

A GEOGRAPHIC ANALYSIS OF
KYONGGI PROVINCE, KOREA

By

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PREFACE

The purpose of this study is to describe the physical environment of a small political unit of Korea, and to describe and analyze some of the human activities which take place there.

Much has been written about Korea as a whole but regional studies have been greatly neglected. Research by geographers is conspicuously lacking. Exceptions to this statement are the excellent studies by Shannon McCune of Colgate University and Hermann Lautensach of the Technischen Hochschule Stuttgart in Germany.

The author, while with the occupation forces in Seoul, became somewhat familiar with the physical and cultural features of that city and the surrounding area. While in Seoul the writer became interested in geography in general and Korean geography in particular. Information gained during this visit has been supplemented by library research.

Regional studies of Korea based upon government documents are rather difficult. Statistical material from government sources is abundant but has been compiled only for Korea as a whole and for the larger political units. Material for the smaller political units is not available. This is perhaps an indication that the governmental administrators have not been area-minded. Accurate and detailed regional descriptions and analyses are apt to be impossible without intensive field work or access to government archives.

The division of Kyonggi in 1945 between the United States and Russian dominated regimes has also led to research difficulties. Post-World War II

statistics for the area north of the thirty-eighth parallel are not available.

Korea possesses a physical environment of great heterogeneity. Man's adjustment to the environment is highly varied. Planning for the rehabilitation of Korea is necessary and, to some extent, is being presently undertaken. It is the author's opinion that the planners must appreciate the great physical and cultural diversity of the area before their work can be effective. It is hoped that this study may stimulate an appreciation of Korean diversity.

Indebtedness is acknowledged to Dr. Edward E. Keso and Professor George S. Corfield for their stimulating criticisms and guidance. Dr. Robert C. Fite and Professor Ralph E. Birchard have aided materially with their constant encouragement. Dr. Shannon McCune's criticism has been of invaluable assistance. The author is particularly indebted to him for the census material. The library staff of Oklahoma A. and M. College has been of great help, particularly the assistance of Dr. Angie Debo, Mrs. Marguarite Howland, and Mr. Alton P. Juhlin. The assistance and encouragement given by the writer's wife, Lucille Stine, cannot be repaid by words alone.

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CHAPTER I

INTRODUCTION

Korea presents a diversified physical environment. Man's responses and adjustments to these differences have been varied. This study is concerned with Kyonggi province. Within this area are located Seoul, Inchon, and Kaesong. During the last three years these names have become common throughout the world. What environmental differences and similarities exist within the province? How does the environment here compare with the other parts of Korea? In what way has man adjusted himself to this environment? These are the questions which this study will consider.

Location and Size

Kyonggi province lies on the submerged west coast of central Korea. The northern most point occurs in Yonchon county at approximately $38^{\circ} 16'$ North Latitude. The southern limit extends to about $36^{\circ} 54'$ North Latitude in Ansong county. Thus, the province extends through $1^{\circ} 22'$ of latitude. If superimposed on the east coast of the United States the province would extend approximately from Norfolk, Virginia, to Ocean City, Maryland. The eastern most point of the province lies in Yangpyong county near $127^{\circ} 51'$ East Longitude. The western limit of the mainland occurs on a meander of the Yesong River in Kaepung county ($126^{\circ} 23'$ East Longitude). However, several large islands, and many

small ones, extend farther to the west. The western most islands of the Tokchok Archipelago extend to about 125° 45' East Longitude.

The straight-line distance between the northern and southern most points is about 96 miles. The west coast of Tokchok Island lies approximately 99 miles from the eastern tip of Yangpyong county. The province encloses an area of about 4,950 square miles. This represents approximately 5.8 per cent of the total area of Korea (85,318 Square miles). In comparison with the other thirteen provinces Kyonggi is quite small, ranking only ninth in size.¹

TABLE I

KOREA, PROVINCIAL AREAS*
(Ranked according to size)

<u>Rank</u>	<u>Province</u>	<u>Area</u> (<u>Square Miles</u>)
1	South Hamgyong	12,351
2	North Pyongan	10,981
3	Kangwon	10,141
4	North Hamgyong	7,855
5	North Kyongsang	7,331
6	Hwanghae	6,461
7	South Pyongan	5,674
8	South Cholla	5,360
9	Kyonggi	4,949
10	South Kyongsang	4,752
11	North Cholla	3,293
12	South Chungchong	3,216
13	North Chungchong	2,864

*Source: Hoon K. Lee, Land Utilization and Rural Economy in Korea, p. 3.

Table II indicates the size of Kyonggi with more familiar political

¹Hoon K. Lee, Land Utilization and Rural Economy in Korea, (Chicago, 1936), p. 3.

TABLE II*

KYONGGI PROVINCE: COMPARISON OF AREA WITH OTHER POLITICAL UNITS
(Square Miles)

Massachusetts	8,257
Israel	7,951
Hawaii	6,435
Northern Ireland	5,237
Connecticut	5,009
Kyonggi	4,950
Bahama Islands	4,403
Lebanon	3,927
Puerto Rico	3,435
Delaware	2,057
Rhode Island	1,214

*Source: Goodes School Atlas, 1950 Ed., p. 162

units. Slightly smaller than Connecticut, the province is one half the size of Massachusetts and four times the size of Rhode Island.

Shape and Boundaries

The mainland portion of the province assumes an elliptical shape with the major axis running in a north-northwest, south-southeast direction. If the insular portion is also included, Kyonggi forms an almost circular pattern.

During the reign of Tae-Jo, the first ruler of the Yi Dynasty (1392-1399), Korea was divided into eight provinces. Among these was the province of Kyonggi.² Since that time Kyonggi's boundaries have suffered no major changes. Such was not the case with five of the other provinces, each having been divided into two separate units in 1896.

²Hermann Lautensach, Korea; Land, Volk, Schicksal, (Stuttgart, 1950), p. 13.

Boundaries which have endured over five hundred years of peace and war deserve some description. The internal boundaries of Korea are based primarily upon physiographic features: Mountain ranges, hill ridges, and streams. River boundaries become predominant near the coast.³

At the two places where the boundary contacts the coast, estuaries and their streams are utilized. In the north, east, and south both divides and streams are the bases for the boundaries, the former being the dominant factor. The mountain crests and hill ridges provide some measure of military security. Only in a very few places are large concentrations of population split by the boundaries. The most notable exception occurs at the extreme southern boundary where a large population cluster is divided by the line.

³Shannon McCune, "Physical Basis for Korean Boundaries," Far Eastern Quarterly, V (May, 1946), p. 283.

CHAPTER II

PHYSICAL ELEMENTS OF THE LANDSCAPE

Physiography

Korea is a land of great physiographic diversity. This fact has been emphasized by most students of the Korean landscape. Although the internal boundaries have been based upon relief features the provinces should not be thought of as being physiographically homogeneous. Shannon McCune, in describing the original provinces, states that:

Each province was evidently intended to be a geographic or economic region. Each had a coast line and was generally in the drainage basin of some major river. Each province had diverse land forms, though often minor political boundaries took account of this diversity.¹

In Kyonggi province the erosional and depositional plains of the coast and in the river valleys contrast greatly with the rugged mountainous relief in the north and east quarters. However, the relief features of Kyonggi are repeated in many places throughout Korea, causing some degree of homogeneity.

Kyonggi is composed mainly of Archean metamorphics and granites. The metamorphic rocks consist of metamorphosed limestone, mica-schists, and amphibolite. These have been intruded by a gray colored granite, also of Archean age.² The province is part of a very stable massif which

¹Shannon McCune, "Physical Basis for Korean Boundaries," Far Eastern Quarterly, V, (May, 1946), p. 282.

²Teiichi Kobayashi, "A Sketch of Korean Geology," American Journal of Science, XXVI (December, 1933), p. 590.

extends across Korea in a southwest to northeast direction.³ To the north and south of the massif lie geosynclines which have been filled with deposits ranging from the Proterozoic to the Mesozoic Periods. However, the Kyonggi massif was not subjected to deposition until the Jurassic period.⁴ During the latter part of the Jurassic the area was upraised and during the Cretaceous time was again intruded by granite.⁵ The sea transgressed upon the area again and materials of Miocene and Paleocene ages were deposited. Toward the end of the Miocene a revolution occurred which depressed the massif in the west and raised it in the east. In the east was formed the Taebaek range, sometimes called the "Backbone of Korea."

The crustal movements during the Miocene Revolution caused many faults to occur.⁶ These generally trend in a south-southwest to north-northeast direction. Valley depressions now follow these fault lines. The depressions are probably not true grabens but have been scoured out along the fault line. The horizontal movement of the fault has caused a zone of broken materials which have allowed easy erosion.⁷ Kyonggi lies within the basins of four rivers. The Yesong flows southward along the northwest border and empties into the estuary of the Han above Kanghwa Island. By far the smallest stream basin in Kyonggi, the river drains only a narrow strip across the northwest corner.

³Hermann Lautensach, Korea; Land, Volk, Schicksal, (Stuttgart, 1950), pp. 30-32.

⁴Kobayashi, op. cit., p. 589.

⁵Ibid., p. 590.

⁶Ibid., p. 603.

⁷Lautensach, op. cit., p. 27.

The largest basins are those of the Han and Imjin. The north central, east, southeast, and most of the southern parts of the province are drained by these two rivers. The Imjin may be considered a part of the Han system since it discharges into the Han estuary just above the Kumpo peninsula. About eighteen miles east of Seoul the Han branches to the north-east and south-east.

The south central part of the province is drained by the Ansong system. The basin of the Ansong River is the only one which lies entirely within Kyonggi.

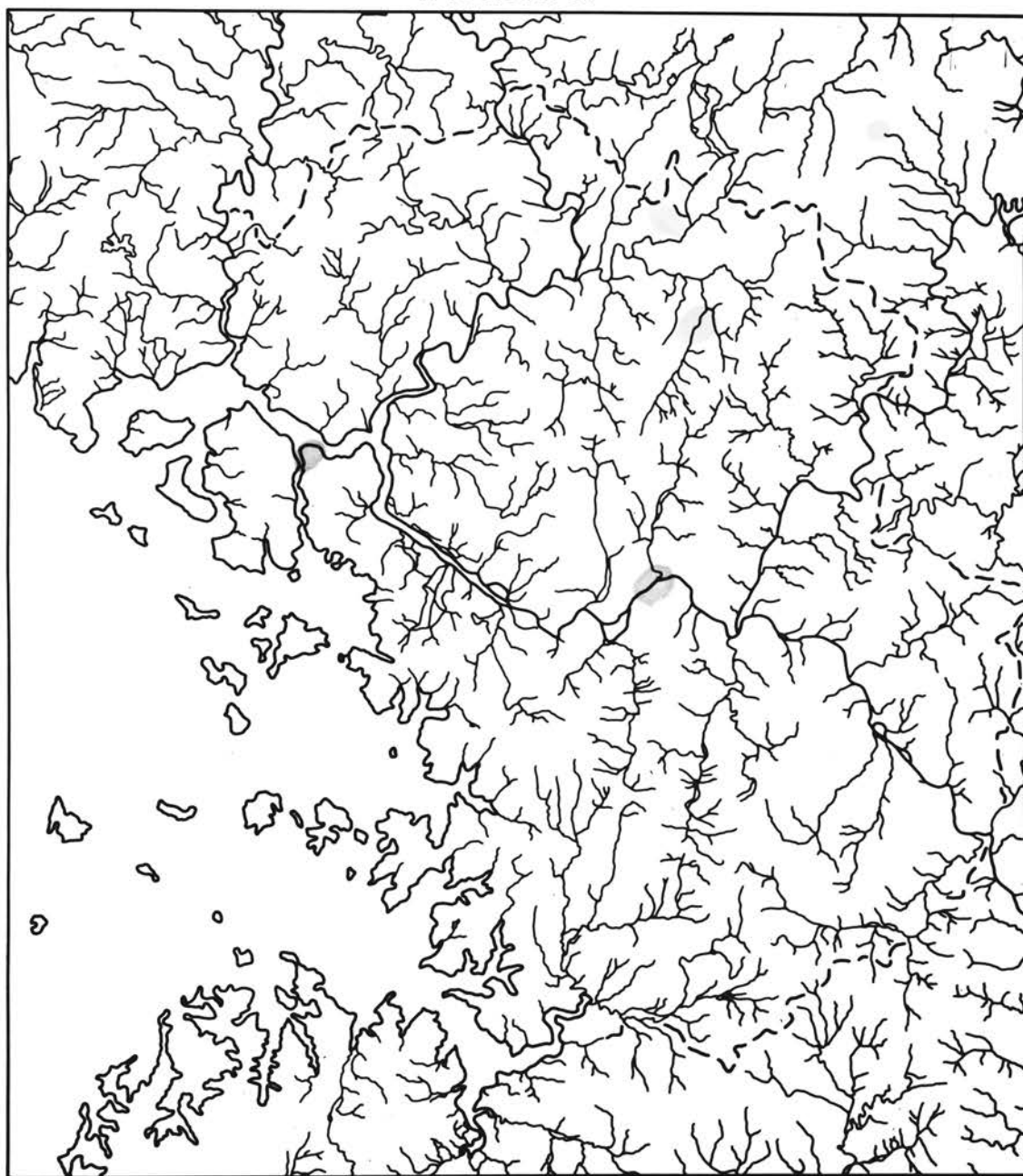
The Imjin and Han rivers appear to be consequent streams in that they follow the general slope from the Taebaek mountains to the coast.⁸ Only for short stretches do these main streams follow the direction of the fault lines. The tributaries of the Imjin, Han, and Ansong Rivers appear to be well adjusted to the faulted structure and might be termed subsequent streams. These tributaries generally flow in straight lines and have many resequent and obsequent streams flowing into them at right angles.

The present surface forms exhibit change in a west-southwest to east-northeast direction; that is, from the coast to the interior. Changes in elevation and local relief are particularly pronounced.

The Kyonggi coast is situated on the Central Korean Bay of the Yellow Sea. The northern and southern borders of the bay are formed by the westward jutting Hwanghae and Sosan peninsulas. Submergence has led to the formation of many bays and estuaries along the drowned river valleys.

⁸Hermann Lautensach, Korea; eine Landeskunde auf Grund eigener Reisen und der Literatur, (Leipzig, 1945), p. 275.

HYDROLOGY



MILES
10 5 0 10 20 30

SOURCE: A.M.S. 1951

FIGURE 1

Climate, earth materials, and man's activities have favored heavy erosion in Korea. Extensive mud flats and sand banks occur along the coast to choke the embayments and estuaries. For hundred of years the Koreans have worked to reclaim this waste land and transform it into fertile, irrigated fields. Another activity of man which has modified the character of the coastline has been the construction of huge evaporation basins for obtaining salt from the sea water. In many places these basins completely fill large embayments.

The coast experiences tides of great range. A maximum of 33 feet difference between high and low tide occurs at Inchon.⁹ Tidal currents flow through the narrows north of Inchon at a speed of eight knots.¹⁰ Although the tides prove hazardous to shipping and make port operations difficult, they have been of some advantage in that submarine channels have been scoured out of the mud flats. The peaks of many submerged hills jut up from the bay floor to form rocky islands. The island of Kanghwa is the largest of these and is separated from the mainland by a small distributary of the Han.

Along the coast and extending inland for a distance of from ten to twenty miles is a zone of broad plains and low hills. The larger plains extend along the streams while the hills form the divides. In this zone only small areas exceed 100 meters in elevation and large areas lie below the 25 meter contour. Only a few isolated peaks are over 200 meters in elevation. In general the landscape assumes a gently rolling character. This zone is continued to the northwest on the south coast

⁹Andrew J. Grajdanzev, Modern Korea, (New York, 1944), p. 9.

¹⁰Lautensach, Korea: Land, Volk, Schicksal, p. 43.

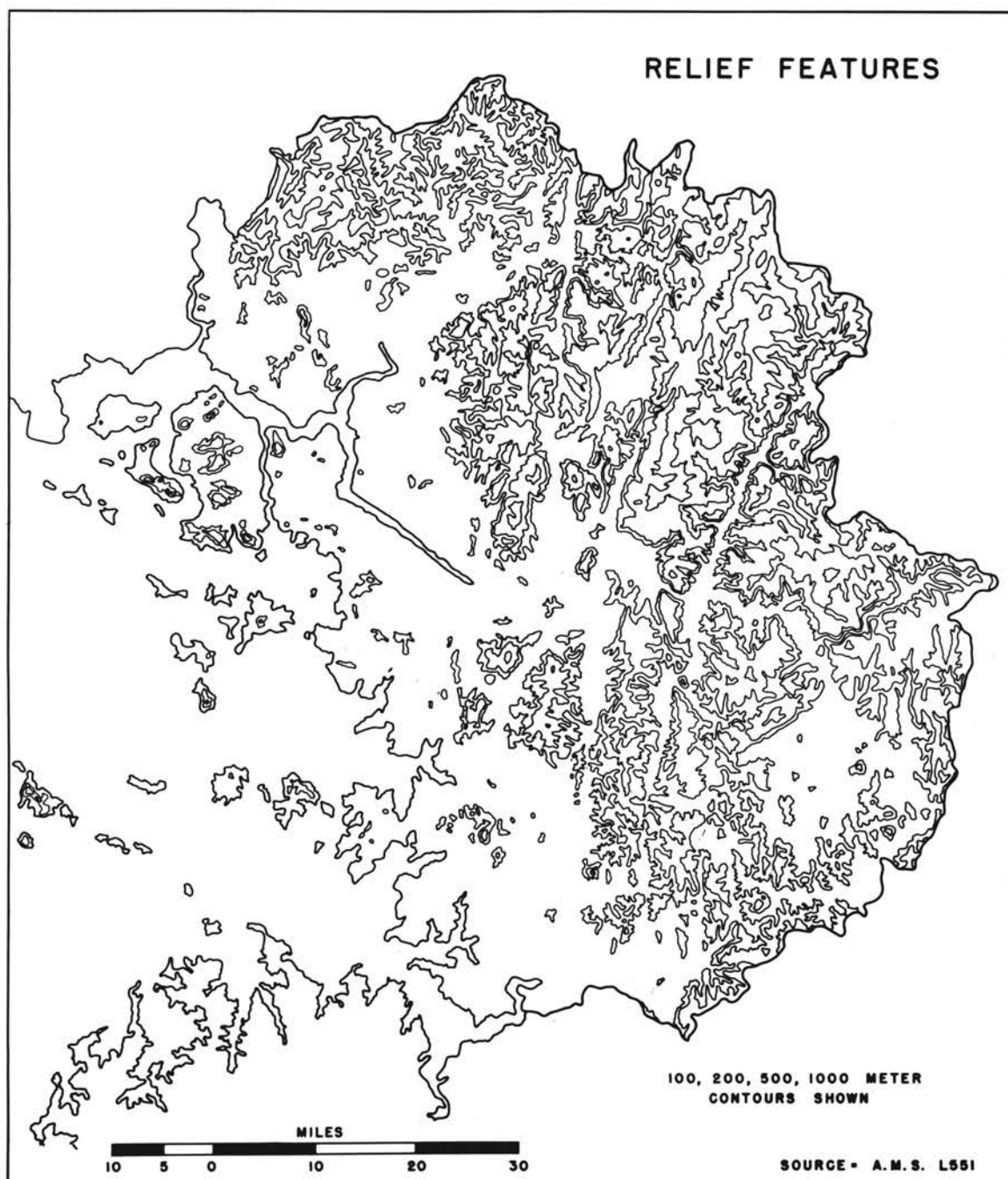


FIGURE 2

of Hwanghae province and to the south in the north central part of south Chungchong province. These features are repeated many times along the west coast of Korea.

To the north and east of this coastal area the province takes on a much more rugged countenance. Elevation and slope are greatly increased and the level areas are confined primarily to the valley floors of the principal streams. These features characterize much of the interior and eastern parts of Korea. Only the main valleys lie below the 100 meter contour. Much of the land is over 200 meters above sea level and several peaks in the east exceed 1000 meters. The surface has been maturely dissected by the consequent streams and their tributaries. Most of the area is in slope and the divides are without table lands.

In many places broad flood plains occur in the valleys. Disintegrated zones along fault lines are particularly susceptible to erosion. These have resulted in wide rectilinear lowlands which usually trend in a north-south or north-northeast by south-southwest direction. The most extensive of these is the Seoul-Wonsan depression which passes through Uijongbu, Yonchon, and Chorwon. The northern half of the Kyonggi portion of this depression is drained by the Imjin River. The southern half lies within the Han drainage system. In the northern part of the province this depression and the valley of the Imjin River contain extensive lava flows.¹¹

The southern branch of the Han River flows over extensive flood plains, especially in the southeast counties of Yaju and Inchon. In these counties large areas lie below the 100 meter contour. Only isolated peaks are above the 200 meter line.

¹¹Lautensach, Korea; eine Landeskunde, plate 54.

The drainage basin of the North Han contrasts greatly with the southern branch. Here the main stream almost fills the narrow valley. Only small flood plains occur from place to place. Rugged relief and steep slopes characterize the counties of Kapyong and Yangpyong.

Climate

Kyonggi lies within a transition zone between the colder northern and warmer southern parts of Korea.¹² This is particularly true in regard to winter and mean annual temperatures. Summer temperatures are fairly uniform throughout the peninsula.

Although climatic differences within Kyonggi are slight they are of great enough magnitude to cause some differences in crop distribution. When classified according to Koeppen's climatic classification two-thirds of Korea, including Kyonggi, fall in the "Dwa" category. Here the warmest month is above 71.6° F. while the coldest month is below 26.6° F. The wettest summer month has at least ten times as much rain as the driest winter month.¹³ However, McCune points out that many significant differences exist within this region, and to portray them has subdivided the Koeppen classification. McCune's classification divides Kyonggi into two parts. The dividing line conforms to the mean January isotherm of -6° C. (21.2° F.).

This boundary enters the province from the northwest below Kaesong and then dips to the south. Passing west and south of Seoul the line trends toward the southeast and leaves the province after passing slightly to the north of Yaju.

¹²Shannon McCune, Climatic Regions: Delineation, "Research Monographs on Korea," Series E, No. 1, (1945), p. 18.

¹³Glenn T. Trewartha, An Introduction to Weather and Climate, (New York, 1943), pp. 519-520.

This division serves quite well to depict the climatic differences which occur between the coastal and southern section and the northern and interior parts. Amount of precipitation and winter temperature are the primary differences. The area north of the boundary has a mean January temperature between -6° C. and -8° C. (21.2° F. to 17.6° F.). The mean annual rainfall is over 40 inches.

The southern and coastal region has a mean January temperature between -6° C. (21.2° F.) and -3° C. (26.6° F.). This area is divided by a line running near Osan and Ichon which separates the coast from the southern area. South of this line a secondary maximum in precipitation occurs in April. This secondary maximum is lacking to the north.¹⁴

Due to Korea's position in regard to land and water bodies the peninsula's climate is influenced by the modified monsoon of Eastern Asia. Seasonal reversal of the winds is experienced. During the winter high pressure with northerly winds is experienced along with cold dry air masses. In summer the winds blow from the south and carry warm humid air over the peninsula.

Latitudinal location places Korea within the belt of prevailing westerlies. Cyclonic storms move over Kyonggi from Manchuria, North China, and the Yangtze Valley.¹⁵ During the summer months, when the southern monsoon controls the area, the cyclones lift the warm humid air and precipitation follows. Since most of the mountain ranges are at right angles to the storms the mountainous areas receive more rainfall

¹⁴McCune, Climatic Regions: Delineation, pp. 16-19.

¹⁵Shannon McCune, Climatic Regions: Southern West Korea, "Research Monographs on Korea," Series E, No. 6, (1945), p. 2.

than the surrounding plains.¹⁶ During the summer convectional storms also cause precipitation, especially in the mountains. During late summer and early fall some rainfall is caused by the influence of typhoons.¹⁷

Precipitation is sufficient for agriculture throughout the province. Average annual rainfall is below 40 inches only on the islands and the two peninsulas north of the Ansong River mouth. The highest rainfall occurs at Pochon (58.5 inches), thus indicating an increase from the coast to the interior.¹⁸ Throughout Kyonggi the precipitation maximum occurs in July. In the south some stations record a slight April secondary maximum.¹⁹

During the winter, precipitation occurs sometime in the form of snow. On the average Seoul experiences 32.5 days with snow fall, while Inchon reports only 30 days.²⁰ This serves, also, to indicate the slight differences which occur between the coast and the interior.

Throughout Korea summer temperatures are fairly uniform. Some differences are to be noted in the length of the hot season. The southwestern half of Kyonggi experiences temperatures above 68° F. for four months,²¹ while the northeastern section has only three months

¹⁶Shannon McCune, Climatic Regions: Central West Korea, "Research Monographs on Korea," Series E, No. 5, (1945), p. 3-4.

¹⁷McCune, Climatic Regions: Southern West Korea, p. 4.

¹⁸Lautensach, Korea; eine Landeskunde, Map 2.

¹⁹McCune, Climatic Regions: Southern West Korea, p. 3-4, and Climatic Regions: Central West Korea, p. 3-4.

²⁰Lautensach, Korea; eine Landeskunde, p. 279.

²¹McCune, Climatic Regions: Southern West Korea, p. 3.

above this temperature.²² At Seoul the first killing frost is experienced around October 16. The average date of the last killing frost is April 21.²³ The summer temperature maximum occurs during August. This is similar throughout most of Korea.

The coast experiences more moderate temperature than does the interior. The moderating effect of the Yellow Sea is not too great due to the sea's shallowness. During summer afternoons a sea breeze occurs while during the night a land breeze dominates the coast.²⁴ Table 4 shows that Inchon, on the coast, experiences an average temperature range of 50.5° F. Kapyong, in the eastern interior has a range of 56.3° F.

Natural Vegetation

Natural vegetation in Kyonggi exhibits a change from the southwestern half to the northeastern half. The southwestern half contains a greater percentage of level land and has been intensely cultivated for hundreds of years. Most of the level areas have long been cleared of their natural cover. Since wood and brush provide the fuel for the dense population of this area even the non-agricultural lands have been stripped of their forest cover. Since the latter part of the nineteenth century a noxious insect has also contributed to the decline of Korea's forests.²⁵ Some of the rolling hills are sparsely covered with scrub

²²McCune, Climatic Regions: Central West Korea, p. 3.

²³Hoon K. Lee, Land Utilization and Rural Economy in Korea, (Chicago, 1936), p. 13.

²⁴McCune, Climatic Regions: Southern West Korea, p. 3.

²⁵Lee, op. cit., p. 182.

TABLE III*
FEBRUARY, JULY, AND AVERAGE ANNUAL RAINFALL

Station	February		July		Average Annual Rainfall	
	Average (Millimeters)	Per Cent of Average Annual Rainfall	Average (Millimeters)	Per Cent of Average Annual Rainfall	(Millimeters)	Inches
Inchon	21.1	1.9	308	27.5	1106	44
Seoul	23.9	1.8	395	29.5	1340	53
Kapyong	19.2	1.4	434	32.4	1337	53

TABLE IV*
JANUARY AND AUGUST AVERAGE TEMPERATURES, AND RANGE
(Degrees F.)

Station	Height of Station (Meters)	January		August		Average Temperature Range
		Average Temperature	Average Minimum Temperature	Average Temperature	Average Maximum Temperature	
Inchon	69	24.6	21.9	77.2	84.5	52.5
Seoul	86	23.5	14.7	78.4	86.9	55.9
Kapyong	62	21.0	8.9	77.3	86.2	56.3

*Source: Lautensach, Korea; eine Landeskunde, p. 279.

oak. During the Japanese administration a few areas were reforested with pines.²⁶ The breakdown of the administration in later years, and the attention of the authorities to matters of greater concern, have allowed the reforestation program to be neglected.

The northeastern part of the province still has a good forest cover in many places. In the extreme east and northeast fine forests may be found. The best of these are located at monasteries and royal burial grounds. Greater slope and less density of population have helped preserve the natural vegetation in this interior area. This part has a mixture of deciduous and coniferous trees. Deciduous trees include birches, elms, maple, and poplars. Several varieties of pines also occur. In the area between the North and South Han, a small area contains spruce and fir. These two species are more commonly found in the extreme northern part of Korea.²⁷

Natural Resources

Kyonggi has not been blessed with appreciable amounts of mineral, fuel, and water resources. However, in relation to the rest of Korea it is well favored in regard to the amount of arable land.

Although only 20.8 per cent of Korea's area is cropped, 32.2 per cent of Kyonggi is tilled. Only one province, Hwanghae, exceeds Kyonggi in percentage of arable land.²⁸ By far the greater part of this arable land lies in the southwestern half of the province.

²⁶McCune, Climatic Regions: Southern West Korea, p. 4.

²⁷McCune, Climatic Regions: Central West Korea, p. 4, and Lautensach, Korea, eine Landeskunde, plate 17.

²⁸Lautensach, Korea; eine Landeskunde, p. 391.

Perhaps Kyonggi's greatest resource, as well as that of all Korea, is its soils. Brown and slightly podzolized soils constitute the greater part of Korea and all of Kyonggi.²⁹ Of 1,246 soil samples investigated in the province, 63 per cent were acid, 2 per cent alkali, and 35 per cent neutral. The average for all Korea was 41 per cent acid, 7 per cent alkali, and 52 per cent neutral.³⁰ Lee states that the neutral soils are best for plant culture and that acid and alkali soils must be neutralized by the application of manures and fertilizers. Phosphorus and nitrogen are said to be insufficient throughout all Korea, although potassium is abundant.³¹

Kyonggi's soils are influenced greatly by slope and elevation and therefore exhibit a general change from the coast to the north and east interior. Along the lower Han system and the area around Asan Bay, alluvial loams are found. These also occur in lesser amounts along the flood plains of the major streams. Diluvial loams cover most of western Kyonggi and occur also along the main streams of the east.³² Diluvium consists of slightly uplifted alluvial deposits.³³ In these areas drainage is well developed and irrigation is much more difficult.

In the rugged granite hill-lands and mountainous areas the slope is usually so great as to preclude the formation of mature soils. The

²⁹U. S. Army Service Forces, Civil Affairs Handbook, Korea, Section 7: Agriculture, (Washington, 1944), p. 8.

³⁰Lee, op. cit., citing special report of the Experiment Station at Suwon on Acid Soils in Korea, p. 26.

³¹Ibid., p. 25.

³²U. S. Army Service Forces, op. cit., p. 8.

³³McCune, Climatic Regions: Southern West Korea, p. 1.

higher peaks are completely lacking in soils. Freezing and thawing have led to exfoliation. The extreme slope allows gravity to remove the disintegrated material as quickly as it is formed. At lower elevations having less slope, chemical weathering modifies the granitic detritus into a yellow, coarse sandy soil. This usually occurs in the form of alluvial fans of high porosity. Heavy rains have carried this sandy material into the streams, irrigation ditches, and rice fields, causing much damage.³⁴

Kyonggi has only very small deposits of inferior anthracite coal. Small deposits near Kumpo and Yonchon yield some coal for local use.³⁵ Before the division of Korea in 1945 coal for industrial and heating purposes was acquired primarily from northern Korea. After 1945 coal was transported by ship and rail from the Samchok mine in Kangwon province.³⁶ The cost of such shipments has proven to be quite expensive.

Small scattered deposits exist of such minerals as asbestos, beryl, crystalline graphite, and lead. None of these are of great importance and many of the mines have been closed since the latter part of the Japanese regime. Fluorite is perhaps the most important mineral in the province. Between 1940 and 1945 over 38,000 metric tons were mined. This amounted to about 36 per cent of the total fluorite production south of the thirty-eighth parallel. Between 1940 and 1945 Kyonggi produced 2,400 metric tons of crystalline graphite. Reserves are estimated at 15,000 tons.

³⁴Lautensach, Korea: Land, Volk, Schicksal, p. 29.

³⁵South Korean Interim Government, National Economic Board, South Korean Interim Government Activities, Seoul, Korea, No. 26, (November, 1947), p. 45.

³⁶Ibid., No. 32, (May, 1948), p. 54.

Some gold is obtained from the flood plains of the streams by placer mining. Production figures are not available. It is said that virtually every rice field in Korea is a potential gold mine.³⁷ It is doubtful if the gold obtained from these alluvial deposits would be as valuable as rice production.

Since coal and oil are lacking, the people have long utilized wood, grass, and leaves for fuel. Due to the enormous population pressure, this has had dire consequences for the entire western side of Korea. Sand choked streams and fields indicate that the people of Kyonggi have paid dearly for their fuel. During the period from July to December, 1947, Kyonggi produced only 61 per cent of the fuel wood consumed by the province.³⁸ To supplement the local production, wood and charcoal were shipped from each of the six southern provinces.³⁹ Much of the wood is converted into charcoal before being shipped to the market. This provides a better fuel and reduces transportation costs.

Kyonggi is supplied with electricity from both thermal and hydroelectric plants. A thermal plant exists at Seoul which has a potential output of 17,000 kilowatts, requiring 13,000 tons of bituminous coal per month. Since 1945 this plant has operated spasmodically due to a lack of coal and repair parts.⁴⁰

No large hydroelectric plants are situated within Kyonggi. A large portion of the province's electricity was obtained from dams north

³⁷David Gallagher, and Others, Mineral Resources of Southern Korea, (Tokyo, 1947), pp. 9-44.

³⁸South Korean Interim Government, National Economic Board, op. cit., No. 32, (May, 1948), p. 26.

³⁹Ibid., No. 27, (December, 1947), p. 39.

⁴⁰Ibid., No. 26, (November, 1947), p. 114.

of the thirty-eighth parallel. This source was cut off in 1948. A hydroelectric plant is located just east of the province, near Chungpyong-ni, on the North Han. This plant has a potential of 20,000 kilowatts. It, also, has operated intermittently since 1945.

Kyonggi also receives a part of the output of the Yongwol plant in southern Kangwon province. This plant has a potential of 40,000 kilowatts.⁴¹ Topography, drainage, and climate are such that hydroelectric plants could be developed in Kyonggi. However, they probably could never equal the size of northern Korea's installations. The extreme tidal range also offers possibilities for the production of electricity.

The physical landscape of Kyonggi is greatly varied. Landforms vary from flat plains in the west and south to rugged mountains in the east and north. Summer temperatures are similar throughout the area but the winters in the north and east are more extreme than in the south and west. Rainfall is slightly higher in the more rugged sections than in the plains.

Natural vegetation consists of both deciduous and coniferous trees. Forests are almost completely lacking in the densely populated areas. In general the soils are poor; however, they are made productive by a tremendous expenditure of labor and frequent applications of fertilizer. Mineral resources are of poor quality and quantity. Fluorite, graphite, and coal are mined to a small extent.

⁴¹Ibid.

CHAPTER III

POPULATION

Man can be an invaluable economic resource; he is always an important factor of his own environment. Since the removal of the Japanese element in 1945 the people of Korea present a remarkably homogeneous appearance: physical features, language, religion, and customs remain essentially the same throughout Korea. This homogeneity has perhaps been a dominant factor of the long continuing unity of the Korean peninsula.

History

The fertile basins along Korea's west coast have always been the most thickly populated sections of the peninsula. Proximity to, and ease of communication with the old Asiatic cultural centers have favored the cultural development of the west coast.

Some of the peninsula's most ancient evidences of habitation are found in the province of Kyonggi. Neolithic shell mounds and dolmens are found along the lower Han and on the island of Kanghwa. These early people were fishers, collectors, and hunters.¹

The historical record of the area begins with the Kija Dynasty (1122-193 B.C.). This dynasty ruled northern and part of southern Korea, the capital being situated at the present site of Pyongyang. Essentially

¹Hermann Lautensach, Korea; eine Landeskunde auf Grund eigener Reisen und der Literature, (Leipzig), 1945), pp. 16-19.

a city state, primary authority of the dynasty was exercised only near Pyongyang. Control of the more distant and less civilized areas was only nominal. At this time the Han basin was inhabited by the Maguk, a people less civilized than their Pyongyang overlords.²

In 18 B.C. members of the northern royal family founded the kingdom, Paekche, comprising northern Chungchong and Kyonggi provinces. About 10 B.C. the capital of this state was established at Namhan, located about twenty miles southeast of Seoul. The state grew until it contained all of the southeastern Korea. For over 600 years Paekche was governed from the Kyonggi capital. Almost constant warfare with neighboring states, the Chinese, and the Japanese characterized the entire dynasty.³

In spite of recurrent war Paekche flourished as a center of culture. Writing, letters, and the classics of Confucius and Mencius were introduced to Korea by Paekche. In 384 A.D. a Tibetan missionary established Buddhist temples in the Paekche state. The other parts of Korea were introduced to this cultural development much later. It was from Paekche that the first images of Buddha and the Sutras were introduced to Japan.⁴

In 918 A.D. the peninsula was united by Wang-gon. Thus began the dynasty of Koryo which was to last until 1392. The capital of the peninsula was established at Songdo (Kaesong) and again Kyonggi enjoyed the possession of the ruling city.⁵ Between 1231 and 1364 the Mongols held authority over Korea.⁶

²Cornelius Osgood, The Koreans and Their Culture, (New York, 1951), p. 169.

³Ibid., pp. 172-179

⁴William E. Giffis, Corea, the Hermit Nation, (New York, 1911), pp. 33-35.

⁵Osgood, op. cit., p. 188.

⁶Ibid., pp. 191-193.

During the latter half of the 14th century General Yi Tae-jo defeated the Mongols. After ending this source of danger, Yi set about controlling marauding Japanese pirates. After bringing relative stability to Korea he assumed the throne.⁷ For over 500 years (1392-1910) the Yi dynasty ruled Korea.⁸

During the early part of the Yi dynasty the capital of Korea was moved to Hanyang (modern Seoul). Twice during this dynasty Kyonggi became the scene of pillage and destruction. Hideyoshi's forces destroyed Seoul in 1592; and in 1636 the Manchus captured the area. From this latter date until the end of the 19th century Korea maintained close relations with China.⁹

In 1910 Japan annexed Korea, and until 1945 the peninsula assumed the role of a colony. Many cultural and economic changes occurred during this period. Of these, none were more apparent than the growth and redistribution of population.

Population Growth

The first census of Kyonggi was taken in 1406. The records indicate a population of only 38,138 although this is probably an underestimation. From 1406 until 1807 the province experienced a steady growth in population. The 1807 figure was 884,513, but from this year until 1904 the population diminished.¹⁰ From the turn of the century until 1950 a

⁷Ibid., pp. 192-194.

⁸Ibid., p. 210.

⁹Ibid., pp. 198-201.

¹⁰Hoon K. Lee, Land Utilization and Rural Economy in Korea, (Chicago, 1936), pp. 39-43.

rapid increase occurred. Although Kyonggi comprises only 5.8 per cent of the total area of Korea, in 1939 it held 11.3 per cent of the total population.¹¹ Between 1940 and 1948 the population increased 33 per cent.¹² The greater part of this increase occurred after 1945. In 1949 the population of Kyonggi south of 38° N. Lat. totaled 3,774,766.¹³

The last census of all Kyonggi was taken in 1940. The censuses of 1946 and 1949 include only the area south of 38° North Latitude. In 1940 the population of Kyonggi totaled 2,864,389.¹⁴ This figure includes the population of Seoul, Inchon, and Kaesong. These three cities enjoy a status which is almost provincial in nature; however, for the purposes of this study they are considered to be organic parts of the province in which they are located.

The 1940 average density of population per square mile of area reached the figure of 578.8. The province was by far the most densely populated province in Korea. The density of population per square mile of cultivated land averaged 1,592.9.

These amazingly high figures for absolute population and density occur only because the capital, Inchon, and Kaesong are located within the province. In 1940 only one county had a density higher than the average

¹¹Andrew J. Grajdanzev, Modern Korea, (New York, 1944), p. 74.

¹²South Korean Interim Government, National Economic Board, South Korean Interim Government Activities, Seoul, Korea, No. 32, (May, 1948) p. 7.

¹³Republic of Korea, Ministry of Information, Preliminary Report of the First Census of the Republic of Korea, (Seoul, 1949). This figure does not include the counties of Ongjin and Yonbaek. These were formerly a part of Hwanghae province and were added to Kyonggi after 1945. They are disregarded throughout this study.

¹⁴Chosen, Government General, Summary of the Results of the 1940 Census in Korea, (Keijo, 1945).

figure of 578.8. Koyang county, which is adjacent to Seoul had a density of 628.5 people per square mile. Ranking second, the county of Pyongtaek (Chinwi) had a density of 524.1.

In 1940 Seoul contained 32.6 per cent of the people living within Kyonggi. Excluding Seoul, the province had an average density of 389.9. The average density per square mile of arable land reached only 1,210.8. If Seoul is disregarded, the province assumes third place among the provinces in absolute population, and fifth place in average density.

The three metropolitan cities (Seoul, Inchon, and Kaesong) together accounted for 41.1 per cent of the province's population in 1940. Disregarding this metropolitan population the average density was 340 per square mile of area. The density per square mile of arable land then averages 1,058.

By 1949 the population of the province had risen to 3,774,766.¹⁵ This represents an increase of 31.7 per cent during the nine-year period between 1940 and 1949. These two censuses are not comparable since the area of Kyonggi in 1949 was about 18 per cent less than that of 1940.¹⁶ A tremendous increase in population was necessary to cause a growth of over 30 per cent while the area was diminished by 18 per cent. The increase in population prior to 1945 was due in part to the wartime industrialization of the urban areas. After 1945 a new factor arose: the economic and political instability of the area north of the thirty-eighth parallel. Refugees crossed this new political boundary in ever increasing numbers after 1945. During the period from May to November,

¹⁵Republic of Korea, Ministry of Information, op. cit.

¹⁶Bank of Korea, Research Department, Economic Review, 1949, Section 4, (Seoul, 1949), p. 17.

1947, over 59 per cent of the refugees crossing the thirty-eighth parallel gave Kyonggi as their destination. Over 74 per cent of those moving to Kyonggi gave Seoul as their final destination.¹⁷ Koreans returning from China, Japan, and other parts of the world also helped to expand Kyonggi's population.

Distribution of Population

The population of Kyonggi is not evenly distributed over the province's area. It is of geographic interest to describe the locational aspects of the population and to point out the major landscape features which have helped to mold the pattern. For purposes of presentation the population is grouped into two categories: The cities (Seoul-si, Inchon-bu, and Kaesong-bu), and the non-urban population. Within the latter category are included eight population agglomerations classified as towns (up).

Cities: The three cities of Kyonggi are located in the western part of the province. Here for centuries trade routes have followed Korea's narrow fringe of coastal lowlands. Fertile plains have allowed intensive agriculture. Kaesong, located in the central part of Kaepung county, was the capital of Korea from 918 until 1392. The capital was removed to Seoul in 1392 and remained there until 1950. After 1945 it was the capital only for that part of Korea south of the thirty-eighth parallel. Inchon, located on a westward jutting peninsula of Puchon county, is a relatively new city. Its development began with the "opening" of Korea in 1896.

¹⁷South Korean Interim Government, National Economic Board, op. cit., No. 26, (November, 1947), p. 5.

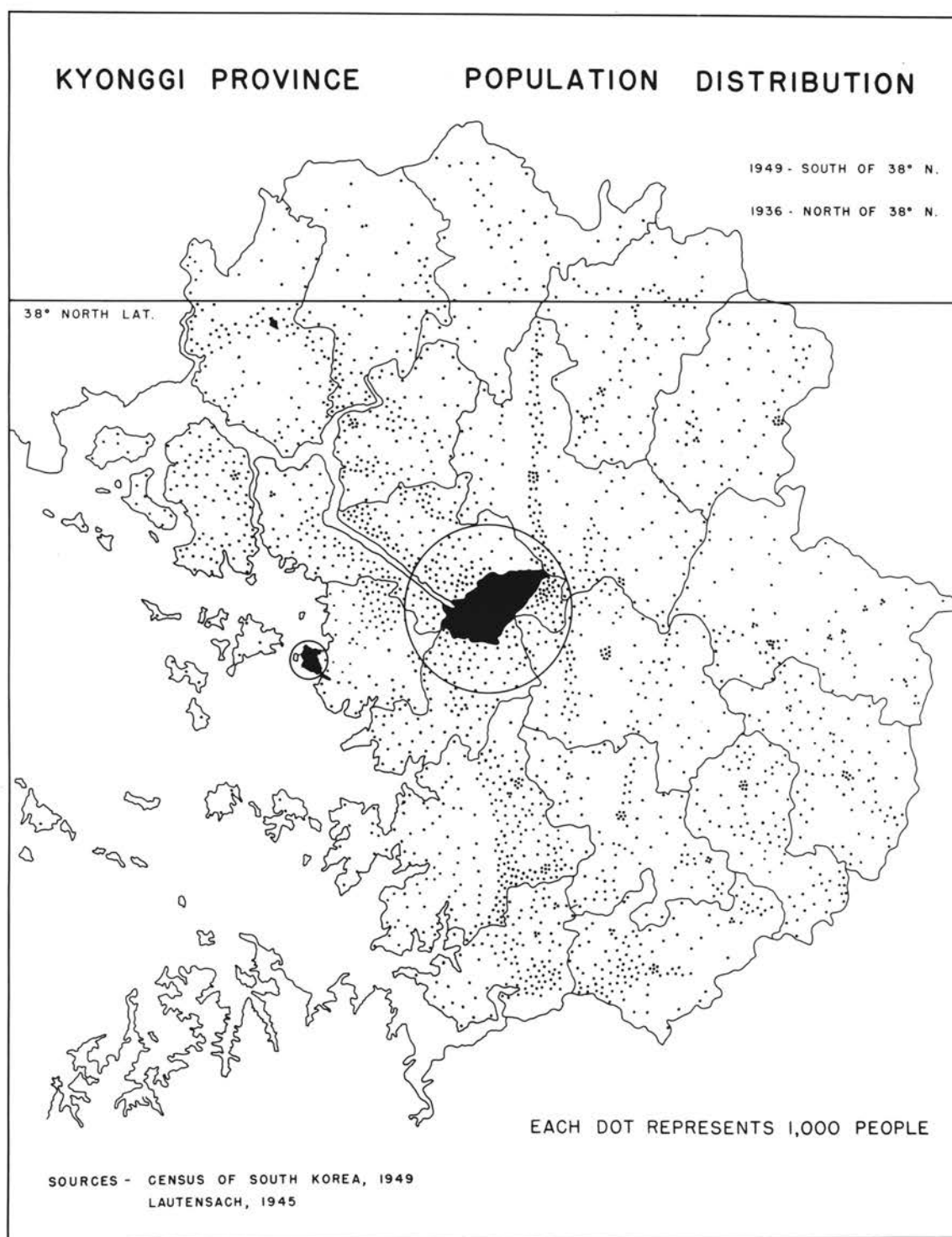


FIGURE 3

These three cities accounted for 41 per cent of Kyonggi's population in 1940. In 1949 they comprised 41 per cent of the provincial population south of the thirty-eighth parallel.

Seoul lies on the right bank of the Han River slightly west of the geographic center of Kyonggi. The city originally occupied a basin surrounded by granite peaks and hills. A stone wall, many remnants of which still exist, followed the crests of the basin rim. In later years the city expanded beyond the limits of the depression. The extension to the south, toward the Han, was particularly well developed.

Seoul, as well as most large multi-function cities, was a city of great contrasts. Lying adjacent to huge, modern industrial plants were rude huts wherein primitive household industries existed. Near contemporary style government buildings were situated ancient palaces and temples of modified Chinese design. Modern, hard-surfaced, wide streets joined dark, muddy narrow alleys. Automobiles, streetcars, and trucks competed with men and animals in transporting the city's commerce. Western houses were in close proximity to oriental mansions as well as thatched-and tile-roofed homes. Western garbed men and women associated with others in costumes dating from the Ming Dynasty of China. This, then, was Seoul--until military action reduced the city to an almost homogeneous landscape of destruction.

Prior to 1950 the city performed a variety of functions. It had been the political center of Korea since 1392. Political supremacy, during the autocratic period attracted scholars, artists, and craftsmen to Seoul. It became the educational and cultural center of the peninsula. Absentee landlords and government officials brought great purchasing

power to Seoul.¹⁸ In 1897 Seoul contained a populace of 219,815.¹⁹

After annexation by Japan, centralized political control continued. Commercial as well as political direction emanated from Seoul. Industry developed, especially the manufacture of consumer goods. Japanese industrial and financial groups established headquarters in the capital. Schools were built and a university was established. By 1933 the city's population had increased to 394,572.²⁰

Seoul is largely responsible for Kyonggi's primary position in the population structure of Korea. In 1940 the capital contained about 32 per cent of the provincial population. Between 1940 and 1949 the city's population grew from 935,464 to 1,446,019. This represents an increase of 54 per cent during the nine-year period.

In 1938 Seoul contained 21 per cent of all Japanese living in Korea.²¹ Nineteen per cent of the city's population was composed of Japanese.²² After 1945 the Japanese were returned to Japan. Only a very small number were allowed to remain in Korea. The Chinese also constitute a minority group, for the most part living in a small section in the west-central part of the city.

Inchon: Inchon, the port for Seoul, enjoys a large and productive hinterland. Before 1886 the Korean government pursued a policy of seclusion and foreign trade was practically nil. Until the Japanese and

¹⁸Herman Lautensach, "Koreas Hauptstadt und Ihre Umwelt," Geographisch Zeitschrift, LVI, (1940), passim.

¹⁹Isabella L. Bishop, Korea and Her Neighbors, (New York, 1898), p. 38.

²⁰Lautensach, Korea; eine Landeskunde, p. 287.

²¹Andrew J. Grajdanzev, Modern Korea, (New York, 1944), p. 81.

²²Lautensach, Korea; eine Landeskunde, p. 288.

western nations "opened" the country Inchon was only a small fishing village. In 1897 this "treaty port" had a population of only 11,113, 35 per cent of which was Japanese nationals.²³

Its position near the mouth of the Han, a large producing and consuming hinterland, and good transportation routes allowed the city to become one of Korea's chief ports. By 1940 the population had grown to 171,165. The 1949 population amounted to 265,767, an increase of 54 per cent in nine years. Both primary and secondary industries are situated in and near the city.

Kaesong: Kaesong in its growth has not kept pace with the cities of Seoul and Inchon. Established as the first capital of united Korea in 918, political power was situated here until 1392. The site was evidently chosen in consideration of military security. Set among granite hills, the city lacks water transportation, although Korea's main transportation artery passes through it. The populace is said to have been of a conservative nature, proud of its long and rich cultural heritage and jealous of the "new" capital of Seoul.²⁴ Its present function is primarily that of a rural produce trading center.²⁵

In 1925 the population numbered 46,337. By 1940 it had grown by 55 per cent, reaching a figure of 72,062. The nine-year period between 1940 and 1949 saw the city expand to 88,708—an increase of only 23 per cent.

²³Bishop, op. cit., p. 469.

²⁴Shannon McCune, Climatic Regions: Central West Korea, "Research Monographs on Korea," Series E, No. 5, (1945), pp. 7, 10-11.

²⁵V. T. Zaichikov, Geography of Korea, Translated by Albert Parry, Edited by Shannon McCune, (New York, 1952), p. 133.

Non-Urban Population. In general the non-urban population is most dense in the western and southern parts of the province, and diminishes in density in the interior north and east. Figure 4 depicts population density for 1940. The 1940 census is the latest detailed one available for all of Kyonggi.

Since the non-urban population has been classified as 76.4²⁶ per cent agricultural it is to be expected that population distribution will correlate closely with the location of agricultural lands. There are exceptions to this generalization and of these Koyang county is the most conspicuous.

In 1940 Koyang was the most densely populated political unit of Kyonggi (628.5 per square mile). However, in regard to percentage of cultivated land the county was surpassed by three less densely populated areas. The county touches Seoul on three sides and it seems reasonable to assume that many of the people are commuters holding jobs in Seoul. Apparently substantiating this assumption is the fact that the population is only 53.1 per cent agricultural—the lowest percentage of any non-urban area in Kyonggi.²⁷

The southern coastal counties of Suwon and Pyongtaek and the insular county of Kanghwa have densities ranging from 515.8 to 524.1. Those having densities between 401 and 500 are Ansong and Ichon in the southern interior, the central-coast county of Sihung, and the peninsular county of Kumpo.

²⁶South Korean Interim Government, National Economic Board, op. cit., No. 25, (October, 1947), p. 5.

²⁷Ibid.

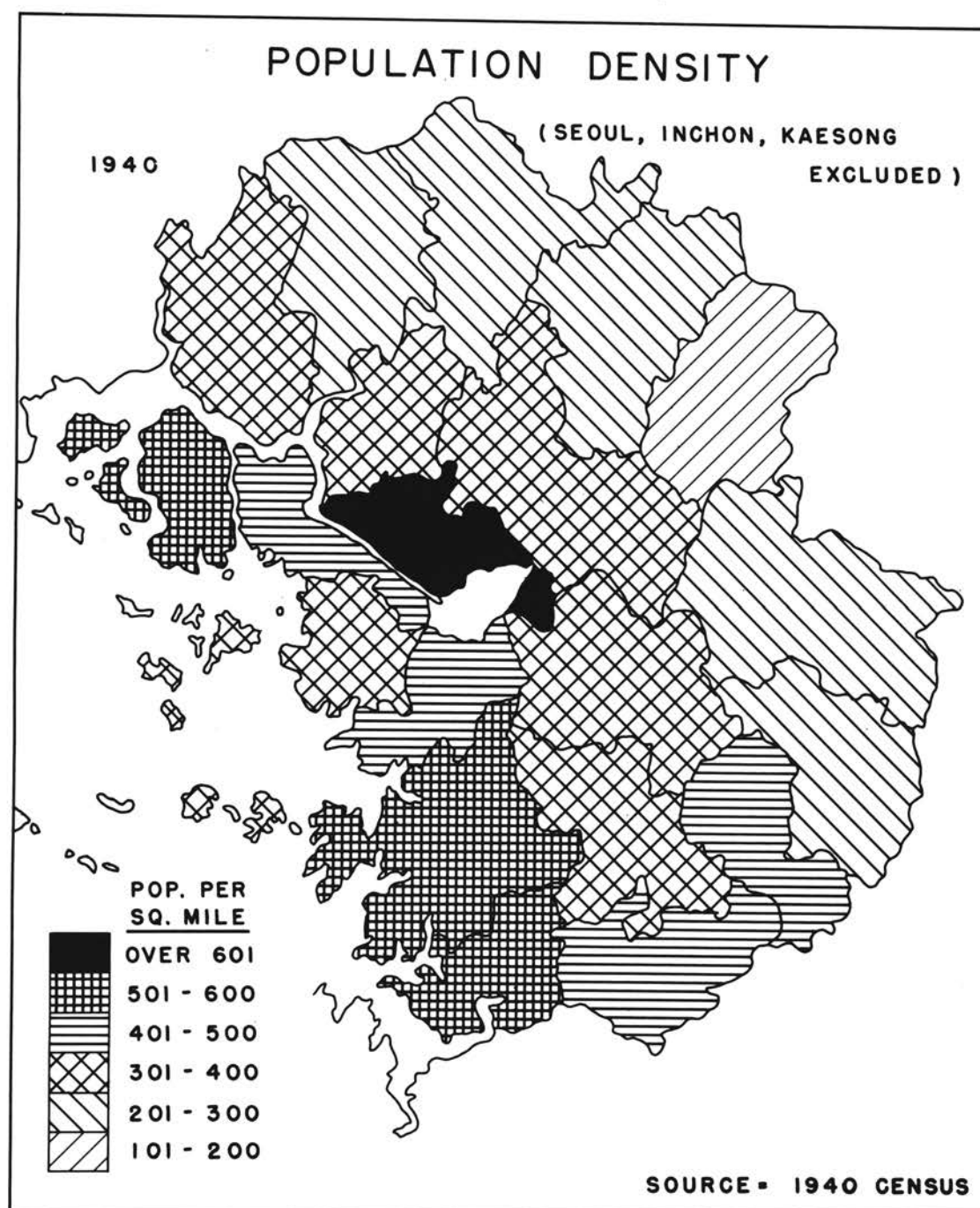


FIGURE 4

A band of counties extending southeastward from Kaepung to Yangju and then southward to Yongin possesses densities ranging from 301 to 400. Puchon, a central-coast county, also belongs to this category. Puchon and Kaepung are the most thinly populated coastal counties, having densities of 333.5 and 304.1 respectively. Kaepung has a smaller percentage of arable land than have the other coastal counties. Also, the land is utilized less intensively.²⁸ The cause of Puchon's low density has not been determined.

The remaining northern and eastern counties are Kyonggi's most thinly populated areas. The lowest density is found in Kapyong (154.8). The cultivated area of the county only constitutes from 5.1 to 10 per cent of the total area—the lowest percentage of arable land in Kyonggi.

The mountainous county of Yangpyong ranks second lowest in regard to both density of population (218.6) and percentage of cultivated land (between 15.1 and 20 per cent).²⁹ The three northern counties (Pochon, Changdan, and Yonchon) have densities ranging from 226.2 to 245.6. Yoju, in the southeast, is somewhat more thickly populated having a density of 286.2.

Towns: The census of Korea classifies eight urban units in Kyonggi as towns. These units ranged in size from 14,083 to 52,772 in 1949. The total population of the towns amounted to 180,751 or a little over four per cent of the provincial populace. All but one are located to the south of Seoul.

Suwon, the largest town, is situated about seventeen miles south of Seoul. It lies near the transition zone between the central hill land

²⁸Lautensach, Korea; eine Landeskunde, plates 77 and 78.

²⁹Ibid., Plate 77.

belt and the coastal lowlands. It developed as one of four fortified towns which guarded the approaches to Seoul. Its position on the Seoul-Pusan highway and railroad allowed it to develop as a rural produce trade center. Suwon county is one of Kyonggi's most agriculturally productive areas. Korea's agricultural experiment station was situated in the town of Suwon.

The second largest town, Sosa (26,376 in 1949), is situated about halfway between Seoul and Inchon in Puchon county. Uijongbu (21,861 in 1949) lies in the Seoul-Wonsan depression, about twelve miles north-northeast of the capital near the center of Yangju county. The town enjoys good transportation routes to both north-east and south-west Korea.

The five remaining towns are located in the southern and southeastern counties of Kyonggi. Pyongtaek (16,983) and Ansong (19,356) lies within the fertile Ansong basin. The Pusan-Seoul transportation route passes through Pyongtaek. Ichon (14,500) and Changhowon (14,083), in Ichon county, are situated on northward flowing tributaries of the south Han. Both lie on the interior highway from Pusan to Seoul. Yaju (14,083), in Yaju county, is located on the left bank of the South Han. Yaju and Ichon are connected by rail to the Seoul-Pusan trunk railroad.

Railroads pass through all of the towns except Ansong and Changhowon. All except Ansong lie on major highways. Trade and processing of agricultural produce are the primary basis for their existence.

The population of Kyonggi may be characterized as a dense homogeneous group. Not limited to the province alone, this homogeneity extends throughout the Korean peninsula. The presence of Seoul, Inchon, and Kaesong causes Kyonggi to be differentiated from the more rural areas surrounding the province. Some correlation is found between

physiographic features and non-urban population distribution. Population density diminishes from the west and south to the interior areas. What sort of economy has allowed the environment to support such a large group of people? This is the question to which attention is now directed.

CHAPTER IV

ECONOMIC ACTIVITY: AGRICULTURE

The economy of Korea is based primarily upon agriculture. In 1930 the farm population comprised 74.1 per cent of the total population.¹ However, not all areas are equally dependent upon agriculture. Kyonggi presents the anomaly of having only 60.3 per cent of its population engaged in farming (1930).² By 1947 the position of agriculture in Kyonggi's economy had declined even further. In that year only 42.9 per cent of the total population consisted of farm families. (These figures are not strictly comparable since the 1947 statistics exclude that part of Kyonggi lying north of the thirty-eighth parallel.) If the three metropolitan centers (Seoul, Inchon, and Kaesong) are disregarded, then the farm population comprises 76.4 per cent of the total.³

Area and Location

In 1936 the average cultivated acreage per farm household in Kyonggi amounted to 3.9 acres. This figure exceeds slightly that of all Korea (3.6 acres). Cultivated acreage per farm household increases to the north, reaching a maximum of 7.0 acres in North Hamgyong. In the

¹Andrew J. Grajdanzev, Modern Korea, (New York, 1944), p. 72, and Hoon K. Lee, Land Utilization and Rural Economy in Korea, (Chicago, 1936) p. 50.

²Republic of Korea, Ministry of Information, Preliminary Report of the First Census of the Republic of Korea, (Seoul, 1949), and Lee, Ibid.

³South Korean Interim Government, National Economic Board, South Korean Interim Government Activities, Seoul, No. 25, (October 1947), p. 5.

southern provinces the figure decreases, the minimum being 2.3 acres in South Kyongsang. The rugged and thinly populated province of Kangwon, to the east of Kyonggi, averages 3.4 acres of cultivated land per farm household.

The size of the individual fields is extremely small, Lee examined 333 fields in Kyonggi (1930 and 1931) and found the average size to be 0.7 acres. Examination of 5,347 fields over all Korea indicated an average size of 1.0 acres per field.⁴ Osgood examined the fields in a small area of southern Kanghwa Island and found them to range in size from 0.007 to 1.3 acres, with an average of 0.42 acres.⁵

Figure 5 indicates the regional aspects of the farm population. This map excludes the cities of Seoul, Inchon, and Kaesong. Data are not available for areas north of the thirty-eighth parallel and the county of Yonchon. Counties in which farmers comprise more than eighty per cent of the total population occur primarily in the southern and eastern parts of the province. Exceptions to this are Kanghwa, Kaepung, and Paju on the Han estuary, and Pochon in the northeast interior. It will be noted that the four counties having the lowest percentage of farmers lie adjacent to the city of Seoul (Koyang, Kumpo, Yangju, and Sihung). Proximity to Seoul may allow a number of the people to commute to jobs within the city. Since truck farming is prevalent near the cities a large group of workers may be employed in the processing, marketing, and transporting of foodstuffs destined for the Seoul markets.

⁴Lee, op. cit., p. 101.

⁵Cornelius Osgood, The Koreans and Their Culture, (New York, 1951), p. 56.

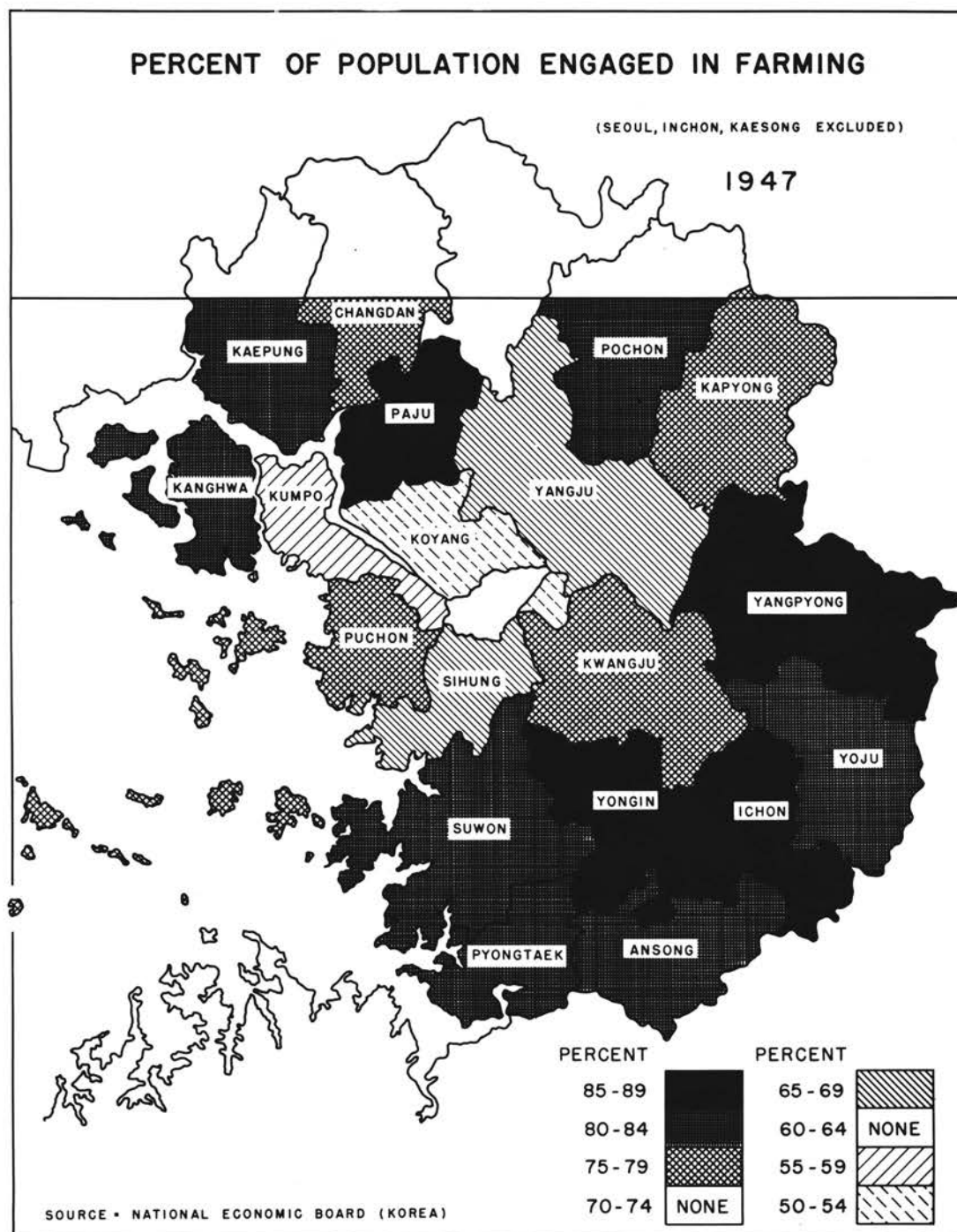


FIGURE 5

The average area of cultivated land in relation to total land area for all Korea was 20.8 per cent during the period from 1930 to 1937. Kyonggi held a position above the national average with 32.2 per cent in crop land. In regard to percentage of cultivated land Kyonggi enjoyed second place among the provinces. Hwanghae (34.5 per cent), northwest of Kyonggi, held first place. South Chungchong, third in rank (31.8 per cent), lies south of Kyonggi. All other northern provinces, except South Pyongan, have percentages of crop land lower than the national average, especially Kangwon, east of Kyonggi, which falls considerably below the national average. The southern provinces are above the national average.⁶

Within Kyonggi the relative amount of crop land varies considerably. Slope appears to be the primary limiting factor of agriculture. Physiographic features exhibit change from the coastal areas to the interior areas. Figure 6 indicates that cultivated land relative to total area decreases from the coast to the northeast interior. Pyongtaek county in the southwest has over 45 per cent of its area in cultivation. Of the counties having from 35.1 to 45 per cent in cropland, only Koyang and Ichon lie in the interior. Kapyong, in the northeast interior has only from 5.1 to 10 per cent of its area in cultivation. The three counties surrounding Kapyong also have low arability.

Crops

Kyonggi utilizes its cultivated land for growing food, industrial, and green manure crops. Food crops are supreme in regard to acreage, production, and value of production. The green manure crops (usually

⁶Hermann Lautensach, Korea; eine Landeskunde auf Grund eigener Reisen und der Literatur, (Leipzig, 1945), p. 391.

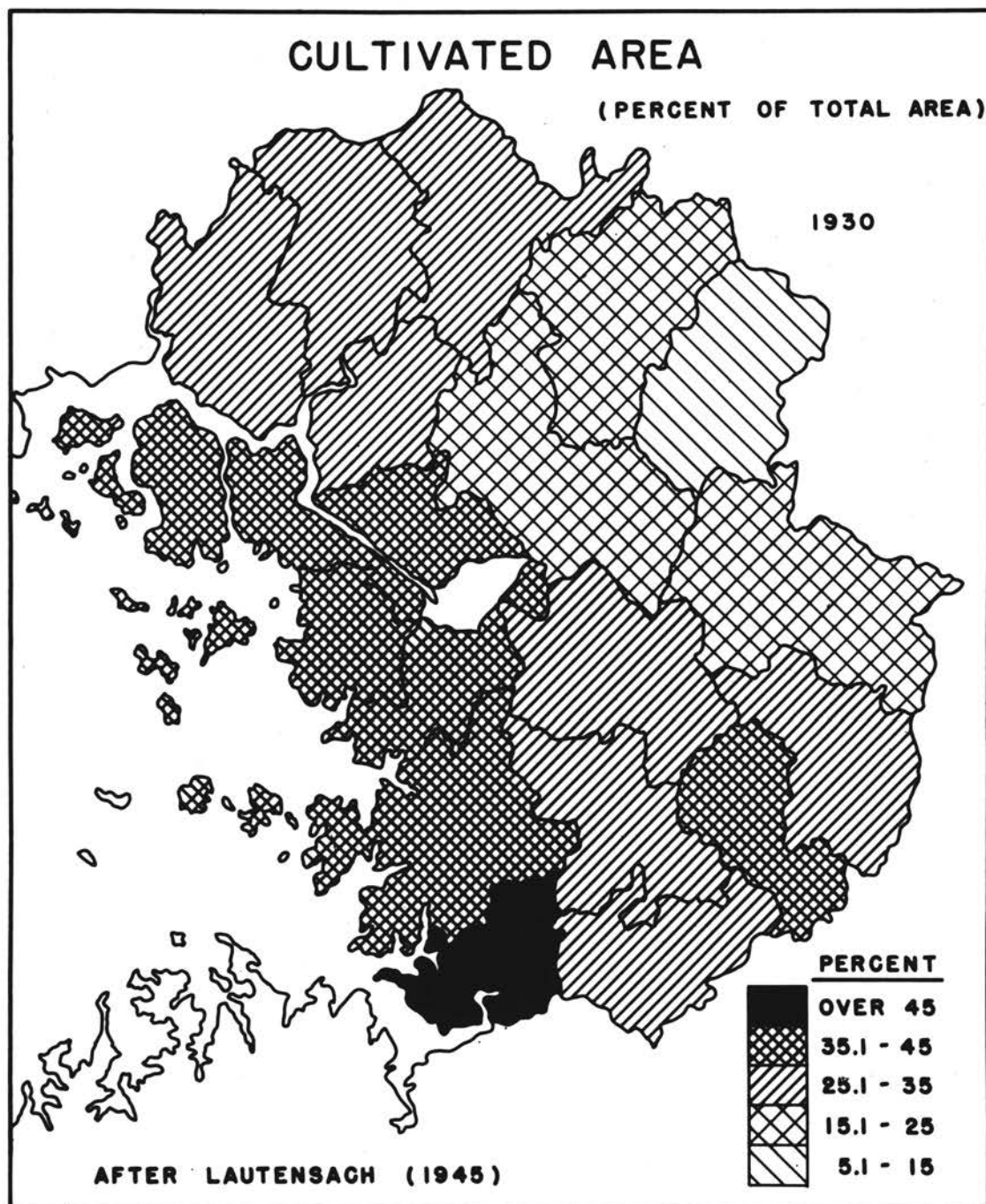


FIGURE 6

legumes) supply food as well as enrich the soil. Industrial crops are grown on only 1.4 per cent of the cropped area.⁷

Table V indicates the absolute and relative areas devoted to the principal crops. Figures are lacking for many vegetables and some minor crops.

TABLE V*
PRINCIPAL CROP AREAS, KYONGGI PROVINCE, 1930

Crops	Area (Acres)	Area (Sq. Miles)	Per Cent of Cropped Area
Wet Field Rice	512,230.4	800.36	42.6
Barley	219,072.0	342.27	18.2
Soybeans	208,716.8	326.12	17.4
Millet	76,547.2	135.23	7.2
Wheat	59,360.0	92.75	5.0
Adzuki Beans	32,550.4	50.86	2.8
Kaoliang	19,148.8	29.92	1.6
Buckwheat	13,401.6	20.94	1.2
Green Beans	10,240.0	16.00	0.8
Cotton	8,614.4	13.46	0.6
Dry Field Rice	8,518.4	13.31	0.6
Potatoes	6,220.8	9.72	0.5
Oats	4,787.2	7.48	0.3
Perilla	4,787.2	7.48	0.3
Rye	3,827.2	5.98	0.3
Hemp	2,297.6	3.59	0.2
Sweet Potatoes	1,529.6	2.39	0.1
Corn (Maize)	953.6	1.49	a/
Red Beans	857.6	1.34	a/
Paper Mulberry	473.6	.74	a/
Peas	186.6	.29	a/
	1,204,300.8	1,881.72	100.0

a/ less than 1/10th of 1 per cent

*Source: Computed from Lautensach, Korea; eine Landeskunde, pp. 398-399.

⁷Ibid., pp. 398-399.

Table VI shows the areas occupied by principal crop categories. It may be seen that the agricultural land is utilized predominately for the growing of grains. Pulses also assume an important position. Industrial crops rank third, and tubers fourth in regard to crop area.

TABLE VI*
AREAS OF PRINCIPAL CROP CATEGORIES, KYONGGI PROVINCE, 1930

<u>Category</u>	<u>Area (Square Miles)</u>	<u>Percentage of Cropped Area</u>
Grain	1,449.73	77.1
Pulses	394.61	20.9
Industrial Crops	25.27	1.4
Tubers	12.11	0.6
Total Cropped Area	1,881.72	100.0

*Source: Lautensach, Korea; eine Landeskunde, pp. 398-399.

Grains

Whereas grains occupy a major portion of the cropped land it may be seen from Table VII that over half of the grain lands are devoted to wet field (paddy) rice. Barley, millet, and wheat are also significant crops. Oats, rye, and corn are of only minor importance.

Rice: Although the actual distribution of rice lands is unknown, Figure 7 gives a good indication of where the paddy rice is grown. Counties in which more than 60 per cent of the arable land is in wet fields are located on the coast and in the southern part of the province. Adjoining these areas are counties where paddy rice is grown on from 50.1 to 60 per cent of the land. Toward the north and east the relative position of wet field rice declines. Rice culture is least dominant in the two counties of Yonchon and Pochon where rice is cultivated on from 20.1 to 30 per cent of the arable land.

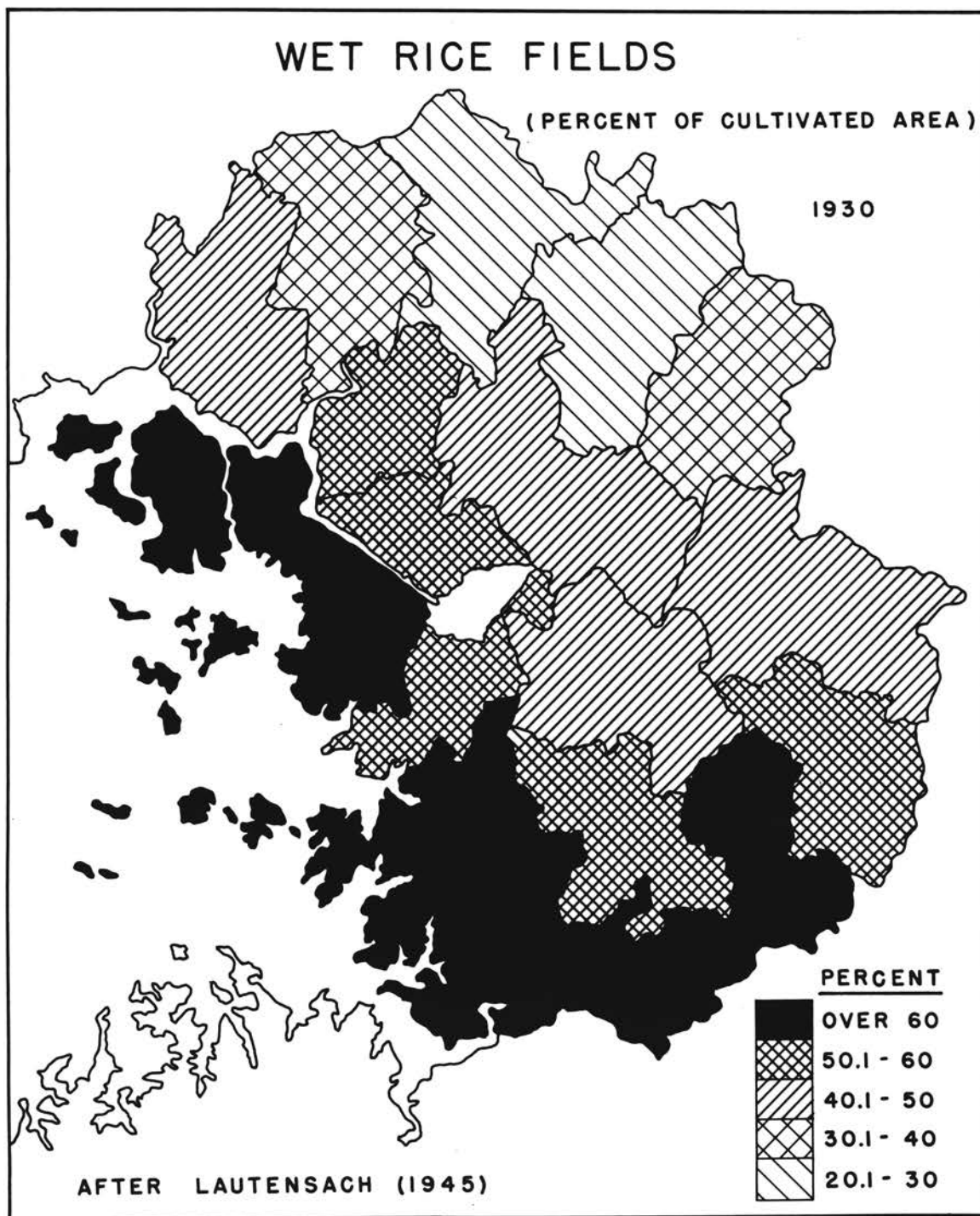


FIGURE 7

TABLE VII*
GRAIN CROP AREAS, KYONGGI, 1930

<u>Crops</u>	<u>Square Miles</u>	<u>Percentages of Total Grain Area</u>
Wet Field Rice	800.36	55.2
Barley	342.27	23.7
Millet	135.23	9.1
Wheat	92.75	6.9
Kaoliang	29.92	2.1
Buckwheat	20.94	1.4
Dry Field Rice	13.31	0.8
Oats	7.48	0.4
Rye	5.98	0.3
Corn (Maize)	1.49	0.1
Total Grain Area	1449.73	100.0

*Source: Lautensach, Korea; eine Landeskunde, pp. 398-399.

The principal rice areas occur in regions having extensive coastal lowlands, broad fluvial plains, and long growing seasons. Since the paddies must be flooded during the greater part of the growing season the fields are generally located in the lower portions of the valley floor. Here runoff from the upper slopes may be obtained during the summer rains. A more reliable source of water is obtained by diverting water from the river upstream and directing it by means of channels to the fields further downstream. These low fields are always in danger of being destroyed or filled with sand during times of heavy rains. Much reforestation must be accomplished before the Korean farmer can feel secure.

To a lesser degree paddies are also situated upon the lower slopes of hills and upon old alluvial cones.⁸ However, terracing is not

⁸Ibid., p. 281.

practiced as intensively as in Japan or in the Philippines.

Rice Production: By checking fifty farms in Kyonggi in 1930, Lee determined that the province produces an estimated average yield of 42.9 bushels of unhusked rice per acre. The average yield for all Korea was estimated at 55.4 bushels per acre. The cleaning and hulling processes reduce the volume by approximately 60 per cent. Thus the yield of rice suitable for food averaged 25.7 bushels per acre for Kyonggi and 28.3 bushels for all Korea. Provinces to the south of Kyonggi had yields considerably above that of the province (63.6 to 66.8 bushels of unhusked rice per acre). North and South Hamgyong and Kangwon yields were less than Kyonggi's (35.4 to 40.6 bushels of unhusked rice). Three provinces in the north (North and South Pyongan and Hwanghae) had yields greater than Kyonggi (51.0 to 66.0 bushels).⁹

Following the division of Korea in 1945 commercial fertilizer supplies were drastically reduced--the major source being North Korea. Consequently rice yields were lessened. In 1946 the yield per acre in Kyonggi averaged 23.2 bushels of brown rice, a decline of 9.7 per cent.¹⁰

In 1936 Kyonggi produced 270 pounds of rice for each of its inhabitants. In that year the average per capita disappearance of brown rice for all Korea was estimated at 177 pounds. On the basis of these figures Kyonggi had a "surplus" rice supply of 93 pounds per person, or an absolute surplus of 222 million pounds. In 1936 all provinces had a surplus of rice except North and South Hamgyong.¹¹

⁹Lee, op. cit., pp. 60-61.

¹⁰South Korean Interim Government, National Economic Board, op. cit., p. 30.

¹¹U. S. Army Service Forces, Civil Affairs Handbook, Korea, Section 7, Agriculture, (Washington, 1944), pp. 58-59.

It is quite possible that Kyonggi's "surplus" rice was not exported. The capital province probably consumed a larger amount of rice than the national average. Certainly the accumulation of wealth in Seoul by the official and commercial classes would allow this. Lautensach mentions that the greater part of the rice production is used locally.¹²

Barley: Barley assumes the second most important position of all crops in Kyonggi. This crop was grown on 13.2 per cent of the cultivated land in 1930. Barley was grown on 23.7 per cent of the grain lands in contrast to 55.2 per cent for wet field rice.¹³ In 1936 Kyonggi contained 8.8 per cent of Korea's barley acreage.

Although grown throughout Korea, barley is primarily a southern crop. North Kyongsang in the southeast contained 20.4 per cent of total barley area—the largest acreage of all the Korean provinces. The smallest area occurred in North Pyongan, the province accounting for only 0.5 per cent of the total acreage. Kyonggi appears to be a transition zone between the important barley producing areas of the south and those of lesser significance in the north.

Both "common" and "naked" (hulless) varieties of barley are grown in Kyonggi. "Naked" barley is the most valuable variety as a food. "Common" barley contains only 10.25 per cent protein while "naked" barley contains 12.56 per cent. Nevertheless, only 20 per cent of Korea's barley acreage is devoted to the "naked" type. This variety is even less significant in Kyonggi where it was grown on only 1.1 per cent of the total barley area in 1930.¹⁴ In Kyonggi the northern limit of

¹²Lautensach, Korea; eine Landeskunde, p. 281.

¹³Ibid., pp. 398-399.

¹⁴U. S. Army Service Forces, op. cit., pp. 67-69.

naked barley occurs near the thirty-eighth parallel. North of this line only the common variety is grown. To the south both varieties occur.¹⁵

Barley occurs mainly as a winter crop in Kyonggi¹⁶ although some quick maturing varieties are grown in the spring.¹⁷ The colder winters of the northeast third of the province preclude the cultivation of winter barley. The crop is grown on both upland and wet fields.

Winter barley is grown upon the wet fields only along a narrow coastal zone including the islands, and in the extreme south.¹⁸ Here the winter temperatures are higher than in the interior due to the proximity to the sea and the lower latitude. The wet field culture is characteristic of southern Korea where it is rotated with rice.¹⁹ As soon as the rice is harvested in the fall, barley is planted. Following the barley harvest in the spring the fields are planted in rice.²⁰ This practice is made necessary by the great pressure of population upon the land. By spring the farmer and his urban neighbors will have consumed most of their rice supplies. Were it not for the spring harvest of barley many of the Koreans would starve. Indeed, many times the rice supply is depleted before the barley harvest and gives rise to the "spring hunger." In this case the Koreans will search the countryside for acorns, roots, and even bark, for food. This practice occurs not

¹⁵Lee, op. cit., p. 94.

¹⁶Lautensach, Korea; eine Landeskunde, p. 281.

¹⁷Osgood, op. cit., pp. 61, 74.

¹⁸Lautensach, Korea; eine Landeskunde, Plate 80.

¹⁹Ibid., p. 281.

²⁰Lee, op. cit., p. 48.

only in years of poor harvest but is even observed during prolific periods.²¹

Other Grains: In regard to cultivated acreage millet ranks fourth among all crops and third in regard to grains. In 1930, 7.2 per cent of Kyonggi's cultivated land was in millet. The millet area comprised 9.1 per cent of the grain lands.²² Primarily an upland crop, millet is a characteristic crop of North Korea. The five northernmost provinces account for about two-thirds of Korea's acreage and production. In 1936 Kyonggi contained only 4.2 per cent of the total Korean acreage.²³

Three varieties of millet are grown in Kyonggi: Foxtail millet (88.8 per cent of Kyonggi's total millet acreage); Japanese barnyard millet; and pendent millet. Most of the barnyard millet grows in the northern part of the province. Here again Kyonggi assumes the nature of a transition zone between the primary millet areas of the north and secondary areas of the south. Although millet is not regarded as a desirable food by the Koreans it assumes a valuable position as such in the homes of the lower economic classes. As a colony Korea exported much of its rice to Japan and the Koreans became more dependent upon millet. Much of the grain was imported from Manchuria to replace the exported rice.

Other typically northern grains grown in Kyonggi include wheat, kaoliang, buckwheat, oats, rye, and corn. Together, these crops are grown on only 8.9 per cent of the cultivated land in Kyonggi. They

²¹U. S. Army Service Forces, op. cit., pp. 94-95, from Uenda, Setsuo, "Korean Administration Teaches Farm Hands to Help Themselves," Trans-Pacific, April 26, 1934.

²²Lautensach, Korea; eine Landeskunde, pp. 398-399.

²³U. S. Army Service Forces, op. cit., pp. 70-71.

account for only 5.9 per cent of the grain lands.²⁴ All are upland crops. Wheat is predominantly a winter crop and is grown most intensely in Kapyong county. The northern part of the province also grows most of the oats.²⁵

Leguminous Plants: Legumes are Kyonggi's second most important crop. These crops occupied 20.9 per cent of the cultivated area in 1930, an area of 394.61 square miles. The types of pulses are shown in Table VIII.

TABLE VIII*
LEGUMINOUS CROPS, KYONGGI, 1930

Crops	Square Miles	Percentage of Total Legume Area
Soybeans	326.12	82.6
Adzuki Beans (Small red beans)	50.86	12.9
Green Beans (Mung Beans)	16.00	4.1
Red Beans	1.34	0.3
Peas	.29	0.1
Total	394.61	100.0

*Source: Lautensach, Korea; eine Landeskunde, pp. 398-399.

These crops are grown in dry (upland) fields. Only where the slope becomes so steep that the construction cost of wet fields becomes prohibitive will the land be used for unirrigated crops.

Soybeans are by far the most important legume grown in Kyonggi. Over 82 per cent of the legume area and 17.4 per cent of the total cultivated area was planted in soybeans during the early 1930's.²⁶

²⁴Lautensach, Korea; eine Landeskunde, pp. 398-399.

²⁵Ibid., p. 281.

²⁶Ibid., pp. 398-399.

In 1936 Kyonggi contained 10.6 per cent of the total Korean soybean acreage.²⁷

In regard to crop area, soybean acreage is exceeded only by wet field rice and barley. This crop is well distributed over Korea except in the extreme northern interior. Although grown throughout Kyonggi, production is most intense along the coastal lowlands. Utilized for many purposes, soybeans may be eaten alone or mixed with rice, or they may be made into soybean sauce, a condiment. Many times the beans are allowed to sprout, as the sprouts provide a favorite foodstuff of the Koreans. In addition, oil extracted from the beans is used as a lubricant. Bean cake made from soybeans furnishes an excellent feed for cattle as well as a good fertilizer material.²⁸

Adzuki beans (small red beans) and green beans (mung beans) are also important legume crops, while peas, of only slight significance, occupy only 0.1 per cent of the total legume area.

The pulses are of great importance to Korean agriculture. Fertility in the upland fields is retained when legumes are used as rotation crops. This is accomplished due to their nitrogen-fixing properties. The crops are also used to excellent advantage as green-manure crops.

Industrial Crops: Only 1.4 per cent of Kyonggi's cultivated land is devoted to the production of industrial or technical crops. In 1930 these crops grew on 25.27 square miles.²⁹ The extent of the principal crops is indicated in Table IX.

²⁷U. S. Army Service Forces, op. cit., p. 77.

²⁸Lee, op. cit., p. 63.

²⁹Lautensach, Korea; eine Landeskunde, pp. 398-399.

TABLE IX*
INDUSTRIAL CROPS, KYONGGI, 1930

<u>Crops</u>	<u>Square Miles</u>	<u>Percentage of Total Industrial Crop Area</u>
Cotton	13.46	52.3
Perilla	7.48	28.3
Hemp	3.59	16.3
Paper Mulberry	.74	3.1
Total	25.27	100.0

*Source: Lautensach, Korea; eine Landeskund, pp. 398-399.

Cotton is by far the primary industrial crop in Kyonggi. In 1930 it accounted for over one-half of the total industrial crop area. The areas of Korea's greatest production lie to the south of Kyonggi. The northern boundary for the American varieties of cotton crosses the extreme southern part of the province.³⁰ In the rest of Kyonggi grow only native varieties. These varieties are usually of poor quality and low production.

Perilla is grown on 28.3 per cent of the industrial crop area and comprises 0.3 per cent of the total cultivated acreage. Oil is produced from the seed and utilized in seasoning food and for illumination. The plant is of value mainly in the rural sections where the cost of kerosene is prohibitive.

Hemp is grown in only small quantities. It is used for cheap native-style clothing and ropes.³¹ In 1946 only 247.4 acres were devoted

³⁰Ibid., plate 20, p. 281.

³¹Lee, op. cit., pp. 66, 68.

to the crop. Production totaled 148.3 metric tons, only about 3 per cent of the total production south of the thirty-eighth parallel.³²

Paper mulberry is grown to a very small extent in Kyonggi. From the bark is produced a tough paper of very fine quality.³³ The superior quality of this paper prompted the Chinese for centuries to import it for the printing of the imperial records.³⁴ Primary production of this minor crop occurs in the extreme southern provinces. Other minor crops include ramie (China Nettle) which is used in making good quality cloth, and wangul, a reed used for mats. Mulberry trees for the silk industry are also grown but no data are available concerning their extent.

Vegetables

Other than potatoes and sweet potatoes no data are available concerning acreage or production of vegetables. Yet it must not be inferred that vegetables are insignificant either in Kyonggi or the rest of Korea. One notices that they are ever present in the urban markets and on both country and city dinner tables.

White potatoes are most concentrated in the mountainous northern and eastern parts of Korea. Production rapidly decreases to the south of Kyonggi.³⁵ Only 0.5 per cent of the cultivated land of the province is devoted to potatoes. Sweet potatoes are grown to even less extent, as only 0.1 per cent of the arable land is utilized for the crop. The less moderate climate of the interior precludes the growing of sweet

³²South Korean Interim Government, National Economic Board, op. cit., No. 28, (January, 1948), p. 37.

³³Lautensach, Korea; eine Landeskunde, p. 182.

³⁴Osgood, op. cit., p. 237.

³⁵Lautensach, Korea; eine Landeskunde, plate 80.

TABLE X*
POTATOES AND SWEET-POTATOES, KYONGGI, 1930

<u>Crops</u>	<u>Area</u> <u>(Square Miles)</u>	<u>Percentages of</u> <u>Total Area</u>
Potatoes	9.72	83.4
Sweet Potatoes	2.39	16.6
Total	12.11	100.0

*Source: Lautensach, Korea; eine Landeskunde, pp. 398-399.

potatoes.³⁶ Production areas of greatest concentration appears in the western half of the province.³⁷

Most of the vegetables are grown by the rural dwellers in small kitchen gardens. Well developed truck farming areas are found only in the vicinity of the cities. Perhaps the greatest development of vegetable farming occurs along the eastern edge of Seoul. A large market and a great supply of human waste allows very intensive production.³⁸ Among the vegetables grown are Chinese cabbage, radishes, eggplant, cucumbers, onions, turnips, pumpkins, spinach, peppers, garlic, melons, and lotus roots.³⁹

Other Crops: Other rural produce includes tobacco, ginseng, and fruits. Tobacco, of only slight importance in Kyonggi and South Cholla is not grown in the three northernmost provinces. In 1936 the total Korean tobacco crop covered 42,966 acres. However, Kyonggi devoted less than

³⁶Ibid., p. 176.

³⁷Lee, op. cit., p. 94.

³⁸Lautensach, Korea; eine Landeskunde, p. 281.

³⁹Lee, op. cit., p. 113.

1,000 acres to the crop.⁴⁰

An area near Kaesong in Kaepung county is Korea's primary region of ginseng production. The roots of this plant form grotesque shapes, sometimes almost human, and supposedly have curative and aphrodisiacal properties. Whether or not these properties actually exist, Chinese demand for the roots has been so great that for many years the government has maintained a monopoly of the crop. Protection from direct sunlight is necessary and long rows of mat sheds protect the crop.⁴¹ In 1947 the Korean ginseng crop amounted to 2,453 metric tons, and most of the production came from Kaepung county.⁴² The average annual yield from 1926 to 1930 amounted to 1.5 pounds of roots per square yard.⁴³

On the lower slopes of the hills and mountains mulberry and fruit trees are grown.⁴⁴ Orchards producing fine quality apples occur near Inchon.⁴⁵ A native of Seoul states that Pyongtaek is noted for its pears; Kaesong for its apples; Suwon for its persimmons; and Kapyong for its chestnuts.⁴⁶

Livestock

A well developed livestock industry is sorely lacking in both Korea and Kyonggi. This gap in the Korean economy suggests the means by which

⁴⁰U. S. Army Service Forces, op. cit., pp. 86-87.

⁴¹Osgood, op. cit., p. 19; and Shannon McCune, Climatic Regions: Central West Korea, "Research Monographs on Korea," Series E, No. 5, (1945), pp. 7, 14.

⁴²Korea (South Korean Interim Government), National Economic Board, op. cit., No. 26, (November, 1947), p. 60.

⁴³Lee, op. cit., p. 69.

⁴⁴Lautensach, Korea; eine Landeskunde, p. 282.

⁴⁵Lee, op. cit., p. 70.

⁴⁶Hyun Kisoon, personal interview, January 28, 1953.

future food supplies may be increased. Certainly the physical environment is suitable for livestock raising; much of eastern and northern Kyonggi consists of unutilized hill lands which might be used for grazing. Lack of capital and education appears to be the primary reasons for the neglect of animal husbandry.⁴⁷

In 1930 Kyonggi possessed 7.5 per cent of Korea's cattle. This amounted to 115,998 head, an average of 5.5 head per hundred persons or 11.1 head per hundred of farm population. For each 10 farms there were 4.9 head and for each animal there were 8.2 acres of cultivated land.⁴⁸ By 1945 the number of cattle had decreased. However, it was estimated in the early part of 1948 that Kyonggi would have 113,000 head by the end of the year.⁴⁹ More cattle are found in the northern provinces of Korea than in the southern ones. The density of cattle in Kyonggi is slightly below the national average: 15.5 head per 100 acres of cultivated land.⁵⁰

Detailed statistics are not available concerning the utilization of cattle; however, it is known that by far the greatest number are used as work animals. During January, 1948, there were 93,172 work cattle in Kyonggi.⁵¹ Breeds have been developed specifically for the purpose of

⁴⁷Shannon McCune, "Utilization of Upland Areas in Korea," in The Development of Upland Areas in the Far East, Vol. 2, part III, (New York, 1949), pp. 117-120.

⁴⁸South Korean Interim Government, National Economic Board, op. cit., No. 28, (January, 1948), p. 30.

⁴⁹Ibid., No. 29, (February, 1948), p. 30.

⁵⁰U. S. Army Service Forces, op. cit., p. 81.

⁵¹South Korean Interim Government, National Economic Board, op. cit., No. 28, (January, 1948), p. 35.

plowing.⁵² In the northern provinces of Korea two cattle are used per plow, while in Kyonggi and in the southern provinces only one animal is needed.⁵³

The relative high standard of living of certain classes in Seoul makes Kyonggi one of the principal meat consuming centers of Korea. In 1948 there were eight abattoirs in Kyonggi, two of which were in Seoul. Those in the capital have official veterinary meat inspection service; however, the status of the others is unknown.⁵⁴ Probably much slaughtering is carried on without benefit of government inspection. It was tentatively planned to slaughter 14,523 head in Kyonggi during 1948.⁵⁵

The dairy industry is almost negligible. In 1936 there were only 1,539 milk cows and 3,022 milk goats in all Korea. Annual per capita production from both sources amounted to only about one-third of a pound of milk.⁵⁶ In 1948 there were only 1,245 milk cows in South Korea.⁵⁷ Dairying, restricted to areas near the largest cities, is best developed around Seoul.

A few sheep, raised for wool, are kept in the more mountainous areas. The wool is utilized primarily by the owner. In 1947 two sheep breeding stations existed in South Korea, one of which was in Kyonggi. Factors limiting sheep raising include "sheep paralysis," wild animals and dogs, lack of fenced areas, and nearness of the pasture areas to

⁵² Ibid., No. 25, (October, 1947), p. 33.

⁵³ Lee, op. cit., p. 73, and Osgood, op. cit., p. 64.

⁵⁴ Ibid., No. 28, (January, 1948), p. 35.

⁵⁵ Ibid., No. 29, (February, 1948), p. 30.

⁵⁶ U. S. Army Service Forces, op. cit., p. 81.

⁵⁷ South Korean Interim Government, National Economic Board, op. cit., No. 28, (January, 1948), p. 35.

the grain fields.⁵⁸

Swine are raised by only a few farmers and in limited numbers. In 1947 it was estimated 19,225 Kyonggi households raised swine. The province contained only 24,446 head.⁵⁹ Of the seven important hog raising centers of Korea two are located in Kyonggi: Seoul and Inchon. The greatest density of swine is found in northern Korea.⁶⁰

Most farms have a few chickens and a few keep rabbits. Dogs are ubiquitous. Few farm families have no dogs. Although sometimes kept for pets or for hunting, they are primarily used as a source of meat.⁶¹

In terms of economic activity Kyonggi is primarily an agricultural region. The western and southern parts of the province are most intensely utilized. Climate and relief appear to exert the most influence in the location of primary crop areas, the latter factor being the most important. Intensity of land utilization appears to decrease from the west and south to the north and east interior. The province appears to be a zone of transition between northern and southern crops. Limited cropland, small farms, and the dominance of rice are the primary features of the landscape.

Of all agricultural pursuits, animal husbandry is the least developed. Studies of this phase of the economy may offer some solution to the food problem of Kyonggi and of all Korea. Perhaps intensity of agriculture in this province is approaching the saturation point. If

⁵⁸Ibid., No. 25, (October, 1947), p. 33.

⁵⁹Ibid., No. 26, (November, 1947), p. 34.

⁶⁰Lee, op. cit., pp. 77-78.

⁶¹Ibid., and Osgood, op. cit., pp. 77-78.

this is so, then economic salvation for these people must be sought in non-agricultural activities.

CHAPTER V

ECONOMIC ACTIVITIES: NON-AGRICULTURAL

Agriculture, although of great importance, is not the only feature of Kyonggi's economic landscape. Manufacturing, fishing, forestry, and mining function as sources of employment for the people of Kyonggi and as sources of goods for a large market area. Commerce and transportation facilities in Kyonggi are of great importance to the entire peninsula. This chapter shall attempt to describe Kyonggi's industrial position in the total Korean economy and to discuss the spacial pattern of the industries within the province.

Manufacturing

The only available detailed statistics concerning the characteristics of manufacturing are those of gross value of manufactured products (1937) and number of industrial workers (1946). These statistics are not comparable because (a) many changes in industry occurred during that ten year period, (b) the 1946 figures are available only for South Korea, (c) that part of Kyonggi lying above the 38th parallel is not included in the 1946 statistics, (d) gross value is computed for all industry while workers are counted only in plants employing more than five persons. Nevertheless, both criteria are used in this study since gross value figures are the only means by which Kyonggi's manufacturing may be compared with the rest of Korea, and because only labor figures indicate the locational pattern within Kyonggi.

Geographic aspects of the Korean economy have frequently been misrepresented or greatly over-simplified by many students of Korea. Much has been written about the "industrial north" and "agricultural south." While it is true that the southern provinces provide the greatest portion of the peninsula's food they are also important manufacturing centers. In 1937 the seven southern provinces (including Kyonggi but excluding Kangwon) produced 48.4 per cent of Korea's gross value of manufacturing.

In 1937 Kyonggi ranked second among the provinces in regard to gross value of manufacturing. This amounted to 187.9 million yen or 19 per cent of the total Korean production. Kyonggi was surpassed only by South Hamgyong in the north (225.7 million yen), while third place was held by South Kyongsong in the extreme southeast (101.9 million yen).¹ Thus it may be seen that Kyonggi played an important part in the manufacturing industry of Korea.

Table XII indicates the relative position held by the various manufacturing industries in Kyonggi in 1937. Using gross value of production as a criterion, textile manufacturing was Kyonggi's leading industry. Kyonggi enjoyed first place in this activity among the provinces, accounting for 38 per cent of the total Korea production. The southern provinces of South Kyongsang and South Cholla held second and third places respectively. South Kyongsang's production was only about one-half that of Kyonggi's. The capital province also ranked first in the food, printing, machine and tool, lumber, and "other" industries.

¹Andrew J. Grajdanzev, Modern Korea, (New York, 1944), p. 9, Quoting Chosen Nenkan, 1940.

TABLE XI*
GROSS VALUE OF MANUFACTURED PRODUCTS BY INDUSTRIES,
KYONGGI PROVINCE, 1937

Industry	Value (Million Yen)	% of Total Provincial Production	% of Total Korean Production
Textiles	53.8	28.7	38
Food	44.2	23.4	19
Chemicals	18.0	9.0	6
Printing and Bookbinding	12.4	7.4	76
Machine and tool	7.4	3.8	45
Metal	5.3	2.8	10
Lumber and Wood products	3.8	2.1	32
Ceramics and Cement	3.1	1.6	12
Utilities (Gas & Electricity)	2.1	1.0	5
Others	37.8	20.2	33
Total	187.9	100.0	19

*Source: Grajdanzev, p. 301, Quoting Chosen Nenkan 1940.

In 1946 Kyonggi had 55,516 industrial workers or 55.4 per cent of the industrial labor force of South Korea. This figure includes only those working in plants employing more than five workers. Approximately 64.4 per cent of these were employed in Seoul. Inchon and Kaesong, respectively, were the sources of employment for 14.2 and 3.4 per cent of the province's workers. The remainder of the workers (18.0 per cent) were employed throughout the rest of the province. The three principal cities together contained 82.0 per cent of the workers.²

Textiles: The manufacture of textiles has been the most important industry in Kyonggi. In 1937 the gross value of textile production

²South Korean Interim Government, National Economic Board, Industrial Labor Force and Wage Survey of South Korea, November 1946. (Seoul, 1948), pp. 31-35.

amounted to 53.8 million yen. This was 38 per cent of the total textile production of Korea and placed Kyonggi in first place among the provinces. Textiles also ranked first among all of the capital province's manufacturing industries—accounting for 28.7 per cent of the gross value of industrial production.³ In 1948 textile manufacturing was the most important source of industrial employment—16,337 workers being engaged in this activity. This amounted to 29.4 per cent of the total industrial labor force in Kyonggi.

Seoul alone employed 60.8 per cent of the province's textile workers in 1946. Inchon employed 15.9 per cent and Kaesong 6.8 per cent. The remainder of the province contained 16.5 per cent of the textile labor force.⁴ These figures do not take into account the workers in plants employing less than five persons. Since much of the coarser material and silk products is produced in small workshops and by farm housewives it is quite possible that the rural districts were more important than these statistics indicate.

Seoul's large spinning and weaving corporations are concentrated in Yongdongpo, an area south of the Han River. In 1938 Yongdongpo contained 150,448 spindles while the rest of Seoul had none. Of the looms Yongdongpo had 4,861 while only 1,365 were found in Seoul proper. The factories south of the Han were large modern plants, one of which had 43,328 spindles and 1,440 looms.⁵ Dormitories and other living quarters were provided for some of the workers. A majority of the employees were

³Grajdanzev, op. cit., p. 301, from Chosen Nenkan, 1940.

⁴South Korean Interim Government, National Economic Board, Industrial Labor Force and Wage Survey, pp. 31-35.

⁵Grajdanzev, op. cit., p. 303.

female, many in their early teens. Education facilities were available for these younger workers in 1948.

Cotton weaving was the primary activity of Kyonggi's textile workers in 1946, while clothing manufacture ranked a poor second. Other activities included the weaving of various mixtures of rayon, wool, and cotton. Inchon led in the weaving of hemp and in cotton ginning and spinning. The rural districts were the greatest producers of raw silk thread, pure silk materials and rayon and silk mixtures.⁶

Food: In 1937 Kyonggi produced 19 per cent of Korea's gross value of food processing. Gross value amounted to 44.2 million yen, making Kyonggi the most important food processing region in Korea. The food industry accounted for 23.4 per cent of Kyonggi's total gross value of manufactured products.⁷ However, as a source of employment the food industry was not of too great importance. In 1946 this industry employed only 3,599, or 6.5 per cent of Kyonggi's industrial labor force.

The presence of a large urban population, particularly that of Seoul, accounts partly for the concentration of the food industry in Kyonggi. Although Seoul led the other Kyonggi areas (46.3 per cent of the industrial workers) the non-urban area contained a large portion of the industry (33.2 per cent).

According to the 1946 labor statistics Seoul contained the greatest number of bakery and confectionary, brewery, and flour mill workers. Soybean products, Korean wine, and noodles also were most important in Seoul. Inchon ranked second in number employed in flour mills and

⁶South Korean Interim Government, National Economic Board, Industrial Labor Force and Wage Survey, *passim*.

⁷Grajdanzev, op. cit., p. 301, from Chosen Nenkan, 1940.

soy products factories. The rural portion of the province was most important in the grain cleaning industry (78 per cent of the workers).⁸ This is only natural since the cleaning process reduces weight and bulk and improves transportability. Inchon ranked second in grain cleaning, possibly because large modern plants were set up there in connection with the export business. Inchon was the only producer of Japanese wine.

Chemicals: Although Kyonggi's chemical industry is greatly overshadowed by the two Hamgyong provinces in northeastern Korea it held third place in this activity in 1937. In that year Kyonggi produced only 6 per cent of the total gross value of chemical production but this accounted for 9 per cent of Kyonggi's total industrial production. In this respect it was Kyonggi's third most important industry.⁹ However, it played an important part in the labor picture in 1946. At that time it ranked second in respect to the province's number of industrial workers, employing 9,468 workers or 17.0 per cent of Kyonggi's industrial labor force.

Seoul held the largest number of chemical workers (77.0 per cent) while the non-urban areas ranked second (16.0 per cent). Only 5.2 per cent were employed in Inchon while Kaesong employed 1.8 per cent. The production of rubber goods (mostly rubber shoes manufactured from reclaimed rubber) was concentrated in Seoul and the non-urban areas. The non-urban areas contained about one-fourth of the leather processing workers while Seoul employed the remainder.

⁸South Korean Interim Government, National Economic Board, Industrial Labor Force and Wage Survey, pp. 31-35.

⁹Grajdanzev, op. cit., p. 301.

Drug and medicine producers were concentrated in Seoul but Inchon also contained a significant number. Soap and cosmetics were produced in Seoul and Inchon. Matches were produced in Inchon and Suwon. The rural areas contained most of the paper industry's workers.¹⁰

Printing and Bookbinding: Although providing little employment, the printing and bookbinding industry is important to both Kyonggi and the whole of Korea. Seoul has long been the cultural center of Korea. Knowledge has emanated from Seoul through the university and colleges and through the publication of books, newspapers and periodicals.

The importance of the province in this activity is indicated by the fact that it produced 76 per cent of the gross value of the Korean printing and bookbinding industry in 1937. This amounted to 12.4 million yen and made up 7.4 per cent of Kyonggi's gross value of industrial production.¹¹ In respect to labor this industry employed only 5.5 per cent of the total industrial labor force in Kyonggi.

Seoul alone held 94.9 per cent of Kyonggi's employees in this industry. The non-urban areas ranked second (2.3 per cent) while Inchon and Kaesong contained 1.0 and 0.9 per cent respectively.¹² Of the 248 regular publications (newspapers and periodicals) printed in South Korea in 1949, over 76 per cent originated in Kyonggi. Seoul itself printed 70 per cent of South Korea's regular publications. Only 50 per cent of

¹⁰South Korean Interim Government, National Economic Board, Industrial Labor Force and Wage Survey, pp. 31-35.

¹¹Grajdanzev, op. cit., p. 301.

¹²South Korean Interim Government, National Economic Board, Industrial Labor Force and Wage Survey, pp. 31-35.

the daily newspapers were printed in Kyonggi but Seoul was almost the only source of other periodicals.¹³

Machinery and Tools: In 1937 the machine and tool industry was poorly developed in Korea, accounting for only 1.7 per cent of the gross value of industrial production. Kyonggi was Korea's most important area for this industry, producing 45 per cent of the total Korean production. However, this industry was of small importance to Kyonggi. Only 3.8 per cent of the province's industrial gross value was produced by the machine and tool manufacturers.¹⁴ In respect to labor this industry employed 16 per cent of the province's industrial workers in 1946. As a source of employment it was exceeded only by the textile and chemical industries.

Machinery and tools were produced mainly in Seoul and Inchon (69.8 and 17.0 per cent of the provinces workers respectively). The non-urban areas contained 12.5 per cent while Kaesong employed only 0.6 per cent of the workers. The largest number of workers was engaged in producing farm machinery and implements in 1946. Seoul led in this activity but the rural areas were also important. Railroad rolling stock was produced only in Seoul (Yongsan) while train wheels were manufactured only in Inchon. Other manufacturers in Seoul included motor car parts and accessories, pumps and hydraulic presses, electric motors, and steam boilers. Wooden ships were built and repaired in Inchon.¹⁵ In 1938 several plants in Inchon and Seoul were engaged in producing mining equipment.

¹³Bank of Korea, Economic Review, 1949, (Seoul, 1949) Section IV, p. 234.

¹⁴Grajdanzev, op. cit., p. 301.

¹⁵South Korean Interim Government, National Economic Board, Industrial Labor Force and Wage Survey, pp. 31-35.

Metals: Kyonggi held third rank in the metal industry in respect to the other provinces in 1937. Its neighbor to the northwest, Hwanghae, had a gross value of production of almost six times that of Kyonggi. South Hamgyong ranked second but produced only slightly more than Kyonggi. The province's gross value of metal production amounted to 5.3 million yen in 1937 -- 10 per cent of the total Korean production. However, this industry accounted for only 2.8 per cent of Kyonggi's total industrial production.¹⁶ This industry was fourth in importance among the province's manufactures in respect to number of workers. About 8.6 per cent of the industrial workers were engaged in this activity. Seoul employed slightly over one-half of the province's workers in 1946 (52.4 per cent). Inchon also was well represented -- containing about 30.3 per cent. The non-urban areas held 15.1 per cent while Kaesong employed only 2.2 per cent of the metal workers.

Pig iron casting was the leading activity, most of the workers being in Seoul and the rural area. Iron smelting was the second most important industry with Inchon leading. Some production also occurred in the rural areas. Other industries included aluminum casting and hardware production.¹⁷

During the latter part of the Japanese period Inchon was being developed as an iron and steel center. Zaichikov states that Inchon was supplied with iron ore from the mines of Hwanghae province. Some very small deposits were also worked in Kyonggi.¹⁸

¹⁶Grajdanzev, op. cit., p. 301.

¹⁷South Korean Interim Government, National Economic Board, Industrial Labor Force and Wage Survey, pp. 31-35.

¹⁸V. T. Zaichikov, Geography of Korea, (New York, 1952), pp. 71-72.

Lumber and Wood Products: The gross value of production of the lumber and wood products industry amounted to 3.8 million yen in 1937. Using gross value as a criterion this was Kyonggi's seventh most important industry, comprising 2.1 per cent of the province's total gross value of industrial production. Kyonggi was the most important province in regard to this activity, producing 32 per cent of the total Korean gross value.¹⁹ In 1946 only 2,033 workers (3.7 per cent of the industrial labor force) were engaged in lumber and wood manufacturing in the capital province.

The industry was concentrated in Seoul where 64.0 per cent of the workers were employed. Inchon contained 25.0 per cent and the rural areas 10.0 per cent of the workers. Kaesong employed only 1.0 per cent.²⁰

Since the forests of Kyonggi are in very poor condition (except in the extreme east) most of this industry's raw material was floated down the Han from the Taebaek ranges in eastern Korea or brought from northern Korea. During the summer months many log rafts were to be seen on the Han. These logs were usually laid down at Mapo, Seoul's river port, in the southwest corner of that city.

Ceramics and Cement: In 1937 the gross value of this industry amount to 3.1 million yen or 1.6 per cent of Kyonggi's manufactures. The province ranked fourth in this industry, producing 12 per cent of the total Korean production. More important producers were the south provinces of Hamgyong, Pyongan, and Kyongsang.²¹ About 5.5 per cent of Kyonggi's industrial workers were engaged in this activity in 1946.

¹⁹Grajdanzev, op. cit., p. 301.

²⁰South Korean Interim Government, National Economic Board, Industrial Labor Force and Wage Survey, pp. 31-35.

²¹Grajdanzev, op. cit., p. 301.

This was the only industry which was concentrated in the rural areas of Kyonggi. Here were found 67.4 per cent of the workers. Seoul and Inchon had 24.1 and 7.8 per cent of the workers respectively. In the rural areas plants produced bricks, pottery, lime, stone products and roof tiles. The production of glass and glass products was concentrated in Seoul with some production in Inchon. Bricks, cement products, lime, and asbestos products were also produced in Seoul.²²

At one time the Korean ceramics were of great renown. Kaesong was an important producer of Celadon, a sea-green porcelain. A result of the invasion of Hideyoshi (1592-1596) was the removal of the Korean artisans to Japan. Since that time Korea has produced only utilitarian pottery.

Other Manufacturing: Utilities and miscellaneous products together accounted for 21.2 per cent of Kyonggi's gross value of production in 1937.²³ However, in 1946 only 7.8 per cent of the industrial labor force was engaged in these activities. Seoul had the largest number of utility workers. Leather shoes were produced mainly in Seoul but Kaesong employed a few workers in this industry.

Transportation and Communication

When compared with Japan the transportation and communication systems of Korea are indeed meager. However, when compared to Eastern Asia as a whole the peninsula is in a rather favorable position. The location of Kyonggi has allowed it to become the transportation and communication center of Korea.

²²South Korean Interim Government, National Economic Board, Industrial Labor Force and Wage Survey, pp. 31-35.

²³Grajdanzev, op. cit., p. 301.

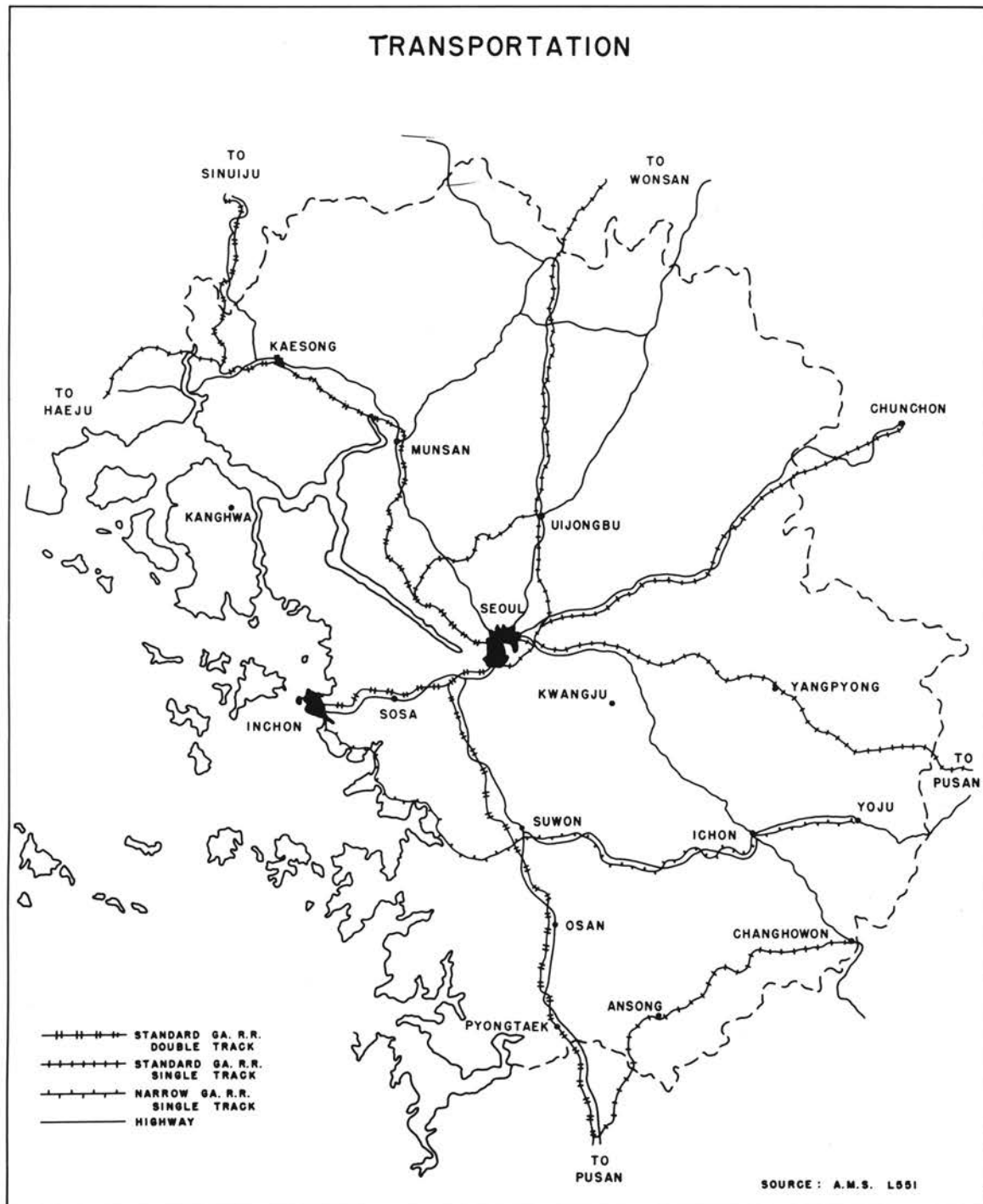


FIGURE 8

Transportation: The surface configuration of the Korean peninsula has allowed Kyonggi to become the focus of transportation routes. The slight relief of the submerged west coast has made possible the easy movement of persons and goods. The peninsula's main artery of transportation has been situated along the west coast throughout the historical period.²⁴ The Han River and its north and south tributaries has provided access from the well-traveled west into the isolated and rugged eastern part of the peninsula. The valley depression from Seoul to Wonsan has likewise allowed access from the south to the northeast portions of Korea. Thus Kyonggi is situated at the point where the coastal lowland contacts interior valleys and rivers.

However, it is man, and not mountains, that determines where transportation facilities will be developed. Not all countries have been able to establish such good adjustments between man and nature as has Korea. Climatic differences between the north and south have favored crop diversity while the north-south trending coastal lowlands and Seoul-Wonsan Valley have allowed exchange between these diverse regions. Diverse mineral resources between the north and south have also encouraged latitudinal movement of commodities. Diversity between the west coast and the eastern interior has encouraged exchange along the Han River system.

A good transportation route may be as much a liability as an asset. Good trade routes also make good military routes. The people of Kyonggi have discovered this fact time and time again. Seoul has been sacked by the Japanese (1592) and the Manchus (1636). More recently Seoul has been all but obliterated by the present hostilities.

²⁴Cornelius Osgood, The Koreans and Their Culture, (New York, 1951), p. 163.

A map of primary transportation facilities (Figure 8) indicates the nuclear character of Seoul. The first railroad in Korea was constructed between Seoul and Inchon in 1896. Although completed by the Japanese, this line was started by a United States firm. Because of United States leadership the standard gauge (4 feet 8 1/2 inches) was introduced to the peninsula. It has been utilized for all of the main railroads.²⁵ Before construction of this line Seoul was connected with the port only by an unsurfaced road.

Strategic necessity, incurred by the Russo-Japanese war (1904-5), caused the Japanese to construct the trunk railroad between Pusan in the southeast and Sinuiju at the mouth of the Yalu River. This line crosses the Han River south of Seoul and passes through that city. Cities and towns along this line are Kaesong, Munsan, Suwon, Osan, and Pyongtaek. This line, as well as that between Seoul and Inchon, is double tracked.

A second connection between, Seoul and Manchuria was completed in 1928 and extends through the Seoul-Wonsan Valley. This route passes through Uijongbu, and Yonchon in Kyonggi, and through Chorwon to Wonsan.

Two railroads from Seoul pass through the rugged eastern part of the province. The northernmost of these extends only as far as Chunchon, an agricultural town in Kangwon province. The southern line follows the south branch of the Han and connects Seoul with Pusan. This line was constructed during the Second World War to alleviate congestion on the main trunk line. It also served to make the interior of southern Korea more accessible.²⁶

²⁵Herman Lautensach, Korea; Land, Volk, Schicksal, (Stuttgart, 1950), p. 79.

²⁶Ibid., p. 80.

The fertile valleys in southeastern Kyonggi are given access to the trunk line and to Inchon by a single-tracked line of narrow gauge.

Roads have long been neglected in favor of railroads. The main roads parallel the railroads as indicated by Figure 8. Even these are hard-surfaced only in places. After 1945 the United States military forces helped to improve conditions, but by 1948 there was still much to be desired. During this period a fine asphalt surface was applied to the Seoul-Inchon highway. The other routes were mostly gravel-surfaced.

Secondary roads form a dense network in the western half of the province but are poorly developed in the east, a consequence of population distribution, productivity of the soil, and ease of construction in the west.

The roads of Korea in 1948, were not busy thoroughfares. An occasional truck, usually of Japanese ancestry, could be seen; however, the most common type of vehicle was the four-wheeled wagon. These were usually drawn by cattle or by small Korean horses. Within the cities two-wheeled carts were common. All too often these were pulled by men.

After 1945 the thirty-eighth parallel became a political and economic boundary. Exchange of goods between the north and south became a clandestine activity. The rail net of Korea, designed for north-south movements of goods could hardly be used efficiently by the two post-war states. If Korea remains divided much adjustment of routes and methods must take place before either state can claim an ideal transportation system.

Communications: Rapid means of communication have long been utilized in Korea. Until 1894 five rows of Beacon fires converged on Seoul from the extremities of the peninsula. By these signals messages

of danger could be transmitted within four hours from the most distant border areas to the capital. This system was borrowed from the Chinese in the third century A. D. but reached its highest efficiency during the Yi dynasty. The central station was located on South Mountain (Namsan), then located on the southern edge of Seoul. Each evening the outposts made their report to the capital. If no disturbances were reported an ancient curfew bell was sounded and the city gatekeepers locked up for the night. This system remained Korea's fastest means of communication until the Seoul-Peking telegraph line was opened in 1885; the beacons continued in operation until 1894.²⁷

The communications facilities have been government operated during both the Japanese and Post-World War II regimes. Of these facilities the postal service has been of primary importance to the greater part of the populace, both in Kyonggi and in all other parts of Korea.

In 1947 there existed only four first class post offices (those serving populations of 200,000 or more) in all South Korea. Two of these were situated in Kyonggi, one each in Seoul and Inchon. Only Seoul and Pusan maintained railway post offices. All of the counties and most of the townships had post offices. Mail was transported by rail, trucks and in remote areas, on foot. Steamship delivery served the major islands.

Telephone service in 1948 was limited in both quality and quantity. In all South Korea there were only 37,183 telephones in use. Over 47 per cent of South Korea's telephones were located within Kyonggi, thus placing the province in a paramount position in regard to this means of communication. Over three-fourths of Kyonggi's phones were situated in

²⁷Osgood, op. cit., p. 236.

Seoul. In Seoul there was an effective demand for 2,000 additional telephones in 1948, but shortages of equipment hampered expansion of the service. The Seoul exchanges were the most modern of all South Korea; indeed, the city had the only automatic dial exchanges.

Telegraph service was maintained between Seoul and all southern provincial capitals in 1948. Some radio communication existed between Seoul and the rest of South Korea. However, the facilities were utilized mostly by the police and other governmental groups.

Broadcasting has always been a state owned and operated institution. The Seoul station (HLKA) was one of eleven operating in 1948, in South Korea. The station operated on both medium and short wave lengths.²⁸ Reception of this station has been reported by listeners on the west coast of the United States.

Other Economic Activities

Forestry: Although government surveys have classified much of Kyonggi as forest, most of the wooded areas are of little economic importance. In the rural districts, especially in the east and northeast some logs are produced. In the latter half of 1947, Kyonggi produced 36,978 cubic meters of logs. This amounted to almost 16 per cent of the total South Korean production.

Fuelwood is of great value to both the rural and urban population. In 1947 Kyonggi accounted for 29 per cent of the total production of South Korea. However, this was not sufficient to satisfy demand; imports from other provinces were larger than the amount produced locally.

²⁸South Korean Interim Government, National Economic Board, South Korean Interim Government Activities, Seoul, No. 28 (January 1948) p. 129.

Charcoal production is found also in the isolated interior regions. During the last half of 1947, the province produced 6,416 metric tons, over 31 per cent of the South Korean production. This supplied only one-half of Kyonggi's requirements. Most of the charcoal imports came from Kangwon province, east of Kyonggi.²⁹

A deficiency of coal resources in Kyonggi and post-war isolation from North Korean supplies has greatly increased consumption of brush, leaves, twigs, and fuelwood. Until other fuels are available the reforestation plans of the South Korean government will come to nought.

Fishing: In 1947 only a very small number of workers were engaged in fishing in South Korea. Only 0.6 per cent of the population over 15 years of age were employed in this industry. About 15 per cent (10,156) of this group were living in Kyonggi.³⁰ From the Yellow Sea waters bordering Kyonggi only one per cent (by quantity) of the total Korean catch was taken. By value this amounted to 1.3 per cent of the total catch.

TABLE XII*

SEA PRODUCTS, KYONGGI AND SOUTH KOREA, 1948
(Metric Tons)

	Kyonggi	South Korea
Fish	9,564	225,917
Shellfish	2,515	6,423
Seaweed	108	7,812
Other	11,832	46,440
Total	24,019	286,592

*Source: Bank of Korea, Economic Review, 1949, Section IV, p. 40.

²⁹South Korean Interim Government, National Economic Board, South Korean Interim Government Activities, Seoul, No. 32 (May 1948), pp. 25-26.

³⁰Bank of Korea, op. cit., pp. 22-23.

Fish, shellfish, and seaweed constituted the main marine products in 1948.³¹ Among the varieties of fish were included mackerel, grayling, sharks, sea bream, and sword-fish. Crabs and eels were also caught.³² Nearly one-half of Korea's salted fish were processed in Kyonggi.³³

Mining: Mining is relatively unimportant to Kyonggi either as a source of employment or as a source of minerals. Some low grade coal is mined in the counties of Yonchon, in the north, and Kumpo, at the mouth of the Han.³⁴ Fluorite mines give employment to a few workers in Kaepung and Kapyong counties.³⁵

Manufacturing is the most important non-agricultural activity in Kyonggi. Both large modern plants and small crude workshops characterize manufacturing. Most of the industries are of the "market-oriented" type. The province ranks low as a producer of industrial raw materials. The textile and food industries are best developed.

The transportation and communications systems resulted from both military and economic forces. Disorganization resulted when Korea became divided.

Forestry is important to the province but much reforestation is necessary before the province can become self-sustaining in forest products. Fishing supports few workers but furnishes an important food supply to the inhabitants. Mining is of only local importance and probably will remain so.

³¹Ibid., p. 40.

³²Lautensach, Korea; eine Landeskunde, p. 426.

³³Bank of Korea, op. cit., p. 40.

³⁴South Korean Interim Government, National Economic Board, op. cit., No. 26 (November 1947), p. 45.

³⁵David Gallagher, and Others, Mineral Resources of Southern Korea, (Tokyo, 1947) pp. 23-25.

CHAPTER VI

SUMMARY AND CONCLUSION

Summary: Kyonggi province, an area slightly smaller than Connecticut, is located on the indented west coast of central Korea. Although small in size the area exhibits much physical diversity. The coast and southern portions of the province have extensive depositional and erosional plains. The north and east, on the other hand, are areas of great relief; the level areas are here restricted to narrow fluvial plains.

The province appears to be a climatic transition zone between the colder northern and warmer southern parts of Korea. Summer temperatures are similar throughout the province but the north and east experience lower winter temperatures than the coast and the south. Precipitation is slightly higher in the interior than along the coast. Pine forests once covered much of the area but exploitation for fuel and damage by insects have depleted these. The only merchantable stands now occur only in the mountainous regions. Soils are generally poor but fertilizer and much human labor have made them highly productive. The minerals of Kyonggi are low in quality and quantity. Some coal is mined to supply local markets. Relief features and climate indicate that hydroelectricity might be produced within the province. However, only seasonal production would result since the streams freeze during the winter.

Kyonggi is densely populated by a homogeneous group of people. The presence of Seoul, the political, social, cultural, and economic center

of Korea, accounts for much of the population pressure. Seoul has been able to assume this leading role because of its central location in respect to the effective national territory, its location near the juncture of good transportation routes, and the relatively good agricultural land surrounding the city.

Agriculture has been, and probably will continue to be, the leading occupation in the province. The most productive lands occur in the west and south--and here are to be found most of the population. Rice is the principal crop and is grown primarily in wet fields. Kyonggi is a greater rice producer than the northern provinces but the southern provinces are even more prolific. Barley constitutes an important winter crop in the south and west. Other important crops include soybeans, millet, wheat, beans, cotton, and potatoes. The livestock industry has been greatly neglected. Many hilly and mountainous areas could support a grazing industry but capital and education will be necessary before the inhabitants can utilize this land.

Most of Kyonggi's manufacturing is not based upon local supplies of raw materials. The industries were attracted there by the great size of the market, the availability of cheap labor, and the location of the province between the varied resources of northern and southern Korea. The textile industry has been best developed, while food processing assumes second rank. Most of the other industries produced consumer goods also. These include the manufacture of chemicals, machinery, metals, wood products, and the binding of books. Manufacturing could function profitably only when raw materials could be acquired from both the northern and southern provinces. The division of Korea in 1945 completely disrupted this trade and manufacturing became almost non-existent.

Kyonggi is located at the juncture of good routes of transportation. The transportation and communication systems were developed during the colonial period and served well the purposes for which they were designed. Here again the division of the peninsula has destroyed much of the usefulness of the systems.

Conclusion: The future of Kyonggi province is inextricably linked with the future of Korea. Any one of three possibilities might result from the present hostilities on the peninsula: Korea might be united under a democratic government or under a dictatorial regime, or it might remain divided by a military frontier located in or near the capital province.

If Korea is re-united, no matter by whom, Kyonggi will again assume a position of leadership due to its excellent location in respect to population, natural resources, and transportation routes.

If the peninsula remains divided Kyonggi will lose its central location and will become only an agricultural province located on the periphery of the state. The former residents of Seoul will hesitate to return to that war-torn city if it is near a military frontier. Financiers will hesitate to invest in industries located near a war zone.

Kyonggi's primary asset has been its location. Changing political boundaries have temporarily destroyed this asset. Kyonggi can again become the political, cultural, and economic center only if the Korean peninsula is united.

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