DEDICATION

It gives me great pleasure to note that The National Atlas of Japan has been published. This is the first Atlas of its kind in our country which systematically portrays the present conditions of Japan’s nature, society, economy, culture and administration.

It is my sincere hope that this Atlas will assist in fostering further understanding about the national land of our country and the various activities of our people.

Takeo Fukuda
Prime Minister of Japan
PREFACE

It is with great pleasure that I announce that The National Atlas of Japan, the first of its kind in Japan, has been officially published by the Geographical Survey Institute after a little over five years of laborious work.

Internationally, there were evident signs from ten years ago for the preparation of comprehensive and systematic national atlases. In Japan, the Geographical Survey Institute took the lead in making steady preparations for the publication of a National Atlas of Japan.

The National Atlas of Japan is a compilation of maps and explanations from the results of researches and studies conducted by experts in many quarters, such as the White Papers prepared by Government agencies, local autonomous bodies, etc., and a wide variety of statistical data. The Atlas covers all aspects of nature, society, economy, culture and administration in our country.

I wish to express my sincere appreciation to all those who have offered a wide variety of data and provided a number of invaluable opinions and advice for the preparation of this Atlas, and I sincerely hope that this publication will be effectively used by as many people as possible in their daily lives, business and study.

Shirô Hasegawa
Minister of Construction
ON PUBLICATION

Tetsuo Ōshima
Director
Geographical Survey Institute

Under the five-year project initiated by the Geographical Survey Institute in fiscal 1971 for the preparation of a National Atlas of Japan, the editing of each map in the Atlas was completed by fiscal 1975 and the explanations were added to each map in fiscal 1976. With the cooperation rendered by many quarters, these sheets have finally been published in complete book form.

The National Atlas of Japan, as its name indicates, is Japan's representative atlas. For its preparation, it was necessary to acquire knowledge about many sectors and collect and sort out a wide variety of massive source data, so much so that instead of confining this great task to the agency which was primarily in charge of the preparation, a Committee for The National Atlas of Japan was established. This committee was made up of men of learning and experience from related Government agencies and scientific societies. A thorough evaluation of a wide variety of statistical data and the achievements of researches have been incorporated into this Atlas.

The objectives for compilation of The National Atlas of Japan are as follows:

First, The National Atlas of Japan, bringing characteristics of the map to life, is designed to comprehensively show the actual conditions of the national land in the form of an atlas with a view toward serving as a basic reference for executing the Government's comprehensive policy, including national land and local projects.

In other words, by grasping the real aspects of nature, economy, society and culture through this Atlas on a national scale, it will become feasible to carry out the development and rational utilization of resources, systematic control and management of social assets, planning for the reasonable relocation of population, and the forecast of, and measures against, disasters.

Second, this Atlas may provide in the form of maps such data as will serve as basic data for persons engaged in a wide variety of research and study on the national land as well as those who are engaged in educational instruction regarding the national land.

Third, this Atlas is expected to be put to effective use by private businesses as an authentic reference in relation to business programs and market surveys.

Fourth, this Atlas, particularly when used as an educational aid, will presumably have considerable influence on a number of atlases to be published by private concerns.

Fifth, it is expected that this Atlas will provide foreign countries with accurate knowledge about Japan and at the same time will be put to widespread use as basic reference material in relation to international cooperation and trade.

Therefore, The National Atlas of Japan plays a very important role in clarifying the real aspects of the national land not only to the national Government, local autonomous bodies, various project agencies, educational and cultural institutions, but also to many strata of the Japanese people by offering a means to easily realize the actual conditions of our country. I am convinced that the publication of The National Atlas of Japan is very significant.

SUMMARY OF PREPARATION

1. Circumstances Leading to Preparation

The Geographical Survey Institute compiled a 1:1,000,000 scale geographical maps, which could be considered as the offshoot of a national atlas of Japan from 1960 through 1961. Encompassing the entire national land of Japan, these maps consisted of thematic maps associated with land utilization, electric power, labor population and city functions, agriculture, transportation, population density, population density classified by types of occupations, etc.

In 1966, the atlas "Japan" was published. This atlas was a booklet which consists of 1:2,000,000 scale maps with geographical notes. The book was issued to the product of the elementary research work oriented toward the compilation of a genuine national atlas.

From about 1960, researches were started on the contents, plan of core position, basic materials of published thematic maps and source data for a national atlas of Japan.

The Japan Cartographers Association established an Expert Committee on Atlases in 1961. With the collaboration of this Committee, the Geographical Survey Institute stepped up its studies on the selection of items to be included in a national atlas and also on schematic delineation.

The preparatory work for the compilation of a national atlas of Japan started to take concrete shape in 1965. The scales of the main maps to be inserted in the atlas were set at 1:3,000,000 and 1:4,000,000 and the book format at A3 (448 x 330 mm). Basic maps were prepared on these scales. In 1970, 1:3,000,000 scale maps were experimentally prepared on a scale of 1:3,000,000. In the process of this trial compilation, attempts were made to study the layout, working process, color design and other factors. As a result of this study, it was decided that the scales of the main maps would be finally set at 1:3,000,000 and 1:4,000,000 and the book format at A2 (420 x 594 mm). As it was determined that the national positions of Japan's four main islands (Hokkaido, Honshu, Shikoku and Kyushu) would be kept intact for all maps, the whole of the Japanese Archipelago is laid out slightly slanting toward the lower right of the paper, and its layout is spread over two facing pages (i.e., the format of A1 measuring 448 x 330 mm). For the insertion of a 1:4,000,000 scale map, half of the long sides vertically of the reverse side of a 1:3,000,000 scale map was used with the result that the whole of the Japanese Archipelago is laid out somewhat slanting leftward.

It was also decided that The National Atlas of Japan would be published in both English and Japanese. Yearly programs for the preparation of each main map were worked out, organizations determined for the preparation, and the outline of all relevant projects compiled, thus enabling the master plan for the preparation to take on a more concrete shape.

In 1971, the Program for the Compilation of a National Atlas of Japan was approved as an official project endorsed with a national budget, and the project was started in a 5-year program.

The preparation of a national atlas called for the possession of an extensive range of knowledge and data, so that the preparation was not something which could be done by the responsible agency alone and there was need to secure cooperation from related government agencies and universities. For this reason, a Committee for the National Atlas of Japan was established with the participation of specialists from related Government ministries and agencies and staff of members from universities and colleges, and the Vice-Minister, Ministry of Construction was appointed chairman.

Before the start of this project, the Project Teams for the National Atlas of Japan consisting of six staff officials related to map compilation and cartography and two staff officials associated with printing were trained for three months. The training was designed to familiarize all the personnel taking charge of each division of actual work with all the working process ranging from analysis of all available data to compilation, cartography and printing and renewing their understanding about the problems which might possibly be posed in their actual work. Also, the training was designed to
enhance the framework of those who will constitute the core of the Project Team.

The initial printed list of thematic maps was repeatedly amended in parallel with the identification of areas of actual work for a better distribution. Of the maps involved, none were completely redesigned with careful consideration given to better combinations of themes and better definition, whereas some sheets were not included in The National Atlas of Japan in the final product.

2. Outline of the Project and Characteristic Features of The National Atlas of Japan

Under the Projects for the Compilation of a National Atlas of Japan, the preparatory of thematic maps was conducted for 4 years from 1971, and the national coverage and the broadening of thematic maps was conducted in fiscal 1975. The overall breakdown of the thematic maps forming the National Atlas of Japan is given in Table 1, and practically every subject of each vector is shown as in the Table. The National Atlas of Japan is on no other pattern toward any of the national atlases of other countries in terms of scale, that is, 259 maps on 366 pages in the format of A2 (420×594 mm).

The following characteristic features of its contents are:

1. Each thematic map defining the present status of the national land as well as the conditions of climate, land development and conservation, etc.(Land Use, Land Ownership, Land Prices, Land Development, Water, i.e., Administration of Rivers and Coast, Pollution of the Air, Water and Soil, Land Subsidence, Floods, Landslides, Distributive Earthquake, etc.) was prepared, and all these were incorporated under the category of thematic maps. The comprehensive development and conservation were such in nature that they could not be prepared on the basis of one or two maps. All thematic maps are sufficiently different in cartographic and map delineation, with the consequence that many baselines were involved to the map delineation, and attempts were made to draw these thematic maps are of absolute necessity in Japan, where considerable is given to the right of The National Atlas of Japan.

2. The National Atlas of Japan is a set of 258 maps for industries. A large number of thematic maps are also included in relation to the living environment, welfare, health, care, income, education, culture, etc.

In relation to this, the reading of each thematic map and the effects of the one, simple explanatory notes and auxiliary maps are prepared for each thematic map and a scale, scale and a size for each explanatory notes for the purpose of easier reading of each thematic map.

The basic scales of the thematic maps are 1:25,000 and 1:400,000. Divisional boundaries, which are included in theAt the National Atlas of Japan, the thematic maps are included in the followings:

- The National Atlas of Japan (A2 format) 1:25,000

- The National Atlas of Japan (A3 format) 1:400,000

The National Atlas of Japan is divided into 258 maps in several series of thematic maps and a series of explanatory notes, each of which is prepared for each thematic map. The explanatory notes and auxiliary maps are prepared for each thematic map and a scale, scale and a size for each explanatory notes for the purpose of easier reading of each thematic map.

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7. Expression of Japanese Place Names, Etc., in Roman Characters

With regard to the names of places (platens of places of administration, names of regions, and names of places and regions of nature, including mountains, rivers, etc.) in Japan, the present paper deals only with the proper and ordinary name of which a name is composed is considered a single unit and in Japanese pronunciation written by the same characters. This, in turn, means that the ordinary name is capitalized. The meaning of the ordinary name of a place is based in the legend of the map showing the Names of Natural Objects (including Regional Maps) in Japan: 'R8:1 : 1 300 000'.

In Japan, the Roman character of the ordinary name is composed of three or more units in L, K, S, and M, which are classified into consonant and inlaid sounds. In this case, the size of each symbol is made proportional to the value represented by the symbol. The Roman characters are arranged in the following sequence: the symbols representing the tens of thousands, thousands, hundreds, and tens are classified into consonant and inlaid sounds. In this case, the size of each symbol is made proportional to the value represented by the symbol.

In many cases of approximation, 2.0, 3.5, and 5.0 are approximately proportional to the width of the symbol as is the case with the previous one or two digits. In cases where the 5.0 symbol is too large, the symbol is represented by the symbol that has the same value, or where the 2.0 symbol is too small, the symbol is represented by the symbol that has the same value. In cases where the ratio of 5.0 symbol is too large, the symbol is represented by the symbol that has the same value.

Notes:
1. 'a' is pronounced as a syllabic consonant is written in 'a'.
2. When it is necessary to separate 'a' prose as a syllabic sound from the immediately following vowel or 'a', the latter 'a' is followed by 'A'.
3. For the choice, the syllabic sound is represented in capital letters.
4. 'b' is pronounced as 'p' in the table. Some of the cases may be represented in smaller cases as in the Government specified (Korekai-kai) and Modified Hepburn systems shown below:

<table>
<thead>
<tr>
<th>Japanese Character</th>
<th>Roman Character</th>
</tr>
</thead>
<tbody>
<tr>
<td>Katakana</td>
<td>Hepburn</td>
</tr>
<tr>
<td>プ隆 ト</td>
<td>&quot;produc&quot;</td>
</tr>
<tr>
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</tr>
</tbody>
</table>

5. Color Design

On the basis of the color design of each map and the estimated 30 maps prepared in the initial stage, the color design of The National Atlas of Japan was worked on so that reasonable color control may be assured for all the maps to be produced in the future. For this purpose, the following color schemes were determined:

- Use of 6-color PALETTE Color System

The base used for draft maps, prints in the intermediate process and plate-making prints is shown in Table 4. It is necessary that the negative of this color scheme and the different colors are prepared, different in the case of the map, the color was more complicated than that of the presentation of a map which is represented primarily by lines.

1. Drafting Material

The minimum to expand and contraction of drafting materials, which might cause distortion of the rivers, was made of polyester for the support of the line plate. Polyester based metal film, which could be used for photo-processing and printing of the drawing plate, was used for the color design. This is the negative type: autocopy film and etching type.

2. Use of 6-color PALETTE System

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