The Development of Korea’s Cholla Region

Through the 1960s, as the country’s economy expanded at a rate of nearly 10 percent a year, regional income disparities grew between Cholla and the two most industrialized regions, Seoul and Kyungsang. In the 1970s, despite government policies aimed at spreading population and jobs to less developed areas, industries seldom relocated to South Cholla, the country’s poorest region.

Between 1975 and 1984, the World Bank approved three projects (see Box 1) to help the government develop Cholla and reduce interregional inequalities. The projects were very complex, together covering seven cities and five islands in two provinces, South Cholla and North Cholla, with a total of 22 components. These included industrial, housing, and tourism estates (including national parks); city markets; bridges connecting islands to the mainland; fisheries; and urban services such as water supply, sanitation, and roads.

The projects became the Bank’s first-ever regional development program, which to this day remains unique in its sustained effort and in the way it was carried out.

Piloting before mainstreaming

The first project was a pilot carried out in South Cholla. The second project introduced the initial industrial estate component and allowed the city government of Kwangju, the provincial capital, to pursue the expansion of industrial development on its own through follow-up projects. The third project extended the regional development model to Chonju and Iri (now called Iksan) in North Cholla. In effect, the three projects together followed a sequential model—piloting before mainstreaming—which did not become widely accepted practice until years later and today is considered an important approach in many Bank operations.

Direct impacts

The impacts of the projects’ various investment components (such as roads and water distribution networks) today are difficult to observe because the region has grown so much that assets created by the projects—and which once stood out in the landscape—blend into the urban environment. For ex-
ample, access roads to the business district of Yeosu are now in the heart of a fully developed city center. The study focused on the impacts of two main components: industrial estates and two bridges connecting the islands of Tolsan and Chindo to the mainland.

The projects had both short-term, direct impacts and long-term side effects that ensured the sustainability of the projects' impacts. They had two major direct impacts: they triggered industrialization in the region and created the opportunity for local officials to learn and manage the development process, initially with help from central government agencies and later by themselves, with strong private sector participation.

**Industrialization**

A solid industrial base has been established. With the first industrial estate project, local and provincial governments successfully attracted some large "anchor" firms to the new industrial estates. Small- and medium-sized firms soon followed, investing in new plants and equipment. Subcontracting firms quickly cropped up. Demand for space grew so quickly that even before the first Bank-assisted industrial estate was fully occupied in 1984, it became clear that an expansion would be needed.

**Industrial infrastructure** has expanded to more than five times the project's original investment in the industrial estate of Kwangju. The study team found that the supply of electricity was better in the project area than outside. Firms also reported that utilities and other infrastructure services had improved for them inside the project's industrial estate. In interviews with the study team, private industrialists always stressed the Bank's catalytic role in initiating the development process in the region and the way that the projects brought together the public and private sectors.

**Institutional learning**

One of the most significant, yet unexpected, impacts of the program was the extensive and rapid learning achieved by local authorities, who had to operate project facilities and expand them urgently to meet additional demand. The projects offered both national and local government officials the first opportunity of its kind to learn project preparation and implementation for development of the region. They also gave local officials their first chance to work with central government officials as a team.

Had the Bank agreed to build a much larger industrial estate in the initial phase, local authorities would not have had the same opportunity to learn about industrial planning and construction.

The local officials who implemented the Bank's projects reported that they are using the approaches and methods they learned from the Bank projects to prepare, appraise, and implement programs. Formal feasibility studies, engineering design, and economic analysis, none of which existed in the region before the projects, are now standard practice. The 57 Bank missions to the region over a 20-year period also provided many learning opportunities for both sides.

The results of this learning process were spectacular. The first industrial estate at Hanam, in Kwangju city, was fully occupied by 1984. Its size, 1.5 million square meters, was almost as large as those of all the previously existing industrial areas put together. Local authorities began work on an extension in 1986 (completed in 1988), without the help of either the government or the Bank. The city alone launched a third phase in 1989, completed in 1991. All the third phase sites were sold out before completion, and 85 percent of them were occupied by 1995. The second and third areas together are

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**Box 1: The three Bank projects (Bank loan amounts)**

**Kwangju I, 1975-80 ($15 million)**

Goal: help establish a regional development program in Kwangju, South Cholla.

Components: prepare housing sites; build a fishery harbor complex, a city market, and access roads; help local and central authorities develop policies, work programs, evaluations, feasibility studies, and training.

**Kwangju II, 1979-85 ($65 million)**

Goal: further enhance the development of the Kwangju region

Components: construction, development, and improvements in housing, an industrial estate, water supply, transport, and fisheries; technical assistance.

**Chonju, 1984-90 ($60 million)**

Goal: help promote development and job opportunities in Chonju and Iri (now Iksan), North Cholla.

Components: commercial plots, public facilities, and low-income plots; industrial estates; water supply, drainage, transport, and flood control works; development of three national park resort areas; technical assistance.

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**Box 2: Daewoo Electronics and industrial linkages**

In 1983, Daewoo Electronics established a plant in the Hanam industrial estate. In little over 10 years, the company has become one of the largest appliance producers in Korea, with annual sales of $2 billion in 1995. The main plant at Hanam employs 1,800 people, but Daewoo has established 1,200 subcontracting firms, of which 180 are located in Kwangju and 35 in Hanam. The remainder are in Seoul and Pusan. The company has 22 factories overseas and 47 dealerships worldwide.

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three times larger than the first. This sequence of massive industrial development in little over a decade by the city alone is a remarkable achievement.

By 1992, Kwangju had become the fastest growing city in Korea. South Cholla and North Cholla ranked 8th and 11th, respectively, among the country’s 15 regions in per capita gross regional product. Of the six largest cities in Korea, Kwangju was the only one where manufacturing employment grew between 1988 and 1993. South Cholla and Kyonggi, where Seoul is located, were the only regions that gained output shares during that period. Although this outcome cannot be attributed solely to the Bank projects, they were the catalyst that triggered the industrial development process in Cholla.

Side effects

Some side effects of development projects can actually become essential for the projects’ success, and may even become crucial for their sustainability. The experience in the Cholla region illustrates clearly Albert Hirschman’s theory of the centrality of side effects (Development Projects Observed, The Brookings Institution, 1995).

**Industrial linkages**

The best example of a side effect becoming key to a project’s outcome is the backward and forward linkages created by industries in the estates. A forward linkage is created, for example, when a new subsidiary produces parts and materials (such as automobile parts) for a parent company. A backward linkage is created, for example, when a new company that produces finished consumer goods (such as household appliances) uses the products of another industry as inputs.

In the industrial estate of Hanam, created by the second Bank-assisted project, the linkages that developed had a cumulative effect on industrial development and employment in the region. Two thirds of the manufacturing firms in Hanam make some of their products for other companies in the estate, and more than one fourth sell all of their products to other industries; four fifths of them use products made by others.

Only seven out of 395 firms in Hanam have more than 300 employees; all the rest are small- and medium-sized. Assuming that each of the large firms has subcontracting arrangements with 20 to 30 small companies, more than half the small firms at Hanam may have benefited from linkage effects without any subsidiary relationships.

**Institutional side effects**

Central and local authorities established a new working relationship and tight coordination. This side effect in turn sparked others: local government commitment to and participation in the projects, and changes in laws and regulations, which induced a positive response from the private sector.

National and local governments changed the laws and regulations governing private enterprise, increasing the incentives for industrial investments in the Cholla region. At the same time, the city of Kwangju made planning and zoning changes that encouraged small- and medium-sized firms to relocate with capital gains from the old industrial areas of the city to the new industrial estate.

Local public officials became very knowledgeable in industrial development and played a key role in enhancing the functioning of the market in the region. Working together, local and central governments promoted the Cholla region, successfully luring the first three large “anchor” firms there.

The local governments’ commitment to growth increased the confidence of the private sector. As a result, local

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**Box 3: The impacts of two island bridges**

The study assessed the impacts of two bridges built under the second project. At the time, Tolsan and Chindo were the two largest and most heavily populated islands still without permanent access to the mainland. Both were somewhat isolated and relied mainly on subsistence agriculture and fishing. Tolsan already produced cash crops on a small scale, but Chindo’s farmers, who did not have access to good transport, were unable to supply mainland markets and thus faced falling demand. The bridges, identical in design, connected the islands to the mainland and opened to traffic in 1985.

The bridges allowed both islands to be incorporated into the country’s economy, but their impacts were different. As Tolsan lies close to the city of Yeosu, the bridge made it possible for the island to become an extension of Yeosu’s larger urban area. Today, Tolsan is an urban commuters’ island.

On Chindo, the bridge allowed the economy and community to develop in much the same way as those in other rural areas of the country, without the benefit of a large urban center nearby. Nevertheless, production shifted to highly mechanized, higher-value cash crops for sale to the mainland. Labor-intensive subsistence farming has almost vanished, and a much smaller portion of the population is engaged in agriculture.

The study notes that the bridges themselves were not a sufficient condition for growth. Tolsan’s prosperity over the past decade would not have occurred without the rapid growth of Yeosu’s urban economy. Chindo’s transformation would not have taken place without the rapid economic development that has continued in Korea over the past decade.
authorities forged healthy alliances with private entrepreneurs. For example, coalitions of government agencies and private entrepreneurs established joint delegations to lobby for the interests of the region at central government agencies and business conglomerates in the capital, Seoul.

Incentives for the private sector

Industrialists interviewed by the study team reported that local government procedures now require far less red tape than in the 1960s and 1970s, when obtaining building permits and licenses was described as very challenging. Over the last two decades, this has changed. Obtaining permits and licenses is much easier today, and city governments have become adept at land zoning.

The city government in Kwangju has evolved in its capacity to manage industrial development. In 1985, the city created a special Industrial Estates Planning Subdivision to plan, finance, and market the estates. Two years later, the Hanam Industrial Estate Management Office was created as a “one-stop shop” to assess the economic and financial feasibility of proposed operations and to promote the sale of plots. Also in 1987, the city raised the status of the Industrial Development Section to a division of city government, responsible for promotion and marketing.

Over the years, the “rules of the game”—the institutional framework for industry, including laws and regulations—have become more market-friendly, the bureaucracy has shrunk, and red tape has been slashed, the industrialists reported. In fact, the Hanam Industrial Estate Management Office has been substantially reduced in size and now limits its functions to registering applications, which are automatically approved. Many of its previous functions are now left to the markets.

Transferability

The study confirms that individual entrepreneurs will respond positively to incentives for industrial development. The challenge is to find a mechanism, political or otherwise, that will trigger the process of institutional learning. In Korea, as in many other East Asian countries, such changes were made by policy makers who did not merely wait for opportunity to come knocking at their door.