Relocation of Industries to Yokohama Kanazawa Industrial Park

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NECESSITY FOR INDUSTRIAL RELOCATION
Due to rapid urbanization following a period of high economic growth, the city witnessed an increase in population, chaotic city planning, and together with this, businesses, residences, and factories were all located together in the city center. At that time, there were approximately 5,800 factories in the city. Of those, it was determined that 1,900 factories should be relocated. In the end, the relocated factories numbered 100 factories. Second, due to urbanization and industrialization, production deteriorated and the living conditions of residents worsened. And third, in order to address these issues, it became necessary to relocate industries in order to modernize factory sites and solve the problem of the mix of residences and factories.

PROJECT AIM
Industries had difficulties in carrying out production due to the increase of public awareness towards noise pollution, vibrations, and industrial wastewater. It was also difficult to expand factories and replace equipment as a result of existing laws and regulations. Additionally, problems such as traffic congestion and decreases in operation efficiency were generated as a result of confused city planning and the co-inhabitance of residences and factories.

OBJECTIVES OF CREATION OF INDUSTRIAL PARKS
It was against this background that the concept of the creation of the Kanazawa Industrial Park was developed. The park was to have the following three objectives. First was the redevelopment of the city area. This included the effective utilization of land and improvement of the urban area after relocation to address the issue of co-habitation of residents and industries. Second was a focus on the strengthening of business operations. This was to include improvement of physical or hard attributes of enterprises through grouping and collective or collaboration. The third focus was on development of the urban area. This was to include the formation of an ideal industrial city with the concentration of industries, public facilities such as parks and public welfare facilities, and residences where employees could reside.

Location of Yokohama Kanazawa Industrial Park

1 Economic Affairs Bureau, City of Yokohama
KANAZAWA LAND RECLAMATION PROJECT
This project was carried out as one part of the reclaimed land in Tokyo Bay. The total project cost was approximately 260 billion yen, and was carried out for approximately 14 years from 1968-1981. The total area for the project was 658 hectares which was broken down as follows: 258 hectares allocated for urban redevelopment, 82 hectares designated as a residential area in which approximately 30,000 people could reside, 67 hectares set aside for development of a seaside park, and 251 hectares for public facilities, including sewerage treatment plants, cleaning plants, roads, schools, and green areas).

CHARACTERISTICS OF LAND USE PLAN
A greenbelt buffer zone, approximately 30-50 meters, was established in the area between the redeveloped site which was to be used for relocation of industries, and residential areas. This buffer zone addressed pollution problems from the industrial zone, and contributed to the beautification of the area, reduced noise, and improved air quality. Funding for construction was provided under a project for collective welfare sponsored by the Japan Environment Corporation. The green buffer zone was established on a land size of 15.1 hectares and was 4 km in length. The project cost 11.2 billion yen for construction and land cost. One-third of the cost was borne by the local government and businesses. Second was a focus on the division and classification of land according to business type. Land was classified as follows: Site 1 for wood; site 2 for distribution and transport; and site 3 for manufacturing and production. This was to prevent trouble between industries from occurring during production processes, as well as have impact on collaborative or collective projects between similar industries.

INFRASTRUCTURE WITHIN INDUSTRIAL ZONE
The main roads within the industrial park totaled 36 meters and 22 meters; other roads totaled 12 meters. Additionally, 10 meters was set aside along Tokyo Bay for use as a “greenway.” Water supply and sewerage, as well as electric, gas, and telephone services were also established in the zone. Additionally, the Kanazawa Industrial Promotion Center was established to provide public welfare services to small and medium sized businesses in industrial zones, including the Kanazawa Industrial Zone. The Kanazawa Seaside Line was also established in the zone, in addition to the Fukuura Wastewater Treatment Plant to collectively treat industrial wastewater.
PLACEMENT OF INDUSTRIES
Points to consider in the establishment of the park include the classification and location or placement of industries within the industrial park. Due to the diverse types of enterprises, industries were located by type in the industrial park. First, industries were classified by type and were located so that there were no obstacles in daily operations. Industries were classified into 14 types: metal machinery, plating, chemicals, electronics, and appliances and precision instruments, to name a few. Overall zoning called for the placement of light industries near residential areas, and construction and renewable resources near the coastline. Finally, the objective of this was to achieve a system that could create groupings and link businesses through classification of similar industries.

![Classification and location of industries](image)

POLLUTION CONTROL AND ENVIRONMENT
After relocation to the zone, industries were required to continue to implement all possible measures for pollution control and environmental protection. Industrial wastewater treatment facilities were established to collectively treat wastewater from industries. Energy for industries was limited to electricity and gas. When constructing new facilities in the industrial zone, enterprises were required to create pollution control plans. Together with this, a thorough check was conducted through a consultation system to determine if the pollution control plans drawn up by the industries complied with the strict regulations in the Kanazawa Industrial Park.

These rules included such items as the setting of minimum standards for building structures, as well as restrictions regarding the establishment of residences and food and drinking establishments. It also called for the establishment of a green buffer zone along the outer perimeter. In order to ensure that these rules were complied with by the industries over the long-term, building or construction agreements were concluded.
CONSTRUCTION OF JOINT PRETREATMENT INDUSTRIAL WASTEWATER FACILITIES
Wastewater from plating and surface treatment plants is, in principle, treated by individual industries. However, a facility to collectively treat the wastewater from these types of industries was constructed in the industrial zone. Wastewater is treated at this facility to reduce density levels, after which final treatment is conducted at a public sewerage treatment facility. The project cost totaled 3.67 billion yen and was carried out for a period of 1.5 years, with construction carried out by Yokohama City. Construction costs were borne by the relocated industries. Treatment is economically viable when collective treatment is carried out.

GUIDANCE FOR RELOCATION PLAN
The local government obtained an understanding of the current climate through a system to register industries that indicated an interest in relocation, as well as fact finding missions on the presence of noise or vibrations, contents of operations, state of surrounding area, desire to participate in organizational restructuring, etc. Additionally, an analysis of the financial affairs of businesses was carried out in regard to the high costs of relocation.

GUIDANCE FOR ORGANISATIONAL RESTRUCTURING
In order to strengthen the operational structure of organizationally weak small and medium sized enterprises and to promote comprehensive relocation, guidance was provided to registered industries for organizational restructuring or cooperatives. As industrial relocation has heavy costs for small and medium sized businesses, it is possible to introduce long-term low interest public funds for cooperatives which could be achieved through organizational restructuring. Additionally, it is possible to develop collaborative or collective projects through linkages between small and medium sized businesses to strengthen operations. In effect, guidance for organizational restructuring for classified industries was carried out for 19 different groups.

RECRUITMENT AND SELECTION
Open recruitment was conducted in the city targeting local businesses followed by analyses of the operations and management structure of registered enterprises to obtain an understanding of the situation. Selection was carried out by a selection committee and selection was carried out through careful consideration of selection standards, including analysis of financial affairs, pollution levels, priority relocation sites, sites necessary for public enterprises, industrial groupings, etc.

CLASSIFICATION OF INDUSTRIES BY LAND
Current industrial classifications include construction (11%), manufacturing (42%), and transport/communication, and wholesale/retail industries comprising the remaining percent. There are approximately 700 enterprises located in this zone.

<table>
<thead>
<tr>
<th>Industry</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Construction Industry</td>
<td>11.24%</td>
</tr>
<tr>
<td>Manufacturing Industry</td>
<td>42.75%</td>
</tr>
<tr>
<td>Metal machinery</td>
<td>14.05%</td>
</tr>
<tr>
<td>Electronic machinery</td>
<td>4.59%</td>
</tr>
<tr>
<td>Transportation machinery</td>
<td>4.14%</td>
</tr>
<tr>
<td>Food processing</td>
<td>3.40%</td>
</tr>
<tr>
<td>Wood furniture</td>
<td>3.11%</td>
</tr>
<tr>
<td>Chemicals</td>
<td>2.51%</td>
</tr>
<tr>
<td>Printing</td>
<td>1.48%</td>
</tr>
<tr>
<td>Precision machinery</td>
<td>1.48%</td>
</tr>
<tr>
<td>Other</td>
<td>7.99%</td>
</tr>
<tr>
<td>Transport and communication</td>
<td>10.50%</td>
</tr>
<tr>
<td>Wholesale / Retail</td>
<td>17.75%</td>
</tr>
<tr>
<td>Service Industry</td>
<td>15.83%</td>
</tr>
<tr>
<td>Other</td>
<td>1.93%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100.00%</strong></td>
</tr>
</tbody>
</table>

[Classification of industries by land (2001)]
ESTABLISHMENT OF LIAISON COUNCIL
Selection of enterprises was carried out in this way, however, with the increasing number of enterprises the establishment of a liaison council was necessary to move towards the creation of an ideal industrial park. The local government provided support to relocating industries through the introduction of public funds and reorganization of small and medium sized enterprises, as well as the creation of a friendly environment for relocation. However, in order to form an ideal industrial complex, the participation of both the local government and businesses is called for, as well as the necessity to induce a trend of independent management and operations in relocating industries. A liaison council was established with the participation of all the relocated industries. The role of this council was to act as a pipeline to the administration to address various issues both during and after relocation. Individual committees for different businesses or projects were also established to address issues.

SUBSIDY SYSTEM
Because small and mid sized businesses had to bear many costs in relocation, subsidies were introduced to comprehensively promote relocation. First, city taxes were reduced or exemptions were provided for city taxes for land or construction. For example, with regard to land, exemptions for property taxes were in place for 3 years and special land holding taxes in place for 5 years. Business income tax was exempted for 3 years. As a condition for the reduction or exemption of these taxes, enterprises would sell the relocated sites to Yokohama City for use as land for public facilities. However, even in the event that Yokohama City would not purchase the land, agreements were concluded for use of the former sites. A system for special funding for relocation was created, and assistance provided in payment of the deposit to be paid during the credit period when borrowing funds.

Additionally, a portion of expenses was provided in the establishment of co-operatives, other expenses were provided for the construction of collective or joint facilities, and grants for the construction of necessary private roads were provided. When public funds were introduced in relocation of cooperatives that had undergone organizational reorganization, fixed rates of interest were provided.

KANAZAWA INDUSTRIAL PROMOTION CENTER
In principle, the industrial zone was to be utilized for industries alone, however, the enterprises determined that that was not sufficient therefore, in order to provide necessary facilities, such as conference space, and public welfare activities for employees, the Kanazawa Industrial Promotion Center was established.

This center was established with the objective of providing incentives and fringe benefits for small and medium sized businesses in the city, including those in the Kanagawa Industrial Park, as well as facilitate business activities. The total area is 4.2 hectares and construction cost totaled 2.63 billion yen. The construction and operation of the center is carried out by the Yokohama Industrial Development
Corporation. The main facilities within the center include meeting rooms, halls, gymnasium, grounds, tennis courts, and restaurants.

RESPONSES TO ISSUES THAT HAVE AROSE FOLLOWING COMPLETION
Industrial relocation to the Kanazawa Industrial Park has been carried out in this fashion however, following completion of the relocation program there has been changes to the economic situation, including the introduction of IT and bio-technology, as well as movement towards internationalization or globalization. One such example would include the establishment of the Association for Overseas Technical Scholarship Yokohama Kenshu Center as a partner in the internationalization of the industrial park, as well as the construction of the Kanazawa bio-park, a research center for the field of bi-technology, and establishment of the Yokohama Kanazawa hi-tech center, which acts as a focal point for bringing together leading technological enterprises. Earlier, I spoke about the construction agreements which prohibited the construction of residences in the industrial park. However, in order to strengthen laws regulating the construction of residential areas within the park, special industrial zones were designated to regulated cooperative housing. This assisted in avoiding the earlier problem of creating mixed residential and factory areas. With the conclusion of land use agreements, troubleshooting of problems generated through the removal of factories could be achieved.

FUTURE ISSUES
While the major objective of relocating enterprises has been achieved, future issues remain including the identification of merits for the 700 enterprises located in the industrial zone, through such inter-business linkages in fields such as bio-technology and science, development of new business through linkages and responses to issues related to the IT revolution to create inter-business networks. Towards this end, Yokohama will work together with relocated industries to provide support from the viewpoint of business promotion.