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**STRATEGIC
REGIONAL
POLICY**

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PART II

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STRATEGIC REGIONAL POLICY

Paradigms, Methods, Issues and Case Studies

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IV. CASE STUDIES

LONG TERM NATIONAL AND REGIONAL DEVELOPMENT PLANS IN JAPAN:
CITATION SUMMARY *

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I INTRODUCTION

The purpose of this paper is to provide a brief summary on the basic features of major national and regional long term development plans in Japan. This paper has greatly benefited from the referential articles listed at the end of this paper. Some parts of the paper include direct citations from the references with the author's touching-up by strengthening highlight points.

II PLANS FORMULATED BEFORE THE SECOND WORLD WAR

1. Development Plans for the Hokkaidoh Region

Among major regional development plans for the Hokkaidoh region which were formulated during the pre-war period, are two Hokkaidoh Ten-year Plans and two Hokkaidoh Settlement Operation Plans. The basic principles underlying these four successive plans were (1) to ensure active inflow of agricultural immigrants into the Hokkaidoh region from other parts of Japan particularly from the Main Island (Honshuh) and (2) to construct necessary infrastructures for the improvement of living and industrial conditions in Hokkaidoh, the then frontier region in Japan. In light of these two principles, public investments were made with explicit intention to supply fundamental transportation means in order to facilitate immigration of new settlers but with slight intention to arrange an appropriate framework of integrated regional development.

The first three of the aforementioned pre-war development plans for the Hokkaidoh region were given a place to serve as instruments geared to the management of colonial land instead of instruments geared to the development of the lagged region. The consequence was that the Japanese acquisition of colonies abroad more or less blurred the importance of the development of the Hokkaidoh region at least for a time being. It was, actually, not until the fourth pre-war development plan (viz., the

Hokkaidoh Settlement Operation Plan: Second Phase) that the policy of reducing economic discrepancy between the Hokkaidoh and Main Island regions was adopted as a primary goal in the development plan for Hokkaidoh.

As to real accomplishment rate of the plan, the four of the pre-war development plans for Hokkaidoh were all finished with low rate of actual implementation.

1-1. Ten-year Plan (1972-81)

This plan was formulated by the Commissioner for Hokkaidoh Settlement to encourage the immigration of farmers into Hokkaidoh. To meet this objective, the plan gave priority to (1) the establishment of large-scale farming systems and (2) the provision of new job opportunities to ex-samurais (viz., those who used to be warriors in the Tokugawa feudalistic era but who become no longer warriors after the Meiji Restoration). The plan to establish large-scale farming systems was discontinued with the abolition of the Office of the Commission for Hokkaidoh Settlement.

1-2. Hokkaidoh Ten-year Plan (1901-10)

This plan was drawn up by the prefectural government of Hokkaidoh. Its real accomplishment rate was only around 50% due to the failure in securing the long term financial resources to support the plan. This brought about the New Hokkaidoh Ten-year Plan to be drafted in 1906. Nevertheless, the 1906 Plan could not be approved by the central government.

1-3. Hokkaidoh Settlement Operation Plan: First Phase 1910-26

This plan was formulated by the central government right after the depression period following the Russo-Japanese War. In the early stage

of its implementation, the achievements of the plan were considerably behind schedule. The First World War had, however, a favourable effect on the plan to make it finished with the real accomplishment rate of more than 75%.

1-4. Hokkaidoh Settlement Operation Plan: Second Phase 1927-46

This plan was schemed by the national government to follow the First Phase of the Hokkaidoh Settlement Operation Plan. It aims to change Hokkaidoh's quasi-colonial status to more normal one as generally enjoyed by prefectures in the Main Island. The real accomplishment rate of the plan was at the level of approximately 50% while the nominal accomplishment rate reached the level of nearly 200% reflecting the drastic inflation caused by the war economy during the Second World War.

2. Development Plans for the Tohoku Region

The Tohoku region used to be and still is one of the most economically lagged regions in the Main Island. For the purpose of the promotion of industrialization of the region, the Comprehensive Development Plan for the Advancement of Tohoku (First Five-year Development Plan for the Tohoku Region) was launched. It was financially supported by the appropriation of around 20 million yen which started in 1937 to be annually collected from each ministries on the basis of their allotted quota. However, the sum of this appropriation amounting to 100 million yen for five years was only one third of the total budget of 300 million yen demanded by the First Five-year Development Plan. This apparently resulted in the poor accomplishment rate of the plan.

In 1943, the Second Five-year Development Plan for the Tohoku Region was formulated. But it received rather little attention and ended up in a complete failure.

III PLANS FORMULATED AFTER THE SECOND WORLD WAR

1. National Development Plans

The rapid and continuous concentration of residential and industrial activities into the three largest metropolitan regions (viz., Tokyo, Osaka and Nagoya metropolitan regions) has been taking place since the end of the World War II. This has caused serious problems of overcrowding in the three metropolitan regions as well as in other major cities and problems of social and economic decay in rural areas. These problems are, however, closely related to the structure of the whole national economy. This makes it extremely difficult for regional and local governments to solve the problems merely through their own policies without any assistance from the central government. Therefore, the decentralization has been uninterruptedly pursued as one of the most important planning objectives in national urban policies.

Taking into account these circumstances, a series of three Comprehensive National Development Plans have been so far determined by the Cabinet. Each of them was formulated based on the Comprehensive National Land Development Law of 1950 intending to effectively integrate various policies on cities, regions, housing, land use, industrial location, transportation, welfare and education, and every other relevant issues into a single consistent national plan for the purpose of accomplishing the decentralization objective.

The First Plan was approved in 1962. Its primary aim was to simultaneously resolve the problems of overcrowding in the major cities and population decline in rural areas in order to achieve a balanced spatial population distribution throughout the country. This planning

strategy is, as a matter of fact, still being maintained with the current Third Comprehensive National Development Plan. The instruments for the implementation of the planning strategy are, however, different among the First, Second and Third Plans because of the constantly changing national, regional and local socio-economic climates.

The concept of "growth pole development" was adopted as a key notion in the First Plan. In the Second Plan, "large-scale development projects" were encouraged to be undertaken through the improved nationwide transportation network. The Third Plan features a catchword of "national habitation framework."

1-1 Comprehensive National Development Plan of 1962 (The First Plan)

The intention of the First Comprehensive National Development Plan intended was to restrain the concentration of population and industry in large metropolitan regions by curbing the construction and expansion of new factories in such regions. At the same time, the plan aimed to remove some of existing government offices, educational institutes, and firms out of the large metropolitan regions.

The prototype of this regional development strategy underlying the First Plan was already found in the National Capital Region Basic Development Plan of 1958 and in the 1959 Act of Industrial Location Control in the National Capital Region. The similar strategy was also manifested in the 1964 Act of Industrial Location Control in the Kinki Region and in the 1965 Kinki Region Basic Development Plan.

The concept of the growth pole development was applied to the First Plan in order to activate industrial centers in local areas. As a part of this development approach, the New Industrial City Development Act was enacted in 1962 and so was the Industrial Development of the Special Area Act in 1964. It resulted in that fifteen New Industrial Cities were designated during the period from 1964 through 1966. The governors

of the prefectures with designated Cities made plans in conjunction with industrial development targets, population, land use, highways, harbors, factory sites and housing. The central government provided special financial assistance by means of, for example, Increasing Aids.

1-2. The New Comprehensive National Development Plan of 1969 (The Second Plan)

Under the First Plan, development progressed actively in the New Industrial Cities and in the Industrial Development Special Areas. Nevertheless, income differentials among regions could not be so significantly reduced as had been originally expected. In consequence of this, concentration of population in the three largest metropolitan regions continued to grow. This persistent trend of urban growth led to the formulation of the New Comprehensive National Development Plan in 1969. The basic strategy of this Second Plan was to construct a nationwide transportation network of expressways and a high-speed national railways (Shinkansen) system, and to implement large-scale industrial development projects.

Various measures were also taken to relocate industries from overcrowded areas to less concentrated areas. By means of this kind of approach, interregional income discrepancies started to become somewhat narrower.

1-3. The Third Comprehensive National Development Plan of 1977

It was expected with the Second Plan that the improved transportation network and large-scale industrial projects would lead to the rapid economic development in specified regions. However, this national land management policy failed in attaining its goals because of the insufficient arrangement of new industrial areas which were supposed to function as development nuclei for regional economy. To substitute

for the Second Plan, the Third Plan was formulated. This Plan set forth a "settlement framework" emphasizing on the creation of social and economic milieu for human habitation which would allow people to enjoy high quality of life with an appealing local identity.

1-4. The Fourth Comprehensive National Development Plan of 1986
(Forthcoming Plan)

The National Land Agency produced in November, 1984, an interim report for the National Land Council. The interim report subtitled "A Better Japan in the 21st Century," will be used by the Council as the basis for drawing up the Fourth Comprehensive National Development Plan for the period 1986-2000.

The report predicts that the economy in Japan will be able to keep growing, at an annual real growth rate of around 4 percent, with fundamental changes in the patterns of industry and trade. That is, the new industrial and trade structure will orient toward the more production of smaller sized and higher value-added commodities with less pollution troubles and with fewer imports of raw materials and energy resources.

The report warns against the excessive centralization in the Tokyo metropolitan region of business, administration, information, culture and learning opportunities, and argues that the Osaka and Nagoya areas have to do more to develop themselves as strong regional centers. It also says that more express motorways, Shinkansen lines and airports capable of handling wide-bodied jet planes as well as modern telecommunications facilities have to be required in order to effectively and systematically link different regions.

In addition, the report explicitly speaks of the issues on (1) the need in development to cope with the further internationalization of Japan, (2) the possibility of significant increase in the share of total

public works appropriations going into operation and maintenance of old roads, bridges and dams, and (3) the aging of population as unescapable social process.

2. Regional Development Plans

Japan can be geographically divided into eight regions. Among them are three largest metropolitan regions. They are the National Capital region (or Kanto region) including Tokyo, Kanagawa and Chiba prefectures, the Kinki region including Osaka, Hyogo and Kyoto prefectures, and the Chubu region with Nagoya prefecture in it. Other five are Hokkaido, Shikoku, Kyushu, Tohoku and Chugoku regions.

Each of the nine regions has its own regional development plan such as the National Capital Region Basic Development Plan for the National Capital region and the Kinki Region Basic Plan for the Kinki region.

2-1. National Capital Region Basic Development Plan

The National Capital Region Basic Development Plan was formulated as a regional plan for the area covering Tokyo prefecture and its surrounding seven prefectures.

2-1-1. The 1958 Plan (The First Plan)

The First Plan was drawn up in 1958 which was made after the model of the Greater London Plan of 1944. The Plan covered the area within the 100 kilometer radius from the center of Tokyo. Its major planning strategies and instruments were as follows;

- (1) Restrictions were imposed in densely built-up areas of the region on new construction and expansion of factories and universities that were considered as major causes of excessive concentration of population and industry.

- (2) Green belt zones (suburban zones) were set up around densely built-up areas to restrict urban sprawl phenomena.
- (3) Industrial cities were set up outside the green belt zones, along with the establishment of the legal power in 1962 to expropriate land for industrial sites.

2-1-2. The 1968 Plan (The Second Plan) and the 1976 Plan (The Third Plan)

Due to the rapid growth of Japanese economy during the period for the First Plan, urbanization went on at much faster speed than had been expected. To cope with this situation, the Second Plan was drawn up in 1968 which shifted its emphasis from the physical restriction of urban growth to the promotion of the "planned urban development" with the green areas being reasonably preserved.

In 1976, the Third Plan was formulated with such understandings on urban change phenomena as follows.

- (1) The population of the Tokyo metropolitan region is likely to reach as high as 30 million.
- (2) Increasing populations, coupled with increasing number of households, are expected to bring about further expansion of urbanized areas.

The basic intention of the Third Plan was to limit the increase in population and industrial in the National Capital region and at the same time to improve the quality of urban life. In order to achieve these goals, the Plan included the development projects of motorways, mass rapid transits, newtowns and available water-resources.

2-2. Kinki Region Basic Plan

There are a series of three Kinki Region Basic Plans covering eight prefectures including the Osaka, Kyoto, and Kobe metropolitan areas.

The First, Second and Third Plans were launched in 1965, 1971 and 1978 respectively. As with the National Capital Region Basic Plans, the basic strategy of the Plans is to encourage the dispersal of population and industry from built-up central urban areas to the surrounding suburban. This strategy was similar to that of the National Capital Region Basic Development Plan.

The Kinki region, however, differs from the National Capital region in the fact that it has inherited a rich background in historic and cultural dimensions. Thus, the socioeconomic development plans for this region have had to in principle respect the basic philosophy of historical and cultural preservation. In addition, the economic base of the region has been declining in recent years forming a remarkable contrast with the National Capital region. This requires the Third Plan to revitalize the regional economy through the promotion of international activities and information industries.

2-3. Development of Tsukuba Academic New Town

As a regional development plan (1) to decentralize government functions from Tokyo and (2) to promote higher levels of research and educational activities, it was decided in 1963 to develop as a national project an academic new town in Tsukuba area which is 4,000 hectares in size (which changed to 2,700 hectares at the later planning stages) and located approximately 100 kilometers northeast of the central business district of Tokyo. This project will, when it is finished, bring into the new town forty-six (46) governmental bodies including thirty-two (32) research institutes and two (2) universities with six thousand managerial personnel and clerk officials, and ten thousand students. The total number of population expected to reside in the new town is about one hundred thousands with additional one hundred thousands living in its surrounding areas which have been recently developed.

By 1980, around four fifths of th forty-six governmental bodies with about nine thousand jobs had already been relocated in the new town. The population level in 1980 was about one hundred and twenty-five thousands for the Tsukuba Science City which is designated by the Tsukuba Science City Act of 1970 as a combined area of six municipalities all having a part of the Tsukuba academic new town within their municipal boundaries.

2-4. Technopolis Plan for Regional Development

The Basic Technopolis Plan was schemed in 1981. In accordance with this plan, the Technopolis Development Plan was formulated in 1982 and the Technopolis Law (The Law for Accelerating Regional Development based upon High-technology Industrial Complexes) was enacted in 1983.

2-4-1. Technopolis Development Plan

The Technopolis Development Plan can be regarded as an innovative instrument to activate economic and social performances in the relatively lagged regions. The Plan which is setting 1990 as the target year for the completion of its general implementation, aims at the creation of new type of towns (or regional centers) in which industrial, academical and residential activities are closely associated with each other in both functional and spatial spheres centering around the already existing "mother city" with the population of 150,000 or more through which technopolitainers (viz., those who are residing in Technopolis region) can enjoy a high level of urban amenity agglomeration economies.

Putting it more concrete, the most strategic industrial paradigm for the Technopolis is the high technology oriented industrial complexes composed of electronics, mechatronics, robotics, biotechnology and/or new materials industries. The industrial complexes are anticipated to

serve as key bases to enable the economy of the Technopolis region to become self-propelling. At the same time, the Technopolis itself supplies to high-technology industries their necessary location sites with well-arranged physical infrastructures for production activities and with desirable environments suitable for creative research activities.

The academic activities envisaged in the Plan are universities, colleges, research institute and laboratories which can provide regional business enterprises with high levels of scientific and technological knowledge and research stimulations. As to the residential activities, the Technopolis is supposed to offer pleasant environments for daily-life activities to attract managerial, technical and scientific personnel and their families to live in.

The Plan is, in addition, designed to draw out local initiatives in the sense that the implementation of the Plan rests mainly with the local and prefectural governments concerned and with the vitality of the private sectors in the Technopolis region. By drawing out local initiatives, it is expected that both existing and potential resources in a broader sense of the Technopolis region will be effectively utilized.

It should be, however, noted that the Plan stands on the policy of (1) the minimal new public investment necessary to the infrastructure improvement for the supply of locational sites for high technology industries and (2) the efficient utilization of already existing infrastructures.

2-4-2. Technopolis Law and Authorized Technopolis Regions

The crude outline of the Technopolis Law is shown by Figure 1. As indicated by its flow-chart, the development program for each Technopolis is supposed to be prepared by the prefectural government

Figure 1 Skeleton of Technopolis Law (1983)

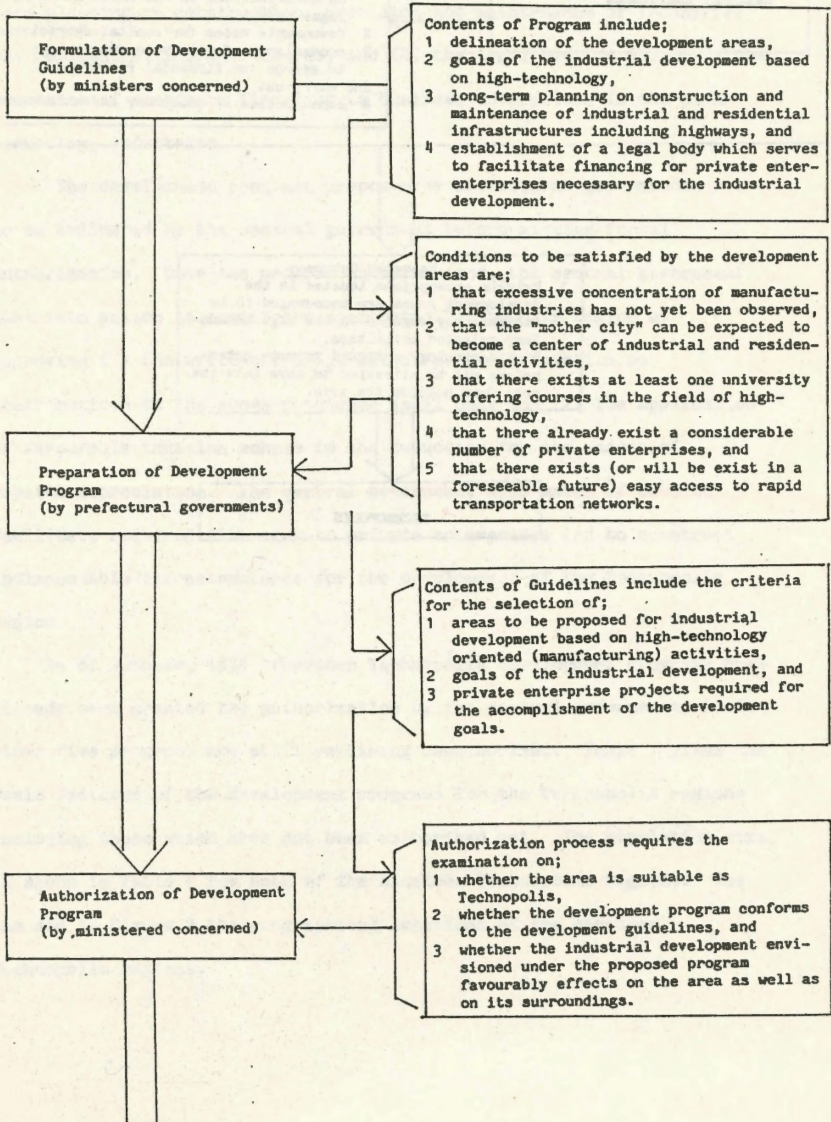
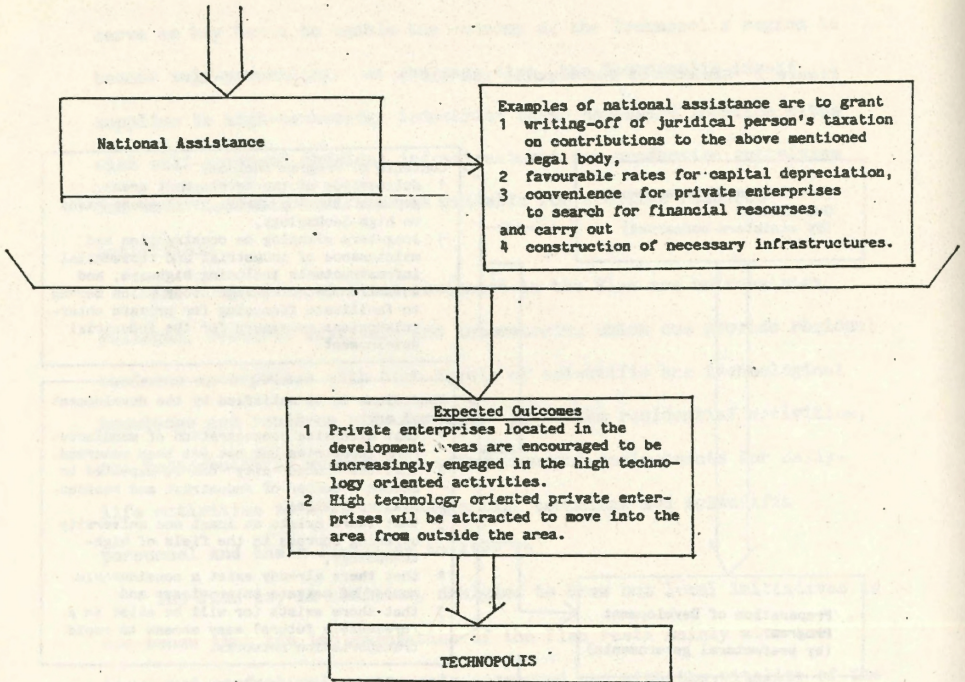


Figure 1 (Continued)



based on the Technopolis Development Guidelines set by the central government. The contents of the development program have to clearly describe (1) the locational area of the Technopolis, (2) the goals of the development of the high technology industrial complex, (3) the long-term planning on construction, provision and maintenance of industrial and residential infrastructures, and (4) the legal body in charge of the promotion of necessary financing to business enterprises in the high technology industries.

The development programs proposed by prefectural governments are to be evaluated by the central government before getting formal authorization. Once the program is authorized, the central government goes into action to assist the designated Technopolis region by approving (1) the write-off of juridical person's taxation on contributions to the above mentioned legal body and (2) the application of favourable taxation scheme to the deduction for the amount of capital depreciation. The central government also makes efforts to facilitate required financing to private enterprises and to construct indispensable infrastructures for the development of the Technopolis region.

As of October, 1984, fourteen Technopolis development programs have already been granted the authorization by the central government, while other five programs are still remaining unauthorized. Table 1 gives the basic features of the development programs for the Technopolis regions including those which have not been authorized yet. The population size is shown in Table 2 for each of the nineteen Technopolis regions. One can see in Figure 2 the geographical locations of the nineteen Technopolis regions.

Table 1 Development Programs for Technopolis Regions

Host Prefecture	Technopolis Region		Strategic Industrial Sectors	Development Strategy to Strengthen R&D Capacity
	Name of Region (Mother City)	Principal University(ies)		
1.Hokkaidoh	Hakodate (Hakodate)	Hokkaidoh University	Marine-related industries; industries utilizing natural resources; cold district development industries	Expansion of the Hakodate Industrial Research Institute; establishment of the Hokkaidoh Prefectural Center of Industrial Technology
2.Akita	Akita (Akita)	Akita University	Electronics; mechatronics; new materials; industries utilizing natural resources; biotechnology; energy resource development	Expansion of the Akita Prefectural Institute of Industrial Technology
3.Niigata	Nagaoka (Nagaoka)	Nagaoka College of Science and Technology	Advanced systems industries; urban industries (design, fashion); industries utilizing local natural resources	Establishment of the Nagaoka Center for the Promotion of Regional Technological Development and the Nagaoka Center for Information Studies
4.Toohigi	Utsunomiya (Utsunomiya)	Utsunomiya University	Electronics; mechatronics; fine chemicals; new materials; computer software	Establishment of the Utsunomiya Technopolis Information Center
5.Shizuoka	Hamamatsu (Hamamatsu)	Shizuoka University, Hamamatsu College of Medicine	Optoelectronics industries; advanced mechatronics; "home-sound culture" related industries (electornio musical instruments)	Establishment of the Institute for Research on Electronic Machine Technology and the Institute for Research on Medical Appliance Technology; expansion of the Shizuoka Prefectural Industrial Research Institute
6.Toyama	Toyama (Toyama, Takaoka)	Toyama Univ., Toyama College of Medicine and Pharmsoology	Mechatronics; new materials; biotechnology (medical, etc.); information industries	Relocation of the Toyama Prefectural Institute of Industrial Technology; establishment of the Center of Research on Life Sciences and the Center for Exchange in Advanced Technology
7.Okayama	Kibikohgen (Okayama)	Okayama University, Okayama College of Science	Biotechnology; electronics; mechatronics (medical and pharmaceutical industries)	Reorganization of the Okayama Prefectural Institute of Industrial Technology; establishment of the Center for Research on Biotechnology
8.Hiroshima	Hiroshima-Chuhoh (Kure)	Hiroshima University	Electronics; mechatronics; new materials; biotechnology	Establishment of the Center for Research on Frontier Technologies; expansion of the Hiroshima Prefectural Industrial Research Institute
9.Yamaguchi	Ube (Ube)	Yamaguchi University	Electronics, mechatronics, new materials, ocean development, biotechnology	Expansion of the Yamaguchi Prefectural Industrial Research Institute; establishment of the Yamaguchi Prefectural Institute of Industrial Technology and the Institute for Research on New Materials

Table 1 (continued)

10.Fukuoka, Saga	Kurume- Tosu (Kurume)	Kurume College of Engineering, Kurume University	Mechatronics; fine chemicals; fashion; "next generation" bioindustries	Establishment of the Information Center for the Promotion of Local Industry
11.Ohita	Kenhoku- Kunizaki (Ohita, Beppu)	Ohita University, Ohita College of Medicine	Electronics, mechatronics, bioindustry, computer software.	Establishment of the High Technology Research Institute and the Training Center; expansion of Ohita Prefectural Industrial Research Institute
12.Kumamoto	Kumamoto (Kumamoto)	Kumamoto Univ., Kumamoto College of Engineering	Applied machinery industry; biotechnology; electronic equipment; information systems industry	Establishment of Center for Research on Applied Electronics Machinery Technology; expansion of the Kumamoto Prefectural Industrial Research Institute
13.Miyazaki	Miyazaki (Miyazaki)	Miyazaki Univ., Miya- zaki College of Medicine	Electronics; mechatronics; new materials; biotechnology; techno-green industry; industries utilizing local resources	Establishment of the Joint Research and Development Center; expansion of the Miyazaki Prefectural Industrial Research Institute
14.Kagoshima	Kokubu-Hayato (Kagoshima)	Kagoshima Univ., Kyushuh Gakuin Univ.	Electronics; mechatronics; new materials; biotechnology	Establishment of the Center for Research on the Development of Fine Ceramics Products and the Kagoshima Prefectural General Institute of Industrial Technology
15.Aomori	Aomori (Aomori)	Hirosaki Univ.	Mechatronics; biotechnology	Local Product Research Institute; Research Institute for High Technology Industry; center for Life Science Studies
16.Hyogo	Nishiharima (Himeji)	Himeji College of Technology	High technology mechanics; health and welfare industries	Center for Life Science Studies
17.Wakayama	Goboh (Wakayama)	Wakayama Univ.	Health-leisure industrial complex; fine chemicals	Center for Sports Science
18.Kagawa	Kagawa-Seibu (Takamatsu, Sakaide, Marugame, Zentsuhji, Utatsu)	Kagawa University	Marine resource development industry; precision machinery industry producing measurement control devices;	Center for Experimental Studies; Institute for Quality of Life
19.Nagasaki	Sasebo (Sasebo)	Nagasaki Univ.	Machinery industry related to the marine resource development and energy resource development; mechatronics	Research Center for Marine Energy; Center for International Cooperative Research Projects

(Note) Technopolis regions with code-number 1 through 14 have already been authorized by the central government as of October, 1984.

Table 2 Population of Technopolis Regions

(unit: 1,000 persons)

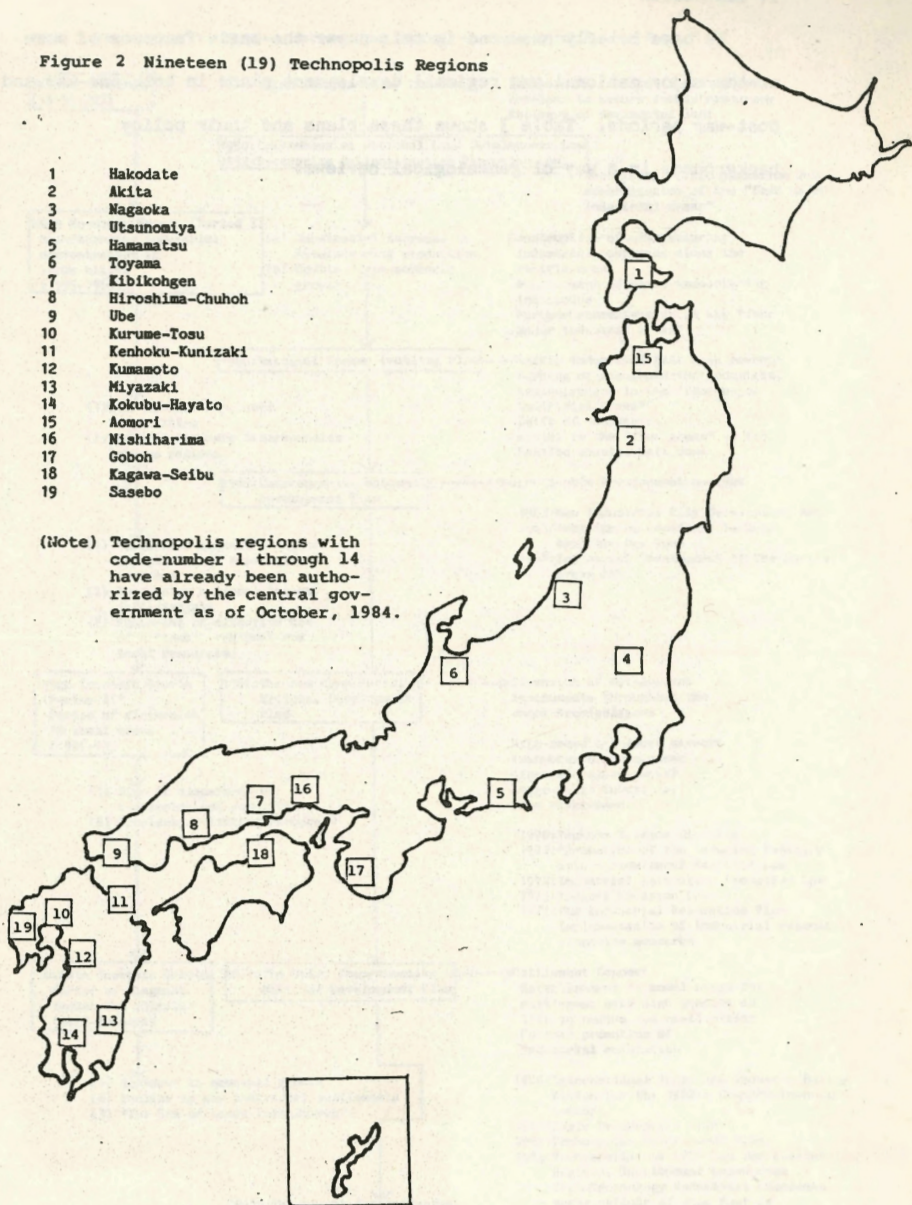
Code- Number	Technopolis	Mother City	Outside Mother City	Total
	Name of Region			
1	Hakodate	320	60	380
2	Akita	285	20	305
3	Nagaoka	180	-	180
4	Utsunomiya	378	92	470
5	Hamamatsu	491	104	595
6	Toyama	480	89	569
7	Kibikohgen	546	601	1,147
8	Hiroshima-Chuhoh	235	376	611
9	Ube	169	240	409
10	Kurume-Tosu	217	117	334
11	Kenhoku-Kunizaki	497	282	779
12	Kumamoto	653	86	739
13	Miyazaki	265	92	357
14	Kokubu-Hayato	505	147	652
15	Aomori	288	22	310
16	Nishiharima	446	389	835
17	Goboh	401	99	500
18	Kagawa-Seibu	503	88	591
19	Sasebo	251	14	265
Total		7,110	2,918	10,028

(Note) Technopolis regions with code-number 1 through 14 have already been authorized by the central government as of October, 1984.

Figure 2 Nineteen (19) Technopolis Regions

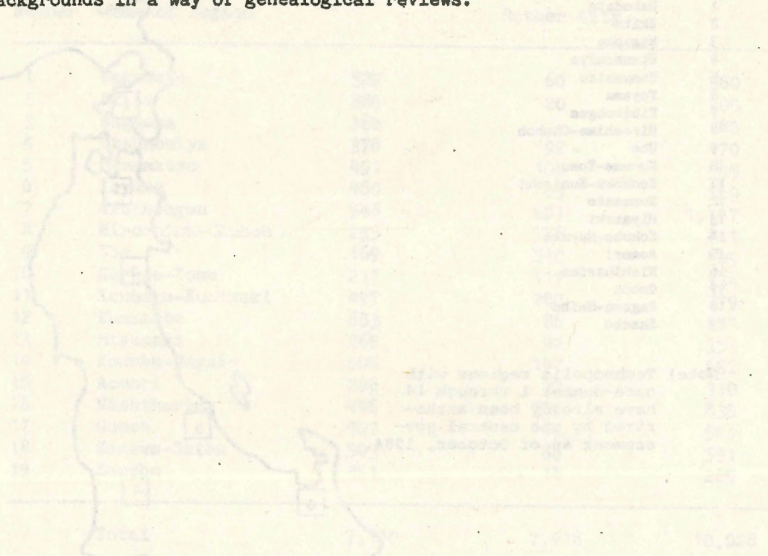
- 1 Hakodate
- 2 Akita
- 3 Nagaoka
- 4 Utsunomiya
- 5 Hamamatsu
- 6 Toyama
- 7 Kibikohgen
- 8 Hiroshima-Chuhoh
- 9 Ube
- 10 Kurume-Tosu
- 11 Kenhoku-Kunizaki
- 12 Kumamoto
- 13 Miyazaki
- 14 Kokubu-Hayato
- 15 Aomori
- 16 Nishiharima
- 17 Goboh
- 18 Kagawa-Seibu
- 19 Sasebo

(Note) Technopolis regions with code-number 1 through 14 have already been authorized by the central government as of October, 1984.



IV CONCLUSION

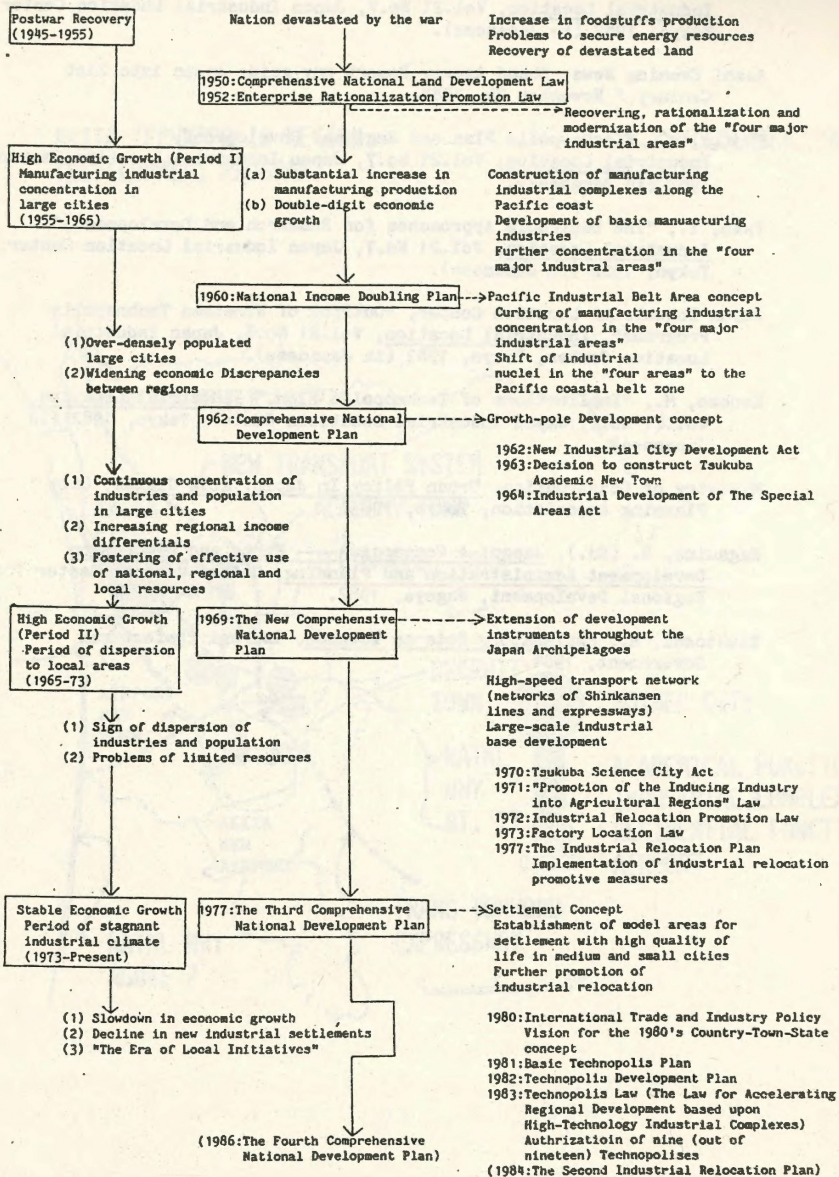
We have briefly examined in this paper the basic features of some of the major national and regional development plans in both pre-war and post-war periods. Table 3 shows these plans and their policy backgrounds in a way of genealogical reviews.



Year	Plan Name	Policy Background
1946	Five-Year Plan	...
1950	Five-Year Plan	...
1955	Five-Year Plan	...
1960	Five-Year Plan	...
1965	Five-Year Plan	...
1970	Five-Year Plan	...
1975	Five-Year Plan	...
1980	Five-Year Plan	...
1985	Five-Year Plan	...
1990	Five-Year Plan	...
1995	Five-Year Plan	...
2000	Five-Year Plan	...
2005	Five-Year Plan	...
2010	Five-Year Plan	...
2015	Five-Year Plan	...
2020	Five-Year Plan	...
2025	Five-Year Plan	...
2030	Five-Year Plan	...
2035	Five-Year Plan	...
2040	Five-Year Plan	...
2045	Five-Year Plan	...
2050	Five-Year Plan	...
2055	Five-Year Plan	...
2060	Five-Year Plan	...
2065	Five-Year Plan	...
2070	Five-Year Plan	...
2075	Five-Year Plan	...
2080	Five-Year Plan	...
2085	Five-Year Plan	...
2090	Five-Year Plan	...
2095	Five-Year Plan	...
2100	Five-Year Plan	...



Table 3 Genealogy of the Post-war National and Regional Development Policies in Japan

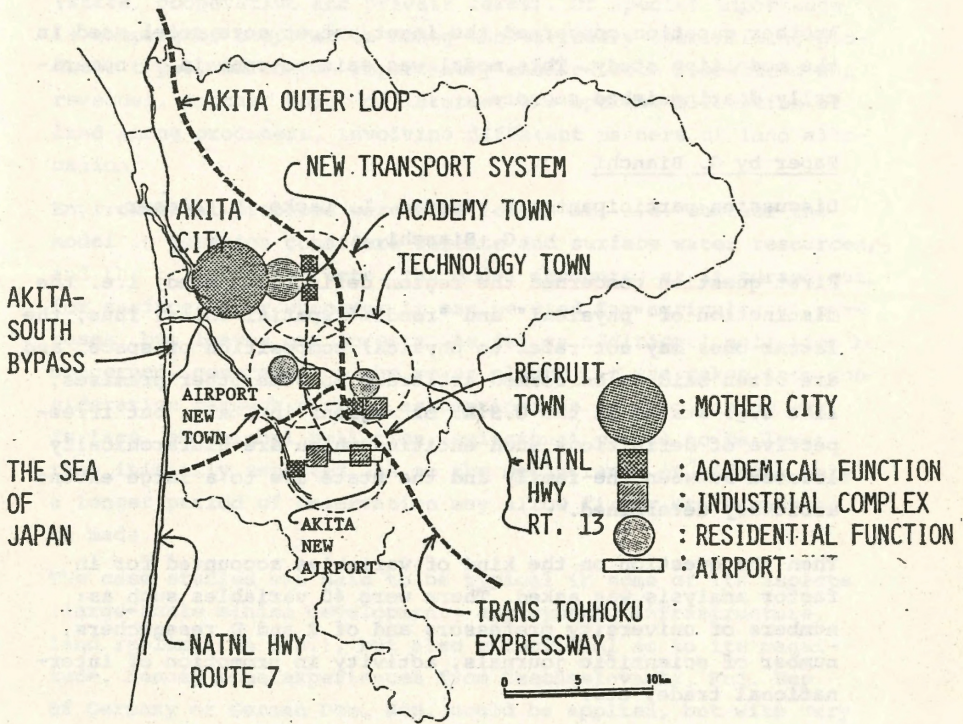


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AKITA TECHNOPOLIS REGION
(DEVELOPMENT PROGRAM)

T.K./DECEMBER/1984



DISCUSSIONS

Paper by K.P. Moeller

Discussions participants: D. Boekemann, G. Bianchi, K.P. Moeller.

The question of long-term implications of the modelling study results was analysed, especially from the point of view of the demographic situation. Thus, possible changes of in-migration rates were discussed together with their impact on both employment and demand, and with their dependence upon the appropriate legal regulations. It turned out that the model can incorporate most of these aspects.

Another question concerned the input/output core model used in the modelling study. This model was said to contain 11 numerically distinguished sectors.

Paper by G. Bianchi

Discussion participants: R. Espejo, L. Lacko, U. Loeser,
G. Bianchi.

First question concerned the region definitions used, i.e. the distinction of "physical" and "random" spatial units. Thus, the latter ones may not refer to physical composition of space, and are often said to be formed arbitrary on some other premises, like e.g. states in the U.S.A. or regions in Italy, but irrespective of definitions such entities which are hierarchically located between the family and the state are to a large extent arbitrary determined.

Then the question on the kind of variables accounted for in factor analysis was asked. There were 40 variables such as: numbers of university professors and of R and D researchers, number of scientific journals, activity in promotion of international trade, etc.

The last point concerned the IRPRT's role in allocation of state funds to particular regions. Inasmuch as the allocation is a result of bargaining and negotiations, conflicts were said to be treated as a normal part of the planning procedure. Regional authorities are responsible for the conduct of negotiations,

and it is for their needs with that respect that IRPET prepares background information.

Paper by J.W. Owsinski

Discussion participants: T. Vasko, L. Kairiukštis, G. Bianchi,
S. Dresch, J. Owsinski.

First, the question of the scope of agricultural restructuring admitted for in the model and proposed in results was taken up. The model can incorporate both the production profile changes and the shares and cooperation rules of various producer types (state, cooperative and private farms). Of special importance is shaping of cooperation among the variously specializing producer types, which can importantly enhance both production and revenues. Another point of interest was optimum allocation of land among producers, involving different manners of land allocation.

Environmental problems were also looked at, i.e. whether the model in question considers forests and surface water resources, and the pollution effects. The model accounts, as it turned out, for surface water whenever it can be used for agricultural purposes, but leaves out forests. As far as additional pollution is concerned, generated by the power plants, it was taken into consideration through varying assumptions as to crop yields etc. In fact, additional pollution (emissions) proved to be lower than initially expected. As to the whole range of effects only a longer period of observation may allow firmer statements to be made.

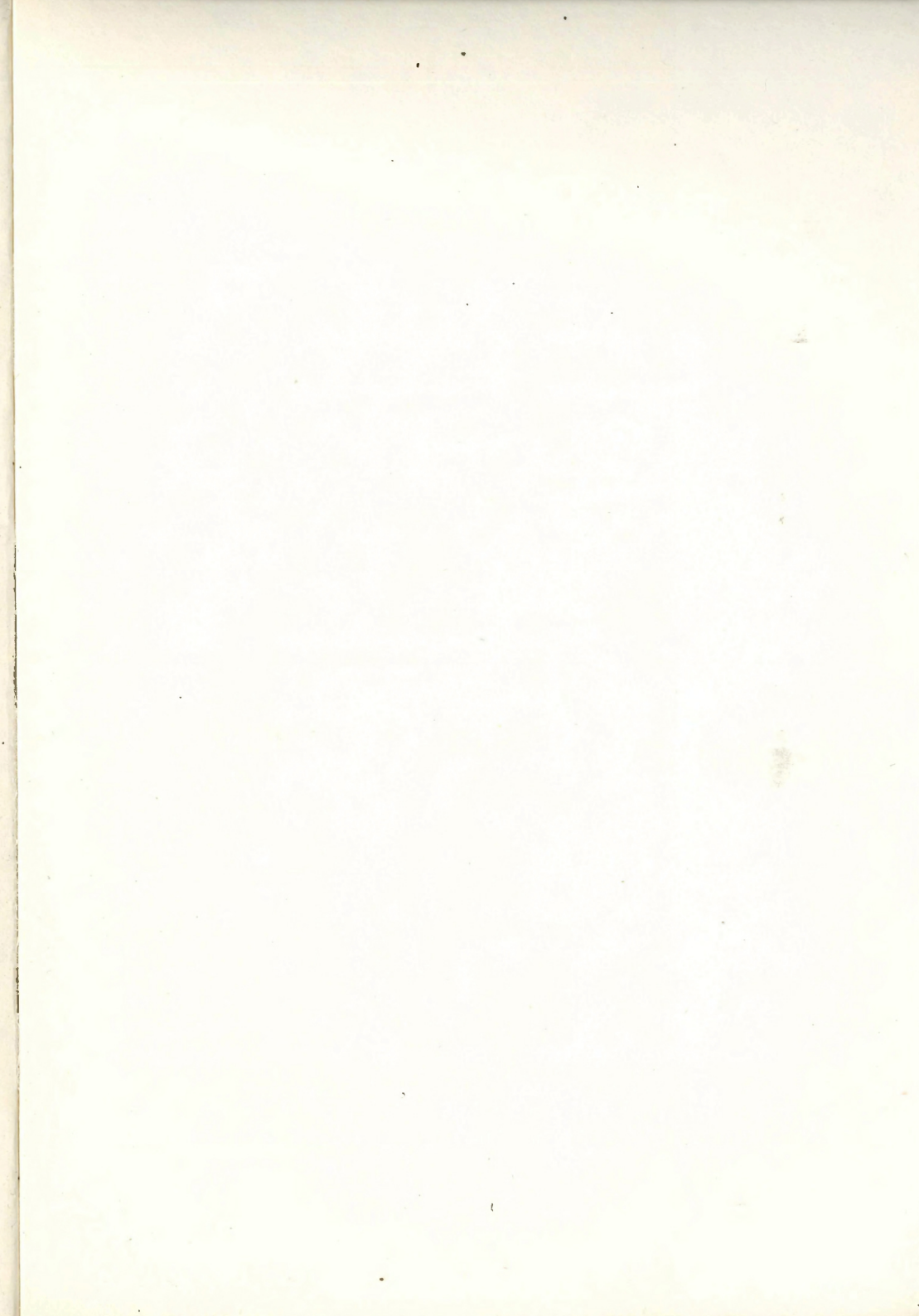
The case studied was said to be typical in some of its aspects (large-scale mining development, employment, infrastructure, land reclamation etc.), but also exceptional as to its magnitude. Hence, some experiences from Czechoslovakia, Fed. Rep. of Germany or German Dem. Rep. could be applied, but with very strict reservations.

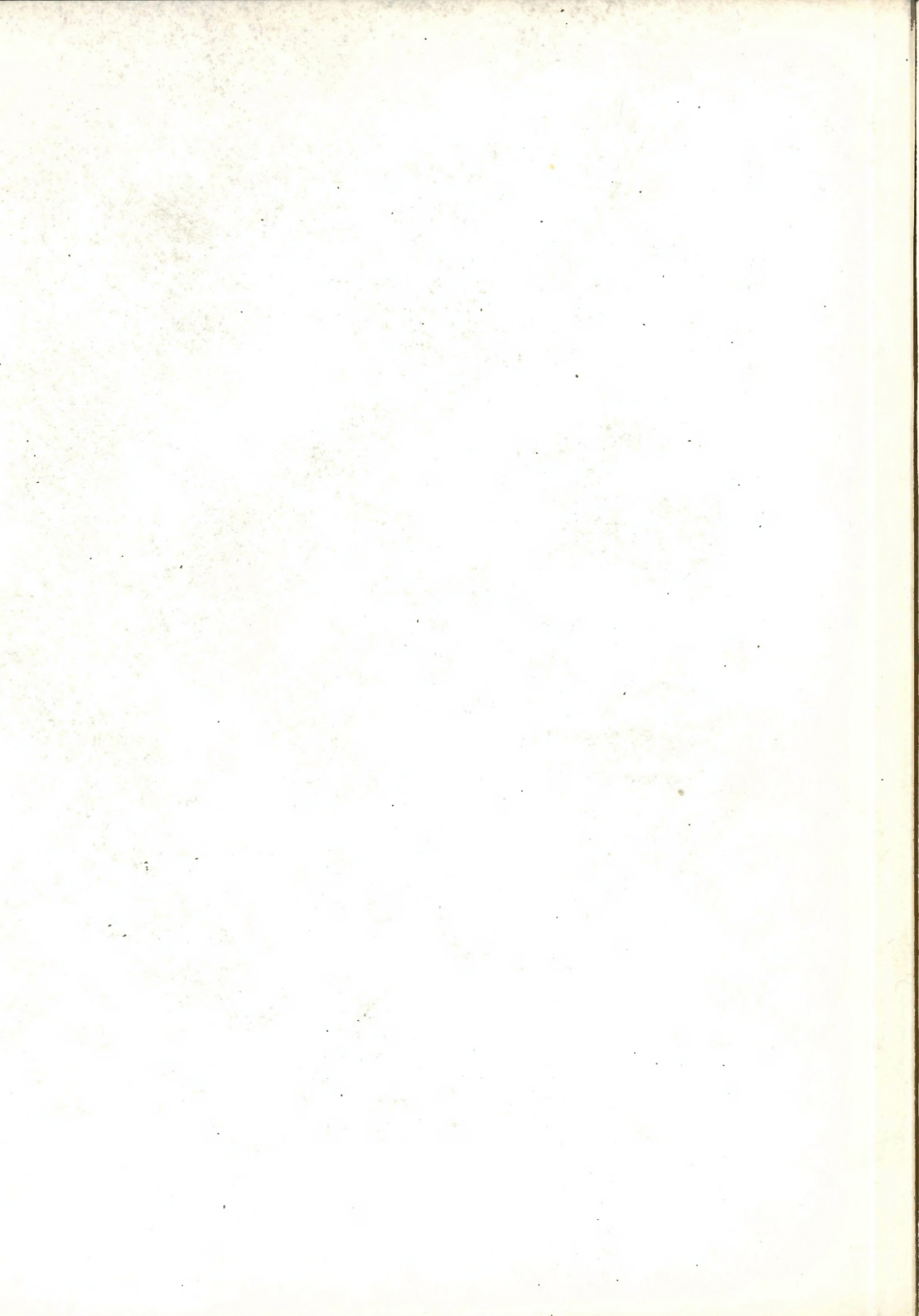
The final question concerned the role of the analysing group in the multi-party process. Quite naturally, being a technical one, it still has a very important bearing for the participants of this process. There is a variety of views on the subject and

the analysis could not but corroborate, at least partly, some of them.

Paper by T. Kawashima

This paper, as presented after the sessions, was not discussed.







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