

# Socio-ecological and Capital Evaluation on the Development Plan of Development-promoted Districts in Kyungpook Province, South Korea

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## 개발촉진지구의 발전 계획에 대한 사회·환경·자본 관점에서의 평가

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**Abstract :** The purpose of this study is to critically evaluate the DPD development plan of Kyungpook province, which was established in 1996 and slightly revised in 1997 in terms of a theoretical framework, fair distribution and ecological sustainability, and the feasibility of capital supply of the proposed plan. The early part of the proposed plan introduces various theories and approaches developed in regional (or local) development planning as a general after the 1970s. However, the theories and approaches mentioned are not used as a guideline to establish the DPD development plan of Kyungpook province as a historically developed particular place. Most of the plans were tourism-oriented and did not seriously take the local characteristics into account. All the DPDs of Kyungpook province are located in the upper parts of the Nakdong River basin. So those regions are ecologically vulnerable. But a lot of problems remain concerning the environmental impacts of the proposed development plan. In terms of fair distribution and ecological sustainability, it seems that the DPD development plan was routinely made by a handful of professors and administrators, based on a standard format of regional (or local) development as a general. Finally, capital is the key factor for successfully implementing the DPD development plan. It came from the national and local government and private investors. The government have generally financed the construction of infrastructures, not profit-oriented projects such as tourism and resort businesses. However, the feasibility of private capital was not carefully examined in the plan.

**Key words :** the DPD development plan, Fair distribution, Ecological sustainability, Feasibility of capital supply

**요약 :** 본 연구의 목적은 1970년 이후 급속하게 진행된 한국의 산업화 과정에서 소외된 농촌과 낙후된 지역을 발전시키기 위해 제정된 개발촉진법에 의거 수립된 개발촉진지구 발전 계획안을 비평적으로 평가하는 것이다. 사례연구를 위해 경상북도 북부 지역에 지정된 개발촉진지구를 대상으로 수립된 발전계획안이 선정되었으며, 평가는 경상북도 북부의 특수성을 고려한 지역발전 이론적(혹은 개념적) 틀의 수립여부, 발전 계획안의 실행에 따르는 성과의 공정한 분배와 지역 생태계의 보존 그리고 자본 공급의 가능성 관점에서 이루어졌다. 발전 계획안은 1970년대 이후 서구의 학자들에 의해 개발된 다양한 지역발전 이론 혹은 접근방법들을 나열하고 있을 뿐 경상북도 북부의 농촌 혹은 낙후 지역을 체계적·종합적으로 개발하기 위한 이론적 혹은 개념적 틀을 포함하고 있지 않다. 지역발전 전략은 관광개발에 초점이 맞추어져 있으며, 지역사회와 주민의 특성 그리고 발전 성과의 분배와 지역 생태계 보존에 대해서 깊이 논의되어 있지 않다. 마지막으로 지역발전 전략의 실행을 위한 자본은 중앙과 지방정부 그리고 민간기업에서 조달하는 것으로 계획되어 있지만 민간 자본의 조달 가능성에 대한 구체적인 논의가 거의 포함되어 있지 않다. 또한 지역 발전 사업에 대자본의 참여에 따르는 수입의 역외 유출에 대한 논의도 필요하다.

**주요어 :** 개발촉진지구 발전계획, 공정한 분배, 지역 생태계의 보존, 정부자본, 민간자본

## 1. Introduction

Regional economic disparities have increased during the period of rapid economic development of South Korea, particularly after the 1980s when her economy has become more liberalized

and market-oriented as compared with in the 1960s and 1970s. The South Korean government has tried to solve the socio-economic problems and uneven regional development which were occurred in the processes of a rapid economic growth.

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In 1994, the national government promulgated a law in order to develop less industrialized rural regions and revitalize economically depressed local centers. Based on this law, three different types of development-promoted district (called DPD hereafter) have been officially designated, and the development plan of the DPD has been proposed by the cooperation of local government and public institutions concerned with regional development planning.

This study is to critically evaluate the DPD development plans of Kyungpook province, South Korea, drawn up in 1996 and slightly revised in 1997. Particularly the evaluated plans of the DPDs are the development plans of the DPD in the area of Sobak Mt. and Yongju and Yongyang. The information of the DPD development plans is also collected from an interview with the administrators in these areas. To achieve its aim, the study will discuss the three subjects related to the proposed plan of the DPD, that is, the evaluation of a theoretical framework, fair distribution and ecological sustainability, and the feasibility of capital supply.

## **2. Definition and classification of the development-promoted district**

In terms of socio-economic development, there are many regions whose level of development is very low as compared with other regions in South Korea. Those regions are assigned as the DPD by the law on equitable development among regions (Chiyok Kyunhyong Kaebalbol) enacted in 1994. If a region is assigned as the DPD, it receives financial aids from the national government and capital from private companies as a development fund. From 1996 to 1999, 28 DPDs have been assigned in the seven provinces of South Korea, with the exception of Kyonggi and Cheju provinces. Most of the proposed

projects were tourism-oriented development ones (Yonhap news, March 17, 2000). There are three kinds of the DPD. Type 1 comprises underdeveloped regions (Nakhu Chiyokhyong) and type 2 equitable development regions (Kyunhyong Kaebalhyong). Type 3 promotes the integration of cities and rural villages (Tonong Tonghaphyong). These three types of the DPDs can be characterized as follows:

1. Underdeveloped regions are defined according to a composite index comprising population growth, financial self-reliance, land price, ratio of employees in manufacturing, and ratio of roads to area. Cities and towns whose index is 20 percent or more below national average, are classed as the type 1, underdeveloped regions.
2. The type 2, equitable development regions, is part of a larger development area whose finance is heavily dependent on private capital.
3. The type 3, integration of cities and rural villages, is a region where agricultural or fishing villages develop through linkages with nearby cities.

In Kyungpook province, eleven cities have been designated as the DPDs (Figure 1). They are located in the northern parts of the province, far from Daegu which is the third largest city of South Korea. They are grouped together in the five DPDs which cover about 10 percent of the province (Table 1). The Sobak Mt. and Mountain Resort DPDs comprise Ponghwa-gun, Mungyong-shi, Yongyang-gun and will be largely developed as natural landscape-oriented resorts or tourist centers. The three cities of Andong-shi, Yongju-shi, and Sangju-shi whose economy has rapidly declined after the early 1980s are to be developed as the city and agricultural village integration type. The Ulchin-gun and Yongdok-gun of the East Coast DPD will be mainly developed through investments of the private

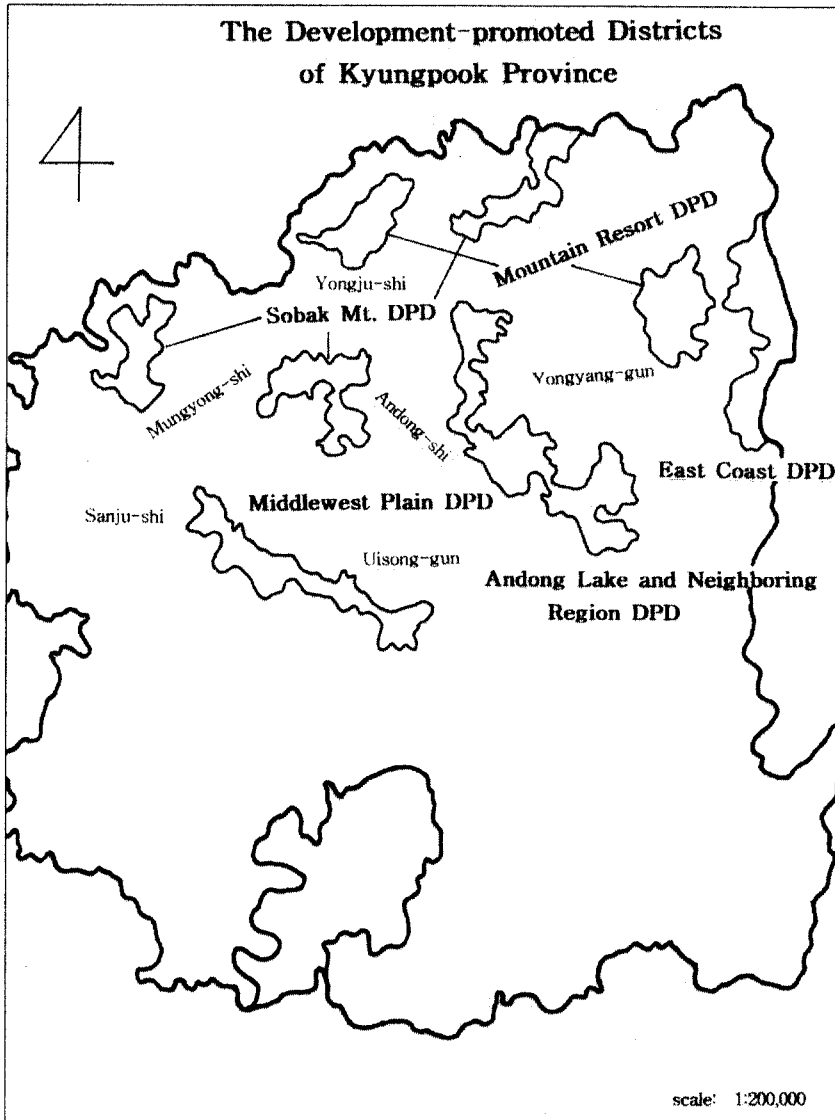


Figure 1. Development-promoted districts(DPDs) in Kyungpook Province

sectors.

### 3. Theoretical framework of the DPD development plan

The DPD Plan suggested various approaches and theories to implement the specific development projects in underdeveloped and economically depressed areas. Regional development may thus be achieved by combining exogenous

factors with endogenous ones, by linking of bottom-up approaches with top-down ones, or by joining hard (infrastructure) and soft (socio-economic environments) elements together with green networking. It looks as if the proposed plan just enumerated the variety of theories or approaches suggested in regional development planning after the 1970s (Amin, 1999; Amin et al., 1994; Friedmann and Weaver, 1979; Martin and Sunley, 1998; Morgan, 1997; Phelps, 1992;

Table 1. The features of the development-promoted districts(DPDs) in Kyungpook Province

Name	Region	Size(km <sup>2</sup> )	Ratio to the Kyungpook province (20,000 km <sup>2</sup> )
Sobak Mt. DPD	Ponghwa-gun Yech'on-gun Mungyong-shi	380.4	2.0
Andong Lake and Neighboring Region DPD	Ch'ongsong-gun Andong-shi	452.6	2.4
Mountain Resort DPD	Yongyang-gun Yongju-shi	329.4	1.7
Middlewest Plain DPD	Uisong-gun Sangju-shi	406.2	2.1
East Coast DPD	Ulchin-gun Yongdok-gun	253.3	1.3
Total		1,821.9	9.6

Romer, 1994; Young, 1993). For example, one of the critical factors in regional (or local) development planning after the 1980s is ecology because the implementation of various development projects in the 1960s and 1970s can be closely related to various environmental problems. It is normal for the DPD development plan to include a "green networking" approach considering the environmental factors such as water, soil, and ecological system as a whole. We strongly agree that the DPD development plan should be comprehensive and cooperative through the use of the various development theories or approaches mentioned above. We assert, however, that the current plan does not provide its own theoretical or conceptual framework which would be appropriate or useful to the development plan of the DPDs in Kyungpook province. Furthermore, it seems that the plan does not even use one of the various theories or approaches mentioned above. The proposed plan looks like a collection of statistics or a description of many factors such as facilities, land use, infrastructures, physical environments, and so on. It did not seriously consider why and how exogenous and endogenous

factors (such as national and local government, external capital, and local society or residents), bottom-up and top-down approach, and green networking are to be linked up in the DPD development plan.

According to the combined bottom-up and top-down approach, national and local government and society should be cooperative to efficiently implement the DPD development plan. In line with the definition and classification of the DPD, national and local government, local society, and private capital will play an active role to promote underdeveloped and economically depressed areas. But the current plan contains no reference to methods or strategies for the cooperation of different agents such as national and local government, local society, and private sector.

In sum, the early part of the proposed DPD development plan of Kyungpook province introduces various theories and approaches on regional development in a general and very brief manner. However, it seems to us that the theories and approaches mentioned are not used as a guideline to establish the plan. We assert that appropriate theories or approaches are

necessary as a guide to efficiently establish and implement any kinds of national or regional development including the DPD development plan.

#### **4. Fair distribution and ecological sustainability of the DPD development plan**

It is now accepted as a rule that the main objectives of development plan as a general are economic growth, equity or fair distribution, and ecological sustainability. We contend that the current development plan focuses primarily on the economic growth of the regions assigned as the DPDs although it considers its impacts on local society and physical environments. We will briefly discuss the proposed plan in terms of fair distribution and ecological sustainability (Graham-Moore and Ross, 1990; Harvey, 1996; Korten, 1991; Rees, 1989; Welbourne, 1998, 1995; World Commission on Environment and Development, 1987). Fair distribution is related to the question, for whom the DPD development plan is established and implemented. The plan does not provide a convincing answer to this question, but we think that this answer is very simple. The plan should be drawn up for the local society and people, not for outside private investors. To help a local society and people, the DPD development plan should be familiar with the characteristics, needs, organizations, and tradition of the local society concerned. Also the plan has to include local people in its making. In the proposed plan, there are no traces of such an effort. It seems to us that the plan was routinely made by a handful of professors and administrators, based on a standard format of regional development. Most of the DPD development plans were tourism-oriented and did not seriously take the local characteristics into account. The outcomes of the plan are very

broad and general, and they simply contain a few short sentences or tables on the growth of regional production, tax revenue, and job opportunities.

There is no doubt that all kinds of development plans should seriously consider environmental problems and ecological sustainability both for people and the ecosystem itself. The proposed development plan describes the impacts on the physical environments on 154 pages, that is, 25 percent of its total 623 pages. This sheer volume suggests to us that the plan recognizes the importance of environmental impacts. All the DPDs of Kyungpook province are situated in the upper parts of the Nakdong River Basin which supplies industrial and drinking water for Pusan and Daegu, the second and third largest cities of South Korea, respectively. Those regions are ecologically vulnerable. However, a lot of problems remain concerning the environmental impacts of the plan. First, the plan lacks a theoretical or conceptual framework to critically evaluate the various environmental impacts or ecological sustainability related to the implementation of the plan. It looks as if the plan considered environmental impacts as a formal or official factor in order to facilitate official acceptance. Environmental impacts and ecological sustainability should be seriously considered for both human society and the ecosystem, and they are tightly related to the content and size of the plan and local and non-local factors. Second, the proposed plan focuses on a few environmental issues such as water pollution, the waste problem, and the classification of green zones. It does not include basic information on the local ecosystems and the ecological and social impacts due to the construction of roads and mass tourism. The plan assumes that water pollution, waste problems, and even ecological disturbance can be solved if they are rationally managed or

controlled. We need more studies to examine whether or not various environmental and ecological problems can be rationally managed or controlled from different geographical scales like local/regional, national, and global one. Third, the information used to discuss the environmental impacts of the plan is collected from a few official statistics.

We therefore need a better philosophical and theoretical framework to deal with environmental and ecological problems in various development plans. It is imperative to obtain real and good information, not just collect official statistics about ecosystem and the relations between human society and nature in terms of various geographical and historical scales. Without knowledge or information about environmental and ecological problems, we must be very humble to make a human-centered development plan or project.

### 5. Feasibility of capital supply of the DPD development plan

Capital is the key factor for successfully

implementing the DPD development plan. Funding the specific projects in the plan depends on the financial assistance by the national and local governments and private investors (Aschauer, 2000; Tiebout, 1956; Vince and Broussine, 2000; Jones, 1997). Public money is required for the construction of roads and river maintenance. Private capital is needed for specific business projects such as the construction of tourists spas and the construction of agricultural facilities. South Korea's 1997 economic crisis rendered the supply of government and private capital to implement the business projects very difficult. According to an interview with the administrators in Mungyong city, many proposed businesses were not realized because of a shortage of private capital. However, a few local roads could be constructed by the financial aid of the national government. Apart from some forms of tax incentives, local government does not have special support for the private sector to invest money in the proposed projects.

This situation is well illustrated by an example drawn from the DPD and Closed Mining Development Districts in Mungyong city

Table 2. The planned and invested capital in the projects of development-promoted and closed mining development district in Mungyong city, Kyungpook Province

Project Name	Project Number	Planned Capital (million won)				Invested Capital (million won)			
		Total	Natural	Local	Private	Total	Natural	Local	Private
Region-oriented Business	1	8,110 (100%)	1,622 (20%)	1,622 (20%)	4,866 (60%)	3,364 (100%)	839 (25%)	839 (25%)	1,686 (50%)
Tourism & Resort Business	11	554,124 (100%)	9,487 (2%)	28,625 (5%)	516,011 (93%)	28,322 (100%)	10,227 (36%)	10,400 (37%)	7,695 (27%)
Infrastructure Construction	13	194,997 (100%)	98,456 (50%)	93,541 (48%)	3,000 (2%)	57,910 (100%)	46,052 (80%)	11,858 (20%)	-
Urban Physical Environment	7	129,425 (100%)	74,870 (58%)	54,554 (42%)	--	42,325 (100%)	27,173 (100%)	15,151 (36%)	-
Total	32	856,286 (100%)	184,435 (22%)	147,973 (17%)	523,877 (61%)	131,921 (100%)	84,291 (64%)	38,248 (29%)	9,381 (7%)

(Table 2). As already mentioned, national and local government have financed the construction of infrastructure, mainly roads and the improvement of the urban physical environment, while private capital was invested for profit-oriented projects such as tourism and resort businesses, and locally specialized commercial farming. It was planned to invest a total of 856,286 million Won, of which 332,408 million Won (39%) were public money and 523,877 million Won (66%) private capital. These figures indicate that the demand for private capital exceeds that for public investment. In terms of the capital invested in the various projects to date, however, the share of the private contribution is considerably lower than that of the public involvement; 9,381 million Won (7%) against 122,539 million Won (93%). Quite obviously, it is very difficult to motivate private investors for the projects.

If private companies are not convinced to obtain sufficient return on invested capital, they will hardly get involved in any of the proposed business projects. Sometimes, however, large private companies invest money in the construction of resorts or golf courses. In this case, the local society and ecosystem will be negatively affected. Most of the profits from resort and golf course management will be transferred outside the region instead of being reinvested in local businesses. Usually, local residents will be affected by low-wage jobs only such as cleaning personnel in hotels and sales persons.

Summing up, we contend that public and private capital is necessary for the implementation of the business projects in the DPD development plans. However, the feasibility of the capital supply, especially of private capital, is not carefully examined in the plan. Also, financial investment planning is not separated from the impacts on the local society/people and

ecological system. Contents and sizes of the proposed business projects have to be adapted to local conditions.

## 6. Conclusion

The South Korean government promulgated a law to develop less industrialized rural regions and revitalize economically depressed local centers occurred in the processes of her rapid economic development after the 1970s. Based on this law, the DPDs have been officially designated by the national government, and the DPD development plan has been proposed. This study is to critically the DPD development plans of Kyungpook province in terms of a theoretical framework, fair distribution and ecological sustainability, and the feasibility of capital supply.

In terms of a theoretical framework, the proposed plan does not make its own theoretical or conceptual framework which would be useful to the DPD development plans of Kyungpook province. It seems to us that the plan just enumerated the variety of theories or approaches developed in regional (or local) development planning as a general after the 1970s. Also, the plan does not suggest any methods or strategies for the cooperation of different agents such as national and local government, local society/people, and private business. We assert that appropriate theories or conceptual frameworks are necessary as a guide to efficiently establish and implement any kinds of national or regional development including the DPD development plans.

To help a local society and people, the DPD development plan should be familiar with the characteristics, needs, organizations, and tradition of the local society concerned. Most of the DPD development plans evaluated were tourism-oriented and did not seriously take the local

characteristics into account. Fair distribution is related to the question, for whom the DPD development plan is established and implemented. The proposed plans do not provide any specific answers to this question. The plan also describes the impacts on the physical environments on 154 pages which are 25 percent of its total 623 pages. This suggests to us that the plan recognizes the importance of the environment impacts occurred by the implementation of the DPD development plan. However, a lot of problems remain concerning the environmental impacts of the plan. In terms of fair distribution and ecological sustainability, it seems that the plan was routinely made by a handful of professors and administrators, based on a standard format of regional (or local) development. We need a better philosophical and theoretical framework to deal with social and ecological problems occurred in the establishment and implementation of various development plans.

Capital is the key factor for successfully implementing the DPD development plan. Funding the specific projects in the plan depends on the capital invested by the national and local governments and private investors. Apart from some forms of tax incentives, the government does not have special support for the private sector to invest money in the projects of the proposed plan. In terms of the invested capital, the share of the private sector is very lower than that of the public involvement. It is very difficult to motivate private sectors for the projects of the plan. Generally the feasibility of the capital supply, especially of private one, is not carefully examined in the plan.

It is imperative to promote underdeveloped and economically depressed areas which were left behind during the rapid growth of the South Korean economy during the past four decades. We agree that an area far away from industrialized urban centers should be rapidly

developed through the assignment of the DPD development plans. However, such plans should be well designed and implemented for local needs, not for the private sector seeking profit. All kinds of development plans have to be guided by the theories or conceptual frameworks appropriate to local society/people and ecosystems.

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