a further requirement that the corporation concentrate its grants in the natural sciences. No exemption is permitted to an entity that, like the Toyota Foundation, makes grants in such wide-ranging fields as the humanities and social sciences. This imposes a heavy burden on donors. Under the circumstances, why did we decide to make grants in various fields instead of in the limited spheres that would entitle our endower to receive the tax exemption privilege? This is because we are convinced that Japanese foundations from now on must respond to the diversified needs of society regardless of the field involved. Thanks to our endower's complete understanding on this point, we were able to initiate the programs we desired.

tionalities from the international perspective. Inconsistencies of the type mentioned above, in which international efforts on some fronts are being frustrated by factors on other fronts, must be rooted out.

With these considerations in mind, we have decided to pursue internationalization not only through our international grant program but also through our research grant program, which in the beginning was devoted almost entirely to domestic research.¹⁰ We believe that even during the process of selecting grant recipients, we must act in accordance with principles consistent with internationalization.¹¹ Our international endeavors at present can be said to have two forms, one intensive and the other extensive. Our international grants are concentrated in the developing countries of Southeast Asia and support the advancement of indigenous culture; our research grants are spread across various fields of learning and are offered to researchers of any nationality. Or perhaps I should say that the former program is narrow and deep while the latter program is broad and shallow.

V

Do foresight, participatory orientation, and internationality constitute a sufficient standard for the grant programs of private foundations? Should other guidelines be added? Was my discussion of the three guidelines adequate and reasonable? Much debate on such questions can be anticipated. Here I have summed up the thoughts we have had based on our experience

10. From the beginning, the application brochure for our research grant program has expressed our welcome of proposals for joint international research, but in fiscal 1982 we broadened this welcome as follows: "The researchers (chief researcher and associates) need meet no requirements in terms of nationality, place of residence, or affiliation." This means that in addition to joint international research, we are prepared to finance Japan-related projects by foreign researchers whether they are living abroad or in Japan, and in fact we are already funding a number of such projects. We do require that the application form be filled out in Japanese, but this is merely for our own convenience and does not imply that we give priority to so-called Japanologists. For grantees, we assist the publicizing of research results at international conferences and symposiums under a communications-supplement grant program, which covers travel and accommodation expenses for researchers going abroad to present papers.

11. Consider the aid we have been providing over the past three years for dictionary compilation. Our grants in this area are not indiscriminate but reflect the following principles.

First, most existing bilingual dictionaries of Western languages and Japanese have served as a vehicle for the reception in Japan of Western civilization and culture, but there is a growing need for dictionaries serving as a vehicle of transmission from Japan, dictionaries that help foreigners understand the Japanese people and culture. Grants have been extended to several dictionary projects from this perspective. Examples include Jack Halpern's work on a direct-reading Japanese-English character dictionary and Kenosuke Ezawa's preliminary study on a Japanese-German dictionary.

Second, compared with Western language-Japanese dictionaries, the number of dictionaries concerned with the languages spoken among Japan's Asian neighbors is inadequate. Though Chinese-Japanese dictionaries have been an exception, even here the existing works have not kept up with the many changes in modern Chinese. We have been assisting the compilation of dictionaries dealing with Southeast Asian languages through the "Know Our Neighbors" Translation-Publication Program, which has been an integral part of our international grant program ever since its inception in fiscal 1978. So far two projects have been funded, Kunie Kawamoto's Vietnamese-Japanese dictionary and Takejiro Tomita's Thai-Japanese dictionary. Our main objective is to provide dictionaries translating Southeast Asian languages into Japanese, thereby enabling Japanese to read Southeast Asian periodicals, books, and other materials. Thus while the Western-language dictionaries mentioned above are hoped to facilitate transmission from Japan, the Southeast Asian dictionaries are expected to improve reception in Japan. This difference reflects our belief that Japan's first priority in Southeast Asia is to learn more about the people.

in grant making. I offer these thoughts to you in the hope that they will help stimulate a vigorous and wide-ranging exchange of views.

With bells of caution ringing within me,
I seek after my dreams.
(a poem by Bokusui Wakayama)

Yujiro Hayashi
Executive Director

Research Grant Division Program Officer's Report

The Goal of Grants for Individual-Incentive Research

Why Establish Research Categories?

Beginning in fiscal 1982, three categories of research were established under the Toyota Foundation's Research Grant Program. If the three established fields—the human and natural environments, social welfare, and education and culture—are considered the vertical columns of a matrix, the three research categories constitute the horizontal rows. The application regulations set forth these three categories as follows.

Category I (Individual-incentive research): Designed to encourage individual research undertaken mainly by young researchers in their twenties and early thirties on their own initiative.

Category II (Trial and preliminary research): Aimed at developing new research topics, studies in this category inquire into whether it is meaningful to conduct research on a particular topic, search out and test research methods and practical procedures, and lay the groundwork for establishing a framework for the long-term development of a research topic.

Category III (Research to further the development of Category II research): Category II research that, having been subjected to thorough scrutiny with respect to objectives, methods, and systems, is deemed to be highly significant as a full-scale research activity spread over several years. Research implemented without Toyota Foundation aid is also eligible for Category III grants as long as it is of a comparable level.

Categories II and III correspond to the former categories of preliminary research and full-scale research, respectively. A number of minor changes have been made. The limit of ¥1.5 million in grant money that had been applied to preliminary research projects has been raised to ¥2.0 million for Category II research, while the grant period of one year that applied to each

full-scale research grant has been extended to a single grant for a period of two years for Category III research. Nevertheless, no outstanding innovations have been introduced in these two areas; the changes that have been made are more along the line of raising previous limits. The most important change arising from the establishment of the new research categories has been the introduction of Category I research, which establishes a new framework for providing incentives in the form of grants for research conducted by young individuals.

The Characteristics of Category I Research (Individual-Incentive Research)

What, then, are the chief characteristics of individual-incentive research? As the term suggests, the research is individual and it is self-motivated. The research is individual in that the researcher can give full rein to his or her ingenuity and opinions without being swayed by anything. In extreme terms, it could be described as "lone wolf" research.

Much of the research that has a certain amount of social impact is joint research, and to date, joint research projects have been the main recipients of Toyota Foundation grants. It appears very likely that one of the main problems facing research activities from now on will be how to organize and manage joint research. However, individual research conducted on the basis of personal qualifications and responsibility is also of great significance. Surely the accumulation of experience of this type will make it possible to carry out joint research that is creative in the true sense of the word.

The research is also "incentive" research in that rather than taking as its objectives results per se, it places more emphasis on contributing to the researcher's professional growth and development. Consequently, people whose work has already been recognized or who have an established reputation or position in the academic world or in society in general are not eli-

	All Fields	Human and Natural Environments	Social Welfare	Education and Culture	Special-Subject Research
Total					
No. of applications	744	281	183	269	11
No. approved	94	32	24	31	7
Percentage approved	(12.6%)	(11.4%)	(13.1%)	(11.5%)	(63.6%)
Category I					
No. of applications	182	68	43	71	—
No. approved	20	5	5	9	1
Percentage approved	(11.0%)	(7.4%)	(11.6%)	(12.7%)	(—)
Category II					
No. of applications	323	114	85	124	—
No. approved	35	12	12	11	—
Percentage approved	(10.8%)	(10.5%)	(14.1%)	(8.9%)	(—)
Category III					
No. of applications	239	99	55	74	11
No. approved	39	15	7	11	6
Percentage approved	(16.3%)	(15.2%)	(12.7%)	(14.9%)	(54.6%)

gible for this type of grant. The principal targets are those researchers who are still an unknown quantity, who are in the process of growing but have not reached the stage where their potential has begun to blossom. That is why the grantees tend to be younger people, although if the idea of "incentives" is to have any significance, there is really no need to be restricted by age.

I have always believed that it is particularly important for research grants from private foundations to possess an element of encouragement. For this reason, considerable thought was given to this aspect in awarding research grants in the past. The question of what type of researcher will be nurtured if a certain research project is given assistance has always been one of the criteria on which grant awards have been based. As a result, I believe we have used our grants in a positive manner to give a large number of young researchers the opportunity to participate in joint research and develop their research abilities. Receiving a grant to conduct research in one's own name is of course different from being a member of a research team. True, in the past some individuals were given incentive-type aid under the category of preliminary research, but this I believe was inadequate, if only because the Foundation was not positive enough in its approach. The establishment of the new Category I represents a major improvement in this situation.

To reinforce this individual-incentive aspect further, for the first time this fiscal year researchers can be awarded up to ¥600,000 per annum for their own remuneration. This represents an attempt to enable people who do not have a secure source of income, such as graduate students, research students, and part-time instructors, to devote more time, no matter how little, to their research activities. Naturally, this provision also applies to researchers in the other two categories. I realize that ¥600,000 is nowhere near being adequate to cover a year's living expenses, but since research grants are not fellowships, I hope the grantees will be content with what we offer.*

The Difficulty of Selecting Recipients for Individual-Incentive Research

The selection method used in the case of Category I, in which evaluations are centered on the researcher's personal qualities, should differ fundamentally from that used in Categories II and III, which emphasize the content of the proposed research projects. But this fiscal year, as usual, the realities of the situation dictated that the selection committee for each field screen and select applicants in all three categories.

After reviewing the results of past years, we determined five selection criteria for this year: (1) originality of concept, (2) a future vision for society, (3) the importance of the grant to the researcher, (4) whether the research was suitable for a grant from a private foundation, and (5) the practicality of the research plan. For Category I applicants, special empha-

*Apparently, in the United States and other countries it is common for grant amounts to cover a researcher's total personnel costs. This is mainly because the employment system in universities and research laboratories there differs from the system practiced in Japan. In Japan, Ministry of Education grants-in-aid for scientific research and most private foundation grants do not cover researchers' living expenses.

sis was placed on criteria 1 and 3. In other words, if the research plan was based on an original concept and the provision of a grant was, at the stage in question, of vital importance to the researcher, then criteria 2, 4, and 5 were not applied so rigorously. Also, the secretariat requested that the selection committees approve any applications in Category I that showed uniqueness of concept, even if they were weak in regard to the other criteria, and to award more grants in this category than in the other categories.

However, as it happened, applications for Category I research were not given special treatment. The number of applications, the number of applicants awarded grants, and the selection rate are shown in the accompanying table. In fields of the human and natural environments and social welfare, the percentage of applications approved under Category I was lower than that under either of the other two categories. In fact, a fierce debate took place over Category I research projects in these two fields, and many of those projects that were awarded grants are fraught with difficulties. The general impression was that it is extremely hard to succeed in undertaking research that seeks solutions to society's problems and at the same time give full rein to youthful creativity. It was also felt that there were certain problems inherent in giving the same committees the task of screening applicants in all three categories. Further thought should be given to this matter.

New Types of Researchers

Toyota Foundation Executive Director Yujiro Hayashi opened this year's annual report by stating that there are three yardsticks by which Foundation activities can be measured—foresight, participatory orientation, and internationality. The twenty research projects chosen under Category I reflect these three qualities to a considerable extent. The researchers come from extremely varied backgrounds—seven are university and junior college lecturers and assistant professors, six are graduate and research students, and the remaining seven are researchers from public and private research laboratories, high school teachers, municipal and organizational employees, and homemakers. Two of the graduate and research students are Japanese living abroad, and three are foreign residents of Japan. However, more time is required before we can draw any conclusions as to the success of this year's attempt—the first of its kind—in achieving the goals set for individual-incentive research.

The basic objectives of individual-incentive research are to allow young researchers to conduct research in a manner that lets them give full and free play to their individuality without being slaves to conventional systems and ideas, to breathe fresh air into the existing world of academia, and to foster a strong new generation of researchers that can take over the responsibilities of research in the coming era. In order to achieve these objectives, it is vital that those who provide grants continue to search for new types of researchers.

Yoshinori Yamaoka
Program Officer, Research Grant Division

International Division Program Officer's Report

In Search of a New Identity

Coping with the Identity Crisis

The Toyota Foundation's International Grant Program provides grants to projects carried out in Southeast Asian countries by indigenous researchers. At present, the program favors (1) projects aimed at preserving and encouraging the indigenous culture of the area concerned and (2) those aimed at nurturing healthy and self-reliant young people. These two fields of activity are interrelated, for they stem from the same root: the struggle to cope with the identity crisis triggered by modernization and the tendency to regard economic growth as the highest goal. The struggle entails developing a sense of self and regaining confidence in one's own culture, reassessing it in order to create a culture resilient enough to respond to change appropriately, and expanding opportunities for improving the quality of life and achieving self-realization.

As a result of modernization, the custom of using cash to buy whatever one needs has spread to villages throughout Southeast Asia, causing materialistic desire to dominate even farming families. In addition, the number of people leaving their villages for cities has risen because of the increasing gap between city and village incomes, thus destroying family relationships and accelerating the disintegration of the indigenous culture. In the cities, too, widening income differentials, the abundance of consumer goods, the loss of indigenous culture, and changes in human relations have all become increasingly noticeable.

In various parts of Southeast Asia quiet efforts are under way, though on a small scale, to reestablish identities that are in danger of extinction and to become self-reliant while coping with change. Although these efforts have not yet become obvious, they are definitely taking root. The Toyota Foundation has actively cooperated with such efforts for the past several years.

An identity crisis has also emerged in Japan. On top of modernization,

Japan experienced high economic growth and rapid urbanization, which resulted in the formation of a highly concentrated society where people are organized and controlled according to the principles of industrial society. Human relationships in the family and community have changed radically, and the dominant value in life has become success within the organization. Children are affected most, as seen in the fact that the fierce competition for admission to desirable schools begins in kindergarten. Other phenomena include the tendency to belittle the value and weight of life, ignorance of nature's riches and dangers, and the taking of material abundance for granted.

It is true that even in these bleak circumstances, in various parts of Japan efforts are being made to restore a sense of human identity. For example, the Japanese people's artistic sensitivity is being reexamined through experiments in theater, dance, music, and film. And in many communities groups are trying to emphasize the human touch rather than mere convenience. It should also be noted that young people in Japanese society, which normally places little emphasis on religion, are showing a growing interest in religion. These trends are actually efforts to regain the identity Japan lost during its high-growth period.

The point to be made here is that it is not only Southeast Asia that is facing an identity crisis. It can even be argued that the efforts of people in various Southeast Asian countries to establish their own identities on the basis of their indigenous cultures may provide important lessons for Japan and other countries making similar efforts.

Some Examples

Let us now examine in detail some of the projects in Southeast Asia that have received Foundation grants over the past several years. Most projects for the preservation and encouragement of indigenous cultures have been carried out in Thailand, although there have been a few in Malaysia, Indonesia, and Nepal. Grants have been awarded in such fields as paleography, dictionary compilation, folklore, archaeology, architecture, and fine arts.

In Thailand, for example, projects in the field of paleography entail borrowing ancient records written on palm leaves or handmade paper from Buddhist temples and individual owners. These documents might well be lost forever if they were not studied and recorded by experts, with the most important documents being preserved permanently on microfilm. Research on ancient documents encourages the study of history. Efforts are also being made to promote research into ancient documents at the local level, thus developing an awareness of their importance in local communities. It is hoped that the techniques for handling similar ancient documents will be transmitted to other Asian countries and that microfilm records of Thai documents will provide researchers not only in Thailand but around the world with basic information essential to the study of Thai history and culture.

Language projects entail recording local languages, which are important manifestations of indigenous culture, and promptly compiling dictionaries comparing these local languages with the standard language. It is hoped that local people themselves will compile these dictionaries, basic tools in-

dispensable to the understanding of ancient documents, oral literature, and other elements of indigenous cultures.

Folklore projects entail compiling encyclopedias of the various aspects of indigenous culture before they are lost, at the same time compiling film records where appropriate. It is hoped that these efforts will stimulate a reassessment of indigenous culture, thus heightening awareness of its importance. Here too, local people themselves should contribute to the compilation of these important basic sources.

Archaeological projects involve such activities as identifying the sites of ancient moated settlements by means of aerial photography and clarifying the distribution and significance of sacred stone ruins. It is hoped that these projects will help contribute to elucidating hitherto unclear aspects of local history, at the same time stimulating local interest in archaeological studies and leading to the training of local people to carry them out. It is our belief that local history should be written by local people. Moreover, collecting basic data on the nationwide distribution of ancient settlements will exert a significant influence on efforts to develop among local people an awareness of their indigenous culture and the desire to protect their environment and preserve their cultural assets. Since the method of aerial photography can be applied to any country, cooperative projects are also possible.

Architectural projects entail developing a history of traditional architecture as well as surveying and compiling records of traditional houses. These projects should help train local researchers in this field and also develop local people's awareness of their own culture. Such projects will of course provide important basic information on indigenous culture.

Projects involving the fine arts entail studying, copying, photographing, and analyzing murals in Buddhist temples. It is hoped that these projects will not only further the study of art history but also allow a better grasp of the changes in everyday life from one period to another. Since detailed copies and photographic records will be made, even if a mural should be lost, it can easily be reproduced. Moreover, since temples are so closely linked to the lives of local people, projects involving the fine arts can be expected to contribute greatly to increasing local people's awareness of their own culture. In addition, it should be possible to carry out joint research comparing temple murals in Thailand with those in neighboring countries. There is also a project to study preservation methods from an interdisciplinary standpoint, including art history, architecture, chemistry, engineering, and biology. The goal of this project is to provide a model method for the preservation of murals.

Let us now examine projects that aim to develop healthy, self-reliant youth. One such project, based on the premise that television everywhere has a tremendous influence on children, especially on school and preschool children, has as its object the creation of new television programs aimed principally at children in metropolitan areas and provincial centers. These programs emphasize the importance of coping with modernization without losing one's humanity. They try to instill in their young audiences an awareness of their indigenous culture and a realization that neighboring countries also have rich cultures.

Numerous other projects aim to achieve similar goals, such as a project

to publish a magazine for young people and another to study and analyze reading habits so as to instill the habit of reading in local children. In still another project, preschool children are assembled in a temple and taught by the Montessori method, using materials obtained in the community. This project, which is carried out by the villagers themselves, aims eventually to create a system whereby the villagers will be able to procure the necessary funds themselves. There is also a project involving research into theatrical activities that aim not only to entertain children but also to deepen their self-awareness.

The Basis of a New Identity

Preserving, nurturing, and reassessing indigenous culture does not mean reverting to premodern ways, much less to feudalism. There are many regions where, notwithstanding the drastic social changes under way, feudalism persists, coexisting with the emphasis on economic growth.

Thoughtful people in Southeast Asia are trying to devise ways of coping with these circumstances that will take the future into account. In laying the groundwork for building a society with a modern-day identity where there was none before, they are now reassessing indigenous culture. While this task requires the vigorous participation of local people, it leads not to narrow localism or nationalism but to a global outlook that encourages the further growth of identity through mutual recognition. Herein lies the basis for the birth of a new identity.

Kazuo Iwamoto
Program Officer, International Division

Research Grant Program

This fiscal year we again awarded grants in the three established fields—human and natural environments, social welfare, and education and culture—and in one special-subject area, “changes in local communities.” Applications for the human and natural environment field were screened by a nine-member selection committee chaired by Ken’ichi Inada, those for social welfare by a six-member committee chaired by Hiroshi Motoaki, and those for education and culture by a six-member committee chaired by Shosaburo Kimura. Grant recipients for the special-subject area were decided by the above-mentioned committee heads based on the assessments of their committees. This year, applications for new special-subject research projects were not accepted, and grants were awarded only to projects that were continuations from last year. In all fields, emphasis was placed on research that will contribute to the solution of the various problems confronting contemporary society and is in keeping with the needs of the times.

In fiscal 1982 three new research categories were established: Category I for individual-incentive research, Category II for experimental and preliminary research, and Category III for the implementation of research begun under Category II. The conditions under which grants in these categories are awarded are outlined in the table on page 23. On pages 14–17 we explain our intention in establishing the new research categories.

Applications were publicly solicited during April and May, as usual, and a total of 744 applications were received. Screening by the selection committees took place from the end of June through September. At the twenty-ninth Board of Directors meeting held on September 29, it was decided to award ninety-four grants.

This year’s grants can be characterized as follows:

1. In the field of the human and natural environments, 281 applications were received, and grants were awarded to thirty-two projects. Five of these projects were classified under Category I, twelve under Category II, and fifteen (six of which were continuations from last year) under Category III. Although the majority of the grants were in the natural sciences, it was significant that most projects were conducted from the viewpoint of the social sciences and not that of pure science. In terms of content and method, thirteen of the projects in this field dealt with biology and medicine, eight with physics and chemistry, and eleven with society and planning.

2. In the field of social welfare, 183 applications were received, and grants were awarded to twenty-four projects. Five projects fell under Category I, twelve under Category II, and seven (all of which were continuations from last year) under Category III. Nine research projects were in the area of medicine and physiology, nine in welfare and psychology, and six in engineering and other areas.

3. In the field of education and culture, 269 applications were received, and grants were awarded to thirty-one projects. Nine were Category I projects, eleven (two of which were continuations from last year) were Category II projects, and eleven (seven of which were continuations from last year) were Category III projects. Seven projects involved joint international research, and four grants were awarded to non-Japanese researchers. Five projects dealt with education, fifteen with anthropology and cultural history, and eleven with linguistics and other fields.

4. In this year's special-subject research program, only applications for the continuation of ongoing projects were accepted. Of the eleven applications received, seven were awarded grants—one under Category I and the rest under Category III.

5. For fiscal 1982 the number of research grant recipients totaled ninety-four, while the total grant amount reached slightly over ¥280 million, with the amount per grant averaging ¥2.98 million. The addition this year of a category for individual-incentive research resulted in a slightly lower average grant amount.

6. Starting this fiscal year, projects in Category III may receive two-year grants. This year, seventeen projects were awarded two-year grants. It is hoped the new system will encourage large-scale research projects conducted over the long term.

Two symposiums on grant-supported research were held during fiscal 1982. The first ran for three days, enabling the presentation of several reports on projects other than those supported by the Foundation.

Heavy Metals in the Environment and Their Ecological Effects: Monitoring of the Environment Using Living Organisms, Marine Life and Heavy-Metal Pollution in the Shiranui-kai Area, and the Ecological Effects of Heavy Metals Now and in the Future (June 19–21, 1982, Tokyo)

Overcoming the Language Barrier—Problems Related to the Compilation of Foreign Language Dictionaries in Japan (March 25, 1983, Tokyo)

Three two-day symposiums, each devoted to one of the three major fields, were held in April and May 1982, at which all those who received grants in fiscal 1981 presented interim reports on their projects and exchanged ideas.

Research Categories and Grant Conditions

	Category I	Category II	Category III
Content and Nature of Research	Individual-incentive research	Experimental and preliminary research	Development of Category II research
Researchers	Individuals only	Individuals and research teams (both domestic and international)	Individuals and research teams (both domestic and international)
Grant Amount	¥500,000–¥2 million per project	¥1 million–¥2 million per project	¥2 million–¥20 million per project
Grant Period	One year, beginning October 15, 1982	One year, beginning October 15, 1982	One or two years, beginning October 15, 1982

Human and Natural Environments

The Development of Chemically Treated Gels for High-Performance Liquid Chromatography and Chemically Treated Plates for High-Performance Thin-Layer Chromatography and Their Application in Detecting Trace Amounts of Harmful Substances

Mitsuyoshi Okamoto, Chief Technician
Gifu Prefectural Institute of Public Health
¥1.47 million

The performance of household products has increased remarkably in recent years as a result of rapid progress in industry. Much of this improvement is due to new chemical substances, but since these new substances sometimes cause health hazards, they have become a social problem. Therefore, a method of predetermining their toxicity is urgently needed.

The present study's aim is to develop chemically treated gels for high-performance liquid chromatography and chemically treated plates for high-performance thin-layer chromatography, both of which act uniquely upon harmful substances contained in household products and other substances considered harmful from the point of view of work hygiene. By developing high-performance liquid chromatographic gels and high-performance thin-layer chromatographic plates, it will be possible to measure precisely the quantities of various toxic chemical substances contained in household products.

The Role of Pollination by Moths in Forming and Stabilizing Laurel Forests

Ken Inoue, Ph.D. Candidate
Faculty of Science, University of Tokyo
¥1.4 million

Interaction between plants and plant pollinators greatly influences the organization of plant communities. Although many studies have been carried out in cold temperate regions and the tropics, few studies have been conducted on the phenomenon of pollination in laurel forests in warm temperate regions. Since bumblebees, an important pollinator in cold temperate regions, are not found in laurel forests, other insects are believed to play an important role in pollination.

The aim of this study is to carry out a full-scale survey of Hachijo Island to see if moths can be considered an important pollinator. A preliminary survey estimates that moths pollinate approximately thirty percent of all the flowers that bloom in the spring and early summer.

Research on Insect Pests Found in Pine Reserve Forests, with Special Emphasis on Leaf-Eating Moths and Shoot Borers

Hitoshi Matsui, Teacher
Seishin Gakuen High School
¥1.73 million

In the Kashima district of Ibaraki Prefecture, many pine trees have been planted along the seacoast to form a vast pine forest that not only protects the land from strong

winds and dust storms but also preserves the natural environment. Since shoot borers and leaf-eating moths are the main pests that inhabit reserve forests of this kind, the population density of these harmful insects must be kept low to protect the trees.

The aim of the present research project is twofold: (1) to carry out a field survey on the causes of mortality of leaf-eating moths and shoot borers and the degree of damage they inflict before they die and (2) to carry out observations over time of the growth process of pine shoot borers by means of soft X-ray photography.

Research on the Gradual Thinning of Trees in Urban Residential Districts and the Economic Burden on Landowners

Naoko Nakajima, Research Assistant
Doctoral Research Course in Human Culture, Ochanomizu University
¥1.33 million

Despite its scarcity, green space in urban residential districts is a valuable part of the natural environment of local residents. However, because of the rising demand for land and the increased economic burden on residents, it is now difficult to maintain even a small area of green space. Communities are increasingly being forced to abandon the precious green space that they have maintained for years.

The present research project will carry out surveys in several cities throughout the country to clarify the state of trees in urban areas and their economic burden on landowners. The survey results will help determine what advice or financial aid local residents will need to improve and maintain a pleasant living environment in Japan's overcrowded cities.

A Preliminary Study on the Exploitation of Sharks and Rays in the Western Pacific

Kazuhiro Mizue, President (and eight associates)
Japanese Association for Elasmobranch Studies
¥2.0 million

Sharks and rays, with their unique biological properties, affect human life both positively and negatively. However, little is known of the lives of these creatures.

This preliminary study will explore ways to use sharks and rays effectively and reduce the damage they inflict on human beings and the fishing industry. To this end the study will elucidate the distribution and ecology of sharks and rays in the Western Pacific and their present state of utilization. The information thus gained will contribute to future development of the natural resources of sharks and rays and also provide basic data for the solution of international fishery disputes that may occur in the future.

A Study of Historical Legacies in Cities and Their Re-evaluation, with Emphasis on Okayama City's Temple and Shrine Precincts

Toshibiko Shibuya, Engineer
Construction Bureau, Okayama City Office
¥1.45 million

The loss of historical continuity as a result of war damage and rapid modernization is a serious problem

confronting society today. It is therefore an important task to reevaluate the historical legacies buried in cities and to revive the historical continuity of urban space.

The present study will focus mainly on temples and shrines, where such values have long lain dormant. Realizing the importance of reevaluating the social and historical aspects of these legacies, the study will examine them in terms of both history and environment so that they can be included as an important element in any plan to restore the historical continuity of cities. First, a city similar to Okayama will be surveyed for purposes of comparison, after which Okayama will be investigated in detail.

Research to Ascertain the Concentration of Mercury in the Atmosphere of the Natural Environment

Ryozo Nakagawa, Associate Professor
Faculty of Science, University of Chiba

¥1.9 million

Twenty-five years have elapsed since mercury was discovered to be an environmental pollutant. Most studies on mercury pollution have been undertaken in areas polluted by human activities; only a few have dealt with the quantity and distribution of mercury in the atmosphere of the natural environment. It is feared that mercury generated by human activities may suddenly increase in the future with the shift from oil to coal as the principal source of energy. While there is still time, it is essential that the geochemical background concentration of mercury in the natural environment be ascertained.

This project seeks to clarify the background concentration of mercury supplied by the natural environment by measuring the amount of mercury found in the atmosphere of various mountain and fumarolic areas of Japan. The data thus obtained will provide the basic data for understanding mercury pollution caused by human activity.

An Integrated Decision Support System for Spine Injury Analysis

Fumio Mizoguchi, Associate Professor (and two associates)
Department of Industrial Administration, Science University of Tokyo

¥3.0 million

The rapid diffusion of automobiles and motorcycles has been accompanied by an increased incidence of spine and related injuries from traffic accidents. These injuries can occur on any road anywhere in Japan. Measures to reduce traffic accidents are of course important, but studies are urgently needed on diagnosis and support for appropriate treatment of injuries sustained in traffic accidents that have already occurred.

The present study aims to develop a system to support physicians in meeting the above need. Specifically, this involves using a microcomputer to develop a system of diagnosis based on a method that has recently come to be widely employed in knowledge engineering. When collecting basic data, the research team will focus on the relationship between spine injuries and diagnosis and attempt to establish rules for clinical diagnosis processes. These rules will then be applied to actual cases to evaluate the efficiency of each diagnosis.

A Study on Artificial Propagation of Sweetfish in Taiwan

Keiji Suzuki, Associate Professor (and four associates)
Faculty of Fisheries Sciences, Kitasato University

¥1.56 million

From ancient times the sweetfish (*Plecoglossus altivelis*) inhabited many rivers in northern Taiwan, but it became extinct in 1962 as a result of illegal fishing and river pollution. For Taiwan, restoring its natural resources of sweetfish is an important undertaking. Since 1967 several batches of sweetfish fry and fertilized eggs have been sent from Japan to Taiwan by air and discharged in its rivers, but few have survived because of the serious pollution at river mouths and the small amount that was discharged.

The present research project seeks to restore the natural resources of sweetfish in Taiwan by (1) extracting fertilized eggs from sweetfish raised in Taiwan and producing a large quantity of sweetfish fry using established Japanese propagation techniques and (2) releasing the fry thus produced into lakes and reservoirs to produce landlocked sweetfish similar to those found in Lake Biwa in Japan.

A Study on the Desired Formation and Management of Urban Block Environments, with Reference to the Restorative Property of Urban Functions in Times of Disaster

Takashi Omi, Instructor (and two associates)
Faculty of Engineering, Tohoku University

¥1.45 million

Urban disasters typified by the earthquake that struck the coast of Miyagi Prefecture on June 12, 1978, reveal the importance of planning cities in such a way that their urban functions can be easily restored, of ensuring the ability of each city block to remain self-supporting, and of mixing urban functions, microzoning, and unifying the management of wiring and pipe networks in cities.

This study, which focuses on the activities, functions, and space of city blocks, will analyze (1) the architectural composition of city blocks, (2) the metabolic quality of the demand for various types of utilities, and (3) changes over time of people, things, information, and energy supply and demand. The study will also ascertain the minimum functions required in times of disaster and the feasibility of intensive use of vacant land for disaster management functions.

A Preliminary Study on Ex Post Facto Evaluation of Transportation Planning

Yoji Niitani, Professor (and six associates)
Faculty of Engineering, University of Tokyo

¥1.75 million

Transportation planning is carried out on the basis of "objective" quantitative forecasts obtained by applying the most sophisticated models using extensive data. But there are many examples of projects that have never been carried out, as well as those that have been carried out but have failed to achieve the expected results. Many of these "failures" have caused substantial losses to society.

The aim of this study is to clarify the causes of errors in predicting social needs, social impacts, and the

probability of realization in terms of forecasting methods, the character of the analysts, and the socioeconomic and organizational environment. The results of these investigations will be used to ascertain the way forecasts should be made so as to reduce the social cost of failures.

Research on Causes and Prediction of Odorous Substances in Drinking Water

Norikatsu Hamamura, Department Head
Aichi Prefectural Institute of Environmental Health
¥1.28 million

The moldy odor of drinking water originating in lakes has become a serious problem. This odor is caused by geosmin and 2-methyl-isoborneol produced by blue-green algae or streptomycetes. A mere 0.01 micrograms of these substances per liter of water is sufficient to cause odor.

The present study seeks to clarify the factors of production and the mechanisms accelerating the production of odorous substances in polluted lakes.

Research on the Desirable Coordination Between Administrative Offices and Inhabitants in Snow-Removal Activities in Areas with Heavy Snowfall

Tetsu Suzuki, Professor (and one associate)
Faculty of Engineering, Niigata University
¥1.85 million

At times of heavy snowfall, administrative offices handle mainly large-scale activities, such as use of large snowplows for removal of snow from national highways, while local residents handle mainly small-scale activities, such as removal of snow from rooftops. But administrative offices and local residents must both undertake medium-scale activities, such as those in which snow is carried off or melted and drained off by means of a gutter system.

This research will explore the snow-removal technologies that best suit the special conditions of each community and the desirable coordination between administrative offices and local residents in undertaking snow-removal activities. This will be accomplished by conducting surveys on both hard (facilities) and soft (application) technologies in areas with heavy snowfall. The surveys will concentrate on ascertaining how medium-scale technologies are being applied in snow-removal activities.

A Preliminary Study on the Construction and Social Background of Houses in Preindustrial Society

Satoshi Miyazawa, Inspector (and seven associates)
Architecture Division, Agency for Cultural Affairs
¥1.58 million

Today's society is characterized by the disappearance of traditional culture and local color resulting from a trend toward greater cultural uniformity. To find out how houses should be constructed so that they harmonize with the climatic features of the community, it is important to reexamine how and against what social background houses were built in preindustrial society.

The objective of this preliminary study is to clarify from an interdisciplinary approach the relationship be-

tween construction and the social background of traditional houses by carrying out field surveys on the Boso Peninsula in Chiba Prefecture and in the Uonuma district in Niigata Prefecture. These surveys will, among other things, investigate historical records on housing construction in preindustrial times, collect other relevant literature, interview local residents, and make sketches of documented houses.

Research on the Concept of Energy Conservation in the Edo Period

Masatomo Yamaguchi, Director (and three associates)
Research Study Group on Conservation-Oriented Culture
¥1.94 million

In this so-called age of conservation, efforts to save energy and resources are being made in various fields. In everyday life, however, endeavors are at best a monotonous repetition of old ideas.

This research project will attempt to gather data on know-how concerning and attitudes toward energy conservation as reflected in the literature on home economics and family precepts from what might be called the conservation-oriented culture of the Edo period (1603-1868). This year the project will explore the broad view of conservation by elucidating the interrelationship between the concept of conservation and its application in various aspects of daily life.

A Preliminary Study on Changes in Kampung and Evaluation of Kampung Improvement Programs in Indonesia

Shuji Funo, Lecturer (and seven associates)
Faculty of Engineering, Toyo University
¥2.0 million

Kampungs, traditional settlements or communities in Indonesia, offer interesting insights into the various problems faced by local communities in large urban areas. But suburban kampungs are now changing rapidly, and various noteworthy kampung improvement programs have been carried out to upgrade Indonesia's urban environment.

This preliminary study seeks to compare and evaluate the various types of kampung improvement programs by clarifying the transitional processes that kampungs in Jakarta and Surabaya are undergoing. In addition, with the cooperation of Indonesian researchers and through a comparison with the methods Japan adopted in the past, the study will attempt to clarify the most suitable method of improving kampungs in the future.

A Preliminary Study on the Utilization and Conservation of the Natural Environment by Agroforestry Systems

Manabu Morita, Professor (and six associates)
Faculty of Agriculture, Kyoto University
¥1.28 million

Agroforestry is a temporal and spatial composite of agriculture and forestry that enables production of food, fodder, and various industrial raw materials in the forest while engaging in forestry. This field is being regarded with great interest in many developing countries as a

means of realizing and ensuring people's well-being while at the same time preserving their natural environment.

This preliminary study aims to elucidate the conditions necessary for engaging in agroforestry by comparing its various manifestations in Japan and abroad. In addition, the study will attempt to develop a sound agroforestry system capable of realizing high productivity and high income by taking full advantage of the dynamics of the plant ecosystem in accordance with the natural and socioeconomic conditions found in the various areas under study.

A Preliminary Study on Natural and Socioeconomic Changes in Areas Affected by a Land Reclamation and Desalination Project at an Estuarine Lake

Izumi Kitagawa, Professor (and six associates)
Faculty of Agriculture, Shimane University
¥2.0 million

A land reclamation and desalination project is about to get under way in the area of Nakanoumi Lagoon and Lake Shinji in Shimane Prefecture. When the desalination project is completed, the water environment is expected to change completely, thus causing sudden changes in the water quality and ecological systems of these bodies of water. Studies up to now have been limited to the field of natural science; those on socioeconomic transition and impact scarcely exist.

The present study seeks to pursue in detail the changes in the surrounding community as it responds to the natural and socioeconomic transformation of the area around Nakanoumi Lagoon and Lake Shinji. In addition, the study hopes to work out a course of action that will help local communities develop in a healthy direction.

Research to Measure the Effect of Medium- and Long-Term Earthquake Predictions for the Tokai Area on Tourism in Atami and Ito and on the Mental State of Local Residents

Hirota Hirose, Associate Professor (and five associates)
College of Arts and Sciences, Tokyo Women's Christian University
¥4.9 million

For the first time in the history of the free world, medium- and long-term predictions of major earthquakes have been made for two locations—Shizuoka Prefecture in Japan and Southern California. The destructive power of a major earthquake on the environment is beyond imagination, and the loss to a society hit by such an earthquake will be tremendous. Consequently, when progress in the natural sciences makes it possible to predict earthquakes with a fair amount of accuracy, information concerning those predictions comes to have a serious effect on the communities concerned. Since tourism is so sensitive and vulnerable to earthquake predictions, news of such predictions has an extremely grave impact on the industry.

The present research project seeks to ascertain how predictions of a major earthquake in the Tokai area are affecting the tourism industry and the behavior and attitudes of people living in Atami and Ito, two of Japan's leading resort towns, which have been designated as sites of potential damage from the predicted earthquake.

To accomplish this, the project will gather data from previous studies, carry out a longitudinal survey of local residents, and conduct group interviews with members of the business community involved in tourism in Atami and Ito.

Chemical Research on Physiologically Active Substances in Nematodes and Ways to Control These Insects

Hiroyasu Watanabe, Professor (and five associates)
College of Agriculture, Ehime University
¥3.0 million (two-year grant)

Research into physiologically active substances in insects has made remarkable advances since the German biochemist Adolph Butenandt discovered the sex attractant for silkworms in 1961. Some of these substances have been used to control harmful insects. However, little research has been conducted on damage caused by nematodes, despite its severity as evidenced by the recent withering of pine trees caused by pine wood nematodes. Research in this area thus needs to be undertaken immediately.

This project seeks to establish a new method for controlling nematodes by isolating, identifying, and synthesizing the substances that attract nematodes. The research team has already confirmed the attractants found in pine trees and has obtained interesting new information revealing that these attractants help keep pine trees from withering. The team intends to expand its research by utilizing the basic information already obtained, thereby paving the way for practical applications to deal with the problem of withering pine trees. It also plans to establish new methods for controlling other nematodes.

Research to Determine the Chronic Effect on Health of Fly Ash Generated in a Pulverized-Fuel Boiler

Yasushi Kodama, Professor (and four associates)
Faculty of Medicine, University of Occupational and Environmental Health
¥6.16 million (two-year grant)

Considering the present state and future outlook for the global energy supply, the use of coal as an alternative to oil will probably increase rapidly in the future. However, it has already been reported that fly ash generated in a conventional pulverized-fuel boiler contains arsenic, cadmium, lead, and other toxic heavy metals. This is particularly so in the case of respirable fly ash particles with diameters of less than ten microns. Fly ash thus probably affects the human body, but few studies have been conducted on the chronic effect on health of prolonged exposure to low concentrations of fly ash.

In this study a survey will be conducted to determine the conditions under which fly ash particles are generated in a pulverized-fuel boiler. The amount of fly ash generated, its distribution, and its chemical and physical properties will also be examined. In addition, the effect of inhaling fly ash will be tested using rats. Rats will be exposed to fly ash particulates for one year at three different levels of concentration—10 mg, 1 mg, and 0.1 mg per cubic meter—and compared with a control group. After the one-year exposure, the rats will be ex-

amined pathologically to determine the effect of fly ash on living organisms, especially on the lungs. The results will be used to formulate measures to prevent health hazards.

A Basic Study on the Treatment of Waste Gas by Ultrathin Film, with Emphasis on the Solubilization Mechanism of Various Gases in Ultrathin Film
Hirofumi Okabayashi, Associate Professor (and two associates)

Faculty of Engineering, Nagoya Institute of Technology
¥5.0 million

Ultrathin film is thought to provide a simple and economical method of treating waste gas. The film, both monomolecular and bimolecular, is easily formed by surfactants in water or at air-water and oil-water interfaces. It is well known that carbon dioxide is selectively incorporated into the film. However, few studies have been conducted on the solubilization of the gas in ultrathin film.

The objective of the present study is to ascertain the solubilization mechanism of carbonic acid and other gases from a physicochemical viewpoint. First, the quantity of organic and inorganic gases solubilized in the ultrathin film will be investigated. Then the film's physical properties, such as viscosity and surface tension, and its electric properties, such as electric resistance and capacitance, will be measured. The results will be used to study the relationship between the solubility of gas and its other properties. Moreover, to clarify the state of the various types of gases solubilized in the ultrathin film—that is, the question of into which parts of the film and in what state the gases are incorporated—the study will also include a detailed investigation of the solubilization mechanism using the C-13 nuclear magnetic resonance chemical shift and spin-lattice relaxation times.

The Development of a High-Efficiency Capillary Liquid Chromatography System and Its Application in Environmental Sampling

Takao Tsuda, Associate Professor
Laboratory of Analytical Chemistry, Nagoya Institute of Technology
¥2.9 million

A high-efficiency liquid chromatography column that offers performance on a par with that of a capillary gas chromatography column and is capable of completing analysis in an hour still does not exist. Although a capillary liquid chromatography system today can be made to perform very efficiently if sufficient time is allowed, its field of application is still limited.

The aim of this project is to develop a capillary liquid chromatography system composed of high-efficiency columns (100,000–500,000 theoretical plates) and capable of completing analysis in one to two hours. The ultimate goal is to create a capillary column with the theoretically ideal inner diameter of two to ten microns. Since mutual equilibrium can be achieved rapidly with such a minute column, it should be possible to develop a high-efficiency capillary liquid chromatography system in a relatively short time. An attempt will also be made to develop a packed microcapillary column with a particle diameter of five microns. In ad-

dition to the conventional pumping system, a system using electro-osmosis flow will be used for this chromatography system, which in turn will be applied in analyzing environmental samples.

Risk Evaluation of Environmental Mutagens, with Emphasis on Nitroarenes and Heterocyclic Amines

Takashi Sugimura, Director (and five associates)
National Cancer Center Research Institute
¥7.0 million (two-year grant)

Whenever substances that cause mutations in bacteria and other microorganisms are discovered, people immediately regard them as causes of human genetic diseases or cancer. But the truth is that the causes of most mutations are simply feared without an adequate understanding of their metabolism in living organisms or solid evidence based on long-term experiments on animals.

The objective of this study is to determine whether steps should be taken to deal with mutagens that show strong mutagenicity in bacteria, such as nitroarenes contained in diesel engine exhaust and heterocyclic amines formed while foods are being cooked. To accomplish this, a comprehensive survey of the impact of these environmental mutagens on animals will be carried out. The mutagenicity of these chemical substances will also be examined in cultured mammalian cells. In addition, inactivation, activation, and excretion of these chemicals in living organisms and their reaction to macromolecules, such as DNA and proteins, will also be studied. Finally, tests on the carcinogenicity of these substances will be carried out by administering these substances to the tracheas and mouths and under the skin of animals.

Research on Environmental Evaluation and Survey of Moors in Japan by Remote Sensing

Hideo Nishida, Associate Professor (and five associates)
Faculty of Engineering, Nippon Institute of Technology
¥7.96 million (two-year grant)

Moors, treasurehouses of flora, are an important field of scientific inquiry. However, many high, beautiful moors are dying or being denuded as a result of increasing numbers of visitors and construction of roads for sightseers. Such destruction is a serious threat to environmental conservation. The biggest obstacle confronting any survey of moors is the tremendous amount of time and effort required by such an undertaking because moors are so vast and are scattered in remote mountain areas.

This research project seeks to establish a system of environmental evaluation to be used in surveying inaccessible moors. Data collected by remote sensing utilizing an artificial satellite will be employed. Specifically, an attempt will be made to establish standards for determining the position, shape, size, water system, and flora of these moors. Field surveys will be conducted at three test sites—Ryusengahara, Ozegahara, and Kushiro. The data thereby obtained, as well as MSS data from aerial photographs and photographs taken by satellite, will be compared. The standard thus established will be used to conduct a nationwide environmental survey of moors in Japan.

A Basic Study on the Adaptability of Rice to Drought-Prone Areas

Shin'ichi Takami, Instructor (and three associates)
Faculty of Agriculture, Kyoto University
¥4.1 million (two-year grant)

Rice grown in Asia's tropical regions, where irrigation facilities are still inadequate, is always faced with the danger of drought. To stabilize and improve rice production in these areas, it is necessary to breed and diffuse strains of rice that are highly resistant to drought.

The aim of the present study, a continuation from last year, is to lay the ecophysiological groundwork for the selection and breeding of strains of rice that are highly resistant to drought. The results of last year's preliminary study indicate that in the seedling stage, cultivars capable of adjusting osmotically appear to play an important role in survival under drought conditions. It was also found that the ability to maintain dry-matter production and the ability to use preanthesis reserves efficiently are primarily responsible for higher drought tolerance in the ripening stage. This year more comprehensive and large-scale experiments will be conducted to determine whether these results apply to other cultivars. In addition, plans are being made to conduct experiments to clarify the differences in drought resistance among various cultivars in the flowering stage and the cultivars' physiological structure. An attempt will also be made to develop a simple screening method for assessing their adaptability.

A Basic Study on the Mortality of Short-Tailed Shearwater (*Puffinus tenuirostris*)

Nagahisa Kuroda, Chief (and ten associates)
Research Section, Yamashina Institute for Ornithology
¥10.2 million (two-year grant)

Over sixteen million birds of the species *Puffinus tenuirostris* are said to inhabit breeding grounds in Tasmania. Since white settlers first arrived in the region at the beginning of the nineteenth century, several hundred thousand young birds of this species, known as mutton bird, have been captured and eaten. After breeding in April, the entire population migrates to the northern Pacific as far north as the Bering Sea. They fly over Japan's coastal waters between April and July, during which time thousands die and are washed ashore. Studies have determined these unfortunate birds to be young birds that die of exhaustion, not illness. Also, every year over one hundred thousand birds of this species die after being caught accidentally in northern Pacific salmon fishing nets. This has become an international issue. Moreover, many experts question the validity of the widely accepted Pacific rim theory of the migration routes of this pelagic bird.

In this research project, surveys will be conducted in Japan's coastal waters to determine the areas where these birds die of exhaustion, as well as the number that die and the age at which they die. A special technique developed by the research team will be used to determine the osteological age of birds by examining their nasal-skull joints and the age rings found on their tibial section. It is also planned to investigate the birds' intake of nutrition (mainly by measuring their coarse fat intake and the kind and amount of plants they eat), their geographical distribution, and their migration routes. The

last of these will be carried out using ferry steamers, observation ships, and, if it is possible, a trans-Pacific freighter heading for the West Coast of the United States.

Physical and Chemical Studies on Environmental Indicator Organisms Using Laser-Induced Photoacoustic Spectroscopy

Hitoshi Kamada, Professor (and six associates)
Faculty of Engineering, Yamagata University
¥2.09 million

Biological organisms change at the physical and chemical levels in various ways in response to noncontinuous or transient changes caused by pollution and natural environmental factors. These changes are "recorded" within the organisms for long periods of time.

The present study, a continuation from last year, involves physical and chemical research on biological indicators that are highly sensitive to changes in the external environment. A newly developed tuned-wavelength laser capable of high-sensitivity trace analysis, as well as a photoacoustic spectroscopy technique using random pulse code modulation, will be employed. The results obtained should lead to new knowledge about living cells that differs from the knowledge obtained by the traditional method of measuring pollutants directly. Last year's activities focused on and succeeded in developing an analytical method. This year will be devoted to studying plants found throughout Japan and plant species that exist in conditions of environmental pollution caused by humans. These plants will be studied in vivo, and the cause and effect relationship between pollutants and their reactive substances will be clarified both qualitatively and quantitatively.

Taxonomical and Biological Studies on the Effectiveness of Japanese Midges (*Diptera, Chironomidae*) in the Elimination of Lake and River Pollution and as Indicators of Water Quality

Manabu Sasa, President (and nine associates)
Toyama Medical and Pharmaceutical University
¥4.64 million (two-year grant)

Water pollution in Japan's lakes and rivers has reached serious proportions in recent years. However, recent studies have shown that vast numbers of chironomid midges are thriving on the bottom sediments and that these insects play an important role in the natural purification of water through the fixation and removal of large quantities of nutrients. On the other hand, these insects constitute a nuisance to people living near rivers and lakes. This is the first study to survey systematically the distribution of chironomid midges in Japan. A comparison with species distributed in Europe and the United States is already under way. Many of these species are new and have never been documented.

The aim of the present project, a continuation from last year, is to determine the species of chironomid midges inhabiting Japan's lakes and rivers by carrying out surveys of representative lakes and rivers. Larvae will be collected from the sediments and bred in a laboratory until they become adults. A taxonomical study of the new species will be carried out and the results used to compile an illustrated key for identifying

chironomidae. In addition, the physiology and ecology of chironomidae will be examined to clarify their role in the natural ecological system as indicators of water quality.

A Study of Desirable Patterns of Road Construction in Historical Areas and of Residents' Efforts to Reach Agreement on the Construction of Houses Along Such Roads

Katsuakira Kihara, Representative (and five associates)
Nara Area Study Group
¥4.5 million

The former downtown area of Nara City developed on the outskirts of the ancient capital of Heijo. The area surrounding Gango-ji temple, located at the center of this area, is the target of this study. The streets and residential blocks still conform to the grid pattern laid out in the eighth century, harmonizing with merchant houses built during the eighteenth century. However, work is under way on a sixteen-meter road as part of an urban planning project, which upon completion will bisect the district.

The purpose of this study, a continuation from last year, is to examine desirable patterns of road construction and layout to prevent the destruction of this historical district and thereby create a comfortable living environment for local residents. An attempt will be made to have the residents living by the roadside conclude an agreement among themselves on the construction of houses along the proposed road. To accomplish this, a bulletin will be published and an office set up to counsel residents on problems concerning house rebuilding. Also, a model of a desirable row of houses with ample road space will be constructed so that both the administrative offices concerned and the local residents will be able to visualize the completed urban planning project. It is hoped that these efforts will encourage residents to reach agreement.

Basic Research on Road Dust Caused by Studded Snow Tires in Areas of Heavy Snowfall

Toshio Yamashina, Professor (and twelve associates)
Faculty of Engineering, Hokkaido University
¥13.3 million (two-year grant)

The use of studded snow tires on roads in Hokkaido and the Tohoku district of northern Honshu has spread in recent years. This is because such tires are believed to contribute significantly to traffic safety by shortening the braking distance of automobiles. But these tires damage the asphalt surfaces of busy roads in large cities, and the dust produced by abrasion of road surfaces is easily caught up by the wind, especially in early spring, and has emerged as a major pollution problem for people living in the affected cities.

The objective of this study, a continuation of last year's preliminary study, is to clarify the nature of this problem through systematic microanalyses of the constituents of road dust using the latest surface analysis methods (including IMA, AES, GC-Mass, RBS, and PIXE), as well as analyses of the states and forms in which road dust appears. The results of these analyses will be used to conduct experiments on animals to determine the extent to which such dust affects their respiratory systems. In addition, plans are being made to

conduct a survey on how European countries have dealt with this problem, the results of which will provide basic data for dealing with the problem in Japan.

A Basic Study on the Preservation and Distribution of *Cyrtopodium macranthum* var. *rebunense* on Rebun Island

Hirokazu Taniguchi, Associate Professor (and five associates)
Technology Center, Hokkaido University of Education
¥2.1 million

Rebun Island, located at the northern tip of the Japanese archipelago, has a large number of alpine plant species even though it is a plain. In recent years, however, these plants have begun to decrease significantly in terms of both species and number. The indigenous *Cyrtopodium macranthum* var. *rebunense*, nicknamed the "king of orchids" because of its majestic beauty and its high commercial value, is on the brink of extinction, with only several hundred plants remaining on the island.

This study aims to (1) carry out a survey of the habitat of this plant, (2) observe its ecology and establish a method for its cultivation, and (3) prepare a map showing its geographical distribution. To achieve these objectives, the study will determine the total number of plants and their locations, mark them on a map with a scale of 1/5,000, and follow the changes in their distribution by setting up a marker for every fifty plants. In addition, the study will scatter seeds in an experimental area and observe their growth.

Social Welfare

Purification and Characterization of the Lipid Mobilizing Factor in Tumors

Shin'ichi Kitada, Senior Postdoctoral Fellow
Department of Biological Chemistry, University of California, Los Angeles
¥2.0 million

The researcher has already identified the unique chemical substances produced by cancer cells that are necessary for both membrane formation and cell growth.

The aim of the present study is to separate and purify these substances and clarify their structure and operational mechanism. The results will be applied clinically to test the possibility of early detection and prevention of cancerous growths.

Research on Colored Character Recognition for the Blind

Hideto Ide, Associate Professor
College of Science and Engineering, Aoyama Gakuin University
¥1.2 million

Although various devices have been developed to compensate for loss of eyesight by relying on senses that are

still functioning normally, none are suitable for recognizing Japanese sentences or colored characters and figures. Moreover, they require too long a training period to be practical.

In view of the usefulness of electrical and mechanical vibrators as sense-substituting stimuli, the present project aims at developing an apparatus for recognizing colored characters and figures by providing information using both electrical and mechanical stimuli. In addition, a microcomputer will be used to make a test device that uses vibrations to write Japanese sentences, including Sino-Japanese ideograms, on a 10×10 matrix, stimulating the fingertips in the order in which the character strokes are written.

The Elderly in Japan and America: A Comparative Community Study

Akiko Hashimoto, Ph.D. Candidate
Sociology Department, Yale University
¥1.2 million

The problem of the elderly in an aging society today is a serious social issue in both Japan and the advanced Western countries. Although those who bear the important burden of satisfying the diverse daily needs of the elderly include families, relatives, and friends, as well as local communities, the responsibility of providing and caring for the elderly is shared differently in each country.

This study will investigate the daily lives of the elderly in two similar communities, one in Japan and one in the United States. The results will be compared and analyzed systematically to determine the most effective pattern of resource utilization. Various methods will be used to carry out this project, including the researcher's living in the two communities, observing the lives of the elderly, and conducting questionnaire surveys and case studies.

The Long-Term Effects of Physical Exercise on Cardiovascular Functions

Yoshio Ishida, Instructor
Faculty of Health and Sports Sciences, Osaka University
¥1.1 million

Progress in science and technology has made today's life easier by reducing the need for physical labor, but through overprotection it has also deprived human beings of their ability to adapt to external conditions and stress. Consequently, from the standpoint of health and medicine the promotion of sports as a means of getting people to exercise has become an important social issue.

This project will examine the effects of physical exercise on cardiovascular functions not only in terms of increased cardiac output but also in regard to acute heart failure and the mechanism of arrhythmia.

A Study on Evaluating and Maintaining Old People's Ability to Walk

Hiroaki Tsuji, Lecturer
Department of Education, Okayama Prefectural Junior College
¥1.1 million

In Japan the problem of the elderly is becoming increas-

ingly serious every year. To be able to lead healthy and meaningful lives, the elderly, whose number is increasing rapidly, must maintain their ability to walk without assistance.

In stressing the relationship between old people's ability to walk and their daily lives, the present study will investigate the range of old people's activities, their attitudes toward life, the muscle strength of their legs, their ability to balance while standing, and the contact surface of the soles of their feet. In addition, tests will be conducted on the ability of the elderly to walk by observing, among other things, the length, height, and angle of their steps. The results will be analyzed statistically to determine the best way to evaluate and maintain old people's ability to walk.

Research to Develop a Comprehensive and Effective Community-Level System of Medical Care, Health, and Social Welfare for the Elderly

Yosuke Yamane, Professor (and six associates)
Department of Environmental Medicine, Shimane Medical University
¥1.5 million

The Japanese population is aging rapidly. By the year 2000, the number of people aged sixty-five and over is expected to increase to nineteen million, or one out of seven. Japan's present policy toward the elderly is far from satisfactory; it must be more comprehensive, effective, and farsighted.

In this project Shimane Prefecture, which has the highest proportion of aged persons in Japan, is being surveyed in an attempt to clarify the conditions being experienced by its elderly population, including the state of health and medical care for the elderly, their social welfare, jobs for the elderly, and their cultural environment. The study will be carried out taking into consideration the distinctive features of the various types of communities found in Shimane Prefecture, including outlying islands, depopulated areas, and farm and mountain villages. The information thus obtained will be used to examine and propose effective comprehensive measures to deal with the problem of an aging population.

Research on the Right to Life of Infants with Severe Congenital Defects

Yasuko Shirai, Senior Staff Scientist (and two associates)
Institute for Developmental Research, Aichi Prefectural Colony
¥1.5 million

As illustrated by the recent decision of the Indiana State Supreme Court, the controversy over nontreatment of neonates with severe congenital defects can be regarded as a confrontation between the principles of medical ethics and the various factors impeding their application.

From the point of view that everything possible should be done to protect human life, the present study will carry out a survey of attitudes on the issue of such nontreatment, along with a thorough examination of relevant case studies and court decisions. The results will be used to find and propose ways to achieve the social consensus necessary to carry out the lofty principle of "respect for human life."

Preliminary Research to Develop a Method for Continuous Measurement of Movements and Activities of the Lower Extremities Using Bioelectrical Impedance

Yoshitake Yamamoto, Associate Professor (and three associates)

School of Engineering, Okayama University

¥2.0 million

In treating and rehabilitating patients with various types of walking impediments, it is essential to be able to measure the degree of impediment with accuracy. Various methods of analyzing gait have been proposed up to now, but none has proved satisfactory.

The goal of this research is to develop a method of obtaining information directly related to movements and activities of the lower extremities by using bioelectrical impedance. The proposed method (1) does not invade subjects' privacy or restrict them, (2) lends itself to the use of a telemeter for a long period of time, and (3) uses equipment that comes in a low-cost, easy-to-handle, compact design.

A Study on the Emotional Behavior of Infants Experiencing Pseudomaternal Deprivation and the Feasibility of Preparing a Follow-up Index

Masako Fujii, Instructor (and six associates)

Faculty of Medicine, University of Tokyo

¥2.0 million

It is often argued that antisocial behavior is caused by an emotional disorder in the personality of the individual manifesting the disorder and that this can be explained by his or her personal history. To pin down the source of such an emotional disorder, it is necessary to clarify the conditions necessary for healthy mental development.

This project will explore ways to solve such disorders by examining the emotional behavior of infants and conducting a follow-up study. The information obtained will be used to determine what kind of environment is desirable for personality development. The effects of pseudomaternal deprivation on the emotional behavior of babies under care in a home for infants will be examined by carrying out a time study and observing and recording the circumstances of their birth, their daily activities, and their emotional behavior under certain conditions.

The Future Health Problems of the Middle Aged

Minoru Iida, Director (and six associates)

Department of Epidemiology and Mass Examination for CVD, The Center for Adult Diseases

¥1.5 million

Recently many health problems affecting people in their forties have been reported. Since these problems cannot be explained within the context of the traditional Japanese living environment, it is believed that most are caused by the recent changes in life style. Thus many people feel that the occurrence of these health problems can be explained in relation to specific life styles and dietary habits.

In this preliminary study an attempt will be made to investigate the health problems of fishers, hitherto considered difficult to survey, and to compare the results with those of studies already carried out on rural and urban populations.

Evaluation and Improvement of the Health Examination System for Indochinese Refugees Seeking Residence in Japan

Keizo Asami, Professor (and six associates)

School of Medicine, Keio University

¥5.5 million (two-year grant)

The project team has so far administered comprehensive medical examinations of more than 1,000 Indochinese refugees at a refugee center in Yamato City. In 1981, with the support of the Toyota Foundation, a detailed evaluation of the medical examination system employed at the refugee center and of refugees' health conditions was carried out. In addition, an attempt was made to conduct a follow-up study on the health condition of those who had left the Yamato refugee center to start new lives in various parts of Japan. Although the questionnaires mailed to these people were returned answered, an analysis of the replies revealed an abnormally high frequency of affirmative responses to every question. This was believed to be due to the refugees' unfamiliarity with this type of investigation, indicating a need for another survey using a different method.

In the present study an attempt will be made to investigate the health and other conditions of Indochinese refugees who have resettled in Japan by interviewing them in addition to mailing them completely revised questionnaires. Blood and stool specimens will also be taken, the results of which will be compared with the data collected when the subjects were staying at the refugee center to determine whether their health improved after leaving the center. The plan this year is to formulate an effective system of health examination and design a consistent method of conducting follow-up studies by combining these data with those from last year's preliminary study.

A Comprehensive Study on Middle-Aged Men's Attitudes Toward Life and Old Age, with Specific Reference to Their Life Experiences and State of Health

Noriaki Kato, Associate Professor (and ten associates)

Faculty of Social Sciences and Humanities, Tokyo Metropolitan University

¥4.0 million

Traditionally it has been presumed that people have fewer psychological problems in their prime of life than at any other time. However, this presumption is now being challenged by reports on increasing divorce, suicide, depression, absenteeism, and burnout among the middle aged.

This study, a continuation from last year, will identify the developmental problems faced by middle-aged men, the group least studied up to now, by clarifying their experiences and attitudes, including their views on old age. An analysis of the factors that determine their ability to cope with family and work situations will be made in order to isolate those factors important to adaptability. With rapid aging of the Japanese population in the offing, it is impossible to consider in what ways society will change without taking into account the attitudes of middle-aged people. Thus data on predicted changes will also be studied. A considerable volume of data was collected from a questionnaire issued nationwide last fiscal year. The project is to be completed this year.

A Preliminary Study on the Problem of Aging Among the Mentally Retarded and How to Treat It

Yasumasa Miki, Professor Emeritus (and twelve associates)
Asahide Institute for the Mentally Retarded

¥1.8 million

The proportion of the elderly in Japan's population is expected to increase rapidly. This will have a profound effect on the future treatment of the mentally retarded. Since signs of aging are believed to appear earlier in the mentally retarded, there is an urgent need to understand the problems unique to older mentally retarded people and to devise suitable treatment.

The present study aims to establish criteria for recognizing the phenomenon of regression in elderly mentally retarded people by charting a curve representing the changes in development and regression since childhood. In addition, a survey will be carried out to clarify the conditions and treatment of elderly mentally retarded people in institutions.

Preliminary Research on a Sign Language Recognition and Generation System

Shin'ichi Tamura, Associate Professor (and five associates)
Faculty of Engineering Science, Osaka University

¥1.6 million

Sign language is most often used for communication between deaf-mutes and hearing persons and among deaf-mutes themselves. At present, however, very few people with hearing know how to communicate in sign language. This is the main reason that deaf-mutes find it difficult to participate in society.

This preliminary study seeks to develop a communication system for deaf-mutes. The proposed system will consist of three processes: (1) sign language generation, (2) sign language recognition, and (3) linkage between generation and recognition. In (1), natural language is input and its corresponding sign language is displayed on a cathode-ray tube. In (2), sign language is recognized and converted into Japanese or some other natural language. In (3), speech is recognized and its corresponding sign language generated, while sign language is recognized and its corresponding speech generated.

Patterns of Weight Gain: A Preliminary Study on Predicting Obesity During Growth

Takao Shohoji, Associate Professor (and three associates)
Faculty of Integrated Arts and Science, Hiroshima University

¥2.0 million

Although the stature and physical strength of Japanese children have improved considerably since World War II, the increasing incidence of bone fractures and obesity among children has reached an alarming state. Yet the growth process of individuals is understood only partially because of a lack of longitudinal data, and no mathematical growth model exists to explain the process of growth in a person's weight and height.

This preliminary study will attempt to (1) develop a potential growth model designed to explain systematically the process of growth in an individual's weight and height from childhood to young adulthood, (2) linearize the growth curve, (3) evaluate the changes in the growth process of the Japanese people, (4) make longitu-

dinal application of cross-sectional data, and (5) determine the usefulness of these procedures.

The Environmental Effect on the Development of Psychotic Manifestations Among People Affected by Senile Dementia

Shun'ichi Yamamoto, Professor (and fourteen associates)
Faculty of Medicine, University of Tokyo

¥10.0 million

In Japan, where the elderly population is growing rapidly, the problem of senile dementia is starting to weigh heavily both on society and on families with people affected by this disease. On the basis of the data collected in last year's preliminary study, the head of the research team formulated the following hypothesis regarding the pathogenesis of senile dementia accompanied by psychotic manifestations: "The primary mental deterioration of those affected by senile dementia, regardless of its pathogenesis, is characterized on the one hand by a reduced ability to adapt to their environment and on the other hand by their continuing ability to perceive unfavorable changes in their environment. Psychotic manifestations are caused by an extreme imbalance between adaptability and perception."

Plans are being made to test the validity of this hypothesis by (1) comparing within the same community those affected by senile dementia accompanied by psychotic manifestations and those affected by senile dementia without such manifestations and (2) comparing social, cultural, and other environmental factors in Tokyo and Okinawa, two areas with a similar incidence of dementia but different incidences of psychotic manifestations—Tokyo being high, while Okinawa is low.

Quantifying Volunteers' Attitudes Toward Social Welfare and Plans to Foster Volunteer Activities

Kiyoji Asai, Professor (and fourteen associates)
College of Engineering, University of Osaka Prefecture

¥3.0 million

The spirit of social welfare arises from the idea that all members of a community must live together and work together. In the future, community care as a form of social welfare should become increasingly important. When that happens, it will become necessary to train volunteers, without whom community care cannot be provided. Unfortunately, volunteer activities have not spread in Japan as widely as they have in Europe and the United States.

On the basis of the data collected in the preliminary study carried out in fiscal 1980, the present study seeks to pin down quantitatively volunteers' attitudes toward social welfare and analyze the characteristics of these attitudes. Efforts will be made to identify the features of Japanese attitudes toward social welfare in particular by focusing on the differences between volunteer activities in Japan, which are modeled primarily after those in the United States, and those found in West Germany, which developed separately from those in the United States. In addition, a standard for evaluating the types of volunteer activities suited to individual volunteers will be established by quantifying the relationship between types of volunteer activities and attitudes toward social welfare.

Research on Systematizing Community-Level Care for the Elderly Who Reside at Home

Yasuko Ichibangasa, Professor (and five associates)
Department of Literature and Humanities, Japan Women's University

¥1.9 million

As the aging of Japan's population structure advances, the problem of caring for elderly people living alone or with other aged people will grow increasingly serious. Inadequate housing and medical care are hampering efforts to care for the elderly. Under these conditions, there is a strong need for both community services and home care for old people.

This project will examine the above problem by investigating the actual state of home care of the elderly in terms of family composition and financial conditions, employing both case-study and participant-observation methods. It will also examine the relationship between medical and nursing care, the rights of the elderly, the effectiveness of welfare programs for families with aged members, and the prospects for systematizing community care.

A Preliminary Study to Evaluate the Job Performance of Autistic Adults and Develop Effective Training Devices

Akira Hashimoto, Director (and six associates)
Asake Gakuen Workshop for the Vocational Rehabilitation of Autistic Adults

¥1.85 million

As many follow-up studies have found, most autistic children continue to manifest some social maladjustment in their adolescence and adulthood. This is why autistic adults find it so difficult to become socially self-reliant. Asake Gakuen emphasizes work as a key to gaining social esteem.

The present study aims to improve Asake Gakuen's workshop and the job performance of those under its care so that they may gain social esteem and experience a sense of satisfaction and achievement. These improvements, which will include developing effective training devices, will enable Asake Gakuen to establish a vocational training program that will meet individuals' needs. Specifically, an attempt will be made to draw up an objective method of evaluating the job performance of autistic adults by using multivariate analysis.

A Preliminary Study for Developing a Comprehensive System of Support for Handicapped Infants: A Longitudinal Investigation of Children with Down's Syndrome and Low Birth Weight

Hiroko Fujita, Associate Professor (and seven associates)
Faculty of Science of Living, Osaka City University

¥2.0 million

With the spread of the clinical application of biochemical and biological examinations to detect mentally retarded infants born with metabolic or chromosomal abnormalities, it is now possible to diagnose mental retardation soon after, and sometimes even before, birth. Although this necessitates providing assistance to infants and their families, unfortunately neither a method nor a system for providing aid has yet been developed.

This research seeks to analyze the process of motor,

sensory, and social development in babies with Down's syndrome and low birth weight. The data thus collected will be used to devise a method for improving the mental and motor faculties of handicapped infants. In addition, through interviews with parents an attempt will be made to create a system of community-level support for families with handicapped infants.

Applying Remote Sensing Techniques in Community Health Research in Asia

Noboru Iwamura, Professor (and eleven associates)
Faculty of Medicine, Kobe University

¥1.9 million

The state of public health in the developing countries of Asia still poses a major social problem. Causes of disease consist of host, agent, and environmental factors, but the difficulty in working out measures to deal with health problems in these areas often lies in the lack of a clear understanding of actual conditions.

The principal aim of the present study is to predict and prevent diseases by developing a mathematical model of the correlation between data obtained from the artificial satellite *Landsat* and census data from Japan, Korea, and Thailand. Should this method prove valid, the present research will help improve the state of public health in the developing countries of Asia.

Research on Household Behavior in Asian Countries

Yasuhiko Torii, Professor (and five associates)
Faculty of Economics, Keio University

¥7.5 million

In the process of economic development, welfare services are increased as a result of changes in the industrial, employment, consumption, and saving structures. Studying the mechanisms governing these structural changes is therefore the most important task in researching theories of economic development.

This study, now in its third year, seeks to clarify the mechanisms governing structural change by analyzing in terms of an integrated framework the patterns of behavior (labor supply and mobility, consumption, saving, and ownership) in the rural, urban-traditional (the urban poor), and urban-modern sectors of various Asian countries. The results of the field studies conducted with Foundation grants the past two years in the urban and rural sectors of South Korea are now being analyzed. The analysis will clarify the hitherto unknown relationship between household behavior in a district of urban poor and in the village from which most of its residents originated. This year field surveys will be conducted in about ten districts in Thailand and a pilot survey will be carried out in Malaysia.

An Empirical Study on Causes of Truancy

Katsumi Mitani, Secretary-general (and seven associates)
Institute of Statistical Research

¥3.5 million

Truancy and violence in the home have recently become serious social problems. In last year's preliminary study, which examined the living environment of truant children, it was discovered that truancy was not caused by a single factor, such as a dislike of school or laziness, but

by a number of interrelated factors that combine to form a type of psychosomatic disorder.

The purpose of this project, which is based on last year's preliminary study, is to search for ways to prevent truancy and to collect data needed to establish ways to treat school phobia by examining its causes. This will be done by (1) analyzing the living environment of one thousand truant children, (2) clarifying the effects of social and family background by conducting a follow-up study of truant children who experienced dormitory life on Rev. Takahashi's Denmark Farm, and (3) studying the physiological factors involved in individual cases of truancy by examining the amount of endocrine hormones secreted over a fixed period of time.

A Follow-up Study of the Long-Term Prognosis for Mentally and Physically Handicapped Children

Teiju Kobayashi, Adviser (and eight associates)

The Parents Association for Mentally and Physically Handicapped Children

¥3.3 million (two-year grant)

The problems of the mentally and physically handicapped have finally become an important issue in Japan's welfare policy. Policy planners, however, are preoccupied with formulating measures to deal with existing problems, as it is difficult to work out long-range policies for the lifelong care of handicapped children. Until now, in Japan and many other countries there have been many static research projects on the situation of the handicapped at a given time but very few dynamic studies following the progress of handicapped individuals over time.

The present study will investigate the current situation of mentally and physically handicapped children first treated ten or more years ago. An attempt will be made to trace their physical and mental development and measure any changes in their handicaps in the intervening period. It is hoped that the results of the survey will clarify the effect of mental and physical handicaps on development. With Toyota Foundation grants received in previous years, the researchers were able to gather data on about five hundred people. However, the amount of information that has been obtained is still inadequate, causing the project to run slightly behind schedule. This year the researchers will begin computer analysis of data on an additional one thousand people.

Education and Culture

A Study of the Social Structure of the Duruma Tribe of East Africa

Mitsuru Hamamoto, Lecturer

Faculty of Literature and Humanities, Fukuoka University

¥1.33 million

The Duruma, a branch of the 100,000-strong Bantu

tribe, live by raising livestock and farming in Kenya's coastal region. Although they possess many interesting ethnological characteristics, such as their double unilineal descent, not much is known about them at present.

This study aims to analyze the Duruma social structure by means of an anthropological survey focusing on the way people speak during the process of collective decision making, especially when settling disputes. Special effort will be devoted to textual analysis of this language to isolate the framework of understanding and unspoken assumptions that are part of people's speech at such times.

The Function of Popular Entertainment in the Political Socialization of the Japanese People

Shin'ichi Yamamuro, Research Associate

Institute of Social Science, University of Tokyo

¥1.1 million

The role of popular entertainment in the process of political socialization is an important factor in determining a country's political culture. Nevertheless, it has been largely disregarded.

The present study will examine the "new knowledge" presented by the comedians San'yutei Encho and Matsubayashi Hakuen in their public performances in the late nineteenth century and attempt to illustrate how closely Japanese popular entertainment was related to the political and legislative environment of the time and to popular entertainment in other countries. The study will include a comparative history of social education to clarify the function of Japanese places of public entertainment and their role in popular education.

A Study of the Musical Development of Japanese Children Through Ethnic Music and Western Classical Music

Constante B. Andres, Graduate Research Student

Department of Psychology, University of Tokyo

¥1.7 million

Although traditional Japanese music has gradually lost ground with the influx of Western culture, this study postulates that *warabe-uta*, *min'yo*, and other types of ethnic music still form the basis of Japanese children's musical development.

The study investigates the musical development of Japanese children aged three to twelve through (1) standardized musical tests to determine their basic musical ability and (2) newly devised verbal and performance tests to measure their aesthetic sensitivity and creativity. The latter means in particular tests the study's basic hypothesis by examining children's attitudes toward both ethnic and Western classical music and comparing and evaluating the roles of these two types of music in musical development.

A Study of the Dialects of the Chukyo District and Their History

Yoshinobu Hikosaka, Lecturer

Faculty of Education, Iwate University

¥990,000

Sandwiched between the cultures of eastern and western Honshu, the Chukyo district surrounding Nagoya has

been influenced in various ways by both, yet has managed to develop its own distinctive culture. It acts as a linguistic buffer zone between the dialects of the eastern and western parts of the country, and this has produced dialects that are highly individual. However, very few attempts have been made to trace the history of the dialects spoken in the Chukyo district.

This study will examine the district's language from a broad perspective. The dialects used in written records will be compared with modern dialects, and the modern dialects compared with those spoken to the east and west. The study will also add to the body of material attempting to predict the future course of the district's language and culture.

A Study of the Social and Cultural Influences Exercised by Descendants of Japanese and Japanese-Language Education on Modern Micronesia

Motoe Nakamura, Staff Researcher
Ethnological Foundation of Japan

¥1.45 million

During Japan's rule of Micronesia from 1914 until the mid-1940s, use of the Japanese language was mandatory in all schools and workplaces. As a result, the language became deeply embedded in the people's lives and influenced their sense of values. That generation of Micronesians can be compared with subsequent generations, who received an American-style education.

The present project aims to study the influence carried over from the days of Japanese-language education and the influence of people of Japanese descent born at that time. This will be done by conducting a three-month field survey and examining documents from the years of Japanese rule.

A Study of Festivals, Religious Rites, and Secular Rituals as Urban Folklore

Ryuta Imafuku, Staff Researcher
Japan Research Institute for Social Development

¥1.5 million

A city can be seen as the total human or symbolic expression of its inhabitants' folklore and religion, both in its material manifestations and in the events that take place there.

The present study adopts this view as the starting point for a survey of festivals and religious rituals in Mexican cities in an attempt to show that urban folklore is a creative element in animating modern urban culture. The study also aims to analyze the degree to which secular ritual has been incorporated into the Mexican political process and how closely it is related to folklore, in this way grasping urban ritual expression in its totality.

Chemical Analysis of the Flavor of Traditional Foods, Especially the Formation Process of Flavor Compounds in Fish Sauce

Norlita Sanceda, Research Student
Faculty of Home Economics, Ochanomizu University

¥1.7 million

Fish sauce is a traditional food made from processed

fish. Rich in protein hydrolysis products, it is highly nutritious and has an agreeable, distinctive flavor. The sauce is widely used in Japan and Southeast Asia. Several studies have been conducted on the aroma of fish sauce, but many questions remain unanswered.

The present project involves chemical analysis of the flavor compounds, and especially the aroma compounds, of *patis*, a fish sauce made in the Philippines, and Japanese *shottsuru*. An attempt will be made to clarify which substances play a role in creating aroma and to trace their formation process during the preparation of these two fish sauces.

A Comparative Study of Japanese and American Non-verbal Behavior, with the Objective of Compiling a Dictionary of Gestures

Yasuko Tohyama, Ph.D. Candidate (and one associate)
Department of English Literature, Japan Women's University

¥1.84 million

The progress of international communication and exchange has increased the need to study the gestures used in different cultures, as they are a frequent source of misunderstanding.

For this study, approximately three hundred Japanese and American gestures have been selected for analysis from video recordings of films and other sources. Meaning and use of the gestures, along with differences between the two cultures, will be explained. The ultimate objective of the study is to compile a dictionary of gestures. As the first Japanese study on this topic, the project is expected to provide important information not found in standard dictionaries and to help further Japanese-American understanding.

A Comparative Study on Japanese and American Polite Expressions and Behavioral Patterns

Sachiko Ide, Associate Professor (and six associates)
Faculty of Literature and Humanities, Japan's Women's University

¥2.0 million

If linguistic research is to further international communication, it must look at the social function of language, as well as language's basic function of conveying factual information.

This study will attempt to juxtapose polite expressions and patterns of polite behavior and then compare their Japanese and American usage through a field study of five hundred informants in each country. Rules for the use of polite expressions and rules for polite behavior will be linked by a measure of politeness termed a "parameter of psychological distance." This measure will be applied to both languages and used as the criterion for comparison.

Organizational Structure and Theory of the Japanese Warrior Group: A Historical and Cultural Anthropological Study

Walter Skya, Graduate Research Student
Department of Cultural Anthropology, University of Tokyo

¥1.56 million

Foreign interest in the Japanese warrior code is by no

means new, and there are many researchers in the field. However, the present study's American researcher is approaching the topic from the rather original perspective of the warrior code's relation to modern Japanese methods of management, a subject in which he is deeply interested.

Focusing on the Saga and Kagoshima warrior societies, the study will explore their organizational structure and way of thinking from the standpoint of the history of Japanese thought and cultural anthropology. The basic hypothesis of the study is that the group principles central to modern Japanese management have their origins in the organizational principles of the warrior group.

A Preliminary Study on the Form and Content of a New Style of Japanese-German Dictionary

Kenosuke Ezawa, Associate Professor (and three associates)
Department of German Philology, Tübingen University
¥2.0 million

Japanese-German dictionaries tend to suffer from a number of defects in form and content. As far as content is concerned, they lack a sufficient number of technical terms, examples to illustrate usage of everyday terms, and descriptive explanations.

This study, a continuation from last year, seeks to remedy such deficiencies by mobilizing the wealth of data sources currently available and utilizing the most advanced linguistic knowledge and data processing techniques. Last year's survey of vocabulary used in Japanese and German senior high school textbooks will be continued, and examples of basic Japanese and German sentences will be contrasted. The researchers will also consider the feasibility of developing a database system and using a word processor.

Research on the Development of Popular Awareness of and Attitudes Toward Continuing Education

Kaneji Okamoto, Professor (and six associates)
College of Arts, Rikkyo University
¥1.98 million

Although the continuing education system promoted by the U.N. Educational, Scientific, and Cultural Organization since 1965 has received a certain amount of attention in Japan, it seems unlikely to spread throughout the country. No research data on this matter are available.

This project aims to collect basic data and examine how continuing study could be implemented in the future. Approximately three thousand people randomly selected from various parts of Japan will be surveyed by questionnaire to ascertain study experience, study awareness, and opinions on the direction that study should follow. Thirty people from the sample will also be interviewed.

A Comparative Study of History Education in Japan and Neighboring Countries

Osamu Naruse, Professor (and fourteen associates)
Faculty of Letters, University of Tokyo
¥2.0 million

Comparative studies of history education have already

been conducted in both Eastern and Western Europe. Now that history textbooks from throughout the world are being translated into Japanese, Japan is showing increasing interest in international comparative studies of history education.

The researchers have already conducted a study of European history education in Japan from the standpoint of people involved in history education. Now they are extending their work to a comparative study of history education in Japan and its neighbors. This joint international study will initially be restricted to the countries of the Pacific basin.

A Cultural Anthropological Study on Changes in the Traditional Micronesian Medical System Caused by the Introduction of Modern Medicine

Teigo Yoshida, Professor (and three associates)
College of General Education, University of Tokyo
¥1.99 million

Unlike modern medicine, most medical-care systems in traditional societies are closely related to the cultural system as a whole, and diagnosis and treatment are performed within a social context. Consequently, study of the traditional Micronesian medical-care system necessitates investigation of Micronesian society and culture.

Using a cultural anthropological approach, the study will attempt to describe the traditional medical-care system practiced in parts of Micronesia where traditions have been comparatively well preserved and clarify changes caused by the introduction of modern medicine. This will require medical and other field studies. This year will be devoted to a preliminary investigation.

A Practical Study of Word Games as a Form of Linguistic Coaching for Disabled Children

Shuntaro Tanikawa, Poet (and five associates)
Word Play Society
¥1.9 million

Word games enable teachers and disabled pupils to play together in a total human relationship. Because word games make language enjoyable and interesting, they may stimulate disabled children to express their surprise and happiness in sounds and words.

This project will monitor disabled children's responses to word games played with their instructors on a regular basis at educational centers for disabled children. The results will be analyzed in an attempt to formulate a schematic curriculum.

A Preliminary Study on a New Type of Contrastive Analysis of Japanese and English and of Its Applications to Language Learning and Teaching

Tazuko Uyeno, Section Chief (and six associates)
Center for Teaching Japanese as a Foreign Language, National Language Research Institute
¥1.79 million

As Japanese society grows increasingly international, language education (Japanese as a first and second language and English as a second language) has become a matter of great concern.

This study utilizes a new method for carrying out a

contrastive analysis of Japanese and English. The results obtained will be used to suggest ways to improve language teaching. Analysis is based on generative grammar, and the study differs from previous studies in the field in that it deals with both discourse phenomena and intrasentential phenomena and examines developmental stages of grammar, as well as adult grammar. Use of pronouns and demonstrative pronouns, deletion phenomena, and use of conjunctions form the basis of this year's project activities.

A Preliminary Study on Social Interaction in Japanese-Owned Enterprises in Hong Kong

Sung-hsing Wang, Senior Lecturer
Department of Anthropology, Chinese University of Hong Kong

¥1.2 million

As Japanese companies have expanded overseas, increasing numbers of Japanese have been brought into contact with other cultures. A particularly Japanese mode of adjustment has developed so that the Japanese can coexist with people in societies throughout the world.

The present project will analyze social interaction between Japanese staff members and local Chinese employees in Japanese companies in Hong Kong, with particular emphasis on the Chinese side. A cultural anthropological approach will be used to analyze the way in which individuals preserve their own cultural identity while interacting with members of a different culture.

A Comparative Study on the Formation of Personal and Public Opinion in Japan, the United States, and Hong Kong

Masaki Ikuta, Professor (and eight associates)
Faculty of Law, Keio University

¥1.98 million

Doubts have frequently been expressed in regard to Japanese public opinion and awareness surveys, the majority of which only ask for the respondent's "preference" among a group of preset answers and then treat the resulting "preference pattern" as "public opinion."

This study will analyze answers to open-ended questions in an attempt to clarify the process whereby personal and public opinion is formed. It is part of a joint research project, with the same questionnaire to be used in the United States, Hong Kong, and Japan, and the answers to be subjected to the same method of analysis. The results from all three countries will then be compared.

New University Functions Based on Regional Research: Analysis of the Social Base in Relation to a Community Observatory

Tomitaro Sueishi, Professor (and twelve associates)
Faculty of Engineering, Osaka University

¥2.0 million

The third function requested of university education and research in the field of regional and environmental studies is emphasis on social services. This calls for a two-way connection between universities and local com-

munities through the creation of hardware and software for a "community observatory," which will transcend the concepts of open universities and continuing education.

This study, a follow-up of previous research on establishing a community observatory, will analyze the social conditions that prescribe the creation and expansion of such facilities. Based on the establishment of a framework for regional news media and a survey of demand for assistance in everyday activities, the study will sound out the opinions of community groups and seek feedback on the structure of social consciousness.

Research for the Compilation of a Chronological Table on the Rickshaw and Horse-drawn Passenger Conveyances

Toshihiko Saito, Senior Officer
Japan Broadcasting Corporation Library

¥980,000

The rickshaw and horse-drawn passenger conveyances played an extremely important role in land transportation in Japan during the late nineteenth and early twentieth centuries. The modern functional equivalent is the automobile. Little research has been conducted on these two forms of transportation even though they had considerable influence on labor, industry, and trade, as well as on transportation itself. In the interest of modern transportation history, basic reference materials need to be made available.

Drafts of chronological tables are to be compiled from data already collected and from supplementary surveys. On the basis of these drafts, the vehicles' composition, form of entry, and content, as well as data sources, indexes, and work procedures (including supplementary surveys), will be studied to draw up a plan for compiling a chronological table for the two modes of transportation.

A Comparative Study of Japanese and Korean Fishing Community Cultures

Syozo Masuda, Professor (and fourteen associates)
Department of Human Relations, Konan Women's College

¥7.0 million (two-year grant)

Japan and Korea have maintained close ties from ancient times to the present day. Although the formative and developmental processes of the traditions and cultures of the two countries' fishing communities are very similar, no comparative study has ever been designed or executed.

This joint project will involve fishing community sociologists, fishery economists, ethnologists, and cultural anthropologists from Japan and the Republic of Korea. Topics to be covered are: (1) the historical development of Japanese and Korean fishing communities and fisheries; (2) the social and economic structures of fishing communities and fisheries; (3) the cultures formed and developed in the spheres of fishing community production, consumption, and self-government; and (4) modern developments in the culture of fishing communities. It is hoped that this joint project will upgrade the level of research on fishing community sociology, fishery economics, and fishing community eth-

nology in both countries. In addition, this opportunity for scientific and cultural exchange should help maintain the close links between Japan and the Republic of Korea.

A Study on the Development of Japanese-Language Newspapers in North America

Norio Tamura, Associate Professor (and seventeen associates)
Faculty of Business Administration, Tokyo College of Economics

¥8.0 million (two-year grant)

Japanese-language newspapers have been published in North America for the past century. In that time they have played an important role in mediating between the two cultures and increasing Americans' understanding of Japan, in addition to providing a medium of communication for Japanese-American communities.

The purpose of this study, a continuation from last year, is to trace the development of Japanese-language newspapers in North America by examining materials on the early days of these newspapers before they are lost and by interviewing people involved with the newspapers. Last year's preliminary study was devoted to such basic procedures as tracing the history of the newspapers, conducting a sociological analysis of the newspapers and Japanese-American communities, compiling a bibliography and chronology, and cataloging places of publication. This year's study will focus on regional newspapers and newspaper publishers, including camp newspapers published in the Rohwer Relocation Center during World War II, the development of Japanese-language newspapers in the Toronto area, a short history of Japanese-language newspapers in Denver, Chicago, and Salt Lake City, the development of Japanese newspapers in Vancouver, and the history of *Rafu Shimpo*.

Interdisciplinary Research on the Ishiguro Collection and Related Materials in the Koju Library: The Sociocultural Significance of Academic and Technical Studies Pursued by the Country Gentry in the Late Edo Period

Masaru Kusunose, Professor (and eight associates)
Faculty of Humanities, Toyama University

¥2.1 million

The famous *wasan* (Japanese mathematics) scholar Nobuyoshi Ishiguro (1760-1836) and three generations of his descendants also studied calendar making, astronomy, land surveying, and navigation. The Koju Library in Shin Minato, Toyama Prefecture, houses a collection of books, documents, records, maps, and other apparatus related to their studies.

The present project, now in its third year, aims to present new data and a new perspective on the modernization of Japan by clarifying the practical and rational nature of the Ishiguro family's studies through interdisciplinary research on the materials in the Koju Library. It will also be shown that such academic and technical pursuits of the country gentry in the late Edo period paved the way for the acceptance and rapid diffusion of modern Western science and technology after the 1868 Meiji Restoration. Having already examined ap-

proximately 3,800 pages of material, the researchers will devote the third year of their project to describing the business and social activities of the Ishiguro family, their teacher-student relationships, and their interchange with other intellectuals inside and outside their *han*.

A Comprehensive Survey of Straw Culture in Japan

Katsuhiko Sakamoto, Professor (and twelve associates)
Faculty of Engineering, University of Chiba

¥2.2 million

Straw is used in Japanese daily life in a variety of ways. It also plays a vital role on special occasions, such as festivals. In fact, straw is used to such an extent that Japan's traditional material culture can be described as a "straw culture."

This study, now in its third year, aims to provide an objective record of straw culture in Japan and neighboring countries at a time when this culture is rapidly dying out. Based on the results of research conducted in fiscal 1980 and 1981, the researchers will (1) clarify the climatically determined nonstraw culture of various regions and its relation to straw culture and (2) conduct a field survey in Korea, where some of Japan's straw culture originated, using comparative analysis to elucidate the beginnings and genealogy of Japan's straw culture.

Recording and Translation of Oral Traditions of the Ainu Culture

Sasuke Ogawa, Director (and nine associates)
Association for the Preservation of Ainu Folklore

¥10.0 million (two-year grant)

The traditions of the Ainu culture, which are highly original from the viewpoint of cultural history, have been passed down orally from generation to generation. In view of the theory that the Ainu are a Jomon people, who flourished in prehistoric times, study of the Ainu should not only throw light on ancient Japanese culture but also provide clues to the place of the Japanese people and their culture in world history. However, the Ainu have no written language. Their entire cultural heritage has been passed down orally, and it is feared that the culture will die out as the number of old people who can speak the Ainu language decreases. Consequently there is an urgent need to record their ancient oral traditions and translate those that have already been recorded.

The aim of this study is to record more traditions as told by old Ainu storytellers to supplement the one thousand hours of taped Ainu folklore that the association has already collected over the past five years and to transcribe the tapes in the Ainu language for translation into Japanese with an English summary.

A Study of the Narrative Tradition of Blind Monks

Yasuaki Kato, Associate Professor (and nine associates)
Faculty of Education, Ibaraki University

¥6.0 million (two-year grant)

Oral narrative occupies an important position in the history of Japanese literature and performing arts. *Sekkyo* and *saimon* are particularly noteworthy genres of this tradition. In Kyushu and Yamaguchi prefectures,

jishin moso (blind monks) still perform the purification ceremony for the god of the kitchen fire and many other religious rites involving *sekkyo* and *saimon*. The tradition has not yet been made the subject of interdisciplinary study, but the need to do so is urgent because many of the narrators are so old that the tradition may soon die out.

The aim of the present study, a continuation from last year, is to collect basic materials through field studies of ritual performances and have the material analyzed by researchers in Japanese literature, musicology, the history of the blind, ethnology, and other fields. This interdisciplinary approach is intended to depict the living oral narrative tradition within the context of ritual performance.

A Study on the Relationship Between Universal High School Education and Higher Education

Tadashi Hidano, Director (and six associates)
Research Division, National Center for University Entrance Examinations
¥3.5 million

In Japan, with the exception of the Joint Achievement Test, little consideration has been given to continuity between high school and university education. Initiated four years ago, the Joint Achievement Test takes high school curricula into account in its test questions, whereas second-stage national and public university examinations and private university achievement tests pay insufficient attention to high school curricula. Educational organizations and the Ministry of Education are only now becoming aware of the problem, and the quality and quantity of research on both the high school and university levels need to be improved in order for progress to be made.

This study, which began last year, can be termed a scientific policy study on school education. Areas of focus are (1) the content and teaching of high school curricula from the viewpoint of university education, (2) mathematics, science, and English education, where continuity between the two educational levels is particularly important, and (3) the relationship between secondary and higher education in Europe and the United States.

A Study of the "Hidden *Nembutsu*" and Discrimination Against *Buraku*

Kenko Futaba, President (and thirteen associates)
Ryukoku University
¥6.0 million (two-year grant)

Discrimination against *buraku* people, whose families were traditionally engaged in leather work, butchery, and other occupations considered demeaning by Buddhism, remains very much alive today. Independent research by the project team members over the past two years has clearly shown that the growth of discrimination against *buraku* people in feudal times under the rule of the Shimazu and Sagara clans was closely connected with the banning of the Pure Land sect of Buddhism.

The present study is an attempt to clarify the historical relationship between the outbreak of discrimination against *buraku* people and the advent of secret gatherings for chanting the *nembutsu* caused by

the banning of Pure Land Buddhism in Satsuma, Osumi, part of Hyuga, and Ryukyu (which were under Shimazu rule) and the Hitoyoshi region (which was under Sagara rule). Believers forfeited their social status and were reduced to the level of outcasts, but chanting the *nembutsu* in secret gatherings produced a solidarity that overcame the barrier of social discrimination. By bringing these historical facts to light, the study will clarify the origins of present-day discrimination and offer a reappraisal of religion and the meaning of faith. This should serve as a significant commentary on modern life.

A Study on the Function of Career Differentiation in Japanese High Schools

Ikuo Amano, Associate Professor (and eight associates)
Faculty of Education, University of Tokyo
¥3.5 million

The universalization of upper secondary education means that high schools now play an important role in determining young people's educational and professional careers. Although about half of all high school students seek employment upon graduation, very little attention has been paid to the role of high schools in preparing students for jobs. Attention has focused almost exclusively on students who plan to go on to higher education.

The aim of this study, a continuation from last year, is to clarify the role of high schools in determining students' careers, termed here as the "career-differentiation function," especially the hitherto neglected function of occupational allocation. Last year's activities took a macro view, as career-differentiation trends were analyzed on a national and prefectural scale and a preliminary survey of high school career guidance systems and relations with companies was conducted. This year the researchers will undertake a field survey of the micro process—the formation of students' career consciousness—with the aim of portraying the function of career differentiation in high schools in its totality.

A Study on Western Science in Southwestern Japan

Isao Sugimoto, Lecturer (and nineteen associates)
Musashi Institute of Technology
¥2.5 million

There is substantial evidence that the influx of Western science into Japan in the late Edo period, which ended in 1868, played a decisive role in Japan's modernization. Although the public has finally been given access to related historical materials, research based on these materials is still in its infancy.

Researchers in the fields of Japanese history and the history of science and technology are working in close collaboration on this project, a continuation from last year. They have been collecting and sorting materials on southwestern Japan, which for many years was the most advanced area of the country in regard to the introduction of Western science, for the eventual publication of monographs. Last year they began to collect supplementary materials and annotate the most important. This year the survey of written materials will be continued, while an archaeological study of relevant historical remains will be conducted using natural science meth-

odology. It is hoped that the annotation of historical materials will be completed so that analysis and discussion may proceed in preparation for the editing and publication of a well-organized and comprehensive reference book.

Survey and Cataloging of Historical Buildings in Hokkaido

Eizo Ohtaki, Adviser (and nine associates)

Hokkaido Society of Architects and Building Engineers

¥3.0 million (two-year grant)

The development of Hokkaido really began in 1869, when the Colonial Department was formed. During the intervening century, time and social change have taken their toll on Hokkaido's historical buildings, and records of the buildings have been mislaid. This is a great loss to students of Hokkaido's history.

In an attempt to remedy the situation, this project will collect materials concerning the construction dates, locations, and histories of such buildings and examine their remains. With the collaboration of residents and local historians the researchers will catalog buildings, especially theaters, traditional restaurants, and other buildings that are dear to the general public, in 212 communities in Hokkaido. It is hoped that the survey materials, which are to be donated to Hokkaido as a permanent record for general use, will aid future studies of Hokkaido buildings.

Special-Subject Research: Changes in Local Communities

A Field Study on How People in Snowy Districts Feel Toward Snow in Terms of Their Daily Life and Living Space and Changes in These Attitudes, with Special Reference to Kuroishi, Aomori Prefecture

Yoshihiko Sasaki, Professor (and four associates)

Department of Architectural Engineering, Hachinohe Institute of Technology

¥2.8 million

Heavy snowfall clearly interferes with regional industrialization and market growth in Japan's snowy districts. It is also obvious that the technical means of conquering this obstacle are limited. Having acknowledged that development of snowy districts should be geared toward adapting to, rather than resisting, snow, the researchers set out to examine traditional attitudes toward heavy snowfall in terms of the people's daily life and living space, as well as the industry of snowy districts, and changes in these attitudes from the Taisho era (1912-26) to the present. It is hoped that the framework of attitudes toward snow that they seek to define will contribute considerably to drafting development plans in snowy districts.

In a continuation of research begun in Kuroishi,

Aomori Prefecture, last year, the researchers will incorporate three major elements into their study this year. First, they will analyze attitudes and trends in attitudes in terms of the quality and quantity of snowfall. Second, they will seek objective data to substantiate the results of the interviews they conducted last year. Third, through a detailed investigation of architecture and snow-removal methods, they will analyze spatial attitudes and changes in such attitudes.

A Study on Changes in the Central Role of Women in Childbirth

Noriko Yoshimura, Homemaker

¥0.88 million

The researcher feels that while advances in medical technology have made childbirth safer, they have also relegated women giving birth to the role of obstetrical patients. Through her own experience with childbirth and through research she conducted last year, the researcher has concluded that the central role when childbirth takes place in fully equipped medical facilities no longer lies with the women who are giving birth but has been assumed by doctors and other delivery-room staff.

Drawing on the results of her fiscal 1981 research, which involved interviewing women of various ages living on a remote island in the Inland Sea about their childbearing experiences, the researcher will continue to investigate how societal transitions have affected the central role of women in childbirth by conducting comparative studies on two other remote islands.

An Empirical Study of Biological, Medical, and Social Changes in the Environment of the Shiranui-kai Area

Masazumi Harada, Associate Professor (and thirteen associates)

Institute of Constitutional Medicine, Kumamoto University

¥6.7 million (two-year grant)

Today, twenty-six years after the official outbreak of Minamata disease, there are still several thousand applicants for official recognition as victims of this disease in the area around the inland bay of Shiranui-kai. Although it is recognized that the incidence of this central nervous system disease is significantly greater in this area than elsewhere, there is still no official definition of Minamata disease that sets minimum standards for diagnosing this illness. Moreover, many coastal residents afflicted with chronic, symptomless forms of Minamata disease have been medically and administratively neglected. To analyze the factors underlying this situation and to decide what relief measures should be taken, it is essential to regard the disease as one with social and political implications. This is particularly urgent because a sludge reclamation project in Minamata Bay, which lies at the southern end of Shiranui-kai, threatens to cause major changes in the area's ecosystem and local communities.

This study, a continuation from last year, involves analyzing daily journals to be kept according to a specific format for a period of one year by five hundred fishing households along the coast. Seeking to help define the disease and to facilitate relief measures for its victims, the

researchers will use the journals to clarify the connection between fishing in the region and sensory impairment and to increase awareness of the hardships of life in this area. The researchers also plan to study the present conditions of and changes in the area's ecosystem, particularly that of the bay bottom; the movement of mercury in the bodies of fish inhabiting the bay bottom; and the development of discrimination against victims of Minamata disease as the region has undergone structural change.

A Study of the Process of Change in the Life Style of Farm Households in the Rural Industrial Region of Kami-ina

Eiichi Eguchi, Professor (and seven associates)
Faculty of Economics, Chuo University

¥2.0 million

Until now, most research on part-time farm households has examined this subject in terms of farm management, the structure of agricultural production, and the structure of the farming population. Today, however, this perspective no longer suffices for obtaining a thorough grasp of all aspects of the life of part-time farm households. The life style of such households is becoming more complex, and part-time employment off the farm is becoming so prevalent that some people are beginning to refer to such households as workers' households engaged in part-time farming.

The present study, a continuation from last year, overcomes past limitations on research methods and strives for a broader perspective in analyzing the living conditions of part-time farm households, which have two very diverse and intricately meshed aspects: an agricultural, peasant element and a nonagricultural, labor-oriented element. The analysis will center on areas where contradictions in the lives of these households are concentrated. Using the problems of the elderly as their primary focus, the researchers will explore the structure of such issues as poverty in farm households and agricultural communities, social security and social welfare in agricultural areas, and unemployment.

A Study on the Systematization of Regional Forestry in Old Hongawa-go (Source of the Yoshino River)

Fumihiko Matsuura, Chief Researcher (and fourteen associates)
Regional Planning Department, Nishi-Nihon Technology Institute Co., Ltd.

¥2.6 million

Kochi Prefecture's mountainous region, which with its many dams serves as the source of Shikoku's water supply, is also widely known for being one of Japan's most seriously depopulated areas. The researchers believe that the maintenance of dams is closely related to maintaining local communities in the mountains to administer and preserve forests. Focusing primarily on Okawa, a village that lies upstream from Sameura Dam, Shikoku's largest dam, and is part of what was once Hongawa-go, last year's preliminary study explored the weakening of regional society and the process of change in the ownership and administration of the area's forests as its population has shrunk.

Using the results of the preliminary study, this year

the researchers will examine conditions enabling long-term forest ownership, the administration of forest land belonging to absentee owners, and the role and function of forestry cooperatives and state ownership of forests in relation to the administration of privately owned forest land and regional forestry. The study will also explore the possibility of reorganizing the weakened functions of local communities and devise a plan for such reorganization, as well as assess current knowledge on the systematization of regional forestry and related technology. At the completion of their two-year study, the researchers hope to present concrete suggestions regarding the means of establishing regional forestry in the former Hongawa-go area.

A Study on Urbanization in the Mama-gawa River Basin and Its Effects on the Structure of Local Life

Kimio Takano, Director (and twelve associates)
MANU—Laboratory of Urban Design and Architectural Planning

¥2.1 million

A number of disputes have recently broken out between those advocating projects for improving minor rivers and environmental preservationists. A typical example is the opposition to plans for improving the Mama-gawa, a medium-sized river flowing through Ichikawa City in Chiba Prefecture, by members of a movement to preserve the cherry trees that line the river's banks. The most crucial issue is how to reconcile the need for improvements to make the river safer and the preservation of the riverside environment.

A group of Mama-gawa river basin residents that comprises researchers representing a number of fields as well as individuals with various points of view seeks to resolve the above dilemma from its members' stance as local residents. During the first two years of this study they clarified the progress of urbanization in the river basin and related changes in the living environment, the residents' actual use of the riverside area, increases in flood damage as urbanization has progressed, and so forth. This year they will conduct a detailed survey of changes in the life cycle and attitudes of people living along the river. By synthesizing the results of this three-year study, the researchers plan to draft a proposal for implementing river improvement plans that are harmonious with the goals of environmental preservation.

A Study on Changes in the Development and Use of Water Power in Osaka Prefecture, with Special Reference to the Water-Mill Industry of the Old Settsu District

Tsutomu Demizu, Teacher (and five associates)
Fujidera Technical School, Osaka

¥1.5 million

Prior to World War II, rural industries using water-mill power flourished in Osaka Prefecture. A brief postwar resurgence in water-mill power dwindled as a wave of technological innovation swept the country, and many businesses depending on the low-cost power supplied by water mills collapsed. Among those affected was the isinglass industry, which has a history of more than three hundred years. The production of isinglass was wide-

spread in the old Settsu district until the industry vanished as urbanization swept onward.

The researchers seek to clarify the significance of traditional industries that continue to exist in modern society by examining the interrelationship between such a rural-based industry as the isinglass industry and regional society. After ascertaining the nature of traditional industries and exploring the process by which the society of the northern Settsu district became urbanized, they will analyze what led to the collapse of such water-mill industries as isinglass production. In addition, they seek to determine the effect of the isinglass industry's decline on the region's living standards. Using data gathered this year and in the two previous years of the study, the researchers hope to explore the possibility of transferring water-mill technology to the developing countries.

Research Contests on the Theme "Observing the Community Environment"

Research Contests have been held biennially since fiscal 1979, when the first contest was held on the theme "Observing the Community Environment." The purpose of these contests is to encourage specialists and local residents to cooperate in implementing long-term research on the community environment.

Schedule	First Contest	Second Contest
Acceptance of research contest applications	October 1979–January 1980	October 1981–January 1982
Selection of candidates for research awards	March 1980	March 1982
Preliminary studies by award candidates	April–September 1980	April–September 1982
Selection of award recipients	October 1980	October 1982
Implementation of research projects	October 1980–October 1982	October 1982–October 1984
Decision on special research award recipient	March 1983	March 1985
Implementation of special research award project	April 1983 on	April 1985 on

The Foundation did not solicit contest applications this year. Several activities were conducted during the year, however, in connection with the ongoing first and second Research Contests. Project teams participating in the first Research Contest presented reports on the research they had conducted over the past two years. A selection committee screened the reports and selected one project as a special research award recipient. Presentation of the award and a commemorative symposium took place on April 2, 1983,

in Gifu Prefecture, home of the winning project team. Twenty award candidates in the second Research Contest presented the results of their six-month preliminary studies. A selection committee reviewed the studies, awarding the gold prize to four candidates and the silver prize to eight candidates. These twelve project teams will continue their research for two years, until autumn of 1984.

The Selection Committee for the first Research Contest consisted of Makoto Numata (head), Yujiro Hayashi, Masami Ichikawa, Jiro Kondo, Yujiro Nakajima, Keiko Nakamura, Saeko Saegusa, Toshitaka Shibata, Ushio Takeuchi, Akira Tamura, and Hiroshi Yagyu (committee members), and Konomu Matsui, Hideo Ohara, and Shigemi Takayama (specialists). The Selection Committee for the second Research Contest is also chaired by Makoto Numata and consists of Takahisa Han'ya, Tadoru Kato, Noboru Kawazoe, Keikichi Kihara, Yasuo Maeda, Konomu Matsui, Keiko Nakamura, Tomitaro Sueishi, Toshitaka Shibata, Akira Tamura, and Atsuo Ujiiie.

First Research Contest—Special Research Award Recipient

Research Topic	Research on the Habitats of Mammals in Gifu Prefecture, the Condition of the Environment, and Environmental Education in the Area
Project Team	Gifu Prefecture Mammal Study Group, Gifu Prefecture
Team Members	Occupation and Organizational Affiliation
<i>Team Leader</i>	
Tatsuo Kawasaki	Vice-Principal, Kagamihara High School
<i>Associates</i>	
Etsuyuki Iwata	Professor, Shotoku Gakuen Women's Junior College Professor Emeritus, Gifu University
Keisuke Ishida	Researcher, Gifu Institute for Educational Research and In-service Training
Shiro Ando	Teacher, Furui Elementary School, Minokamo City
Tadaaki Inoue	Teacher, Gifu Norin High School
Toshiyuki Ezaki	Teacher, Hashima Kita High School
Keiichi Kajjura	Teacher, Kamo High School
Hiroyuki Kaneko	Teacher, Gujo Kita High School
Koshin Kimura	Lecturer, Nagoya Gakuin University
Yoshiaki Shibata	Staff Researcher, Gifu Prefectural Museum
Itsuhiro Taguchi	Teacher, Gifu Shogyo High School
Tadaatsu Nishio	Teacher, Gifu Kita High School
Hajime Niwa	Teacher, Nakatsu High School
Shizumu Hirose	Director, Research Department, Japan Monkey Center
Masahiro Fujio	Teacher, Hita Norin High School
Hidenobu Mori	Researcher, Gifu Institute for Educational Research and In-service Training
Yasuo Yamada	Vice-Principal, Kaizu High School

Kazuhiko Yoshikawa Teacher, Iwamura High School
Yoshiro Watanabe Teacher, Kagamihara High School
Yoki Iwata Teacher, Nagara High School

The project team was awarded a trophy and a prize of ¥2 million, as well as a grant of ¥10 million for long-term research activities.

Outline of the Winning Research Project

The purpose of this project was to study the habitats of mammals in Gifu Prefecture to gauge how recent rapid environmental changes in the area have affected the overall ecosystem and the human habitat. The results will be made available to all Gifu residents, including children, and will be used to compile materials for school and social education.

The project team decided to survey medium-sized and large mammals, because the evolutionary origins and modes of life of these animals are considered to be evidence of their close affinity with human beings. The team selected nine mammal families and fifteen mammal species for research. Selection was made on the basis of whether the animals (1) were familiar to humans and easily identifiable, (2) had close contact with humans, and (3) were accurate environmental indicators. The Japanese serow (*Capricornis crispus*) was omitted from the survey because of administrative problems that rendered the animal incompatible with the survey's aims.

Researchers carried out surveys on habitat, folklore, and environmental education. For the survey on habitat, Gifu Prefecture was divided into 477 survey blocks. A 929-item questionnaire was distributed to hunters, farm and forestry workers, science and biology teachers at elementary, middle, and high schools, and prefectural nature-conservation personnel in each block. Site surveys were conducted to verify information in cases that were unclear. The survey on folklore consisted of an investigation into the history and ancient literature of cities, towns, and villages throughout Gifu and interviews with elderly residents and veteran hunters. A 156-item questionnaire was also given to old people and nature conservation officers who were longtime residents of their areas. Studies on environmental education centered on a 261-item survey investigating awareness of the natural environment among students at thirteen prefectural high schools, one middle school, and one elementary school. Students' parents also participated in this survey. Schools set up classes in environmental studies to teach students about the habitats of mammals in Gifu Prefecture.

Award Recipients for the Second Research Contest

The Role of Marine and Shore Pollution in Altering the Squeaking Sound of the Sand on Oshima Kugunari-hama Beach in Kesennuma City

Hideo Araki

Kugunari-hama Study Group, Miyagi Prefecture
¥5.0 million (Gold Prize)

This project will study Kugunari-hama Beach, which stretches approximately three hundred meters along the northeastern corner of Oshima, a nine-square-kilometer island located in Kesennuma Bay. The beach derives its

name from the squeaking sound the sand emits when trodden on. This sound has changed in recent years, however, and marine and shore pollution have been suggested as possible causes.

The aim of this research is to determine the real cause of the change in the sand's sound by empirically testing three hypotheses formulated during the preliminary research period: (1) that marine pollution in Kesennuma Bay has begun to affect Kugunari-hama Beach, (2) that altered ocean currents have diminished

the cleansing effect of waves, and (3) that the increasing numbers of people visiting the beach have aggravated shore pollution. The project team is composed mainly of Kesenuma municipal employees involved in fields ranging from cultural properties, education, and tourism to fisheries and civil engineering. It is hoped that the project will yield basic data that will be of value to scientific research and local environmental administration.

An Examination and Re-creation of Living Space by Drawing Maps of Three Generations of Play Areas in Sangenjaya: Collecting Data on the Past and Surveying the Present Situation

Yukio Ishikawa

Sangenjaya Branch, Study Group on Children's Play and the Neighborhood, Tokyo Metropolis

¥5.0 million (Gold Prize)

This project will study the Sangenjaya area of Tokyo's Setagaya Ward, a community where vacant lots, open spaces, and other children's play areas disappeared rapidly as urban sprawl took place following the great Kanto earthquake in 1923. The area's labyrinthine road network, high population density resulting from the excessive subdivision of residential land, few public facilities, and notably insufficient amount of open spaces and green areas have created an environment that is highly unsuitable for children.

For this research a group composed of Sangenjaya residents involved in finding solutions to this problem, as well as students and young researchers, will interview children, parents, and older residents in the area. The data will be used to draw maps of Sangenjaya's play areas. In tracing the transition in children's play areas, the researchers seek to examine the present situation and restore a better living environment. By involving area residents in the survey and map drawing, the research is expected to stimulate local interest, promote activities in which residents evaluate their community, and lead eventually to resident-initiated neighborhood planning.

A Study of Citizen-Participation Activities in Community Development and of the Educational Qualities of the Environment, with Special Reference to Otaru's Historical Environment

Kyojiro Sasaki

Society for Community Development in Otaru, Hokkaido

¥2.0 million (Silver Prize)

When plans to fill in the Otaru Canal to facilitate road construction were announced, Otaru citizens mounted a protest and started up various activities aimed at preserving and rejuvenating Otaru's historical environment, including the canal itself and stone warehouses in the area. Participation in these activities enabled the citizens themselves to verify the significance of such activities, an important factor in the consideration of new citizen-oriented cultural activities.

The project will collate and record citizens' activities conducted over the past ten years and investigate how adults' and children's attitudes toward these activities have changed. It is hoped that this research will help raise the quality of citizen-participation activities, resulting in the higher quality of all activities in Japan that aim to preserve and renovate historical sites.

Research on the Hilly Urban Environment of Nagasaki and a Comprehensive Reconstruction Plan

Toshikide Katayose

"Rediscover Nagasaki" Research Group, Nagasaki Prefecture

¥5.0 million (Gold Prize)

The postwar development of both large and small residential communities in Japan has resulted in the widespread appearance of hilly urban settlements. Safety in the face of natural calamities is a vital condition of such settlements, yet few cities meet this condition. The difficulties inherent in solving the safety problem became apparent when Nagasaki, a typically hilly urban area, was extensively damaged by localized torrential rain while the project team was conducting its preliminary research.

Drawing on the experience of the recent disaster in Nagasaki, this project seeks to formulate measures that will ensure both the safety and comfort of hilly urban environments, with special reference to the Nakajima River basin. Besides local residents and specialists, the project team consists of the Save the Nakajima River Group, whose members have spent years campaigning for the reconstruction of the Nakajima River. If a comprehensive reconstruction plan can be devised that incorporates the ideas of local residents and respects specialists' opinions, the project will be of significant social and scholastic benefit.

Research on the Availability of Information to Aid in Observing the Community Environment

Tsuyoshi Sasada

Hyogo Regional Data Study Group, Hyogo Prefecture

¥2.0 million (Silver Prize)

Residents observing the community environment who are not specialists in that field often need more time to set research goals and formulate hypotheses when data are incomplete. Their research is thus delayed, and they are left with less time to solve problems that arise during their investigations.

This project will study Sanda in Hyogo Prefecture, a city that is the site of numerous development projects. A team of local residents, administrative officials, and environmental engineers using the latest video data processing techniques will study the maintenance of a data base and the development of a data service system that will provide residents with readily available visual data on the community environment. A data base will be made available to elementary school pupils and residents at large on a trial basis to test its popularity and comprehensibility. The results will be used to improve data service systems.

Although this research does not involve direct observation of the environment, the researchers believe it is significant in that it enhances residents' concern for their environment.

A Survey on the Prevalence of Influenza in Maebashi City and the Effect of the Influenza Vaccine

Shuzo Yugami

Study Group on the Effect of the Influenza Vaccine, Gumma Prefecture

¥2.0 million (Silver Prize)

A definitive field survey has yet to be conducted on

large-scale inoculation using the influenza vaccine, despite controversy over the efficacy of the vaccine, reports of deaths believed to be caused by the vaccine's side effects, and numerous other problems related to health administration.

This research project will consist of a long-term follow-up survey on the prevalence of influenza in Maebashi City since 1979, when inoculation using the vaccine was suspended. The survey will be conducted mainly by the group of doctors that recommended the suspension. Over a five-year period, blood samples will be gathered and antibody checks made on a control group of students. Virus isolation tests and examinations of antibody increases will be conducted to ensure that influenza is correctly diagnosed, and not confused with other afflictions, such as colds.

This type of survey would not be possible without the cooperation of teachers and other school staff and the local government, as well as the enthusiasm of the doctors. Maebashi meets all these conditions and is the ideal field for research of this type.

Analysis of Places Named *Koaza* to Determine the Use of Space in Farm Villages, with Special Reference to the Rokugo District of Yonezawa City

Toru Iwao

Environmental Agriculture Study Group, Yamagata Prefecture

¥2.0 million (Silver Prize)

The Rokugo District, located four kilometers northwest of the urban area of Yonezawa City, is a typical rice-growing area that has over two hundred places named *koaza*. In existence since before the seventeenth century, these names incorporate various meanings, the more common being descriptions of the way hamlets and the area as a whole developed. This research will analyze the natural, social, and historical aspects pertaining to *koaza* to clarify and remedy changes in the environment and other environment-related problems confronting modern-day farm villages.

The project team consists of Yonezawa residents employed at local institutes and researchers in Tokyo. For the purposes of this research an environmental unit is defined as a living space containing a certain group of components, such as a hamlet, farm houses, and rice paddies. Use of this definition clarifies the basic structure of life in the area and will enable residents to compile a map of their community after a comprehensive analysis of alterations in place names and the place names that are in use now. It is hoped that the study will contribute to formulating new methods of community planning.

An Empirical Study on How Children Assess the Scenery in the Shuri District of Okinawa

Takayuki Ikeda

Shuri Neighborhood Study Group, Okinawa Prefecture

¥2.0 million (Silver Prize)

The district of Shuri, located on the gentle slopes of northeastern Naha, Okinawa, is the site of a former castle town built during the Ryukyu monarchy. Although destroyed by fire during World War II, the district still possesses numerous historical and cultural relics, as well as outstanding scenery. Naha's popula-

tion, however, is growing, and the city is becoming choked with high-rise buildings, resulting in a rapid alteration of this scenery.

The purpose of this project is to examine local children's attitudes toward the scenery in Shuri and how the district should look in the future. A previous study dealt with adults' (mainly researchers') assessment of the scenery in the Shuri district. Seeking ideas from children, the future administrators of the environment, is significant in terms of stimulating their interest and awareness of the community environment. The research will be conducted by elementary, middle, and high school art teachers, because of their ability to grasp children's perspectives accurately.

An Attempt to Assess the Impact of Empty Bottles and Cans on the Environment and to Formulate Appropriate Countermeasures for Three Cities in the Semboku District of Osaka Prefecture

Kazumi Akasaka

Society for a Beautiful Izumi, Osaka Prefecture

¥2.0 million (Silver Prize)

The problem of bottle and can litter has been the subject of various studies and local campaigns throughout Japan. Nevertheless, explicit countermeasures at the national and local levels are still not forthcoming. Scientific studies also have failed to construct social science models that utilize survey results on specified areas to explore comprehensively the technology, cost, and effect of the occurrence, disposal, and recycling of litter in urban areas.

The researchers are aware that administrative authorities cannot be entirely responsible for the disposal of litter. Therefore, the project team is made up mainly of local citizens, who will investigate the problem and participate in solving it with the aid of public employees and specialists. The researchers will establish a system to assess the impact of litter on the environment, experimenting with countermeasures that take into account the characteristics of the area. It is hoped that the predominance of local citizens on the project team will lead to the formulation of a model for volunteer activities rather than one that merely assists public litter-disposal programs.

A Survey on the Development of Community Housing and Local Culture by Local Builders in Kumagaya

Yoshifumi Tokita

Kumagaya Study Group on Local Housing and Community Development, Saitama Prefecture

¥2.0 million (Silver Prize)

The outer appearance of individual houses determines the overall visual effect achieved in an urban residential area. The manner in which the architecture of each house blends with its surroundings is vital in determining an aesthetically pleasing urban environment.

This project will examine the effect that the construction of individual houses is having on overall community planning in Kumagaya, Saitama Prefecture, a city on the outskirts of the Tokyo metropolitan area that is relatively stable and autonomous. The study group consists of architects, designers, researchers, and local workers directly involved in housing construction—scaf-

fold workers, carpenters, plasterers, tilers, painters, electricians, and tatami layers. The researchers will evaluate the current situation by compiling data on the housing construction industry in the Kumagaya area and investigating and recording the administrative factors involved in housing construction. They will also promote communication between builders and citizens by holding special ceremonies related to house building. The special nature of the study group will be put to use by conducting on a trial basis events that appeal to youngsters, such as a carpentry festival for children.

A Study of Nonvolcanic Terrestrial Heat in the Northern Kanto Plain

Fumio Kobayashi

Study Group on Nonvolcanic Terrestrial Heat in the Northern Kanto Plain, Gumma Prefecture

¥2.0 million (Silver Prize)

Terrestrial heat is a vital factor in our understanding of the environment. The conditions under which such heat can be controlled are complex and differ from region to region. To analyze these conditions it is necessary to conduct numerous surveys, as well as to assess in detail the natural, artificial, and regional characteristics of an area.

This research project will make numerous measurements of terrestrial heat at the surface and in the rock strata of the northern Kanto Plain and will clarify various environmental conditions in this region, specifically in relation to ground water.

The project team will consist of the Gumma Prefectural High School Education Research Study Group's Geology Subcommittee, which will be aided by local elementary and middle school teachers. It is hoped that the joint efforts of local schoolteachers in recording natural phenomena will give impetus to the field of regional studies and will contribute effectively to education on local environments.

Research on the Ecology of and Measures to Protect the Toyohinakomori Bat (*Vespertilio orientalis*) of Aomori Prefecture, with a View to Studying Mating Colonies in Temmabayashi-mura and Aiming at the Establishment of Artificial Nesting Facilities

Noriaki Nara

Bat Study and Protection Group, Aomori Prefectural Environmental Protection Society, Aomori Prefecture

¥5.0 million (Gold Prize)

The Toyohinakomori bat is relatively rare in Japan, and its behavior and life cycle are not well known. Mating colonies have been identified, however, at five locations in Aomori Prefecture: Temmadate in Temmabayashi, Kamikita County; Shimokita-cho in Mutsu City; Sakaizeki in Hirosaki City; Kashiwazaki in Hachinohe City; and Hikujiirizaka in Sannohe-machi, Sannohe City. This project will research each area, especially the village of Temmabayashi, where human activities have interfered with the bat's mode of life. Although the researchers have succeeded in establishing artificial nesting facilities, many problems must be solved before large numbers of the bats can be accommodated in conditions approximating their natural habitat and a stable bat colony can be established.

The research team consists of specialists affiliated with Hirosaki University and teachers and students from local middle and high schools. In addition to investigating the bat's habitat, the group will conduct studies on methods of maintaining the Temmadate colony and transferring the bats to artificial facilities. It is hoped that the results of this research will be of practical value in the protection of wildlife in Japan.

International Grant Program

The Foundation's international grant program is currently directed chiefly toward Southeast Asian countries. Drawing on its six years of experience in assisting researchers in these countries, in fiscal 1982 the Foundation concentrated on the following two fields: (1) projects aimed at preserving and revitalizing indigenous cultures and (2) projects aimed at fostering healthy, self-reliant young people. The Foundation is placing priority on projects that exhibit the following characteristics:

1. Projects initiated and carried out by indigenous researchers.
2. Projects initiated by universities and nongovernmental (nonprofit) organizations, especially independent projects undertaken at local universities, take precedence over those initiated by the governments of Southeast Asian countries or by international organizations.
3. Projects that do not represent research for research's sake but offer the prospect of practical results with a discernible social impact.
4. Projects that go beyond the academic sphere and have as much relevance as possible for the general public.

The application procedure for international grants is as follows: People in Southeast Asian countries wishing to apply for an international grant should submit directly to the Foundation's International Division a brief letter in English describing the proposed project and its goals. (The Foundation has its only office in Tokyo and does not maintain field offices abroad.)

In general, the Foundation does not approve grants for endowments; building construction; equipment procurement; museum or library acquisitions; annual budgets of institutions or established programs; propaganda or lobbying activities; religious activities; research for the sake of research, such as projects that have no practical foundation or are deemed unlikely to produce results with any social impact; or salaries of project leaders or researchers.

There are no fixed deadlines for submitting applications. The Foundation will require from six months to one year to review an application depending on the nature of the project's proposals and the amount of information provided by the applicant(s). In

most cases, the Foundation's professional staff will visit the applicant(s) to gather necessary information before and during the review period. For projects with a duration of more than one year, applications must be submitted each year. Grants are approved at the Board of Directors' meetings, which are held three times a year.

Implementing an Appropriate Preschool Educational System for Children in Impoverished and Rural Areas

Professor Kawee Tungsubutra, Rector
Khon Kaen University

¥6.16 million

This project, initially awarded a grant in June 1981, is in its second year. It aims, with the cooperation of village priests and residents, to establish and develop day-care centers based on the Montessori method in villages located in northeastern Thailand, the country's most impoverished region. The centers will be located at village temples, and priests and villagers will be encouraged to take full responsibility for their staffing and financing.

During the first year, two new day-care centers were established, lectures and training in the use of Montessori materials were held at existing centers, and Montessori textbooks written in easy-to-understand Thai were published and distributed to young village women training to be center teachers. The project's second year will be devoted to increasing the number of day-care facilities and giving advice on problems related to their operation.

An Inventory of Ancient Settlements in Thailand Using Aerial Photography

Mr. Thiva Supajanya, Assistant Professor
Department of Geology, Chulalongkorn University

¥6.69 million

This project, first awarded a grant in June 1981, is in its second year. Much of Thai history before the establishment of the Sukhothai kingdom is still unknown. The aim of this project is to classify and supplement the results of more than fifteen years of research by the project leader in identifying ancient settlements throughout Thailand and to arrange the information in a form accessible to the public. An inventory of aerial photographs identifying the ancient settlements of northeastern, northern, and southern Thailand, the Chao Phraya plain, and other areas will be compiled.

During the first year, an inventory of over five hundred ancient settlements in northeastern Thailand was compiled. In the second year inventories will be made of the ancient settlements of northern Thailand and the Chao Phraya plain.

A Lexicon of Classical Newari Drawn from Traditional Kośa Sources

Mr. Prem Bahadur Kansakar, Secretary-Treasurer
Nepal Bhasha Dictionary Committee

¥1.65 million

Newari is the native language of the Newar, a people

who for centuries have inhabited the Kathmandu Valley in Nepal. The Newar have been the principal shapers of Nepalese culture since the fourteenth century. While numerous inscriptions and manuscripts written in classical Newari exist, much of their content remains obscure for want of appropriate dictionaries.

The objective of this project is to compile a classical Newari dictionary drawing on information contained in *kośa* manuscripts, which consist mainly of Sanskrit-Newari lexicons. *Kośa* are currently the most reliable source of classical Newari vocabulary available, with some dating back as far as the fourteenth century, when documents written in classical Newari first appeared.

Once completed, the lexicon is expected to contribute much to research in linguistics, history, literature, culture, and other fields of research.

An Investigation into Reading Promotion and the Operation of Community Libraries

Mr. Mohammad Noor Azam (and three associates)
Library Committee for the Readership Promotion Campaign,
Dewan Bahasa dan Pustaka

¥2.63 million

The Dewan Bahasa dan Pustaka (Malaysian Language and Literacy Agency) launched a national reading promotion campaign in January 1980. One of the campaign's activities includes an ongoing project titled "An Investigation of the Reading Habits and Interests of Malaysian People" that received Toyota Foundation grants in 1980 and 1981. Drawing on the results of this investigation, the campaign's promoters plan to launch a pilot project aimed at upgrading the services and facilities of small community libraries throughout Malaysia. Three of the project's leading members will make an eighteen-day investigation of library activities in Japan, South Korea, and Thailand, studying community involvement in library activities and the planning and operation of community libraries, as well as collecting data relevant to Malaysia.

Production of the Film "Thai Muslim Culture in the Southern Border Provinces of Thailand"

Mrs. Chavewan Wannaprasert, Associate Professor
Center for Southern Thailand Studies, Prince of Songkla
University

¥10.36 million

This project, first awarded a grant in October 1981 and now in its second year, involves the production of a sixteen-millimeter film on the life styles, rituals, ceremonies, and customs of Thai Muslims living in the southern border provinces of Pattani, Yala, Narathiwat, and Satun. The aim of this project is to make a film

depicting the distinct subcultures in this area, thus broadening understanding of Thai Muslim culture.

During the first year, the project staff produced fifteen reels of film and prepared accompanying Thai and English narration scripts, having thoroughly surveyed and researched Thai Muslim culture beforehand. The second year will be devoted to editing the film and recording the narrations, including a version in Arabic. The film is expected to be of particular significance to anthropologists.

International Conference on Modernization and National-Cultural Identity

Professor Syed Husin Ali, President
Malaysian Social Science Association

¥1.64 million

The objective of this conference, held in January 1983, was to give social scientists from the five ASEAN nations the opportunity to discuss and compare their countries' experiences with modernization and its impact on national and cultural identity. The ASEAN nations have tended to look to Western Europe as their model for modernization. Recently, though, they have begun to realize the need to seek alternative models. Modernization in the ASEAN region is also complicated by the multiracial, multicultural nature and resulting heterogeneous identity of each country.

The Malaysian Social Science Association plans to publish a social science journal to further its aim of providing Southeast Asian social scientists with a forum to exchange information. Having made contact with social scientists from these nations through this conference, the association intends to establish a network to promote comparative research and opinion exchanges among social scientists in the region.

Second International Workshop on Living Children's Theater in Asia

Professor Amelia Lapeña-Bonifacio
Department of English and Comparative Literature, College of Arts and Sciences, University of the Philippines

¥1.36 million

Children's theater groups from six countries—Indonesia, Japan, Malaysia, the Philippines, Singapore, and Thailand—will gather in Manila to participate in this workshop, which will include a conference and live performances. The first workshop was held in 1979 in Japan to celebrate the fifth anniversary of the establishment of the Toyota Foundation. The Philippine theater troupe that participated in the 1979 workshop, the Teatrong Mulat Ng Pilipinas, will sponsor this year's gathering. Troupe president Dr. Amelia Lapeña-Bonifacio, a professor at the University of the Philippines, headed a Foundation-financed project in 1978 and 1979 titled "Asian Theater for Children: Its Role in the Education and Development of the Asian Child."

This year's workshop aims to further the results achieved at the 1979 workshop. Its objective is to pursue the rich possibilities for children's theater in Asia and to provide opportunities for people devoted to children's theater to exchange information on theater techniques and to become acquainted with their counterparts in other countries.

Sema Stones of the Northeast: A Survey and Study of the Continuity of Megalithic Elements in Northeastern Thai Society

Mr. Srisakra Vallibhotama, Associate Professor
Department of Anthropology, Silpakorn University

¥3.04 million

Among the valuable and researchworthy archaeological relics in northeastern Thailand are the megalithic *sema* stones. These stones are also an essential element in the region's cultural identity. *Sema* stones, which are remnants of the megalithic culture that flourished in the late prehistoric period, were arranged in groups to mark off a community's sacred ground. From the seventh century onward, however, the megaliths were taken over by the Buddhist religion.

The project leader has spent over twenty years researching *sema* stones and has accumulated data on stones in two-thirds of the entire northeastern region. The aims of this project are (1) to complete archaeological surveys and research on the remaining stones, (2) to conduct additional surveys on relics vital to the analysis and elucidation of the origin and function of *sema* stones, and (3) to assemble an inventory of all *sema* stones.

Publication of the Social Science Quarterly *Jurnal Ilmu Masyarakat*

Professor Syed Husin Ali, President
Malaysian Social Science Association

¥3.11 million

This project is planned as a follow-up activity to the January 1983 international conference "Modernization and National-Cultural Identity," which was awarded a grant in September 1982. Southeast Asian social scientists participating in the conference discussed problems their countries share as they strive for modernization. In the main these problems concern the need to thrash out alternatives to Western Europe as a model for modernization and the search by each country for its own identity.

The publishers of the social science journal hope to benefit from the network of social scientists established at the conference and to promote the exchange of knowledge and information among social scientists in Southeast Asia. The journal will cater to scholars of all social science disciplines throughout the entire Southeast Asian region. Articles will be written in either English or Malaysian and will be aimed at both social scientists and a general readership.

Workshop on and Promotion of Television Programs for Children

Ms. Ubonrat Siriyuvusak, Secretary
Mass Communications for Children Promotion Group

¥2.85 million

The present project, initially awarded a grant in March 1982, is now in its second year. Its goal is to raise the standard of children's television programs in Thailand, which presently consist mainly of foreign productions and tend to be lacking in creativity and filled with violence, horror, and superstition.

The first year's activities consisted of (1) analyzing the content of children's television programs and con-

ducting surveys and investigations on how these programs reflect Thai cultural values and life styles, (2) establishing a children's club to research the pastimes and games that contribute to children's socialization and defining the type of approach producers should take in producing programs, and (3) launching a mass-media campaign aimed at program improvement and holding a seminar on the promotion of children's television programs. In the second year the activities outlined in (1) and (2) will be continued, workshops for TV program producers will be held, and pilot programs will be produced.

Editing and Publication of the Royal Edicts of Burma from 1598 to 1885

Professor Than Tun
Mandalay University
¥0.5 million

Research material on monarchical rule in Burma from the late sixteenth century to 1885, when the last Burmese king was dethroned, is confined to the edicts issued by kings during this period. Following the loss of many of the edicts during World War II, the project leader began collecting the extant edicts located throughout Burma and storing them to prevent their becoming scattered and lost. Compilation and publication of these edicts is eagerly awaited.

The aim of this project is to put handwritten copies of the original edicts into typewritten form, arrange them in chronological order, supplement them with summaries and an overall introduction in English, and then publish them in four separate volumes. Kyoto University's Center for Southeast Asian Studies will feature the edicts in its Discussion Paper Series. The edicts are expected to serve as valuable reference materials to both Burmese and foreign researchers studying the political history, Buddhist law, society, and culture of Burma.

Research on Traditional Southeast Asian Architecture

Datuk Lim Chong Keat
Southeast Asian Cultural Research Program (SEACURP),
Institute of Southeast Asian Studies
¥5.67 million

The present project, initially awarded a grant in March 1981, is in its third year. Its objective is to preserve and expand the Pelzer collection (slides and photographs of traditional Southeast Asian dwellings collected by the late American architect Dorothy Pelzer) and to establish an informal organization of Southeast Asian researchers and specialists with a special interest in preserving and using traditional Southeast Asian dwellings to promote the exchange of information and research on problems related to traditional dwellings.

During the first two years, the Pelzer collection was placed in the custody of the Institute of Southeast Asian Studies, an index of the collection was drawn up, and a meeting of scholars and architects working in cooperation with SEACURP was held, at which discussion focused on organizing resource materials and expanding SEACURP's archives. While continuing these activities in the third year, contact will also be made with researchers in various fields who are capable of conducting specialized surveys.

Study and Survey of Palm-Leaf Manuscripts in Phitsanulok, Sukhothai, and Kamphaengphet Provinces

Mr. Supot Pruksawan, Lecturer
Cultural Center, Pibulsongkram Teachers College
¥3.61 million

Initially awarded a grant in March 1982, this project is in its second year. Northern Thailand abounds with historical and cultural relics. Many temples and private dwellings in the region possess palm-leaf manuscripts that date as far back as one hundred to five hundred years. The manuscripts, written in Lanna Thai, ancient Thai, and ancient Khmer, document the traditional law, religious beliefs, herbal medicine, astrology, superstitions, rituals, literature, and other aspects of the region.

This project aims to conduct a comprehensive survey of the palm-leaf manuscripts, then to microfilm and transliterate those of particular importance. Cooperation is being received from Chiangmai University's Social Research Institute, which conducted another Foundation-financed project lasting three years.

During the present project's first year, fifty-eight temples were surveyed and more than 30,000 manuscripts were discovered, of which 910 were microfilmed. The survey will be continued in the second year.

Compilation of a Southern Thai Cultural Encyclopedia

Mr. Sudhiwong Pongsaiboon, Director
Institute for Southern Thai Studies, Sri Nakharinwirot University
¥8.22 million

The present project, initially awarded a grant in March 1982, is in its second year. Southern Thailand, long a flourishing Southeast Asian trade, religious, and cultural center, traces its culture back as far as the seventh century, when Buddhist influence prevailed. However, the cultural traditions are predominantly oral and have been poorly documented.

The present project aims to fill this gap by compiling a cultural encyclopedia on southern Thailand based on data on the region's customs and oral traditions gathered from field investigations and interviews with local inhabitants. One hundred forty people consisting of ten teachers and scholars from each of the region's fourteen provinces will write the encyclopedia's entries, and researchers from a number of academic and research institutions in southern Thailand will compile and edit the book itself. The project leader has headed another Foundation-financed project that involved the compilation of a southern Thai dictionary.

The History of Southeast Asian Architecture: Developments in Thailand from the Sixth Through the Thirteenth Century

Mr. Anuvit Charernsupkul, Associate Professor
Faculty of Architecture, Silpakorn University
¥2.39 million

Initially awarded a grant in late fiscal 1980, this project is in its third year. Its objective is to research the development of architecture in Thailand during the period of Indianized states from the sixth up to the thirteenth century and to publish a report on its findings. Focusing on the Dvaravati, Southern Province, Khmer, and Lopburi architectural styles, research will consist of (1) inves-

tigating the development of each style, its sphere of influence, and its cultural implications, (2) appraising the strength of design and architectural worth of each style, and (3) considering each style's technical and architectural methodology and its disappearance or subsequent role in modern-day architecture.

The first two years of the project were devoted to compiling photographic data, drawing floor plans and sectional and overall diagrams of Southeast Asian dwellings, gathering relevant documents, and conducting surveys in Burma, Indonesia, and Malaysia, as the architectural styles of these countries all influenced Thai architecture. During the third year, all the data that have been collected will be analyzed and reports in Thai and English will be compiled.

Publication of the Youth Magazine *Pengetahuan* (Knowledge)

Dr. Lim Teck Ghee, Chairman
Institut Masyarakat
¥8.44 million

The present project, a continuation from last year, is now in its third year. Its objective is to publish a responsible, educational magazine for Malaysian youths between the ages of fourteen and eighteen. The magazine will contain information about development and the changes that accompany it, examples of responses to change, and information on the traditions and culture of Malaysia and its neighbors.

During the project's first two years, the magazine was published as planned. It is being favorably received by readers, who have expressed appreciation of the magazine's serious content as opposed to that of other magazines whose main function is to entertain. Private and institutional subscriptions were secured, and copies of the magazine were sold through schools and newsstands. In the third year new editorial and marketing personnel will be hired, sales outlets will be increased, and circulation will be raised to ten thousand copies in an effort to establish *Pengetahuan* as a regular monthly magazine.

Videotapes of Buddhist Culture in Southern Thailand

Mr. Supak Intongkong
Institute for Southern Thai Studies, Sri Nakharinwirot University

¥7.14 million

Southern Thailand, which is populated by Thais of both the Buddhist and the Muslim faiths, has one of the richest cultures of Southeast Asia. The aim of the present project is to compile basic reference materials on the area's Buddhist culture, which is in danger of disappearing if left undocumented, and to inform people both in Thailand and overseas of southern Thailand's rich culture. Over a period of one year, project members will make twenty 30-minute videotapes depicting the area's traditions, entertainment, occupations, arts, handicrafts, ancient art, paintings, beliefs, and society. Narrations in Thai, as well as in Arabic, Chinese, English, French, Japanese, and Malaysian, will be produced to accompany the videotapes.

This project will be conducted in conjunction with another Foundation-financed project. Compilation of

a Southern Thai Cultural Encyclopedia, which is also being conducted by the Institute for Southern Thai Studies. Once completed, the videotapes will provide a visual record of southern Thai culture.

Workshop on the Surveying, Microfilming, and Transliteration of Ancient Manuscripts and on the Compilation of Dictionaries of Thai Dialects into Standard Thai

Professor Saneh Chamarik, Director
Thai Khadi Research Institute, Thammasat University
¥2.37 million

Before modern education methods were introduced in Thailand in the nineteenth century, various writing systems were used throughout the country. In the north, northeast, and south of Thailand many ancient manuscripts have been found that provide valuable information on ancient Thai society. It is vital that scholars and researchers take an interest in the preservation, reproduction, and transliteration of these manuscripts. Being a heterogenous society, Thailand has within its borders various peoples who speak various dialects. To promote understanding among these many cultures, dictionaries from local dialects to standard Thai need to be compiled. In recent years Thai scholars have conducted and completed surveys and research aimed at this particular objective.

The goal of this project is to provide a forum for scholars working in these fields to exchange opinions and experiences and to facilitate discussion on problem points.

Muslim Architecture in the Southern Border Provinces of Thailand

Mr. Khate Ratanajarana
Center for Southern Thai Studies, Prince of Songkla University

¥2.64 million

Archaeologists, historians, and economists in Thailand and other countries have recently been focusing on Thailand's southern border provinces of Pattani, Yala, Narathiwat, and Satun. Striking differences exist between the social and religious organizations of Thai Muslims, who constitute the majority in this region, and Thai Buddhists.

Thai Muslim dwellings possess a unique style and structure that demonstrate a strong Islamic influence. In southern Thailand, however, the value of Thai Muslim structures has sadly been overlooked. The aim of this project is to survey and collect data on the Muslim dwellings in Thailand's four southern border provinces and to train specialists in this field of research at the Prince of Songkla University. Assisting in the survey is an architectural specialist at Silpakorn University.

“Know Our Neighbors” Program

The “Know Our Neighbors” Translation-Publication Program, which was inaugurated in fiscal 1978, includes the “Know Our Neighbors” Translation-Publication Program in Japan, which is in its fifth year, and the “Know Our Neighbors” Translation-Publication Program in Southeast Asia, which was inaugurated this fiscal year.

The program in Japan strives to better acquaint the Japanese with the culture, society, history, and other aspects of their Southeast Asian neighbors. To accomplish this, the program selects from Southeast Asian literary works and books on culture, society, history, and other subjects those designated by people from Southeast Asian nations as suitable for introduction to the Japanese public. The Toyota Foundation awards grants to assist with the translation of these works into Japanese. Thus far, grants have been awarded to fifty-seven works: eight from Burma, sixteen from Indonesia, three from Malaysia, three from the Philippines, five from Singapore, and twenty-two from Thailand.

The program in Southeast Asia aims to encourage an understanding of Japan among the peoples of Southeast Asia. To this end, it assists with the translation and publication in Southeast Asian languages of social science and humanities books on Japan by Japanese authors, Japanese literary works, and the results of Japanese research projects on Southeast Asian topics. Selection of the works to be translated, the translators, and the publishers, as well as other administrative details, is the responsibility of organizations in Southeast Asia that have received Toyota Foundation grants. This fiscal year grants were awarded to two groups—one in Malaysia and one in Thailand.

The Dictionary Compilation-Publication Program, which is in its second year, strives to encourage the publication of medium-sized bilingual (Southeast Asian languages into Japanese) dictionaries that will serve as a basic tool for “Know Our Neighbors” program activities by partially funding the costs of compiling and publishing such dictionaries. Each dictionary is to contain 30,000–50,000 entries, an amount sufficient for reading novels, newspapers, and scholarly works, and should remain useful for many years. Grants have thus far been awarded for the compilation of a Thai-Japanese dictionary and a Vietnamese-Japanese dictionary.

"Know Our Neighbors" Translation Publication Program in Japan

Title	Author	Translator	Publisher	Grant Amount
<i>Pyawpyanyinle Maung Thaya lonyakame</i>	Maung Thaya	Hisao Tanabe	Shinjuku Shobo Publishers Co., Ltd.	¥ 1,260,000
<i>Krasuang Khlang Klang Na</i>	Nimit Phumitawong	Koichi Nonaka	Imura Cultural Enterprise Co., Ltd.	¥ 1,800,000
<i>Le hnint Atu</i>	Luda U Hla	Shizuo Katoda	Imura Cultural Enterprise Co., Ltd.	¥ 1,440,000
<i>Kalah dan Menang</i>	Sutan Takdir Alisjahbana	Ken'ichi Goto and seven others	Imura Cultural Enterprise Co., Ltd.	¥ 3,750,000
<i>Anthology of Burmese Short Stories</i>		Toru Ohno, ed. and trans.	Imura Cultural Enterprise Co., Ltd.	¥ 2,250,000
<i>Chut Praphem Thai, Vol. II</i>	Phraya Anuman Rajadhon	Mikio Mori, ed. and trans.	Imura Cultural Enterprise Co., Ltd.	¥ 1,950,000
<i>Anthology of Thai Short Stories, 2 vols.</i>	Suchart Sawadri, ed.	Yujiro Iwaki	Imura Cultural Enterprise Co., Ltd.	¥ 3,600,000
<i>Indonesia 1967-1980</i>	G. M. Sudarta	Yoshinori Murai	Shinjuku Shobo Publishers Co., Ltd.	¥ 2,010,000
<i>The Pretenders</i>	F. Sionil José	Matsuyo Yamamoto	Mekong Publishing Co., Ltd.	¥ 1,860,000
<i>Semasa Kecil di Kampung</i>	Muhamad Radjab	Tsuyoshi Kato	Mekong Publishing Co., Ltd.	¥ 1,980,000
<i>Suan Sat</i>	Suwanee Skonta	Mineko Yoshioka	Dandansha Co., Ltd.	¥ 2,040,000
<i>Antologi kesusastraan Wanita Indonesia Modern</i>	Ajip Rosidi and Megumi Funachi, eds.	Megumi Funachi, Mayumi Matsuda, and Keiko Fukamachi	Imura Cultural Enterprise Co., Ltd.	¥ 1,800,000
<i>Da Taung go Kyaw Ywe ni Pinle go Hpyat Myi</i>	Mya Than Tint	Midori Minamida	Imura Cultural Enterprise Co., Ltd.	¥ 1,890,000
<i>Hkwee Nyo</i>	Min Gyaw	Shizuo Katoda	Imura Cultural Enterprise Co., Ltd.	¥ 1,380,000
<i>Shin Jia Po Hua Wen Xiao Shuo Xuan 1945-65</i>	Tan Teck Hock, ed.	Heiwa Fukunaga and Chen Shun Chun	Imura Cultural Enterprise Co., Ltd.	¥ 1,800,000
Total				¥30,810,000

Pyawpyanyinle Maung Thaya lonyakame [Maung Thaya Is Saying Too Much If He Says That] This work is a vivid portrayal of the unflagging spirit of the people in the lower echelons of Burmese society. The book fully reveals the author's unique ability to perceive reality as it is and accurately record his keen observations. In this work he gives his readers an intimate look into the lives of common laborers and high-ranking government officials residing in the same neighborhood. He introduces people who have migrated to the city from farm communities and others who, having fallen on hard times, are scrambling after easy money. He tells of parents who compete over their children's grades. The work brims with detailed descriptions of the lives of these and other characters.

Krasuang Khlang Klang Na [The Finance Minister in the Paddy Field] The late Nimit Phumitawong, a major figure in the realm of literature on life in rural Thailand, vividly and thoroughly depicts rural life styles and the problems confronting agricultural communities in Thailand in this anthology of short stories. This outstanding, easy-to-read work presents a realistic view of the life of Thai peasants, who account for eighty percent of the country's population. The translator, who is a specialist in agricultural economics, has spent considerable time in rural Thailand and has participated in Japanese agricultural development assistance programs in Thailand. In addition, he previously translated and edited another work by this author, *Soi Thong and Other Stories*.

Le hnint Atu [With the Wind]

Active as a journalist and a writer in Burma since before World War II, the author of this documentary novel was imprisoned in Rangoon from 1954 to 1957. It was then that he met Maung Nyo, the fellow inmate whose story inspired this novel. The work objectively chronicles the situation in Burma from the days of British colonial rule to Japanese military domination, the achievement of national independence, and the ensuing period of internal strife. Realistically sketched against this turbulent backdrop is the troubled life of Maung Nyo, one young Burmese who managed to survive this period of upheaval.

Kalah dan Menang [The Winner and the Loser]

During the Japanese occupation of Indonesia from 1942 to 1945, cultural elements from Japan and Western Europe clashed with traditional Indonesian culture. This novel focuses on the growth of the new cultural traditions that emerged in this troubled climate of rivalry and dissension. It deserves widespread attention as both an ideological novel of modern Indonesia and a vivid portrayal of one Indonesian attitude toward the people and culture of Japan.

Anthology of Burmese Short Stories

The thirty outstanding stories in this anthology were written by twenty-seven authors representative of modern Burmese literature. Each work reflects its author's particular style, creating a rich diversity that has been enhanced by the editor's efforts to select stories that would impart an understanding of various aspects of Burma. Readers are certain to enjoy this excellent anthology, and upon completing it they will find they have unconsciously learned much about Burma from the various descriptions of Burma's culture and life style that are interwoven throughout this collection of stories.

Chut Prapheni Thai, Vol. II [The Ethnological Essays of Phraya Anuman Rajadhon, Vol. II]

Focused on individual rites of passage, the contents of this book are culled from the voluminous essays of the late Phraya Anuman Rajadhon, a world-renowned authority on Thai ethnology. The translator, who is deeply interested in this field, won acclaim for his translation of the first volume of this series. As a sequel to that work, which focuses on Thai festivals and beliefs, the second volume introduces Thai rites of passage. In Japan, where general knowledge about Thailand is limited, the translated essays will not only be of scholarly importance; they also should gain the interest of readers in general.

Anthology of Thai Short Stories, 2 vols.

The approximately fifty short stories in this two-volume anthology originally appeared in various Thai magazines. Among the selections in this excellent collection are recipients of Thai literary awards. The authors featured are principal, as well as fledgling, members of a group of Thai writers known as the Run-mai (new

generation). Their work is of considerable interest, for the future course of Thai literature rests largely with the Run-mai. The extensive research conducted by the translator, who is virtually the only Japanese scholar of Run-mai literature, greatly enhances this anthology.

Indonesia 1967-1980 [Indonesia 1967-1980: A Cartoonist's View of Contemporary Indonesian History]

The cartoons in this superb collection of humorous drawings by G. M. Sudarta originally appeared in the Indonesian daily *Kompas*, whose readers have enjoyed Sudarta's work since 1967. His main character is Uncle Pasikom, a native of Jakarta who lacks any one ethnic identity. Lacing his observations with a richly humorous and witty sarcasm, Uncle Pasikom comments on political, economic, social, and cultural conditions in contemporary Indonesia. Thanks to Sudarta's knack for spotlighting various aspects of society and his amazing powers of expression, his cartoons offer far more than do many mediocre social science works.

The Pretenders

This novel's young protagonist, Antonio "Tony" Samson, belongs to the Ilocanos, the Philippines' third largest cultural-linguistic group, as also does the author, a representative Philippine novelist who chooses to write in the English language. Irony pervades the novel's depiction of the corruption and injustice found in a certain sector of upper-class society in the Philippines. Along with its literary interest as a work by a Filipino with a traditional sense of values who probes deeply into the evils of his own society, this novel also makes a number of sociological observations. One of the author's major works, it has also been translated into Dutch and Russian.

Semasa Kecil di Kampung [Memories of a Village in Sumatra]

In writing this autobiographical novel, the author wove together events and experiences from his boyhood years in the Minangkabau village where he was born on the island of Sumatra. He vividly depicts various facets of the Minangkabau, an ethnic group known for its matrilineal social organization, its migration of young people seeking greater economic opportunities, and its great number of eminent intellectuals. In focusing on life in a Minangkabau village in the early twentieth century, the author describes children's games, schooling, and the influence of Islam on the daily lives of the Minangkabau people. More than just a simple story, this novel offers a scathingly critical view of the perfunctory attention paid to Islam during his youth and of *adat*, the customary laws of the Minangkabau.

Suan Sat [My Zoo]

This omnibus is the author's compilation of some of her own short stories that were originally serialized in the Thai monthly magazine *Lalana*. Recalling the various pets she has had and looking at the world around her through the innocent eyes of a child, she fixes her gaze on subjects that reflect basic human qualities on the

verge of falling into oblivion. The work is an ingenious portrayal, from a Thai commoner's perspective, of the life style and customs of Thai commoners a few decades ago.

Antologi kesusasuteraan Wanita Indonesia Modern

[Anthology of Modern Indonesian Women Writers]

Eminent Indonesian poets and writers collaborated with Japanese translators of Indonesian poetry in selecting short stories and poems by representative women writers in Indonesia for this anthology. Each of the twelve short stories is by a different author, while the forty-nine poems represent the work of nine Indonesian women. The anthology's three translators are also women. The combined efforts of these Indonesians and Japanese have produced a superb work that offers a cross-sectional view of Indonesia from a female perspective, allowing readers a somewhat untraditional glimpse of Indonesian society.

Da Taung go Kyaw Ywe mi Pinle go Hpyat Myi [Beyond Sword Mountains and Across Fiery Seas]

This fanciful Burmese tale is woven around four characters—an educated young man, a juvenile delinquent, a sailor, and a boat owner who deals on the black market—marooned on a desert island. In time, the sailor assumes the leadership, and the other three throw themselves into hard physical work, gaining a fresh outlook on life and themselves as a result. The most intellectual of the castaways, an unemployed college graduate, had been returning from searching for his nephew, a heroin addict, when the boat he was taking capsized. Along with one of his nephew's companions, a

sailor, and the vessel's owner, he is washed ashore on a desert island. In this work, the author earnestly reappraises the value of manual labor.

Hkwee Nyo [Brown Dog]

Written in a familiar style that depicts the dynamics of the relationships among the protagonist's parents, younger siblings, grandmother, aunts, uncles, and other relatives, this autobiographical novel mirrors the author's experiences from his birth until the age of fifteen. The backdrop to his tale is the most dramatic phase in Burmese history, a period that witnessed a surge in Burmese nationalism, the Japanese military occupation of Burma, and the confusion-filled interlude between the end of World War II and Burma's attainment of independence. By relating the story of a Burmese boy's childhood and adolescence, the author vividly describes Burmese family life. The novel is a superb supplement to any study of modern Burmese history or the life style of the Burmese people.

Shin Jia Po Hua Wen Xiao Shuo Xuan 1945-65 [Anthology of Singaporean Chinese Literature: 1945-65]

The original Chinese-language versions of the eighteen short stories included in this anthology were published in Singapore and Malaya between 1945 and 1965. Featuring works by seventeen authors, the anthology is an excellent collection of Singaporean Chinese literature. Vibrant with dialects and colloquialisms, these stories are uniquely Singaporean, so that rather than existing as a branch of Chinese literature, they occupy a category of their own. Upon its completion, the translation will be the first anthology of its kind to be published in Japan.

"Know Our Neighbors" Translation-Publication Program in Southeast Asia

Country	Organization	Representative	Grant Amount
Thailand	Foundation for the Promotion of Social Sciences and Humanities Textbooks Project	Saneh Chammarik	¥15,770,000
Malaysia	Dewan Bahasa dan Pustaka (Language and Literacy Agency of the Ministry of Education)	Baharuddin Zainal	¥13,640,000

"Know Our Neighbors" Translation-Publication Program in Thailand

This program is intended to promote an understanding of Japan among the people of Thailand. It seeks to do this by facilitating the translation and publication in Thai of social science and humanities works on Japan by Japanese authors, Japanese literary works, and the results of Japanese research projects on Southeast Asian topics.

For more than a decade, the Foundation for the Promotion of Social Sciences and Humanities Textbooks Project has been translating and publishing primarily U.S. and European university-level social science and humanities textbooks. Like the Toyota Foundation, through the "Know Our Neighbors" program it will strive to foster mutual understanding among the peoples of Japan and Southeast Asia. The Thai foundation has devised a setup for selecting works for translation that is

both diligent and in tune with the times and society. The foundation also tries to work directly from original Japanese manuscripts and maintains close contact with its translators. It plans to continue this program almost indefinitely through a revolving fund established with its fiscal 1982 grant, without receiving any additional financial assistance from the Toyota Foundation.

"Know Our Neighbors" Translation-Publication Program in Malaysia

The goals of this program parallel those of the Thai program. Expected to produce five translations annually, the Malaysian program is administered by a committee established by the Dewan Bahasa dan Pustaka (Language and Literacy Agency of the Ministry of Education), a national language association that publishes literary and scientific works. The committee's seven members are drawn from the Dewan Bahasa dan Pustaka, the University of Malaya, the National University of Malaysia, and the Malaysian Society of Translators.

Though the Dewan Bahasa dan Pustaka hopes eventually to foster translators capable of translating directly from Japanese to Malaysian, such individuals are now scarce, and for the time being the Japanese works selected are being translated from their English-language versions. The Dewan Bahasa dan Pustaka will publish these works and try to use the sales revenue to support the program in the future. Initially implemented in fiscal 1982 for a period of three years, the program will be evaluated at the end of that time to ascertain if it can operate independently.

Dictionary Compilation-Publication Program

Thai-Japanese Dictionary

Takejiro Tomita, Professor

Thai-Vietnamese Department, Osaka University of Foreign Studies

¥13.0 million

During World War II, the Japanese diplomat Kinzaburo Okuno compiled a comprehensive Thai-Japanese dictionary. Published in 1958 by the International Students Institute, the dictionary has since gone out of print, and nothing has replaced it. The publication of this new comprehensive Thai-Japanese dictionary, which the grant recipient has been working on for more than thirty years, will fill this void. In building a card file of words appearing in major Thai dictionaries, the researcher is aiming to create a dictionary that contains not only the vocabulary essential for reading such contemporary material as newspapers, magazines, novels, and scholarly works but also entries to facilitate research involving historical documents. The dictionary will include many examples of usage, as well as explanations of each language's etymology and structure.

Other Grant-Making Activities

In addition to the grants mentioned thus far, the Toyota Foundation provides grants for fellowships, forums, and the presentation of research results.

The Fellowship Program for Japanese Social Scientists, which is administered by the International House of Japan, is jointly supported by grants from the Ford Foundation, the Japan Foundation, the Japan-U.S. Friendship Commission, Mobil Sekiyu K.K., and the Toyota Foundation. The purpose of the program is to train young Japanese social scientists to serve as a bridge between Japan and the rest of the world by awarding them fellowships for travel and living expenses to facilitate their efforts to conduct research of their own choosing for a fixed period (generally two years) in universities and other academic research institutions abroad. To date, fifty-two fellowships have been awarded under the program, which is in its eighth year.

The Forum Grant Program was inaugurated this year to provide grants for small-scale study groups whose activities are important in terms of analyzing or reviewing current Foundation activities or are of long-range significance to Foundation activities. Another objective of this program is to assist the planning and preparatory work of groups exploring the feasibility of future Foundation grant programs.

Because of the nature of this program, applications will not be publicly solicited, and grants will be awarded on the basis of consultations between the Foundation and study groups. To date, five forum grants totaling ¥10 million have been awarded.

The Foundation established the Communications-Supplement Grant Program to make public the results of Foundation-assisted research by helping to cover the costs of printing and publishing research results, convening symposiums for the presentation of research results, attending international symposiums for presenting papers on research results, additional analysis necessary before presentation, and other costs incurred in making research results public. This year thirty communications-supplement grants totaling ¥31,070,000 were awarded.

Grant applications for these three programs are screened by a planning committee consisting of the following members of the Foundation's Board of Directors: Isao Amagi, Takashi Asada, Yujiro Hayashi, and Masamitsu Oshima.

Fellowship Program

Fellowship Program for Japanese Social Scientists
Yoichi Maeda, Managing Director
International House of Japan
¥20.0 million

Forum Grant Program

Drafting Plans to Edit a General Bibliography of Classical Chinese Works
Ryuichi Abè
Preparatory Group for the Editing of a General Bibliography of Classical Chinese Works
¥2.0 million

From 1978 to 1980, the Toyota Foundation awarded grants to the group's coordinator, Keio University Professor Ryuichi Abè, and his research colleagues for the compilation of a bibliography of Japanese and Chinese texts in various fields. The researchers have proposed using the results of this research as a basic tool to compile a general bibliography of classical Chinese works in Japan, the People's Republic of China, and Taiwan. Because this is a long-term, large-scale undertaking necessitating the cooperation of both the People's Republic of China and Taiwan, it is important to consider thoroughly the editorial planning and organization necessary, the methodology to be followed, and the volume of work involved. The goal of this preparatory group is to take the above into consideration and draft plans for the bibliography's compilation.

Planning the Compilation of a Bibliography of Japanese-Language Materials on Southeast Asia
Takeo Urata
Japan Orientalist Librarians Group
¥2.0 million

Librarians from the University of Tokyo library and other libraries established the Japan Orientalist Librarians Group (JOLG) for the purpose of compiling a general bibliography of Japanese-language materials on Asia, including magazine articles. Concerned about the quantitative and qualitative inadequacy of the bibliographies of Japanese-language sources available at present, the JOLG first plans to survey the sources available and compile a comprehensive bibliography, then, as a long-term goal, to store this data in a computer, thereby making it readily accessible to a wide range of users. The JOLG will use the present grant to facilitate efforts to deepen mutual understanding with regard to preparations and the compilation procedures. This undertaking is significant as a basic contribution to gaining an understanding of Southeast Asia.

The Philosophy and Social Function of the Grant-Making Activities of Private Foundations in Japan
Noboru Kawazoe
Philanthropic Study Group
¥2.0 million

Recent years have witnessed the establishment of a number of grant-making foundations. The underlying purpose of a foundation, however, is not always sufficiently recognized or understood by society. In certain respects, some foundations themselves are not sufficiently aware of the significance of their activities. Comprising not only representatives of various foundations but also individuals active in a wide range of disciplines, this study group was formed to discuss the future role of grant-making foundations in Japan. The group plans to explore ways to promote grant-making activities by foundations and to study how such foundations can play a significant role in solving various problems plaguing society.

Evaluating the Results and Looking at the Future Prospects for Research on Life
Masayoshi Chubachi
Life Study Forum
¥2.0 million

This group, which comprises individuals who have previously received research assistance from the Toyota Foundation and other researchers, was set up to conduct a case study of research on life in Japan. The study will involve examining approaches to such research, suggesting topics, and exploring the Toyota Foundation's role. The Foundation has extended considerable assistance to research on life-related topics. Through its study the group will contribute to assessing the relevance of Foundation grant-making activities in this area.

Analysis of Problems in the Relationship Between Science and Society
Shigeru Nakayama
Forum on Science and Society
¥2.0 million

The effects that scientific developments and society exert on one another, particularly in the light of today's sophisticated science and technology, are highly important. Addressing this question is of utmost concern to private foundations striving to contribute to society through grant-making activities. This forum comprises primarily science historians who for the past several years have been studying the waxing and waning of various fields of scientific expertise in the context of their relationship with society. It also includes science journalists and individuals affiliated with various research institutes. They are to exchange candid opinions on various problems in the relationship between science and society.

Communications-Supplement Grant Program

Individual and Social Reactions to a Mandatory Retirement Age [publishing costs and additional analysis]

Kazuo Aoi, Professor
Faculty of Letters, University of Tokyo
¥1,400,000

Changing Value Patterns and Their Impact on Economic Structure [publishing costs]

Yoshihiro Kogane, Director-General
Social Policy Bureau, Economic Planning Agency
¥2,130,000

Counseling Programs in High Schools: Establishing Individual-Oriented Student Guidance [printing costs and symposium]

Goro Imai, Teacher
Sakuramachi High School, Tokyo
¥1,370,000

Changes in the Way of Life of a Village Community and the Function of Associations of Former Villagers [presentation of paper]

Shin Anzai, Professor
Department of Sociology, Sophia University
¥440,000

Research into the Establishment of a Medical Information Network in Southeast Asia by Compiling a Comprehensive Catalogue of Medical Periodicals [printing costs]

Toshinobu Suga, Librarian
Tokyo Medical College Library
¥450,000

An International Comparative Study of Citizen Awareness of Forest Environment [symposium]

Tsunahide Shidei
Working Group on the Forest Environment
¥3,940,000

Research on the Effects of Active Oxygen Substances in the Atmosphere on Organisms [presentation of paper]

Etsuo Niki, Associate Professor
Faculty of Engineering, University of Tokyo
¥580,000

A Study of Problems of an Aging Society, Focusing on the Social Response to the Life Plans of the Middle-Aged and Elderly [printing costs and symposium]

Sachiko Kikuchi, Professor
Department of Human Science, Bunkyo University
¥2,000,000

A Study of Transport and Removal Mechanisms of Chemical Substances in the Atmosphere [miscellaneous costs]

Shizuo Tsunogai, Associate Professor
Faculty of Fisheries, Hokkaido University
¥210,000

Research on Ainu Diseases and Traditional Medicine [printing costs]

Yoshihiro Kinoshita, Chief Researcher
Hokkaido Institute of Public Health
¥1,970,000

Interdisciplinary Research on the Ishiguro Collection and Related Materials in the Koju Library: The Sociocultural Significance of Academic and Technical Studies Pursued by the Country Gentry in the Late Edo Period [printing costs]

Masaru Kusunose, Professor
Faculty of Humanities, Toyama University
¥400,000

Research on Developing System Models for Integrated Pest Control [presentation of paper]

Eiji Hisano, Professor
Faculty of Agriculture, Kyoto University
¥730,000

The Development of a High-Efficiency Capillary Liquid Chromatography System and Its Application in Environmental Sampling [presentation of paper]

Takao Tsuda, Associate Professor
Laboratory of Analytical Chemistry, Nagoya Institute of Technology
¥530,000

An Empirical Study of Modernization, Social Change, and Acculturation in a Japanese Village [presentation of paper]

Morimitsu Ushijima, Professor
Kumamoto Junior College
¥540,000

Compilation of a New Direct-Reading Japanese-English Character Dictionary [additional analysis]

Jack Halpern, Research Fellow
Institute for the Study of Modern Culture, Showa Women's College
¥2,500,000

Taxonomical and Biological Studies on the Effectiveness of Japanese Chironomid Midges (*Diptera, Chironomidae*) in the Elimination of Lake and River Pollution and as Indicators of Water Quality [presentation of paper]

Manabu Sasa, Professor
School of Medicine, Teikyo University
¥470,000

A Preliminary Study on a Comparative Analysis of Agricultural Water Resource Policies in Japan and the United States [additional analysis]

G. Irving Latz III, Ph.D. Candidate
Department of Geography, University of Chicago
¥150,000

A Study of the Ecology and Nutritional Requirements of the Dinoflagellates That Induce Paralytic Poisoning [presentation of paper]

Takeshi Yasumoto, Professor
Faculty of Agriculture, Tohoku University
¥360,000

Visual Documentation of Basic Conditions for the Formation of a Mountain Village and Its Culture: The Case of Miomote, Asahi Village, Niigata Prefecture [symposium]

Tadayoshi Himeda, Executive Director
Center for Ethnological Visual Documentation
¥1,050,000

A Survey of Seasonal Awareness in Urban Shopping Malls: Nagoya's Sakae-machi [printing costs and additional analysis]

Yasuhiro Kawamoto
Nagoya in the Four Seasons, Aichi Prefecture
¥1,000,000

A Preliminary Study on the Structure and Functions of Community Welfare Agencies: Building a Model to Evaluate In-Service Training [printing costs]

Takeo Watanabe, Associate Professor
Faculty of Letters, Doshisha University
¥250,000

A Study of the Boso Peninsula: Its Insularity and Culture [printing costs and additional analysis]

Akira Suzuki
Study Group on the Insularity of the Boso Peninsula, Chiba Prefecture
¥1,000,000

A Preliminary Study on the Present Conditions and Future Problems of Chinese Management in Connection with the Promotion of Technology Transfers [printing costs]

Jingai Cho, Leader
China Project, Society of Systems Analysts
¥500,000

Research on the Habitats of Mammals in Gifu Prefecture, the Condition of the Environment, and Environmental Education in the Area [printing costs and additional analysis]

Tatsuo Kawasaki
Gifu Prefecture Mammal Study Group, Gifu Prefecture
¥2,000,000

A Comprehensive Study on Child Rearing and Welfare Needs in Relation to the Changing Function of the Family [printing costs]

Juhichiro Naito, Vice-Superintendent
Nippon Aiiiku Research Institute for the Care of Mothers and Children
¥450,000

An International Study of Trade Ceramics in Premodern Asia [printing costs]

Tsugio Mikami, President
Trade Ceramics Study Group
¥1,800,000

Appropriate Technologies for Housing Construction by Communities in the Philippines [symposium]

Kunihiro Ando, Instructor
Faculty of Engineering, University of Tokyo
¥1,400,000

A Comparative Study of the Developmental Process of Occupational Aspirations: The Socialization Functions of Educational and Employment Systems [printing costs]

Hidenori Fujita, Associate Professor
School of Education, Nagoya University
¥1,450,000

Financial Report for Fiscal 1982

Settlement of Accounts (April 1, 1982 – March 31, 1983)

	Unit: Yen			
	Fiscal 1982	Fiscal 1981	Fiscal 1980	Fiscal 1979
INCOME				
Balance brought forward from the previous year	45,899,255	9,047,135	16,373,039	1,892,028
Endowment income	840,348,132	827,736,957	829,629,066	712,011,139
Miscellaneous income	1,326,129	3,278,031	7,391,305	3,088,720
Donations	—	—	—	400,000,000
Total Income	<u>887,573,516</u>	<u>840,062,123</u>	<u>853,393,410</u>	<u>1,116,991,887</u>
EXPENDITURES				
Grants and program expenses	673,083,984	585,610,054	526,973,945	519,346,710
Expenses for special fifth- anniversary programs	—	—	81,035,385	55,798,591
Administrative expenses	96,299,996	93,352,814	80,943,584	73,973,547
Purchase of fixed assets	5,410,108	—	2,193,361	—
Income transferred to reserve for retirement allowance	2,500,000	5,200,000	3,200,000	1,500,000
Income transferred to working endowment	—	—	—	400,000,000
Total Expenditures	<u>777,294,088</u>	<u>684,162,868</u>	<u>694,346,275</u>	<u>1,050,618,848</u>
Excess of Income over Expenditures	<u>110,279,428</u>	<u>155,899,255</u>	<u>159,047,135</u>	<u>66,373,039</u>

Note: Of the surplus funds for the current fiscal year ¥50,000,000 has been transferred to the working endowment, ¥10,000,000 to the reserve for Toyota Foundation prizes, and ¥20,000,000 to a reserve for special tenth-anniversary programs; the balance has been carried over to the income budget of the next fiscal year.

Balance Sheet (as of March 31, 1983)

	Unit: Yen			
	Fiscal 1982	Fiscal 1981	Fiscal 1980	Fiscal 1979
ASSETS				
Cash	69,485	30,125	35,146	86,691
Bank deposits	49,481,007	24,093,441	47,488,729	9,786,769
Negotiable securities	11,409,448,412	11,320,777,225	11,164,306,655	11,011,238,039
Prepaid expenses	2,138,734	1,933,966	1,933,966	1,790,378
Advances (disbursements)	353,286	6,368,543	4,421,083	937,016
Suspense payments	1,494,264	—	104,922	—
Fixed assets	46,875,009	43,165,262	44,574,265	44,912,719
Total Assets	<u>11,509,860,197</u>	<u>11,396,368,562</u>	<u>11,262,864,766</u>	<u>11,068,751,612</u>
LIABILITIES				
Accounts payable	208,833,834	166,026,955	193,740,974	153,502,712
Deposits received	2,841,217	2,402,388	1,827,690	1,670,440
Reserve for retirement allowances	11,037,702	8,874,702	3,674,702	2,292,702
NET ENDOWMENT				
Principal endowment	7,000,000,000	7,000,000,000	7,000,000,000	3,000,000,000
Working endowment	4,000,000,000	3,950,000,000	3,800,000,000	7,750,000,000
Surplus fund	287,154,437	269,064,517	263,621,400	161,285,758
Total Liabilities	<u>11,509,860,197</u>	<u>11,396,368,562</u>	<u>11,262,864,766</u>	<u>11,068,751,612</u>

Note: The surplus fund in the net endowment includes the reserve for Toyoto Foundation prizes, the reserve for tenth-anniversary programs, fixed assets, and the balance carried over from the budget of the previous fiscal year.

Endowment Status

	Unit: Yen				
	End Fiscal 1982	End Fiscal 1981	End Fiscal 1980	End Fiscal 1979	End Fiscal 1978
Principal endowment	7,000,000,000	7,000,000,000	7,000,000,000	3,000,000,000	3,000,000,000
Working endowment	4,287,154,437	4,149,064,517	4,003,621,400	7,861,285,758	7,399,047,725
Total	<u>11,287,154,437</u>	<u>11,149,064,517</u>	<u>11,003,621,400</u>	<u>10,861,285,758</u>	<u>10,399,047,725</u>

Note: The working endowment at the end of fiscal 1982 includes the surplus fund of ¥287,154,437.

Adjustments to Grant Budgets

(April 1, 1982 – March 31, 1983)

Period	Grantee Type of Grant	Organization	Date Grant Approved	Amount Approved Amount Returned Final Amount
Fiscal 1980	Imura Cultural Enterprise Co., Ltd. "Know Our Neighbors" Translation- Publication Program		June 19, 1980	¥6,330,000
				<u>135,000</u>
				¥6,195,000
Fiscal 1981	Mekong Publishing Co., Ltd. "Know Our Neighbors" Translation- Publication Program		June 17, 1981	¥2,250,000
				<u>243,000</u>
				¥2,007,000
	Imura Cultural Enterprise Co., Ltd. "Know Our Neighbors" Translation- Publication Program		September 29, 1981	¥1,770,000
				<u>66,000</u>
				¥1,704,000
	Imura Cultural Enterprise Co., Ltd. "Know Our Neighbors" Translation- Publication Program		September 29, 1981	¥1,380,000
				<u>30,000</u>
				¥1,350,000
	Imura Cultural Enterprise Co., Ltd. "Know Our Neighbors" Translation- Publication Program		September 29, 1981	¥1,440,000
				<u>90,000</u>
				¥1,350,000
	Eiji Kuno Communications-Supplement Grant Program	Kyoto University	February 19, 1982	¥ 780,000
				<u>140,000</u>
				¥ 640,000
	Tsuyoshi Sasada Research Contest Grant	Hyogo Regional Data Study Group	March 24, 1982	¥ 500,000
				<u>129</u>
				¥ 499,871
	Imura Cultural Enterprise Co., Ltd. "Know Our Neighbors" Translation- Publication Program		March 24, 1982	¥2,040,000
				<u>285,000</u>
				¥1,755,000
Fiscal 1982	Imura Cultural Enterprise Co., Ltd. "Know Our Neighbors" Translation- Publication Program		June 16, 1982	¥1,440,000
				<u>60,000</u>
				¥1,380,000
	Shizuo Tsunogai Communications-Supplement Grant Program	Hokkaido University	September 19, 1982	¥ 210,000
				<u>38,546</u>
				¥ 171,454

Chronological Data

1982 *Apr. 1*: Acceptance of grant applications for fiscal 1982 Research Grant Program, "Know Our Neighbors" Translation-Publication Program, and Dictionary Compilation-Publication Program

May 19: Fourth meeting of International Division Advisory Board

May 31: Deadline for acceptance of Research Grant Division grant applications (744 applications received)

June 16: Twenty-seventh meeting of Board of Directors; approval of fiscal 1981 activity program report and financial report; approval of appointment of members of Board of Trustees, Planning Committee, and Selection Committees; fiscal 1982 grants decided: for "Know Our Neighbors" Translation-Publication Program in Japan, 10 recipients; for International Division Grants, 2 recipients; seventh meeting of Board of Trustees; approval of appointment of directors and auditors; explanation of status of Foundation activities

June 19-21: Fourteenth Research Grant Division Symposium

June 30: Twenty-eighth meeting of Board of Directors; approval of appointment of Chairman, Vice-Chairman, and Executive Director; deadline for acceptance of Dictionary Compilation-Publication Program grant applications (1 application received)

July 27: Publication of *Toyota Foundation Report No. 18* (Japanese)

Sept. 1: Publication of *Occasional Report No. 2* (English)

Sept. 29: Twenty-ninth meeting of Board of Directors; fiscal 1982 grants decided: for Research Grant Division Grants, 94 recipients; for Second Research Contest, 12 recipients; for "Know Our Neighbors" Translation-Publication Program in Japan, 4 recipients; for "Know Our Neighbors" Translation-Publication Program in Southeast Asia, 1 recipient; for Dictionary Compilation-Publication

Program, 1 recipient; for International Division Grants, 5 recipients

Oct. 15: Fiscal 1982 grant award ceremony

Oct. 23: Sixth International Division Seminar (in Kyoto)

Oct. 30: Sixth International Division Seminar (in Tokyo); publication of *Toyota Foundation Report No. 19* (Japanese)

Oct. 31: Deadline for acceptance of fiscal 1982 "Know Our Neighbors" Translation-Publication Program in Japan grant applications (20 applications received)

1983 *Jan. 31*: Publication of *Toyota Foundation Report No. 20* (Japanese)

Feb. 18: Fifth meeting of International Division Advisory Board

Mar. 17: Thirtieth meeting of Board of Directors; First Research Contest special research award recipient decided; fiscal 1982 grants decided: for "Know Our Neighbors" Translation-Publication Program in Japan, 1 recipient; for "Know Our Neighbors" Translation-Publication Program in Southeast Asia, 1 recipient; for International Division Grants, 13 recipients; approval of fiscal 1982 financial statement estimate and decision on disposal of estimated surplus funds; approval of fiscal 1983 activity program and budget

Mar. 25: Fifteenth Research Grant Division Symposium

Mar. 30: Publication of *Toyota Foundation Report No. 21* (Japanese)

Mar. 31: Publication of "Know Our Neighbors" Translation-Publication Program Report No. 3 (Japanese)

The Staff of the Foundation

Executive Director
Yujiro Hayashi

Secretary of the Foundation
Hideo Yamaguchi

General Affairs and Accounting Division

Division Manager
Naomichi Kamezawa
Assistants
Katsuyoshi Ito
Yoshiko Ishizone

Research Grant Division

Program Officer
Yoshinori Yamaoka
Program Assistants
Masaaki Kusumi
Gen Watanabe
Administrative Assistant
Yasuko Matsukura

International Division

Program Officer
Kazue Iwamoto
Assistant Program Officer
Yoshiko Wakayama
Program Assistant
Toichi Makita
Administrative Assistant
Noriko Kawashima