RURAL-URBAN INTEGRATION: APPROACHES FOR A
DECENTRALIZED AND INTEGRATED STRATEGY FOR
RURAL DEVELOPMENT, WITH PARTICULAR REFERENCE
TO PAKISTAN

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SUBMITTED IN PARTIAL FULFILLMENT OF
THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF CITY PLANNING
at the
MASSACHUSETTS INSTITUTE OF TECHNOLOGY
May 1976

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Submitted to the Department of Urban Studies and Planning on May 21, 1976, in partial fulfillment of the requirements for the degree of Master of City Planning

ABSTRACT

The purpose of this thesis is to identify elements for the design of a rural development strategy for ameliorating the economic and social condition of over 26 million people, or about 40 percent of Pakistan's rural population, who are living at a subsistence or below subsistence level. The importance of rural development in Pakistan, as also in other developing countries, stems from the recognition that the economic orientation of development policies has not achieved a major breakthrough in development. On the contrary, these policies have accentuated the schisms between the 'haves' and the 'have nots' in society. Many developing countries, including Pakistan, are investigating the principles of rural development to bridge the gap between the current development goals of economic growth and social justice.

Our analysis shows that the problem of rural poverty in Pakistan is embedded in the 'dualistic' socio-economic structure which was inherited from the colonial past and further strengthened by the economic orientation of development policies pursued in the post-independence period. This structure has prevented the spread effects of development to reach the rural masses. The efficacy of rural development programs implemented in the past has been limited for three main reasons. First, these programs adopted a piecemeal approach in tackling the problems of rural poverty which are multi-dimensional in character. Second, the traditional and centralized system of administration does not have the capacity to implement programs at a grass roots level. Third, a defective system of urban development, in Pakistan, having its origin in colonial military garrison towns, has restricted peasant farmers from being assimilated into the market economy.

In our analysis of the 'Comilla' and 'Daudzai' projects, we show that they have evolved a viable pattern of integrated rural development based on a decentralized system of development administration; and 'popular participation' by developing peasant institutions. However, these models overlook the critical importance of strengthening the spatial integration of village communities into an urban market system. The importance of
rural–urban integration, in the case of Pakistan, stems from the need to develop a supportive system of urban services and markets for rural and agricultural development, designed to integrate scattered rural communities into a market economy.

The strategies for rural development which we suggest are designed to provide an 'access' to peasant farmers to social and economic inputs and services. 'Access' also denotes the ability of the peasant farmer to benefit from the services which are provided. The basic elements of this strategy are decentralization and integration. Decentralization means decentralization of the administrative decision-making; and a decentralization of urban markets and services. Integration means an integrated approach for rural development, through the adoption of a mix of programs and also a spatial integration of the rural communities with the urban market system.

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1.1 Why Rural Development?

Rural development has recently become a subject of major interest in the search for a general theory of economic growth and human development. Its principles are being investigated with a renewed interest with the objective of devising strategies to expedite the process of development in third world countries (1). This importance of rural development is due to the recognition that the development strategies adopted by third world countries, in the past, have not resulted in a major breakthrough in development. Also, it is recognized that developing countries are not progressing as fast as they should and the gap between them and wealthy nations is growing instead of diminishing (2).

The initial diagnosis of the cause of underdevelopment, as reflected in post World War II economic development strategies, was one of shortage of resources. The underlying assumption was that obstacles to development were external to the structure of developing societies. Consequently, the generation of local resources and the channelling of foreign assistance were the principal measures adopted to combat underdevelopment. The major concern of the international community during the United Nations 'First Development Decade' was to facilitate the diversion of a portion of the wealth of developed countries to the third world (3). It was expected that through this transfusion of resources, the process of economic growth could be set into motion. And, developing countries, over time, would
achieve the 'take-off' stage. However, the recognition that developing countries are not anywhere nearer to solving their problems has convinced a number of people that there is something basically wrong with this theory of development (4). Mahbubul-Haq, formerly Chief Economist of Pakistan's Planning Commission and an earlier advocate of the afore-mentioned theories of economic growth, has recently argued that there is a need to make economic theory "stand on its head." (5) Robert MacNamara, in his address to the Board of Governors of the World Bank, expressed similar misgivings when he stated

"Admittedly, we are on the frontiers of a new field of knowledge here and we have more questions than we can answer." (6)

The fundamental questions being asked about development today, relate to the quality of life of the masses, social reconstruction and income distribution. The basic issue, underlying this new focus on development, is how to reconcile these objectives with the overall goal of economic growth. For Pakistan, the importance of rural development as one of the possible set of strategies to achieve this reconciliation, stems from two reasons: first, the predominantly rural composition of Pakistan's population; second, its resource base in agriculture. 74 percent of Pakistan's 64.9 million people (7) live in the rural areas and are dependent upon agriculture for a living. The agriculture sector contributes 37.5 percent of the GDP (8) and employs 53.3 percent of the labour force (9). It is also the principal source of raw material for manufacturing. Given the known resources of the country, economist and planners agree that growth and development in Pakistan is heavily dependent upon increasing the productivity of the rural sector. The economic importance
of this sector stems from its dominant share in national consumption, export (raw materials and finished goods) and in employment. The social importance of this sector relates to improving the living environment of the rural masses. From a developmental perspective, these economic and social considerations are inseparable. For Pakistan, the development of the rural sector depends upon ameliorating the economic and social conditions of over 26 million people, or about 40 percent of the rural population who are living at a subsistence, and below subsistence, level (10).

The critical importance of rural development, therefore, stems from the need to co-opt this large segment of Pakistan's population into the mainstream of national development. This means, on the one hand, the definition of specific strategies to improve the social and economic life of this target group. And, on the other hand, this means the implementation of programs designed to gain the active participation of this group in the developmental process. The objective of this thesis is to develop a framework for rural development, with particular reference to Pakistan, through which the aforementioned goals of development can be achieved. The conceptual framework of this thesis; which we will present in detail at a later stage, is based on the hypothesis that the amelioration of the social and economic conditions of the rural poor depends upon the institutional development of 'access' for this target group to developmental facilities and opportunities. Furthermore, that the
provision of this 'access' would require, on the one hand, a re-ordering of the administrative and spatial structure of the economy. And, on the other hand, the reorganization of the socio-economic characteristics of peasant agriculture. This focus on 'access' derives from the 'dualism' of the socio-economic structure of Pakistan which has, in the past, prevented the 'spread' effect of development from reaching the masses. 'Dualism' is described here in a broad sense and denotes the compartmentalization of the socio-economics and spatial structure of the economy. Thus, for instance, there are sharp schisms between urban and rural, industry and agriculture, core regions and the periphery. Furthermore, within this system, there is a further socio-economic dichotomy between the privileged and the underprivileged. In order to provide a background to our discussion on rural development, particularly in the context of how this 'dualistic' structure has re-oriented the present development policy in Pakistan, an historic perspective of Pakistan's development seems necessary.

1.2.1 'Dualism': An Historic Perspective

Pakistan, like other former colonies, inherited a 'dualistic' socio-economic structure from the British colonial rulers. However, unlike the other colonies, particularly Africa, this dualistic structure did not emerge from the economic exploitation from key raw materials; i.e., minerals or cash crops. The reason was that Pakistan constituted a relatively backward part of the subcontinent. Its principal resource base was the rich alluvial plains of the Punjab, which
supplied foodgrain to feed other provinces. Its economic importance, therefore, lay in its agricultural resources, mainly as a supplier of food to meet deficits elsewhere. And second, as a consumer of colonially produced manufacture. However, its major importance, in the overall context of British India, was its strategic location vis-a-vis Russia, Afghanistan and Iran. Those familiar with the history of this region will recall the thrilling moves and countermoves described as the 'Great Game' between an expansionist Russia and Britain (via British India) during the 19th century. The strategic importance of this region required internal stability and defense against the prospects of external aggression. The economic importance of the region necessitated the assurance of food production and supply. The policies adopted were designed to meet both these objectives through a single system. These are summarized below:

(1) The foisting of a militaristic pattern of urbanization, through the establishment of large military garrison towns. These also served as the headquarters of the civil administration (11) and over time have become the main urban centers of Pakistan.

(2) The establishment of close ties between the local feudal landed aristocracy and the powerful administrative bureaucracy, through the institutionalization of the pluralistic agrarian structure described earlier. This alliance was used as an instrument to keep the masses submissive and also to extract surplus from agriculture.
Among the urban middle class, dualism was fostered through progressive 'anglicization' and the assimilation of the 'anglicized' sections at various levels of the prestigious bureaucracy and in the professions. The impact of this process was a growing segregation among the local inhabitants and a class consciousness based on emulation of the West in language, mannerism and outlook.

The dualist structure was further reinforced in the post-Independence period. The causes for this can be attributed partly to the peculiar circumstances that the new nation was faced with on the partition of the subcontinent. However, the main reason was the set of economic strategies chosen by the Ayub regime in 1958 to pursue the goals of economic growth.

The main problem that the new country was faced with was the lack of an industrial base. Out of 14,509 industrial establishments registered in British India, Pakistan's share (both East and West) was 1,406 or 9.6 percent with a daily employment of 26,000 or 6.5 percent of the total. (12) As a consequence, Pakistan had to rely heavily on imports of manufactured goods, principally, from India. This dependency led to a bias in national policies towards import substitution industries. However industrial development became a national priority in 1949 following the trade deadlock with India on Pakistan's refusal to follow Britain and India in devaluing her currency. This had two implications with respect to agriculture. First agricultural development was accorded a low priority in national development. Second, the terms of trade shifted against agriculture and taxes and duties on the export of agricultural raw materials, i.e., cotton, jute and tea (the later two from East Pakistan) (13) were utilized to finance industry. In a competitive world market the effect of export duties tended to lower the price for the
producers. Prices for food grain were also kept down through price controls and compulsory procurement of surplus. From a developmental perspective the result of these measures was a general stagnation of the agricultural sector during the fifties. The rate of population growth of 2.4 percent exceeded the annual growth rate of agriculture of 1.3 percent (for East and West Pakistan).

From the viewpoint of our thesis, the adoption of these policies laid the framework for the emergence of a new pattern of economic dualism. A new leading sector, i.e., industry was introduced into the economic system. The growth of this sector in subsequent years was at the expense of the traditional sectors and as Papanek noted through the process of "squeezing the peasant." (16)

The military regime of Field Marshall Mohammed Ayub Khan, which came into power in 1958, adopted developmental strategies which had economic growth as their principal objective. The economic strategies were based on Lewis's model of economic development with an unlimited supply of Labour (17). Significantly, the concept of dualism was accepted as concomitant to the development process itself. This was implied by Mahbabul-Haq, then Chief Economist to the Pakistan Planning Commission, when he wrote:

"The Under-developed countries must consciously accept the philosophy of growth and shelve for some distance future all ideas about equitable distribution and the Welfare State. It should be recognized that these are luxuries which only developed countries can afford." (18)

The Second (1960-65) and Third (1965-70) Five-Year Plans assigned a major role to the private sector in mobilizing investment. The strategies adopted under these plans created a general environment for the capitalist system to function in its most aggressive form. The market mechanism was
permitted a major role in resource allocation with fiscal and monetary policies, (theoretically) replacing direct controls to regulate the market and keep it in line with plan targets (19). The most dramatic effect of these policies was on large and medium industry. These industries doubled their output during the second plan period and showed trends towards further specialization. Private sector investment exceeded the second plan target by 26 percent (20). The annual compound growth rate of industry during the second plan was 11.9 percent and during the third plan was 6.8 percent (21). The share of manufacturing in the GNP increased from 7 percent in 1949-50 to 13 percent in 1969 (22).

Agricultural development during the Second and Third Plan period also showed progress. During the Second Plan the aggregate agricultural growth rate of 3.4 percent outstripped the role of population increase. There were two major factors contributing to this growth. First, large-scale investment in irrigation works which increased the area under cultivation from 26 million acres in 1961 to 30 million acres in 1965 (23). Second a relaxation of export duties on agricultural exports and price support for major crops. However the major 'break through' in agriculture occurred during the Third Plan period (1965-70) with the adoption of HYV's and the technology of the 'Green Revolution.' In aggregate quantitative terms the developments in agriculture during this period were impressive. Fertilizer consumption increased from 71 thousand nutrient tons in 1965-66 to 289 thousand nutrient tons in 1970-71 (24). To meet the water requirements of the HYV's, the private sector showed a tremendous response by sinking 10,000 tube wells annually, on the average. The number of private tube wells increased from 32 thousand in the mid-sixties to 81 thousand by 1970 (25).
These impressive statistics, however, conceal the strong schisms which developed in the socio-economic fabric of Pakistan society through further strengthening its dualist structure. The unfettered incentives accorded private business in the form of external protection and undervaluation of foreign exchange led to the adoption of a highly capital intensive and inefficient structure of industrialization (26). The capital intensive structure reduced the labor requirements. However, at the same time labour wages were kept low as in Lewis's model. In fact as shown by Azizur-Rahman there was a decline in real wages of industrial workers during the period 1954-1964 (27). The business class could operate with inefficiency because of their oligopolistic hold over the manufacturing and financial sectors. Mahbubul Haq, who revised his earlier views, disclosed in 1968 that:

66 percent of the entire industrial capital of the country was concentrated in the hands of 22 families. These same 22 families controlled 80 percent of the banking and 97 percent of the insurance in the country. (28)

The emerging pattern of industrialization with windfall profits leads to concentration of wealth and an extremely skewed pattern of income distribution. A study published in 1971 showed that the top 20% received 45 percent of the total income, while the poorest 20% received only 6.5 percent. (29) Two further aspects of the industrial development are relevant:

(a) the lack of incentives to indigenous small scale manufactures and its general stagnation during this period.

(b) the concentration of industry in a few urban centres. Both these factors have contributed to a polar development of urbanization, the first through the erosion of the economic base of small urban centres and the latter through an opposite effect. The Karachi Master Plan estimates
that the city generates 42 percent of the value added and 35 percent of the
national employment in large-scale manufacturing. It accounts for 50
percent of the bank deposits and 72 percent of the national capital issue.
(31) Papanek's earlier study shows the location of major manufacturing in
six urban centers (31).

How was the dualist structure reinforced in the rural sector? Part
of this question has been answered in the preceding discussion. The basic
pattern of development during this period left the peasant sector in the peri-
phery. The transfer of capital from agriculture to industry through taxes and
duties placed a tremendous squeeze on the peasant. This condition was
further accentuated by transfer of investment from agriculture to industry by
the landed interests, who wanted to cash in on windfall profits in industry.
The onus of rural uplift was placed on a bureaucracy which was institutionally
not equipped to cope with the problem. Finally the spatial structure of the
economy, basically a legacy of the colonialist urban system was not designed
to assimilate the peasant into a market economy and what was worse had its
economic base eroded by the new polarizing forces generated within the
economy.

As a concluding remark it needs to be stated that these strong schisms
created within society resulted in the overthrow of the Ayub Regime, in 1969, by a
mass uprising of the urban poor based upon a demand for better wages and living
conditions. The regional inequalities created by this system were partly
responsible for the tragic events of 1971 which resulted in the splitting
up of the country. The present government has been elected into power on
the grounds of social justice and equity. A number of measures have been
adopted to dismantle the old framework. For instance, banking, insurance and
major manufacturing have been nationalized. The major concern of development planning in Pakistan, today, is to devise policies and strategies to reconcile the goals of social justice with those of economic growth. With the bulk of Pakistan's population in rural areas, the development of this sector holds high priority. To focus special attention on this field, Prime Minister Bhutto has directed that 1976-77 be declared a 'social welfare and rural development year.' (32)

1.3.1 The Conceptual Framework for Rural Development

We have, in the preceding discussion, focused attention on the problem of rural poverty in Pakistan. We have also attempted to demonstrate that the root cause for this situation lies in the dualism in the socio-economic system. This 'dualism' had its origin in the colonial past, but was further strengthened by the post-independence policies of economic development. The basic framework for development which we are proposing is the introduction of policy measures to mitigate the forces of 'dualism' by strengthening the linkages between the leading sectors of the economy and the rural periphery. The objective is to promote the spread effects of development to reach the rural poor. The focus of this study is basically on rural development. However, it is our hypothesis that rural development has to be interlinked with urban development. It needs to be clarified at the outset that we are not adopting a macroview of the problem by suggesting an overall policy of urban and rural development to resolve the two facets of the problem. However, implicit in our discussion are certain assumptions on urban development which could serve as a basis for an urban development policy.
The key elements of the conceptual framework of our thesis are listed below:

(1) In a well-integrated economic system, there is a strong inter-relationship between the rural and urban sectors of the economy. To develop such a system, programs for rural development have to be necessarily integrated with programs for urban development. This has two further implications:

(a) The problem of the rural sector cannot be resolved solely within the context of the rural economy.

(b) Any program for deconcentration of urban development to assimilate the rural economy into the market system will not succeed unless there are complementary rural development programs designed to interlink the rural sector with the urban economy.

(2) The organization of space in Pakistan, i.e., the pattern of urbanization, is not conducive to assimilating the rural section, particularly the peasant economy within a market system. Therefore, a further deconcentration of the urban system is necessary. This deconcentrated urban system should be in the form of a graduated hierarchy of urban centers with interlinked economies so as to promote the 'spread effects' of development.

(3) Rural development is a strategy designed to improve the socio-economic life of a specific group of people, namely the rural poor. The objectives of rural development, therefore, extend beyond any particular sector. They encompass increased productivity, increased employment,
along with better living conditions, i.e., health, education and minimum acceptable levels of shelter. (33) Programs for rural development must, therefore, be necessarily integrated and include a mix of activities.

(4) The principal role of rural development should be the institutional development of access for the peasant farmers. In fact, in a dynamic context, the primary goal should be the maximization of access over time. The word access denotes a host of tangibles and intangibles which are a precondition for rural reconstruction and a progressive agriculture. These are itemized as follows:

(a) Access to inputs, i.e., timely availability of irrigation water (where available), fertilizer, improved varieties of seeds, pesticides, agricultural credit, etc.;

(b) Access to governmental agencies related to rural and agricultural development. In other words, access to agricultural extension, technology, and information, to be made available in a "package" without burdening the farmer with visits to different bureaucracies and unnecessary "red tape";

(c) Access to employment for the rural unemployed and seasonally underemployed;

(d) Access to social welfare services, such as health, education, etc.;

(e) Physical access, which means physical proximity to the aforementioned services and to the market.

(5) (a) The administrative framework as it exists is not organized
or equipped to tackle the problems of rural development which are located at the grass roots level. Therefore, along with a deconcentration of urbanization a corresponding decentralization of the administrative framework is necessary;

(b) An administrative system, no matter how efficient or dedicated, does not have the capability to organize a management and delivery system for the host of inputs required for rural development at a very decentralized and disaggregated level. Therefore, a complementary effort for developing peasant institutions is necessary. This means the development of local participation in development through co-operatives, local councils, etc.;

(6) Rural development programs affect the existing social, political and economic interest of the agrarian society. These are likely to negate the impact of such programs. The objective of policy intervention should attempt to ensure, that the interplay of interest groups notwithstanding, the basic objective of "access" is not negated.

(7) The basic needs of the rural sector are for services and employment. The basic objective of urban development policies should be to provide these inputs through the implementation of appropriate programs of industry, infrastructure and services.

(8) The programming of rural development would require a reorientation of national and provincial planning strategies towards urban and regional development.
1.4.1 The Contents of the Thesis

In addition to this introduction, the thesis consists of four chapters. In the first chapter, we present the nature of the problem of peasant agriculture in Pakistan. This problem is described in terms of the pluralistic structure of the agrarian economy; the difficulties and constraints being faced by peasant farmers to derive benefits from the green revolution; the growing pressure on land and the lack of employment opportunities for the rural poor; and precipitous rural-urban migration. In the concluding section of this chapter, the implications of this situation are discussed with reference to the needs for public policy and intervention.

The second chapter deals with the historic experience of rural development programs in the Indo-Pakistani sub-continent. The focus of this chapter is, in part, an evaluation of these programs and an analysis of the causes of their limitations. However, this discussion is also intended to demonstrate how, building on past experience, the Bangla-Desh (formerly East Pakistan) Academy for Rural Development has developed a highly viable model for rural development; popularly known as the Comilla Project. The Comilla model of rural development and the similar 'Daudzai' model, developed recently by the Pakistan Academy for Rural Development, have established an organizational framework for rural development which is suited to indigenous conditions. However, in our evaluation of these models, we show that they have a major limitation. The supportive structure for rural development, i.e., cooperatives, communication networks, marketing systems, etc., are not specifically designed to promote a spatial integration of rural communities within an urban market system.

In the fourth chapter of this thesis, we discuss the importance of rural-urban integration as a strategy for promoting rural development.
In this section, we show how a spatially organized rural structure is conducive to the commercialization of agriculture. Also, we show how a polarized pattern of urban development in Pakistan has had a stultifying influence on agricultural development. The two case studies examined in this chapter, i.e., Israel and Kenya, provide insights into the design of programs for rural-urban integration. In the concluding remarks of this chapter, we show that, for Pakistan, a strategy of deconcentration of urban services alone would not be sufficient to promote rural and agricultural development. What is required is a combined effort, i.e., programs for the deconcentration of urbanization tied to programs of rural development and peasant mobilization, to achieve this objective.

The final chapter deals with the identification of key elements, which can serve as a basis for the design of programs for rural-urban integration, with the objective of promoting rural development. The emphasis of these approaches to development is on decentralization and integration. Decentralization is in the context of administrative decision making and of urban facilities and services. Integration implies the need for an integrated approach to rural development and also spatial integration of the rural periphery with the more progressive urban sector.
CHAPTER I
NOTES


2. Ibid., page 2.


4. Ibid., page 1.


9. See Table 7 of text.


14. Ibid., page 149.


22. Ibid., Chapter 7, page 3.


24. Ibid., page 263.


CHAPTER II

THE NATURE OF THE PROBLEM

2.1.1 Policies for the amelioration of the social and economic conditions of the rural poor in Pakistan have to be based on an understanding of the characteristics of the agrarian economy. The focus of this section is to provide a background of the problems of peasant agriculture in Pakistan. The first part of this section describes the agrarian structure with reference to the size of the subsistence sector and its relationship with the larger landed interests. The second part deals with an evaluation of the impact of the green revolution with special reference to peasant agriculture. An important aspect of this analysis is the identification of constraints being faced by peasant farmers in benefiting from the high yielding varieties of cereals introduced under the green revolution. The third part deals with an evaluation of labour productivity of peasant agriculture and the present and future prospects of employment for a growing labour force in the agricultural sector. This discussion also takes into consideration the threatening role of the 'green revolution' technology, particularly the mechanization of agriculture on employment prospects for the rural poor. In the concluding section of this chapter, an attempt has been made to synthesize the major problems of the rural poor in Pakistan; to assess the implications of these problems; and to define areas where policy intervention is required.
2.2.1 Characteristics of the Agrarian Structure:

Farm Size:

Table 1 shows the break-down of farms according to size in Pakistan. According to the Land Reform Regulation (1) of 1959, a subsistence holding was declared to consist of 12.5 acres. Thus, according to this standard, 77 percent of all farms in Pakistan covering 32 percent of the total farm area are of a below-subsistence level. A further analysis of the subsistence sector shows a high degree of fragmentation. 32 percent of the total number of farms are less than 2.5 acres and 49 percent less than 5 acres. According to the same regulation, an 'economic holding' was declared to consist of 25 acres. On the basis of this criterion, 92 percent of all farms covering 48 percent of the total farm area are 'non-economic units.'

It needs to be mentioned, however, that criterion for evaluating the relative sizes of the 'subsistence' and 'economic' holding under the Land Reform Regulations was based on the then-productivity of farms, as determined by the prevailing production characteristics. Furthermore, that the figures of 12.5 acres and 25 acres are averages. The actual index used was a 'production unit,' which was estimated on the basis of soil conditions, irrigation facilities and other characteristics of agricultural productivity. Therefore, these figures need not be taken as absolute limits in the definition of the subsistence or economic level of farm size. What these figures do underscore, however, is the preponderant proportion of small farms in the agrarian sector, and that a substantial part of the rural sector can be classified as subsistence or below-subsistence.
<table>
<thead>
<tr>
<th>Size Farm (acres)</th>
<th>Farms</th>
<th>Farm Area</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
</tr>
<tr>
<td>Total farm</td>
<td>4,859,983</td>
<td>100</td>
</tr>
<tr>
<td>Under 1.0</td>
<td>742,216</td>
<td>15</td>
</tr>
<tr>
<td>1.0 - 2.5</td>
<td>855,732</td>
<td>18</td>
</tr>
<tr>
<td>2.5 - 5.0</td>
<td>805,984</td>
<td>16</td>
</tr>
<tr>
<td>5.0 - 7.5</td>
<td>580,952</td>
<td>12</td>
</tr>
<tr>
<td>7.5 - 12.5</td>
<td>758,703</td>
<td>16</td>
</tr>
<tr>
<td>12.5 - 25.0</td>
<td>728,909</td>
<td>15</td>
</tr>
<tr>
<td>25.0 - 50.0</td>
<td>285,882</td>
<td>6</td>
</tr>
<tr>
<td>50.0 - 150.0</td>
<td>87,624</td>
<td>2</td>
</tr>
<tr>
<td>150.0 and over</td>
<td>13,981</td>
<td>Neglig.</td>
</tr>
</tbody>
</table>

Location of the Subsistence Sector:

The second characteristic of the agrarian structure relates to the relative location of the subsistence sector. Pakistan has one of the world's largest irrigation networks of perineal and non-perineal canals. (2) Agricultural production in Pakistan is directly related to the availability of irrigation water. As is evident from Figure 1, there is a direct relationship between the location of the irrigation systems, on the one hand, and intensity of cultivation and population densities, on the other. Using intensity of cultivation as a measure of agricultural land use, Pakistan can be divided into four regions, i.e., intensive agricultural region (IA), extensively cultivated regions (EA), rainfed region and arid region. (3) Figure 2 shows the relative geographic location of these regions. Table 2 shows the relative pressure of population in these regions. The high land-man ratio, or 1.07 acres/head, and the average farm size of 7.25 acres in the EA region shows the high degree of agricultural involution in the agricultural heartland of the country.

Fragmentation of Farms:

The third characteristic of the agrarian structure is the fragmentation of individual farms into 3, 4, or more separately located parcels. This condition is the result of the Islamic Laws of inheritance, under which each heir receives a statutory declared share of the deceased's property. Thus, there is a built-in process of progressive disintegration of properties. The Land Reform Regulations endeavored to prevent fragmentation of farms by legislating in favour of collective cultivation of farms below 12.5 acres and by strengthening the existing measures for consolidation* of land holdings.

* 'Consolidation of Holdings' is a legal and legislative term used to describe measures for integrating fragmented farms.
Figure 1

Relation Between River Systems and Population in Pakistan, 1960

Source: Census of Pakistan - 1961 (Vol. 3)
Ministry of Home and Kashmir Affairs
(Home Affairs Division)
Government of Pakistan
Figure 2

Regions According to Intensity of Cultivation

LEGEND

Regions:
- Intensive Agricultural
- Extensive Agricultural
- Rainfed
- Arid

### TABLE 2

**PRESSURE OF POPULATION ON LAND - 1960**

<table>
<thead>
<tr>
<th>Region</th>
<th>Area Under Cultivation (million acres)</th>
<th>Number of Farmers (millions)</th>
<th>Rural Population (millions)</th>
<th>Land/Man Ratio (acres per head)</th>
<th>Acres per Farm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intensive Agriculture</td>
<td>19.14</td>
<td>2.63</td>
<td>17.77</td>
<td>1.07</td>
<td>7.25</td>
</tr>
<tr>
<td>Extensive Agriculture</td>
<td>7.82</td>
<td>0.68</td>
<td>5.30</td>
<td>1.47</td>
<td>11.48</td>
</tr>
<tr>
<td>Barani Areas</td>
<td>7.09</td>
<td>1.37</td>
<td>5.73</td>
<td>1.25</td>
<td>5.18</td>
</tr>
<tr>
<td>Arid Areas</td>
<td>3.20</td>
<td>0.18</td>
<td>1.03</td>
<td>3.2</td>
<td>17.78</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>37.25</strong></td>
<td><strong>4.86</strong></td>
<td><strong>29.83</strong></td>
<td><strong>1.24</strong></td>
<td><strong>7.65</strong></td>
</tr>
</tbody>
</table>

**Source:** Burki, S.J. "West Pakistan Rural Works Programme, 1963-72" (Mimeograph).
Legislation for collective cultivation has been largely ineffective. (4) With respect to consolidation of farm operations, the area consolidated during the sixties was 12.5 million acres. The total area consolidated after independence (1947) and until 1970, was 15 million acres, (5) or 21 percent of the total area under cultivation in 1969. These figures do not, however, account for further fragmentation that has occurred during the interim.

2.2.2 Pluralistic System

The fourth characteristic of the agrarian structure is the sharp pluralism between the large landed interests and the petty farmers. It has been noted that 92 percent of all farms in Pakistan, covering 48 percent of the total farm area, fall under the classification of 'non-economic' holdings. On the other hand, 8 percent of the farms which are 25 acres and above control 52 percent of the farm area. This dichotomy between the rich agriculturist and the peasant farmer becomes more apparent when we consider the relative size of larger holdings. Farms between 50 and 150 acres, which constitute 2 percent of all farms, control 13 percent of the cultivated land. Farms above 150 acres, although classified as 'negligible' in number, control 10 percent of the farm area. (6)

The pluralist structure of the agrarian economy has given rise to a dependency, or patron-client relationship, between the large landed interests, on the one hand, and petty cultivators, on the other. The overall effect of this relationship, as subsequent sections show, has been deleterious to the interests of the latter. However, it needs to be stated, at this stage, that the patronship of the large landed interests stems basically from two sets of factors: First, the traditional position of political power and social prestige enjoyed by the landed aristocracy in Pakistan. The feudal agrarian structure inherited by Pakistan was a legacy of the British colonial rule, which, in turn, inherited it from the Mogul empire. The British, however, formally institutionalized the
feudal structure and used it as an instrument of control of the masses.

The 'Zamindari'* system of land tenure formalized by the British was, in essence, a feudal landlord-tenant system, with the former having all rights over land and enjoying the patronage of the government. By the middle of the 19th century, this system had spread over one-half of the most fertile parts of British India -- including the territory of Pakistan -- and came to be identified with the British, particularly in the most oppressive form (7). A second system, known as the 'Jagirdari system', emerged through the grants of rights to receive all or a portion of the land revenue (land tax) of large tracts, for services rendered to the crown. Over time, this class assumed the same rights over land and tenants as the Zamindars. As long ago as 1819, the Board of Directors of the East India Company admitted regretfully: "The absolute subjection of the cultivators of the soil to the discretion of the Zamindars." (8) The Land Reforms of the Ayub Regime (1959) abolished the Zamindari and Jagirdari systems and imposed a maximum ceiling of 250 acres on agricultural holdings. Legislation was also passed to provide security to the tenants. These reforms had loopholes to circumvent the ceiling imposed on holdings. The Land Reforms initiated by the present government, however, have reduced the maximum ceiling on individual holdings to 150 acres and have attempted to further strengthen the viability of status of the peasant owner-cultivator, the tenant clan and landless laborer. These measures have gone a long way in breaking the stranglehold of landed interests over the peasantry. They have, however, not been able to undermine the traditional position of dominance of the landlord clan because of its

* Zamindari is a Persian equivalent of feudal landlord.

Second, the dominance of the landlord class stems from control over scarce economic resources, i.e., land, capital, water and access to governmental agencies. The scarcity of land, coupled with high land-man ratios and a large subsistence sector, has institutionalized land tenancy as a major system of land tenure. 41 percent of all farms are owner-cultivated, 17 percent owner-cum-tenant cultivated, and 42 percent are tenant cultivated. The figures for average farm size for different tenure categories are misleading and do not portray a correct picture.

For a better perspective regarding the pattern of tenure vis-a-vis farm size, reference to the overall structure of holdings, as shown in Table 1, is necessary. Small/medium farms are generally owner-cum-tenant cultivated. Tenant-cultivated farms may either consist of large farms via 'absentee landlords'; parts of large farms sublet to tenants, or very small farms which cannot sustain the owner who has, therefore, chosen a non-agricultural profession. Tenancy arrangements vary from region to region. The usual arrangement consists of sharing the harvest on a 50:50 basis. Recent legislation has reversed earlier practices of placing the obligation of providing key inputs on the tenant. In addition, tenants theoretically have statutory rights regarding security of tenure. In practice, however, the rights of the tenants and their arrangement for sharing their surplus rest, to some degree, on the goodwill and good faith between them and their powerful mentor. The situation of landless labour is more precarious with a higher degree of dependency on the landlord. The petty owner-cultivator is tied to this dependency struc-
TABLE 3

NUMBER, AREA AND AVERAGE SIZE OF FARMS, CLASSIFIED BY TENURE

PAKISTAN - 1960

<table>
<thead>
<tr>
<th>Type of Tenure</th>
<th>Farms</th>
<th>Farms Area</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
</tr>
<tr>
<td>Owner cultivators</td>
<td>1,997,736</td>
<td>41</td>
</tr>
<tr>
<td>Owner-cum-tenants</td>
<td>834,257</td>
<td>17</td>
</tr>
<tr>
<td>Tenants</td>
<td>2,027,990</td>
<td>42</td>
</tr>
<tr>
<td>Total cultivators' holding</td>
<td>4,859,983</td>
<td>100</td>
</tr>
</tbody>
</table>

ture, through his weak economic base and lack of access to official institutions. Owner-cultivator peasants rely on the larger landed interests for credit, draught animals for cultivation, forage facilities, purchase of tube well irrigation water and a number of inputs and amenities. The usual close ties of the larger landowners with local officials serves both as an inducement and threat to the peasant community to remain on the right side of the bigger landowners. (9)

The problems and prospects of agricultural development in Pakistan have to be viewed in the context of the agrarian structure described above. From an economic standpoint, an important issue is the viability of the peasant community, which constitutes the bulk of the rural population and which is living at the subsistence and below-subsistence level. From the broader, socio-economic perspective, the basic issues relate the options which can be made available to the rural poor for a better life and an improved living environment. In the following section, we shall evaluate existing socio-economic trends in agricultural development with reference to the rural poor. We shall also attempt to identify key factors which have a bearing on the future development proposals of this segment of Pakistan's society.

2.3.1 Response to the 'Green Revolution'

The myth that Pakistan's farmers are not receptive to innovation has been explored by the wide-scale adoption of High Yielding Varieties (HYV's) of cereals, introduced under the 'Food Self-sufficiency Programme' (10). The basic question, as noted by Falcon and Gotsch (11), has now
shifted to the extent of adoption of HYV's and the technology of the 'Green Revolution'. The answer to this question is important for three reasons. First, to assess the response to the 'Green Revolution', particularly with respect to the small farmers (0-12.5 acres); second, to identify problems and constraints being faced by this category in optimizing benefits accruing from the new technologies; third, to evaluate the benefits of the 'Green Revolution' to this category.

A number of micro-level research studies of the impact of the 'Green Revolution' carried out in the 'intensive agricultural region' and the 'rainfed region' (12) provide illuminating answers to this question. The conclusions of these studies are summarized in the following paragraphs.

Adoption of HYV's:

Farmers of all categories, i.e., farm size and tenancy status, have shown a tremendous response to the adoption of HYV's. In other words, the adoption of HYV's is neutral to scale and tenure status. Large farmers were early innovators because of their relatively secure financial status. Smaller farmers have also adopted the innovations, after being satisfied that the risk was small. Tenants in some cases have shown a higher degree of response. One explanation for this is that they are under pressure to produce more because of the cropsharing arrangements. (13) Larger farmers had a relatively high percentage of area under HYV's than smaller owner-operated farms.

Adoption of Technology Attendant to HYV's:

Farmers were not using the appropriate technology package, i.e., fertilizer, pesticides, etc., needed for the cultivation of HYV's and,
### TABLE 4

**SOURCES OF CREDIT AND CAUSES OF INDEBTEDNESS FROM TWO STUDIES**  
*percentages of total*

<table>
<thead>
<tr>
<th></th>
<th>Socio-Economic Research Project</th>
<th>Board of Economic Enquiry, Punjab</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A. Source of Credit:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Relatives and friends</td>
<td>62.8</td>
<td>63.2</td>
</tr>
<tr>
<td>2. Well-to-do rural people/ landlords</td>
<td>0.2</td>
<td>16.9</td>
</tr>
<tr>
<td>3. Co-operatives</td>
<td>14.3</td>
<td>13.2</td>
</tr>
<tr>
<td>4. Government</td>
<td>13.4</td>
<td>2.9</td>
</tr>
<tr>
<td>5. Shopkeepers</td>
<td>0.4</td>
<td>2.5</td>
</tr>
<tr>
<td>6. Marketing and labor mediaries</td>
<td>4.7</td>
<td>-</td>
</tr>
<tr>
<td>7. Moneylenders</td>
<td>1.1</td>
<td>1.3</td>
</tr>
<tr>
<td>8. Other sources</td>
<td>3.1</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100.0</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

| **B. Causes of Indebtedness:** |                                 |                                  |
| 1. Family expenditures     | 62.0       | 51.4       |
| 2. Capital expenditure on farming | 19.6       | 29.9       |
| 3. Non-farm business expenses | 1.2       | 13.5       |
| 4. Current expenses on farming | 12.0      | 3.7        |
| 5. Repayment of debt       | 3.2        | 1.3        |
| 6. Other miscellaneous purposes | 2.0       | 0.2        |
| **Total**                  | **100.0**  | **100.0**  |

for the most part, were cultivating the new varieties according to traditional practices. There were sharp distinctions here, between large/medium-size farmers and small farmers. The appropriate use of seed, fertilizer, sowing methods, etc., is directly related to the farm size. In other words, the optimal use of HYV's and the attendant technology was largely available to medium and large farmers, i.e., 25 acres and above

(4) Significantly, however, an overwhelming percentage of small farmers had accepted the use of fertilizer and other inputs, but were not putting them to optimal use because of financial and institutional constraints.

Constraints to the Adoption of HYV's Technology:

The main constraint faced by small farmers in the adoption of the technology associated with HYV's were: the lack of credit, inadequate agricultural extension, lack of physical infrastructure, distance from market centres, the timely availability of inputs and problems relating to tenancy. These are discussed in greater detail below.

(a) Credit: In view of the small farm size, the economic base of the peasant farmer is virtually negligible. The main financial constraint faced by small farmers is the availability of credit. It is of interest to note that most small farmers interviewed by one of the studies noted above were in debt. (15) According to the agricultural census of 1960, the total rural indebtedness in Pakistan from official loan institutions was Rs 1,296 million. This amount, however, only accounted for 9.7 percent of the total indebtedness of farmers. (16) Insight into the sources of rural credit and the causes of rural indebtedness is provided by two surveys carried out in 1959-60, which are quoted by Andress and Mohammad
These surveys highlight two facts. The insignificant role of official institutions in financing agriculture. Second, the relatively small percentage of credit receipts of farms spent on activities related to agricultural production.

However, a more fundamental problem relates to credit availability. Lowdermilk notes that when farmers who had reported that fertilizer was 'not easily available' were asked to state the reason, 75 percent stated the reason as 'lack of funds'. The availability of credit for fertilizer was also directly related to farm size. It can be generally concluded that the technology associated with the adoption of HYV's requires additional outlays. Peasant farmers, because of their weak financial position, do not have the resources to finance the required inputs. On the other hand, governmental intervention to meet these requirements has been highly inadequate.

(b) Extension: The second constraint, related to the proper procedures associated with the cultivation of HYV's is the extremely poor and inadequate services provided by the government extension agencies. The organization and procedures of the departments of agriculture are antiquated by modern extension standards. In fact, the functioning of the departments has undergone little overhaul since the colonial period. Lowdermilk's survey notes extremely poor contact by the extension agent with farmers, in general. This contact, when it exists, is biased in favour of the larger farmers. Rochin's survey in the rainfed region shows a relatively better contact in terms of diffusion of HYV varieties. According
to his survey, 22 percent of the respondents heard about HYV's from governmental agencies. Also, that government-sponsored demonstration plots greatly helped the diffusion of the new seed varieties (21). However, he notes that the radio was the most important source for diffusion of the new varieties. His recommendations to the government for management, research and application implies the existing weakness in this field of research and extension (23).

(c) **Infrastructure:** The third constraint faced by small farmers is the lack of adequate physical infrastructure, particularly roads. Lowdermilk's study shows a significant relationship between adoption of HYV's and distance from paved roads (23). Naseem's survey shows that small farmers who do not have access to transportation facilities sell their surplus in their own villages at whatever price they can get (24).

(d) **Markets:** The fourth constraint was the physical distance of market centres and malpractices, i.e., intermediary operations, associated with marketing. Access to the market was an extremely important factor in the adoption of HYV's and levels of productivity. Naseem's survey (25) is particularly illuminating on this subject and his findings are summarized below:

1. **Small farmers** located near the cities used higher levels of fertilizer than larger farmers. They use at least an equivalent level of water as larger farmers, when it is available. This signifies that small farmers near market

*Note: For this study, small farmer signifies those with 0-12.50 acres, and larger farmers, those with 12.5 to 25 acres.*
centres tended to optimize on the use of HYV technologies. Furthermore, cropping intensities near the market centres were higher.

(2) On the average, farmers located near market centres sell 24.56 percent of their produce, as compared to 6.89 percent for farms located at a distance from market centres.

(3) Small farmers situated near the market centres had a higher income from agricultural and non-agricultural sources than larger farmers situated at a distance from them.

Farmers located at a distance from market centres were more exposed to market malpractice, through intermediaries, because of their lack of access.

(e) Inputs: The availability of water, fertilizer and pesticide was another constraint.

(f) Tenancy: The main constraint faced by tenant farmers was insecurity of tenure, disinterest by the landlord and lack of assistance by the landlord in providing inputs.

2.4.1 The Impact of the Green Revolution

The previous discussion has shown the Pakistani farmers to be rational decision-makers, by their quick response to the adoption of HYV's. It has also been demonstrated that, although the peasant subsistence farmer is equally rational in his attempt to optimize on these benefits by shifting to the cultivation of HYV's, there are basic constraints to his util-
lizing the technology and practices attendant to achieving optimum results. The basic issue that needs to be answered, however, is that under the given circumstances, to what extent has the peasant farmer benefitted from the Green Revolution? The answer to this question is provided by Naseem's study on the extent of rural poverty in Pakistan. (25)

Naseem takes two alternative benchmarks to identify the poverty line:

(a) A per capita expenditure of Rs 250 per year ($25.0 approximately) or (Rs 0.685 per day, i.e., $0.07 approximately) at 1959/60 prices.

(b) A per capita expenditure of Rs 0.82 per day, i.e., $0.08 approximately) at 1959/60 prices.

Table 5 shows the estimates of persons below the poverty line, computed in accordance with the two classifications between the years 1963 and 1970. If the poverty line is assumed to be Rs 250 per capita/year expenditure, then the poverty level dropped from 43.1 percent of the rural population, or 16.7 million persons in 1963/64 to 26.5 percent, or 11.5 million persons in 1969/70. On the other hand, if Rs 300 per capita expenditure is used as an index, then the poverty line remains stable around 60 percent, comprising 26.51 million rural inhabitants. A significant feature of this analysis is the sensitivity of the poverty line to a change of Rs 50 per capita expenditure ($5.0 approximately) between the two benchmarks. This is because of the concentration of the bulk of the rural population between the narrow per capita consumption range of Rs 250 and Rs 300. The author of the study has the following conclusions:

"...About 20-40 percent of the people in the 1960's --
### TABLE 5
ESTIMATES OF PERSONS BELOW THE POVERTY LINE IN RURAL AREAS

<table>
<thead>
<tr>
<th>Year</th>
<th>Below Rs 300 per annum</th>
<th>Below Rs 250 per annum</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Percentage</td>
<td>Number in Millions</td>
</tr>
<tr>
<td>1963/64</td>
<td>60.5</td>
<td>23.46</td>
</tr>
<tr>
<td>1966/67</td>
<td>59.7</td>
<td>24.80</td>
</tr>
<tr>
<td>1968/69</td>
<td>61.5</td>
<td>26.72</td>
</tr>
<tr>
<td>1969/70</td>
<td>59.7</td>
<td>26.51</td>
</tr>
</tbody>
</table>

the Decade of Development — lived in abject poverty and another 20-30 percent lived, perhaps a little better off, but not above the subsistence level. Our results say that the percentage declined from 43.1 to 26.0; so did the people living under abysmal poverty. . . . But if a little more liberal interpretation of poverty is given, then although the proportion of the poor in the total population remained stable, the number increased from 23.46 million in 1963/64 to 26.51 million in 1969/70. These figures do vividly convey the extent of rural poverty in Pakistan." (26)

This study sheds light on some interesting facts about the impact of the Green Revolution on the subsistence sector. It must be noted that the HYV's were introduced in Pakistan in 1967. The relative increase in the index of rural consumption between 1966/67 and 1969/70 could, therefore, serve as an indicator of increase in real incomes of the peasant communities as a result of the Green Revolution. (27) If Rs 300 per capita consumption expenditure is taken as the index, then there has been no significant impact of the Green Revolution in improving consumption and incomes of the rural poor. However, if the alternative index of Rs 250 per capita expenditure is taken, then the situation shows a marginal improvement by reducing the people in the poverty line from 13.3 million in 1966/67 to 11.5 million in 1969/70. However, the basic fact remains that a large proportion of Pakistan's rural poor are living in abysmal poverty and that the Green Revolution has not made a significant dent in improving their socio-economic condition.

Another aspect which needs mention is the grave misgiving expressed by a number of studies that the impact of the Green Revolution is likely to further distort the income distribution between the rural rich and the poor. These arguments are based on the observations made earlier that the technology and the resources attendant to the adoption of HYV's are available to the medium and large farmers. (28)
2.5.1 Agricultural Development and Labour Absorption

The structure of the agrarian economy and the predominantly rural composition of Pakistan's population, focuses attention on another important problem of the degree of utilization of the agricultural labour force. The ramifications of this problem are manifold. The pressure on land is a key factor in agricultural productivity. On the other hand, employment within or outside the agricultural sector are important issues in national developmental policy. An evaluation of demographic trends is, therefore, an important aspect in this analysis of Pakistan's rural structure.

Growth of Population

Table 6 shows the intercensal growth rates of rural and urban population in Pakistan since 1901. It will be observed that starting with relatively slow aggregate population growth rates until the twenties and modest growth rates until the forties, the population of Pakistan has shown extremely rapid rates of growth during the fifties and sixties. While the reasons for this rapid increase in population are outside the scope of this study (29), it is distressing to note that current population growth rate of 3.5 percent is the fourth highest in the world (30). Since independence (1947), the rural population of Pakistan has almost doubled and the urban population multiplied almost threefold.

Growth of Labour Force

Table 7 shows the projected trends in the agricultural and non-agricultural labour force in Pakistan. As noted by Burki (31), these estimates are based on the rather optimistic assumptions that the population will stabilize in the 1990's. However, they underscore the fact that over a third of the total labour force would remain in agriculture by the turn
<table>
<thead>
<tr>
<th>Year</th>
<th>Rural</th>
<th>Growth %</th>
<th>Urban</th>
<th>Growth %</th>
<th>Total</th>
<th>Growth %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1901</td>
<td>14.96</td>
<td>-</td>
<td>1.62</td>
<td>-</td>
<td>16.58</td>
<td>-</td>
</tr>
<tr>
<td>1911</td>
<td>17.69</td>
<td>18.3</td>
<td>1.69</td>
<td>4.3</td>
<td>19.38</td>
<td>16.9</td>
</tr>
<tr>
<td>1921</td>
<td>19.05</td>
<td>7.7</td>
<td>2.06</td>
<td>21.8</td>
<td>21.11</td>
<td>8.9</td>
</tr>
<tr>
<td>1931</td>
<td>20.77</td>
<td>9.0</td>
<td>2.77</td>
<td>34.8</td>
<td>23.54</td>
<td>11.5</td>
</tr>
<tr>
<td>1941</td>
<td>24.27</td>
<td>16.8</td>
<td>4.02</td>
<td>45.0</td>
<td>28.26</td>
<td>20.1</td>
</tr>
<tr>
<td>1951</td>
<td>27.76</td>
<td>14.4</td>
<td>6.02</td>
<td>49.9</td>
<td>33.78</td>
<td>19.4</td>
</tr>
<tr>
<td>1961</td>
<td>33.23</td>
<td>19.7</td>
<td>9.65</td>
<td>60.4</td>
<td>42.88</td>
<td>26.9</td>
</tr>
<tr>
<td>1972</td>
<td>48.00</td>
<td>48.9</td>
<td>16.89</td>
<td>75.0</td>
<td>64.89</td>
<td>51.3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>Labour Force</th>
<th>Share of Agricultural Labour Force %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>Non-agricultural</td>
</tr>
<tr>
<td>1951 (Census)</td>
<td>9.51</td>
<td>3.32</td>
</tr>
<tr>
<td>1961 (Census)</td>
<td>12.76</td>
<td>5.19</td>
</tr>
<tr>
<td>1965</td>
<td>14.36</td>
<td>6.21</td>
</tr>
<tr>
<td>1970</td>
<td>16.64</td>
<td>7.77</td>
</tr>
<tr>
<td>1975</td>
<td>19.28</td>
<td>9.72</td>
</tr>
<tr>
<td>1980</td>
<td>22.33</td>
<td>12.17</td>
</tr>
<tr>
<td>1985</td>
<td>25.88</td>
<td>15.21</td>
</tr>
<tr>
<td>1990</td>
<td>29.98</td>
<td>19.02</td>
</tr>
<tr>
<td>1992</td>
<td>31.80</td>
<td>20.80</td>
</tr>
<tr>
<td>1993</td>
<td>32.75</td>
<td>21.75</td>
</tr>
</tbody>
</table>

of the century, and also that the estimated rural labour force for 1992 would be 2.2 million over that for 1970.

**Land-Man Ratio and Labour Productivity**

Table 8 shows the land-man ratio and labour productivity for the period 1951 to 1970. The decline of land-man ratio between 1957 and 1970 shows the lack of absorption capacity of the non-farm sector for surplus rural labour. Burki makes an interesting analysis to demonstrate the extent of underutilization of rural labour (unemployment/underemployment). By taking the output/acre and land-man ratio for 1951 as an index, he estimates that a labour force of 6.7 million was needed to produce the output of 1961. Therefore, in 1961, 870,000 workers, or 11.5 percent of the then-labour force, could be considered as unemployed. Or, to put it differently, the labour force of 1961 was 88.5 percent occupied, as compared to that of 1951. Using the same index, the labour force of 1970 was better employed by 19.7 percent, as compared to that of 1951. (32) The latter situation is the result of technological improvement in agriculture, which will be discussed in the following paragraphs.

2.6.1 **Rural-Urban Migration**

The cumulative effect of the factors listed above, i.e., agrarian structure, pressure on land, lack of employment opportunities, coupled with the anticipation of higher incomes, has precipitated large-scale rural-urban migration. The extent of rural-urban migration during the fifties has been estimated by Burki to be of the order of 2 million and that during the sixties, of 4.36 million. (33) During the fifties, 52 percent of the rural migrants were from the intensively agricultural (IA) region, 28.3 percent from the rainfed region, 10.8 percent from the extensively agri-
**TABLE 8**  
**LAND/MAN RATIOS AND LABOUR PRODUCTIVITY**

<table>
<thead>
<tr>
<th></th>
<th>Unit</th>
<th>1951</th>
<th>1961</th>
<th>1971</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cultivated Area</strong></td>
<td>Millions of acres</td>
<td>37.38</td>
<td>40.95</td>
<td>47.63</td>
</tr>
<tr>
<td><strong>Labour Force</strong></td>
<td>Millions</td>
<td>6.19</td>
<td>7.57</td>
<td>8.87</td>
</tr>
<tr>
<td><strong>Land/Man Ratio</strong></td>
<td>Acres/head of labour force</td>
<td>6.04</td>
<td>5.41</td>
<td>5.37</td>
</tr>
<tr>
<td><strong>Agricultural Output</strong></td>
<td>Rs millions (1959-60 prices)</td>
<td>70.89</td>
<td>76.95</td>
<td>121.88</td>
</tr>
<tr>
<td><strong>Output per Acre</strong></td>
<td>Rs</td>
<td>190</td>
<td>188</td>
<td>288</td>
</tr>
<tr>
<td><strong>Output per Man</strong></td>
<td>Rs</td>
<td>11.45</td>
<td>10.17</td>
<td>13.74</td>
</tr>
</tbody>
</table>

**Source:** Burki, S.J., "West Pakistan Rural Works Programme, 1963-72" (Mimeograph).
cultural (EA) region, and 8.2 percent from the arid region. During the sixties, 64.7 percent of the migrants were from the IA region, 30.9 percent from the rainfed region, and 4.4 percent from the EA region. Significantly, the arid region, during the sixties, was a net importer of rural migrants. This analysis points to the deteriorating labour absorption capacity, principally in the IA region, which is the agricultural heartland of the country, followed by that in the rainfed region. On the other hand, it shows an improvement in the labour absorption capacity of the EA and arid regions.

The statement that the labour absorption capacity of the IA region has deteriorated during the sixties is in apparent contradiction with the one made in the preceding section regarding the higher utilization of labour in this region during this period, owing to the new technologies of the Green Revolution. An explanation is provided by the structural changes in the agrarian structure, brought about by the new technologies. It must be recalled that the adoption of HYV's and the attendant technology was mainly concentrated on medium-size and large farms. The adoption of HYV's resulted in selective mechanization. This led to a reduction in physical labour input in farming. As a result, family labour replaced hired labour on farms. The higher intensity of cultivation associated with the new varieties and technology increased the productivity of family labour recalled into farming from other occupations. However, at the same time, it displaced hired hands, who were compelled to migrate into towns and cities.

(34) Bashir's survey on the impact of tractor machinization on labour, quoted by Burki (36) shows that in absolute terms, the adoption of agricultural technology displaced nine permanent hired labourers off a medium-size farm. On the other hand, it attracted eleven family members from
non-farm occupations in both rural and urban areas.

The Green Revolution has contributed to labour displacement in another manner, also. The financial returns from the cultivation of HYV's had two impacts on the agrarian economy. The principal beneficiaries, i.e., the medium-size farmers, earned substantial increases in income. Second, the value of agricultural land increased considerably. Marginal landowners, therefore, found it advantageous to rent out their land or occasionally sell it to the middle-size farmers. This group also rented land from large farmers to optimize on their investment in the new technology, i.e., tractors, tube wells, etc.

Migration and Urbanization

The large-scale rural-urban migration is rapidly changing the composition of the spatial landscape of the country. There are three aspects of this phenomenon which need particular mention. First, a major percentage of the rural migrants are gravitating towards a few large urban centres. Second, that given the existing economic base of these cities, the flow of migrants is putting a tremendous strain on their services and infrastructure. Third, all these cities show mounting rates of unemployment and underemployment. It has been estimated, for instance, that Karachi is receiving 200,000 migrants annually. The recently concluded study of the Karachi Master Plan (37) describes it to be a 'city in crisis'.

2.7.1 Issues and Implications

The preceding discussion raises some basic issues which have a critical bearing on national development. These issues are summarized as follows:
Seventy-five percent of Pakistan's population is located in rural areas. About 20-40 percent of this population, or between 11.5 and 26.5 million people, are living in abysmal poverty and in deplorable social conditions. Another 20-30 percent are living relatively only a little better off;

The bulk of the rural poor are dedicated and hardworking. They have shown a tremendous response to improve their economic condition via the adoption of HYV's introduced under the Green Revolution. However, because of the existence of a set of constraints, this group has not been able to benefit from the Green Revolution or to improve their economic lot. Furthermore, government intervention to ameliorate the condition of this group has been inadequate and ineffective;

The cumulative effect of poverty and population pressure and the anticipation of better economic conditions in the urban environment, is precipitating a tremendous acceleration of rural-urban migration. The structural changes in rural society introduced by the adoption of new technologies has added to this problem by displacement of farm labour. The trend in rural-urban migration shows a polarization of migrants in a few large metropolitan centres. This is rapidly causing a state of urban crisis in these centres.
2.7.2 **Implications**

From the overall perspective of national development, the basic implication of this situation bears on the fundamental questions of social justice and equity for this major section of Pakistan's population. A parallel question is the economic productivity with respect to the agricultural sector. However, within the framework of this overview, there are a set of implications of the situation which have direct bearing on present and future development policies and programs. These are summarized below:

(1) Demographic estimates show that the population of Pakistan will double from the 1972 census estimates of 64.9 million to about 13 million by the turn of the century. Agricultural production to meet the food requirements of the population will continue to hold high priority in development policies. Therefore, agricultural development, particularly the maximization of farming efficiency, would hold critical importance. This would need new and innovative programs designed to co-opt the efforts of the entire rural sector into productive agricultural development.

(2) Along with population, the size of the labour force would expand considerably. It had been observed earlier, that according to conservative estimates, the rural labour force would increase by 2.2 million by 1992 over the 1972 figure of 8.9 million, before stabilization at 11 million. Considering the poor utilization of the existing rural labour force and the threatening role of the 'Green Revolution'
technology on labour absorption, the question of employment for this labour force assumes a critical importance. Programs and strategies of labour utilization will, therefore, have to be devised to ensure employment without sacrificing the benefits of these new innovations in agriculture.

(3) The situation for urban growth is more serious. It has been estimated that by the year 2001, the urban population of Pakistan will be 86.1 million. The urban labour force in 1993 is estimated at 21.7 million as against the 1970 estimates of 7.8 million (Table 7). Given the existing trends in polar migration and urbanization, considerable political, social and economic problems can be anticipated. It would, therefore, be necessary to adopt policies for a 'balanced' pattern of urbanization. Coupled with these, programs would have to be devised for urban employment.

(4) The future development prospects of the country depend, to a great extent, on the adoption of appropriate policies and programs in the present. The immediate implementation of properly conceived programs of economic and social development designed to elicit the full participation and potential of the people and to ensure their share in the benefits would better prepare the nation for the challenge of tomorrow. The focus for the present is on the rural sector of the economy for the reasons stated
earlier. However, intimately linked with the problems of rural development are the existing, but more important, the potential, problems of urban growth. In sharing the need for immediate action, we subscribe to Myrdal's thesis that to prevent the polarization effects within the economy from becoming irreversible, developing nations should, as a matter of policy, take early steps to promote the 'spread effects' of development.

The Pitfalls of Simplest Solutions

It appears 'prima facie' that root cause of the rural problem lies in the agrarian structure and the most appropriate solution would be agrarian reforms through land redistribution. Although the first part of this statement is partly true, the solution offered, i.e., land redistribution, is both controversial and debatable. It is controversial in that land reforms are within the domain of political decision-making. Therefore, from the planning perspective, it cannot be taken as a decision variable. The debate on the efficacy of land reforms is a theoretical issue. On the plus side, there are justifiable arguments that land redistribution would raise productivity of the marginal subsistence farmers and also increase rural employment. On the negative side, it is argued that the large farmers have greater resources and therefore a greater potential for agricultural innovation through investment in land improvement and technology. The scale of operation also affects the extent of marketable surplus. In the Pakistani context, a major redistribution of land does not appear to be a practical solution because of the built-in process of disintegration of holdings under the Islamic laws of inheri-
tance. Although it can be foreseen that a radically inclined government can, by fiat, effect the redistribution of land, it appears extremely difficult to keep the structure of farms intact, because of sensitive religious implications related to the laws of inheritance associated with this issue. As a concluding remark on this question, it needs to be pointed out that the proponents of land reforms take a rather simplistic view of the matter. It is assumed that the redistribution of land automatically leads to higher productivity. What is not foreseen is that agricultural productivity is linked with the farmers' access to resources and inputs which, together with land, could increase productivity. In the absence of this access, there is every chance that the redistributed land would, in one way or the other, gravitate back to those in the agrarian economy who have this access.
CHAPTER II

NOTES

(1) Land Reform Act, 1959.


(6) It must be noted that these figures are based on the Pakistan Census of Agriculture, 1960. The land reforms instituted by the present regime in 1972 have reduced the maximum ceiling on individual holdings to 150 acres.


(8) Quoted from M.H. Hough The Co-operative Movement in India, p. 16.

(9) Kuhnen, Frithjof Agriculture and Beginning Industrialization: West Pakistan, Publication of the German Orient Institute, 1968, p. 145.

(10) A programme of intensive agricultural development under the nomenclature of the 'Food Self-Sufficiency Programme' was inaugurated by President Field Marshal Mohammad Ayub Khan, in 1967. The agricultural policies adopted under this programme ushered in the 'Green Revolution'.

(11) Falcon and Gotsch, op.cit.,


Note: (i), (iii), and (iv) are excerpted in Small Farmers - Credit, HYV in Pakistan, AID, Spring Review of Small Farm Credit, Vol. XIV, February, 1973, No. SR 114.

(13) For further corroboration of this point, see Ahmad, Mushtak "Farm Efficiency under Owner Cultivation and Tenancy," Pakistan Economic and Social Review, Vol. XII, Spring, 1974, No. 2.

(14) This does not necessarily mean that large and medium-size farmers are using optional technology. On the contrary, Lowdermilk's (op.cit.) study found a high degree of ignorance about agricultural practices among all categories of farmers.


(16) Quoted from Lowdermilk, Max Kearns, op.cit., p. 271.


(18) These findings are corroborated by a more recent survey carried out by the Pakistan Ministry of Agriculture in 1970. This author does not recollect the title or date. However, Naseem Survey, op.cit., Working Paper, Table 10, p. 31, shows the same trends.


(20) Ibid., pp. 351 and 361.


(22) Ibid., pp. 169-176.


(27) This relationship is established by Engle's Law.


CHAPTER III
RURAL DEVELOPMENT: LESSONS FROM PAST EXPERIENCE

3.1.1 An Historic Perspective

The general plight of the peasant farmers in British India became a cause for concern to the Government after a series of famines ravaged parts of the countryside during the mid and the closing years of the nineteenth century. There were two major causes for these famines. First, in the ruthless exploitation of the peasantry under the 'Zamindari' and 'Jagadari' systems of land tenure, discussed earlier. Second, the erosion of traditional village institutions of collective social security, under the burden of 'modern' legislative and administrative institutions. (1)

Interestingly, the deteriorating socio-economic condition of the peasantry was not evaluated in its totality, but systematically diagnosed in terms of the growing indebtedness of the farmer to the moneylender and the transfer of farm land to the latter on foreclosure of mortgages. The resulting solution, in the form of a cooperative credit program was the first program for rural development instituted in the Indo-Pakistan subcontinent.

3.1.2 The Co-operative Movement

The program of rural co-operative credit, widely known as the "co-operative movement," was launched with the Co-operative Societies Act, 1904. The Indian Famine Commission Report of 1901 had suggested the solution in the form of"

"...small and simple societies for small and simple folk, with small and simple needs and requiring small sums only." (2)

The principles of the system were based on the Raiffesin system of
rural co-operatives in Germany and on the English Friendly Societies Act.
The main features of the movement were the following:

(1) Any ten persons (farmers) could register a co-operative society with the objective of raising funds from members, the government, or other agencies;

(2) Loans would be made available by co-operative societies to members only and on personal or real security. Subsequent legislation (the Co-operative Societies Act of 1912) attempted to broaden the base of the system, from the way it was originally conceived. It allowed for the registration of co-operative societies for agricultural and non-agricultural purposes and also provided for registration of co-operative banks to finance co-operative societies. By the ninetine thirties, the co-operative movement had been extended to cover all the provinces of British India. Each province set up 'line' departments to promote and supervise co-operative societies. Likewise, co-operative banking was organized to finance co-operative societies.

The co-operative system in India and Pakistan, as it has emerged over the years is basically a program of rural credit. Its impact, even in this area, has been extremely limited. The survey data presented earlier in Table 4 shows that farmers met 13.2 to 14.3 percent of their credit from co-operative sources. The all-India Rural Credit Survey, 1961-62, showed that borrowing from co-operative societies was 29.9 percent. However, what is more interesting is that the bulk of this borrowing was by big-
landed interest. For instance, the Indian survey showed that the lowest income household, comprising 30 percent of the total, accounted for only 3.5 percent of the borrowing from co-operative societies. While the top two income levels, consisting of 13 percent of the households, accounted for 53 percent of the borrowing from co-operative sources. (3)

In the case of Pakistan, Akbar S. Ahmad's study of co-operative societies in the NWF Province, shows a similar domination of the movement by large landed interests. (4)

In perspective, the co-operative movement in both Pakistan and India has been considered a general failure. A number of reasons are cited (5):

(a) poor management, weak financial base and inefficient internal administration of co-operative societies;
(b) the inefficiency and laxity of the official bureaucracy;
(c) the domination of the movement by vested interest in society.

However, a more fundamental reason for this failure of the co-operative system was its unidimensional approach towards tackling the problems of peasant agriculture which are multidimensional in character. Furthermore, as Mellor et. al., have observed, it was pushed out of competition by relatively efficient private operators, who possessed great knowledge and skills of the village communities and who were willing to operate in a highly flexible manner. (6)

3.13. Community Development

The next phase in the adoption of rural development relates to the post-independence period. In October, 1952, India launched its community
Development Program, followed 18 months later by the inauguration of Pakistan's village AID (Agricultural, Industrial, Development) program. Both these programs had strong foreign sponsorship. The objectives of these programs were similar, i.e., the socio-economic uplift of the peasant community. The underlying philosophy of these programs rested in the prevailing hypothesis that peasant communities had built-in resistance to change. Therefore, a sociological transformation of the outlook of the peasant was a precondition to change and development. Both these programs as they evolved assumed a strong sociological bias with a focus on attempting to transform the values and attitudes of the peasants. The content of these programs focussed on the improvement of the social and environmental conditions of the village. The onerous responsibility of achieving the aforementioned objective rested on young urban-oriented extension agents who were entrusted with a host of varied duties in their role as 'friend, philosopher and guide' to the peasant. As in the case of the co-operative movement, a separate department was created in the Provinces to administer the program.

Experience with these programs in India and Pakistan during the fifties showed that they had made little headway in achieving their objectives. A number of causes have been attributed to their failure. These are summarized below:

(1) The programs were loosely conceived and poorly implemented; the welfare character of these programs lacked emphasis on economic aspects of development, particularly with respect
to agricultural development. (7)

(2) The wide nature of duties entrusted to the extension agent vitiated his impact and spread his efforts thinly over a wide range of activities.

(3) The wide objectives of the program resulted in overlapping of function within the bureaucracy. The traditional departments, i.e., health, agriculture, etc., felt threatened and subverted the activities of the new department.

In addition to the above causes of failure, Dr. A.H. Khan adds a further reason. He points out that the village AID extension worker was considered a 'foreigner' by the village community and therefore was not accepted. Furthermore, that his dominant role in the village as 'an agent of change' tended to stifle local leadership. (8)

The village AID program was scrapped in Pakistan in 1960. About the same time, the Indian Community Development Program lost its central role in rural development.

3.1.4. Agricultural Development

The compelling preoccupation with agricultural production during the sixties resulted in a narrowing of objectives of rural development. This trend was more marked in India which adopted the Intensive Agricultural Development Program (IADP), based on the 'package of inputs' approach. The Report of the Agricultural Commission of Pakistan, 1960, recommended a similar 'package' approach for agricultural development. However, unlike India, the implementation of this policy did not fall within the framework of rural development. This was entrusted to a semi-
autonomous public corporation, named the Agricultural Development Corporation (ADC), which was specially created for this purpose.

3.1.5. Rural Works Programme

The main thrust in rural development in West Pakistan during the sixties commenced with the launching of the Rural Works Program (RWP) in 1963. This program showed a marked shift from the orientation and objectives of earlier programs. The main objective of RWP were:

(a) The creation of employment opportunities for the rural unemployed and underemployed;
(b) The creation of physical infrastructure in rural areas;
(c) The creation of a management capability among local communities to formulate and implement small development projects of immediate need.

This program was inspired by the 'New Deal' philosophy and was funded from PL 480 funds. The implementation of projects was entrusted to three tiers of local councils; e.g., Union Council, comprising a cluster of villages; the 'Thana' or 'Tehsil' Council, corresponding to the sub-Divisional (sub-District) level of the administration and the District Council, corresponding to the District level. These councils were organized as part of the scheme of 'Basic Democracies', promulgated under the Ayub regime's 1962 Constitution of Pakistan. It is pertinent to list the function of the Basic Democracies system. These were:

(a) Political: 75,000 'Basic Democrats', each elected by popular suffrage from a constituency of
1,000 voters, served as an electoral college for the President, members of the National and Provincial Assemblies.

(b) Administrative: Local councils, as described above, comprising 'basic democrats'* and officials of 'development departments'** (corresponding to the level of the council) were vested with local government functions and of supervising local developmental activity, particularly with respect to RWP.

(c) Judicial: Local councils, particularly union councils, were delegated minor powers of taxation and adjudication over local disputes.

The system of 'Basic Democracies' gave considerable impetus to RWP, but also contributed to its eventual loss of effectiveness. It is acknowledged even by critics of the system that it engendered consciousness in rural communities about their problems and enthusiasm for their solution. However, Burki (9) and John Thomas (10) have argued that the

* Or members elected by 'basic democrats';

** The term, 'development department', or 'nation-building department', is used to describe government departments with developmental functions, e.g., Agriculture, Irrigation, Co-operatives, etc., versus other departments such as Revenue, Interior, etc.
political role of basic democrats compounded by the pluralistic agrarian structure in West Pakistan, eventually led to the erosion of the welfare contents of this program. This was brought about in two ways. First, by political elites in power using the program to win political support. Second, by local elites cashing in on the benefits of the program by taking over control of local councils. Rahman Subhan has expressed a similar view about the Works Programme of East Pakistan. (11)

3.2.1 An Evaluation of the Basic Issues

In the preceding discussion, we have surveyed the evolution of rural development programs in Pakistan and also pointed out their more manifest weaknesses. However, in the following paragraphs, we wish to draw attention to three factors which are relevant to understanding the lack of impact of the aforementioned programs.

3.2.2 A Piecemeal Approach

The first characteristic of the rural development program is that it has been a piecemeal approach toward the problems of rural poverty. What planners failed to recognize was that the problem of the peasant could not be diagnosed in simple uni-dimensional terms; i.e., credit, social conditions, or employment. But it had to be conceived and tackled in its entirety. This not only meant the need for an integrated approach towards rural development, but also the need for a transformation of formal and informal institutions, to make such an approach effective. This point will be further clarified when we discuss two specific case studies at the end of this chapter.

It is pertinent to note, however, that there were two main reasons
for this piece-meal approach to rural development. First, there was a general lack of expertise on the subject. Specific programs were initiated mainly at the instance of donor agencies who financed them and who were dependent upon academic circles for expertise. Programs such as the community development program of the fifties, and the rural public works and intensive agricultural development programs of the sixties, assumed the 'centre of the stage' and 'faded from the limelight' in direct relationship to the interest shown by their external and local sponsors. The disillusionment with individual programs was the result of short fall in achievements, vis-a-vis, their objectives.

This, in turn, precipitated further experimentation, especially among expatriate funding agencies. This 'experimentation,' in rural development, particularly during the fifties and early sixties had important side benefits. During this period, a local and expatriate 'brain trust' in rural development was created. Also, a recognition of shortcomings in past approaches paved the way for the adoption of strategies in the correct direction. The second reason was a lack of total commitment in official policy, towards rural development. It has been observed that the principal concern during this period was on achieving rapid economic growth. Rural development programs, along with other welfare programs, had a relatively low priority and remained in the periphery of national development.

3.2.3. Inadequacy of the Administrative System

The second characteristic related to the rural development program is that the administrative structure of the bureaucracy in Pakistan retains the essential features of the pre-independence colonial bureaucracy of British India. The principal and traditional role of the colonial bureau-
cracy was the maintenance of law and order and the collection of government revenue. Consequently, the administrative framework, in terms of spatial administrative divisions and functional duties (staff and line operations) was designed with this objective in view. This structure of the colonial administration has, however, proved highly inadequate for achieving the ambitious demands of development following independence. The restraints posed by the system can be analyzed on the basis of the following two criteria: (i) the allocation of space into administrative boundaries and how this has affected development programs, particularly rural development programs requiring grass roots effort; and (ii) the operational difficulties in planning and executing rural development programs through the conventional administrative system.

(1) The spatial organization of administration: The most important functional tier of the colonial administration, as in Pakistan today, is the District. The "old" Districts of British India were physically delimited with the progressive annexation of territory. The criteria for physical delimitation were partly determined by the exigencies of the situation. However, more fundamentally the area of the District was determined on the basis of the physical ability of the administration to efficiently perform its two principal functions, noted above. The emerging physical configuration of Districts represent fairly extensive areas. While the size of individual Districts vary, the average size of a District in Pakistan is approximately 6,000 square miles. Below the District level and representing the lowest rung of the formal administrative hierarchy is the sub-Division or the 'Tehsil'. The physical delimitation of these tiers were also determined on similar considerations,
the sub-Division being normally larger or politically more important than the 'Tehsil' and therefore headed by an officer of a higher status.

This division of space, determined by administrative boundaries, has strongly influenced the performance of development programs, in general, and rural development programs, in particular. This influence, on the whole, has been regressive for three reasons. First, the existing administrative boundaries have assumed a sacrosanct character and provide a set of static parameters within which most 'new' development programs, e.g., Rural Works Program, Family Planning Programs, etc., have to be planned and implemented. Second, the administrative boundaries were delimited, keeping in view the restricted objectives of law enforcement and revenue collection. The size of the District approximated the scale of the activities involved which were determined by the then population parameter. Both the functional role of the District and the population size have changed drastically. The increasing functions assigned to the civil administration at the District and sub-divisional levels along with the explosive increases in population have considerably diminished (improvements of communications notwithstanding) the mutual access between the administrative and the client population.

While the number of Districts and sub-divisions has changed marginally, the population of Pakistan has increased from 16.58 million in 1901 to 64.89 million in 1972. This situation can be interpreted to mean that the traditional colonial District officer was more accessible to the residents of the District during the turn of the century than the subordinate sub-divisional or 'Tehsil' officer is today with reference to the population of the Tehsil.
Third, since authority is highly centralized in the offices of the Deputy Commissioner and the sub-divisional officer increases in subordinate staff have not resulted in decentralization of functions. Therefore, these key functionaries have not only been progressively isolated from the administered population, but the system as such has lost its viability as a unit for efficient administration. This dilemma has been expressed by one Deputy Commissioner in the following words:

"Being burdened with ever-increasing responsibility in the sphere of development and general administration, with the growth of industry and the rapid strides in the sphere of development, the District Officer needs more help in technical and administrative fields. District administration was designed for a lesser number of people living in a less complicated society. . . the elasticity of the District has been stretched to the limit. This is not in the best interest of administration." (12)

(2) Operational problems in implementing rural development programs: In the absence of a viable alternative, the civil administration, symbolized by the prestigious offices of the Commissioner, the Deputy Commissioner and the sub-Divisional officer, have served as a convenient peg around which a wide variety of diverse programs have been strung. The Division, a high supervisory echelon, has been generally entrusted with coordinating functions while the full weight of program planning, implementation and supervision has been delegated to the District and sub-Divisional levels. However, what has been singularly missing is the delegation of authority to those key functionaries to effect coordination among the different agencies who are involved in those programs. The second major problem has been the conflicting physical jurisdiction of development departments, which do not overlap with those of the civil administration. The dilemma of this situation was forcefully expressed by another Deputy Commissioner when he
wrote:

"There is, at present, no effective and sure device for harmonizing the activities of the various agencies working at the District level. What coordination there is depends primarily on personal ingenuity prompted by necessity. The existing instruments of coordination include telephone conversations, hurried discussions at chance meetings, passing exchanges at social occasions, ad hoc confabulations, pleas and complaints addressed to superiors and urging and coaxing of the Deputy Commissioner. These represent a dreadful drain of time, energy and morale of personnel. They entail absurd delays and stalling of development work, needless tensions, abraded feelings and hang-over of inter-departmental trust."

(13)

In concluding this discussion on the deficiencies of the existing administrative system to plan and implement rural development programs, a brief reference to an alternative strategy of implementing such programs through a departmental approach seems pertinent. The "line" or "nation-building department" "unfortunately" manifests the most regressive aspects of a bureaucracy. Departmental structures are highly compartmentalized, with little mutual coordination or communication. Interdepartmental rivalries are common, emanating from the patronage associated with the functions of individual departments. Again, departments having their origin in the old colonial bureaucracy are considered more prestigious and therefore more entrenched. In this schema, new departments created for specific programs (for instance, the Department of Village AID) became a subject of the collective resistance by the traditional bureaucracy because it perceived an encroachment on its traditional jurisdiction and interests.

3.2.4. Interest Groups and Program 'Mutation'

The third characteristic of rural development programs has been the gradual erosion of the welfare objectives meant for low-income groups
through what is described as the process of "mutation". Program "mutation" (14), as described in current literature, is a deliberate process through which vested interest groups in society take over control of such programs, either because they perceive them as a threat to their interests, or because they can reap personal benefits from them. Structural changes in the content of the programs follow with a progressive loss of their welfare content meant for the less privileged.

The central point of the theory of "program mutation" is the degree of commitment of the regime to the program and the capability of the regime to ensure that in implementation the program adheres to its original objectives. John Thomas classifies regimes in terms of assessing this enforcement ability. (15) This classification ranges from socialist regimes with strong centralized power to more democratic regimes with a weaker power base and therefore a lesser capability to enforce these objectives. In this classification, Pakistan falls within the category of "moderate change regimes", which are concerned with inequities in society and have declared their intention to resolve them. However, according to Thomas, when such regimes undertake programs with a reform dimension, the emergence of political opposition from well-articulated economic interest groups is inevitable. (16) Thus, Thomas observes:

"In countries with mixed public and private economic systems (for instance, Pakistan), control of scarce resources is closely related to political power. Public works channel resources into the rural sector with the low-income, underemployed as the principal target group. However, groups other than the target beneficiaries, such as landowners, traders and contractors, may perceive that the government's initiatives and the accompanying resources provide a threat to the group's interest or any opportunity to improve their situation. Either perception will be sufficient to cause these local elites to act to further their interests. Since the economic position of these groups usually provides them
political power at both local and national levels, they are in a good position to alter the nature of the program to serve their own interests. Most national governments are dependent, to some degree, on these local elites and find it difficult to bypass or sustain a challenge to these interests over an extended period of time.

"...There are several important decision points at which pressure for mutation can be applied: the choice of projects, choice of technology, the choice of project implementation agent, the establishment of wages. ..." (17)

In perspective, the case for program mutation has been built on hindsight and with reference to programs under implementation, during a period (the fifties and the sixties) when regime commitments to development lay essentially in the augmenting GNP and when welfare and equity considerations were relegated to the background. Also, the theory of mutation is essentially static in character and does not take into account the internal forces being generated within agrarian societies for change. With the rising rates of inflation, increasing levels of education, and access to information, the peasant of today can no longer be considered the docile serfs of earlier years.

In fact, for most developing countries of Asia, and particularly Pakistan, the highly stratified agrarian structure extant during the fifties and sixties was a hangover from the status quo-oriented colonial past. Although an inequitarian agrarian structure still exists, it is no longer so confidently entrenched. The land reforms of the Ayub and Bhutto regimes have significantly diminished the stranglehold of the landed gentry over the peasant. In fact, Bhutto's People's Party was elected to power in contrast to earlier political tradition by the vote of the peasant and the working class on a manifesto of social reform and equity. This surprising
victory represented a signal defeat to the landed interests, who embodied the opposition parties.

More significant, however, is the changing outlook of the peasant. The tremendous increase in rural-urban migration reflects one aspect of the peasants' cognizance of his situation of poverty and dependency. The transfer of information from the organized and articulate urban working poor back to the villages is an area where little research has been done. It would appear, however, that with growing mobility between the urban and rural areas, some of the urban-based ideas of organized resistance to the vested groups would filter down to the villages in the shape of activist politics.

In the perspective of a society in transition, the issue of the mutation loses some of its compelling significance. With increasing awareness of the peasantry, it is equally conceivable that regimes may depend upon this constituency for support and self-maintenance; or at least, pursue policies to achieve a balancing out of the interests of different segments in the agrarian society.

3.3.1 Trends Towards Decentralization and Integration: Two Case Studies: the Comilla and Daudzai Projects.

Building on the failures of past experience, the East Pakistan (Bangla Desh) Academy for Rural Development evolved a decentralized and integrated model for rural development known as the Comilla Project, which has won wide international acclaim and recognition. (18) Commencing in 1959, as a pilot project, the Comilla model today provides the framework for the ambitious and relatively successful program of rural development in Bangla Desh. The Pakistan Academy for Rural Development, with the assistance of the
founder of the Comilla Project, Dr. Akhtar Hamid Khan, has evolved a parallel project in 1972: the Daudzai Project, to suit indigenous conditions. This model has been adopted as the basic framework for rural development in the NWF Province of Pakistan.

A discussion of these models is important, not only because of their international and national acceptance, but as Choldin notes, the Comilla projects. . .

"...have produced changes in the agricultural technology of the area, in the political organization of the villages, in the rural communication system, in local level public administration, in farmers' attitudes and in other social and economic aspects of the rural scene." (19)

Both these models have three key elements:

(1) A decentralized and coordinated system of development administration at the grass roots level;

(2) A system of co-operatives for peasant mobilization and organization;

(3) An integrated framework for rural development.

These three elements are knit together into an efficient and well-organized machinery for the implementation of comprehensive rural development programs. The singular achievement of these models is the high degree of commitment and participation by the peasant communities.

3.3.2 The System of Development Administration

(a) The traditional administrative framework which extended down to the sub-divisional level has been decentralized spatially to the lower echelon, i.e., the 'Thana' (Police Station). The local echelons of development departments have been strengthened, in terms of additional staff and inten-
sive in-service training.

(b) The 'Thana level' staff of the development departments, i.e., Agriculture, Animal Husbandry, Irrigation, Health, Education, Co-operatives, etc., have been organized into a team under the leadership of a specially-trained specialist. (The Circle Officer under the Comilla model; the Project Officer under the Daudzai model.) The Project Officer is vested with special administrative powers over the members of Thana Team. He is directly accountable (in the case of Pakistan) to the Rural Development Council (an inter-ministerial council whose members also include secretaries of Department) via the local government department. He is also responsible to the Deputy Commissioner, for Inter-Project coordination.

(c) 'Thana Training and Development Centres' have been set up at the Thana headquarters. These consist of a building which houses the offices of the development department at the Thana level. It has an additional room and facilities for training activities and land for agricultural demonstration.

This model of development administration has four distinct advantages. First, it has strengthened and organized the lowest field echelons of the development departments, which were the weakest link in the chain. Second, it has achieved some coordination of departmental activities, by putting their representatives physically together, but more important, by attempting to create a team spirit under a unified leadership. Third, it provides the peasant with easy access to government institutions, which are available in a 'package'. Finally, unlike earlier attempts, rural development has been introduced as part of the normal functions of development departments, as opposed to a separate program.*

*This point was strongly emphasized by Dr. Khan in developing the framework for the Daudzai Project.
3.4.1 Peasant Mobilization and Organization

(1) Peasant mobilization and organization is based on three principals:

(a) The village is recognized as the basic unit for development. First, because the village community constitutes an integral group which strongly influences the behavior of individuals. 'Peer group' relationship is an important factor in determining an individual's response to development. Therefore, approaching the group as a whole is a better method of effecting change than by approaching individuals. The focus of the Daudzai project has been on consciously working with the poor segments of the village society because of the pluralistic agrarian structure.*

(b) A viable private economic organization is needed to serve as a basis for collaborative effort, through which technological improvements can be introduced to the peasant. However, before such a system can be formally instituted, the peasants must demonstrate a high degree of organization through collaborative effort. Therefore, the first step is to develop peasant collaboration. This is based on the 'felt need concept.'

(c) For the reasons explained earlier in Section 4.1.3, the extension agent approach has been discounted, the extension agent has been replaced by 'best farmers', who are selected from and by the 'peer groups' on the basis of performance and leadership qualities. The 'best farmer' serves as the key link between the development center and individual villages for the diffusion of innovation.

*John Thomas (HIID), whose observations about program 'mutation' have been noted earlier visited the Daudzai Project in 1975. In his conversation with this author, he expressed his surprise and admiration on the lack of 'mutation' tendencies in the Daudzai program, even within the framework of a pluralistic structure. He attributed this to the strong individualistic personalities of the local peasants.
Methods of peasant organization

Peasant communities are approached by specially trained personnel known as 'cooperative units' whose role is that of 'activists'. In discussions with village groups, they focus attention on local problems and attempt to obtain a consensus on the 'immediate felt needs' of the community. This is followed by organizing loose groups to resolve these 'needs', which are usually small projects of local and immediate importance. Formal plans and design of the projects are drawn up on the relevant development with the assistance of the technical unit of the Development Center. Funds are provided by the People's Works Programme (a successor of RWP). The projects are implemented by the local communities under official supervision. Through this process, three objectives are achieved. First, a basic framework for peasant organization is developed. Second, a sense of confidence is instilled in rural communities, that they may have the capacity to resolve their problems. Third, a pattern of local leadership emerges.

The Cooperative system

The next stage is to temper these loose organizations into a formal system. In addition to rural public work, an economic dimension is introduced, i.e., savings and agricultural development. This provides the basic framework for a formal cooperative system. Past experience with cooperatives has shown that strength and weakness rests on the internal discipline of primary (grass root) cooperative societies. Therefore, a great deal of attention is accorded to ensuring that cooperative societies adhere to this discipline. This is achieved through ensuring that members strictly adhere

*As opposed to cooperative societies.
to a number of codified functions. These include; holding compulsory weekly meetings and educational discussions; making weekly cash or in-kind deposits, however small the amount; adopting improved agricultural practices, preparing joint production plans for agriculture; and using only supervised agricultural credit.(20) The Comilla cooperative system consists of three tiers, i.e., (Figure 3) primary agricultural and non-agricultural societies at the village vertically linked to the Agricultural and Special Cooperative Societies Federation, which are further integrated into a single Central Co-operative Association at the 'Thana' level.

The main functions of the Central Co-operative Association are: the promotion and expansion of savings among member societies; the provision short and medium term credit for crop production and land improvement; bulk purchasing and marketing activities, hiring of agricultural machinery and provision of workshop facilities, etc. (21) The Co-operative system is a private organization controlling its own funds (borrowed and generated) and, in the case of Comilla, owns cold storage facilities, a dairy farm, agriculture machinery and a workshop.

Training

An important feature of both these models is the heavy emphasis on training. In fact, high pressure training programs constitute the foundation of the complex structure of institutions and relationships which these models have developed. Training and demonstration programs have been developed for all groups, i.e., officials, public representatives and 'best farmers'. Training programs for the latter hold extremely high priority in view of their role as 'agents of change' and because of their key role in the organization and operation of the primary co-operative societies
Popular participation in development

Popular participation in development under the Comilla model was achieved through the popularly elected local councils.* In addition to overseeing the interdepartmental activities, the main functions of these councils, as noted earlier, was the implementation of the Rural Works Program. However, unlike the Rural Works Program in West Pakistan, the program in East Pakistan has been more effective in achieving its objective. The main reasons are: a higher level of management capability because of the administrative reorganization, noted earlier, and better planning and implementation techniques.

3.4.2 Integrated Rural Development

The organizational framework of the Comilla model is shown in Figure 4. The central organization is the Thana Development Centre, which is linked on the one hand with the 'Thana' council and on the other hand to the Central Co-operative Federation. The training component figures as a central component of the scheme. The model has evolved a high degree of functional integration between a co-operative system, public administration, and local government institutions. The underlying objective has been the integration of diverse programs of individual sectors into an integrated

*The Basic Democracies system was abrogated with the fall of Ayub Khan's regime. The present Government in Pakistan is proposing to institute a similar system for local government. However, this will not have the political role of an electorate, which was associated with 'Basic Democracies.'
Structural and functional dimensions of Comilla coo
tive system, 1968." Taken from "Eighth Annual Report.

Source: Figs. 3 and 4; Raper, Arthur F. Rural Development

An organizational chart for a thana training and development center. Adopted from A. K. M. Moh-
ser, "The Comilla Rural Administration Experiment, History and Annual Report, 1962-1963," Comilla, PARD, October 1963, Appendix A, p. 82. This chart represents relationships as they were in mid-1966.
rural development effort. In program planning and implementation, each section of the organization is required to supplement and complement the programs of the other. For instance, the Rural Works Programme has provided the economic structure for the development of the co-operative system. The mobilization of farmers, through the latter has served as a basis for launching a number of social welfare programs, i.e., family planning, adult education, women's work, etc. However, more fundamentally the project has provided an opportunity to the citizens of one of the most depressed areas in the world to better their socio-economic condition. This has been achieved through providing them with access to their needs and by instilling in them a sense of confidence that they can, in some measure, control their own destiny.

3.4.3 The Comilla and Daudzai Projects: An Evaluation

The Comilla Project was initially expanded to cover nine Thanas, and by 1970, to cover the twenty Thanas of Comilla's District. Impartial observers have commented favourably on the framework and achievement of the projects. Even to the critical eye of its founder, Dr. Khan, the new projects did not show any glaring weaknesses. (22) The limitations of the Comilla and Daudzai projects, therefore, do not lie in the structural organization of their projects or in strategies adopted to achieve their objectives. The main limitation of both these projects is that they do not implicitly recognize the importance of rural-urban linkages. This is manifest in a number of ways:*

*Points (1) and (2) were observed by the author in his analysis of the spatial design of police stations in the NWF Province of Pakistan.
(1) The basic size of the project area, i.e., the Thana, has been arbitrarily accepted. It does not coincide with optimal patterns of spatial design as determined by market networks or urban-hinterland relationships.

(2) The location of the 'Thana Development Centre' is, again, arbitrarily determined by the existing location of the 'police station' headquarters. The latter, in most cases, does not coincide with the apex urban centre within the project area. This has given rise to the generation of diverse pulls on the trend of human activity with the project area. This could have a stultifying effect on urban growth within the area.

(3) The programs, particularly the construction of feeder roads under PWP, have not been planned specifically with the objective of developing an optimal rural-urban axis.

(4) The strategies in general have not contributed to spatial integration of activities within the project.

**Summary**

The experience of rural development in the Indo-Pakistan span a period of almost three quarters of a century. This experience has been to some extent experimentative in nature. However in the process of implementing these programs a number of lessons have been learned about the requirements for rural development. These consist of the need for a decentralized system of administration; an integration of development programs to tackle the different facets of rural poverty; and popular participation in development. Building on this experience
the Bangla Desh Academy for Rural Development has developed a highly sophisticated model for rural development known under the name of the Comilla Project. The Pakistan Academy for Rural Development has more recently developed a similar model. The models provide a viable system for mobilizing peasant communities for participating with the government administration in programs of rural uplift. However, these models have one significant shortcoming. They are not designed specifically to strengthen rural-urban linkages. The critical importance of rural-urban integration for a progressive pattern of agriculture will be discussed in the following chapter.
CHAPTER III

NOTES

   See also Darling, M.E. *Punjab Peasant in Prosperity and Debt*. London House,  
   Milford, 1925.

2. Quoted from Hough, E.M. *The Cooperative Movement in India*  


5. For a detailed analysis, see references 2, 3, and 4, listed above.


7. For a brief but lucid discussion of the limitation of these programs,  
   see Brown, D.D. *Agricultural Development in India's Districts*,  

   Akhtar Hamid Khan, Michigan State University, East Lansing, Michigan.


13. Quote, Ibid.


16. Ibid., pp. 3-4.

17. Ibid., pp. 16-17.


22. Dr. Khan noted a slackness in co-operative discipline; a tendency on the part of the administration to expand the co-operative movement before adequate consolidation of existing societies had taken place; an eagerness to get credit without carrying our production planning, etc. Khan, Akhtar Hamid. Tour of Twenty Thanas, Pakistan Academy for Rural Development, East Pakistan, 1970.
4.1 A distinguishing characteristic between developed and developing economies is the degree of functional integration between the rural and urban sectors of the economy. Developed countries have a high level of inter-dependence between the rural and urban sectors. From an economic point of view, this relationship is determined by the supply and demand for goods and services produced by one sector and consumed by the other. Cities and towns depend upon the agricultural sector for food, raw materials, manpower, etc. Conversely, the agricultural sector depends upon cities and towns for manufactures and services. In an integrated economic system, this interrelationship channels supply and demand between sectors in such a way that growth of one supplements and complements growth in the other. Thus, Weitz observes:

"These interrelationships are salient features of the development process, and their nature is an indicator of the rate of progress. The more highly developed a country, the closer the ties between agriculture, industry and services in the organization of production. Both the percentage of agricultural output intended for industrial processing and the amount of agricultural input from industry and services, rise steadily as the national economy expands." (1)

From a sociological point of view, urban centres serve as channels for the diffusion of innovation and ideas into the hinterland. The urban environment and society is less 'traditional', i.e., has fewer social barriers and stratification, than rural societies. The contact of rural people with urban centres is therefore educative and helps in broadening their mental horizon.

The preceding discussion shows the importance of rural-urban integration in promoting national development and also the development of both the rural and urban sectors. The focus of our study, however, is to evalu-
ate how rural-urban integrations promote growth and development, specifically in the rural sector. The objective is to identify key elements through which rural-urban integration can be used as a policy instrument for promoting rural and agricultural development. The structure of our analysis consists of evaluating four issues which have a direct bearing on the subject matter. These are as follows:

(i) The nature of the impact of urbanization on agricultural development;
(ii) An evaluation of the spatial (urban and infrastructural) constraints faced by Pakistan and how they affect agricultural productivity and rural development;
(iii) An evaluation of theoretical concepts which can be used as policy instruments for overcoming these constraints by promoting an effective system of rural-urban integration;
(iv) An evaluation of select country experience, where such policies of rural-urban integration have been adopted to assess their strengths and weaknesses.

4.2 Urbanization and Agricultural Development

It has been generally recognized by agricultural economists, particularly T.W. Shultz (3), that urbanization has a favourable effect on agricultural development. There are four reasons attributed to this phenomenon:
(a) There is a specialization of agricultural production around urban centres to meet specific urban demand. Thus, commodities like milk, vegetables, etc., can be produced with labour-intensive methods without altering farm size. These commodities command higher prices than other agricultural products such as cereals, etc. Thus, there is an augmentation in farm incomes;

(b) Non-farm employment opportunities offered by the urban sector, along with higher farm incomes, achieved as per point (a), above, provides a basis for capital formation. This is conducive to expansion and modernization of farming;

(c) The social and educational environment of urban areas widens the horizon of rural people and makes them more amenable to change;

(d) The wide variety of consumer products available on the urban market acts as an inducement and incentive to rural people for increasing agricultural productivity. (4)

While these are general relationships showing the beneficial effects of urbanization on agricultural development, for a more incisive analysis of this relationship we must refer to Mosher's (5) distinction between subsistence farming and commercial farming. Thus, Mosher observes:

"As each farm moves from the subsistence farming towards being part of a modern agriculture, it increasingly becomes more and more only the place where inputs from the land, from the farmer, and from the wider economy are brought together and combined. Thus, it is comparable only to the 'assembly line.' Just as an assembly line can only operate as it is constantly fed with components brought to it, and with efficient means of taking the finished products away, so a farm business can increase in productivity only as an increasing
number of off-farm activities providing inputs are readily available nearby and nearby markets can move farm products away efficiently." * (6)

By his description of commercial farming as an 'assembly line' operation, Mosher wishes to emphasize two points:

(a) Farming operations, 'per se', assume a relatively small importance in the production process, their function being that of a combination of inputs;

(b) Off-farm (urban centred) activities are accorded a more important role in the overall process of production. They supply the critical inputs, fertilizer, pesticide, etc., and take away the surplus to a market (urban centre).

Mosher further emphasizes efficiency. This means that the relationship between farm and non-farm activities should be operationally well-integrated. Also, there should be economic efficiency; i.e., the ready availability of inputs at stable prices and an assured price for agricultural surplus. In his scheme for 'creating a progressive rural structure', Mosher accords special importance to the proximity of market centres and their easy access through the development of infrastructure. In Mosher's view, therefore, a close operational relationship between the urban and rural sectors is a precondition for progressive agricultural development.

There is a final point about commercialization of agriculture which has not been fully dealt with in the previous discussion. The commercialization of agriculture is closely related to specialization, while the subsistence farmer produces first for himself and then for the market. Com-

*Closing sentence of quote underlined by this writer.*
mercial agriculture is market-oriented with market demand determining selection of crops for production. The transition from subsistence to commercial agriculture is, therefore, closely tied to the extent of urban demand for specialized agricultural products and also on the stability of market prices for these commodities. We will look into these factors in more detail in the subsequent discussion; however, the argument at this stage is meant to establish the strong influence of non-agricultural (urban-based) activities on the pattern and productivity of agriculture.

4.3.1 Spatial Aspects of Agricultural and Rural Development

In the preceding discussion, we have highlighted the close relationship between urban-located activities and agricultural development. In this section, we will examine how the 'organization of space', through urban hierarchies and linkages, is intimately related to rural and agricultural development. Also, how defective spatial patterns inhibit the development of these activities.

In his classic study on this subject, E.A.J. Johnson observes:

"The key to economic development of countries or regions is normally to be found in the historic relation between town and country. The more contexts in which this phenomenon is studied, the clearer it becomes that development is a function of agrarian commercialization and that the rationalization of agrarian conduct under a pecuniary stimulus calls for a network of conveniently located central places where efficient exchanges of goods and services can occur." (7)

Johnson's evaluation of the contribution of an orderly pattern of market centres to the revolutionization of agriculture in some Western European countries provides interesting insights into this phenomenon. It would, therefore, be pertinent to briefly examine the experience of one country,
i.e., England, so as to provide a framework for comparative analysis vis-\-a-\-vis developing countries, particularly Pakistan.

By 1500, England was well advanced in the commercialization of agriculture. (8) Village communities were no longer self-contained, but manifested a high degree of specialization in agricultural and livestock production. During this period, England had already evolved a highly organized spatial order of 760 market towns. Figures 5, 6 and 7 show the distribution of these marketing centres over the English landscape. The smallest centres served a hinterland of 7 to 8 miles. These were vertically linked with 'shire' towns, which had varied crafts and specialized occupations. "shire towns', in turn, were linked with provincial cities. Because of functional differentiation, the urban hierarchy commanded differential markets. It is particularly interesting to note that English farmers, no matter where they were located, had to travel not more than five to ten miles to reach this market.

This organization of urbanization had a tremendous impact on agricultural production. There were two reasons for this. The high degree of competition within the marketing network prevented monopolies, so that a farmer could get a good price for his product. Second, better farm incomes lead to savings and capital formation which provided investment for improving land, purchase of farming tools and building of granaries, storages, etc. The degree of specialization that farming has achieved in England by 1550, can be judged from the fact that capital was being invested in livestock fattening. (9)

A key question, however, is did the spatial organization promote agricultural production or vice-\-versa? While this appears to be a chicken and egg question, it is important from a policy point of view. Johnson
Figure 5

Markets in Eastern England, circa 1500–1640


Figure 6

Markets in Northern England, circa 1500-1640


Figure 7

Markets in Western England, circa 1500-1640

Figure 8
Substitution between Land and Other Inputs

The dotted lines show the ratio of land cost to input cost per unit of output.

Source: Morill, Richard R., The Spatial Organization of Society (Second Edition), Duxbury Press, 1974, p. 47, Figure 3.05.
does not specifically address himself to the question. However, he does mention that during this period there was a passion for increasing production. He quotes Joan Thirsk, thus:

"... Men were imbued with the conviction that everything could and should be employed and improved. With economy and ingenuity, every living thing, where possible, was pressed into the service of man -- wild fruits, wild animals, wild flowers, insects -- all found a use in agriculture as medicines, to promote the health of men and stock." (10)

From the above, it appears that there was a simultaneous evolution of this phenomenon. Viewed in the background of European history of this period, it was not only the spatial structure but also the set of attitudes towards production that permeated European society in the 'post-reformation period', i.e., the 'protestant ethic' that made these developments possible. (11).

4.3.2 Theory of agricultural location

The spatial organization of agriculture in medevial England can be explained according to the theory of agricultural location. This theory has its origin in the work of Von Thunen. Briefly stated, this theory postulates that:

"the ability of crops to compete for access, or location near major markets, is determined by the level of demand for the given crop, its inherent productivity, its response to inputs and its transportation costs. Variation in ability to compete for access results in spatial ordering of crops." (12)

In subsistence agriculture, the crops sown are determined by the consumption decision of the farmer and the character of the land itself. In a commercial agricultural system, transportation costs and location relative to markets strongly influence the characteristics of production at any given location. This relationship is graphically shown in Figure 8. Near market centers land is assumed to be costly while inputs are cheap because of low transporta-
tion costs. The converse holds true for land situated at a distance from the market. Farmers near market centers have therefore to use land more intensively and in a specialized way, than those located at a distance. However, the precise distance at which a certain crop is competitive depends upon prices, yields, and transport costs. Distance from the market is one of the key variables. Transport costs increase with distance until the revenues equal costs. Below the level of the 'economic margin', it is no longer profitable to cultivate a particular crop.

From the foregoing it is evident that transportation costs vis-a-vis the market have a critical bearing on the production characteristics of agriculture. Where transportation systems are cheap and efficient, land, located even at a distance from the market, can be used for specialized agricultural production through the cultivation of crops with high returns. However, where this is not feasible, farmers at a distance from the market have to maximize their income by cultivating more land, using less inputs and sowing staple crops which are not perishable. Looking at this theory from a different perspective, an orderly pattern of spatial organization, where farmers are located in physical proximity to a system of market centers, reduces transportation costs on agricultural products. This facilitates the diversification and commercialization of agriculture. The example of the physical landscape of medievial England aptly demonstrates this situation.

4.3.3 The Spatial Organization of Pakistan

It has been observed in an earlier section (Chapter I) that the spatial organization of Pakistan has emerged through the foisting of military garrison towns over the countryside. Also, that the administrative framework has been closely tied with this pattern of urbanization. The emerging
pattern of urbanization closely corresponds in size and hierarchy to the administrative system. The average district headquarters is a medium-sized city, while the sub-divisional or 'Tehsil' headquarters can be generally classified as a 'market town'. Below the sub-divisional, or 'Tehsil' level there is no consistent pattern. Figure 9 shows the spatial distribution of Pakistan's urban centers with population of 10,000 and above in 1961.

Johnson's comments on this urban system are as follows:

"After the Sepoy Mutiny (1857)* large military establishments were created with regional headquarters in urban cantonments and with smaller compounds in outlying towns . . . This elaborate military control widened steadily into a bureaucratic system which has had a profound and seemingly permanent effect on Indian (and Pakistani)* economy, projecting its stultifying influences far beyond the moment of Indian (and Pakistani)* liberation." (12)

This stultifying effect is strongly manifest in a spatial dualism in the economy. Johnson and Owen and Shaw (13) demonstrate one aspect of this dualism by comparing the village to town ratios and farm to market roads ratio, per square mile of cultivated area (Table 9 and Table 10) for select countries. These indices show the lack of physical integration of rural communities with the main stream of the economic system for developing countries and for Pakistan. It is pertinent to note Johnson's observation that the Indian countryside is not half as well organized today (1966) as England was in the 16th century. (14). This holds equally true, perhaps, for Pakistan. This pattern of spatial organization has had an extremely regressive effect on agricultural and rural development. Its negative ramifications are manifested in a number of ways which are summarized below:

(a) The physical distance between rural communities and urban centers, coupled with poor communications, has prevented physical access of the

* Words in parentheses added by this writer.
Figure 9
Urbanization Patterns in Pakistan

### TABLE 9

**VILLAGE MARKET TOWN RATIOS OF SELECT COUNTRIES**

<table>
<thead>
<tr>
<th>Country</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Israel</td>
<td>6</td>
</tr>
<tr>
<td>Sweden</td>
<td>23</td>
</tr>
<tr>
<td>Italy</td>
<td>23</td>
</tr>
<tr>
<td>Uruguay</td>
<td>36</td>
</tr>
<tr>
<td>Greece</td>
<td>41</td>
</tr>
<tr>
<td>Chile</td>
<td>77</td>
</tr>
<tr>
<td>Argentina</td>
<td>86</td>
</tr>
<tr>
<td>Malaysia</td>
<td>87</td>
</tr>
<tr>
<td>Iraq</td>
<td>98</td>
</tr>
<tr>
<td>Syria</td>
<td>99</td>
</tr>
<tr>
<td><strong>Pakistan</strong></td>
<td><strong>140</strong></td>
</tr>
<tr>
<td>India</td>
<td>185</td>
</tr>
<tr>
<td>Sudan</td>
<td>262</td>
</tr>
<tr>
<td>Indonesia</td>
<td>355</td>
</tr>
</tbody>
</table>

*Source: Sample taken from Table 5.3 E.A.J. Johnson. The Organization of Space in Developing Countries, Howard University Press, Cambridge, Ma., 1970.*

- Figures for Pakistan added on the basis of 1961 Census estimates.
### TABLE 10

**FARM-TO-MARKET ROADS PER SQUARE MILE OF CULTIVATED LAND MID-1960'S**

<table>
<thead>
<tr>
<th>Country</th>
<th>Miles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Korea</td>
<td>2.7</td>
</tr>
<tr>
<td>Taiwan</td>
<td>2.6</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>2.5</td>
</tr>
<tr>
<td>Chile</td>
<td>1.9</td>
</tr>
<tr>
<td>Colombia</td>
<td>1.6</td>
</tr>
<tr>
<td>Philippines</td>
<td>1.1</td>
</tr>
<tr>
<td>India</td>
<td>0.8</td>
</tr>
<tr>
<td>Pakistan</td>
<td>0.7</td>
</tr>
<tr>
<td>Tunisia</td>
<td>0.7</td>
</tr>
<tr>
<td>Iran</td>
<td>0.5</td>
</tr>
</tbody>
</table>

peasant farmer to the market. This has prevented the evolution of an efficient system of marketing in the rural sector, both for agricultural inputs and agricultural surplus. The main characteristics of this marketing scheme are:

(i) an intricate web of intermediary operations, extending from wholesale to retail of commodities produced and consumed on farms;

(ii) the emergence of petty monopolies because of the small-scale of marketing operations undertaken at the village level;

(iii) the institutionalization of a dependency relationship between the peasant and intermediaries through production and consumption credit and for the disposal of surplus;

(iv) the lack of price stability for agricultural products which show wide seasonal fluctuations;

(v) the lack of a regular flow of agricultural surplus to the market because of speculative tendencies on the part of the farmers and intermediaries, owing to market price fluctuations.

(b) The difficulty in planning and implementing a supportive system, i.e., roads, storages, processing plants, schools, hospitals, and other services which are concomitant to rural and agricultural development. This problem is posed by the lack of a defined hierarchy below the existing market towns. The physical linking of over one hundred forty villages with a single market town, directly or indirectly, is expensive and counterproductive. On the other hand, there are no set criteria for location of the support system. Thus, rural development programs of which we have made references earlier are attempting to develop a supporting system without a spatial policy, the consequence is dispersed investment in infrastructure,
which does not directly contribute to strengthening the linkages between the rural and urban sectors. This problem is more serious in the case of the programs of development department, which are compartmentally planned and implemented. They are expending scarce resources thinly and haphazardly in an attempt to meet the demand of isolated village communities. In this vain attempt to make village communities self-sufficient in basic services, like health education, they are providing poor level of services; and vitiating the mutual interdependence of settlements which emerge through specialization of services and which provide a basis for urban growth.

The organization of space in Pakistan, as the previous discussion shows, is not conducive to the evaluation of the type of progressive agriculture that Mosher has made reference to. This is specially relevant in the case of the small farm sector. The problem as analysed points to the need for a deconcentration of the urban system and the development of a supportive framework to assimilate peasant agriculture into the market. In the following discussion, we will look at some models of spatial organization to evaluate principles for this deconcentration.

4.4.1 Models of Spatial Organization

1. Central Place Theories

The works of Walter Christaller and August Losch, known as 'central place theories' are among the early and important models of spatial organization. This theory has been widely commented upon in recent literature on urban and regional analysis. Therefore, a detailed discussion would be laborious and involve unnecessary repetition. We therefore
present the salient characteristics. (16) The theories of Christaller and Losch are similar but have important distinctions. We therefore discuss them separately.

The basic question that Christaller posed was whether there are some general principles to determine the number, size and distribution of human settlements. (17) In deriving his theory, he made a number of assumptions. First, he assumes a homogenous plain with an even distribution of natural resources; population; consumer preferences; and production techniques for each category of goods produced. Second, human activities are considered as space-utilizing. Third, transportation costs, demand for products and economies of scale will vary for individual products and hence, the spatial range for goods and services will also vary. Each good, according to Christaller, will therefore have its own range (determined by the above factors). Furthermore, goods of the same range will be located equidistant from each other, which will be at the corners of a lattice of equilateral triangles. The emerging organization of space, according to Christaller's theory, has horizontal and vertical characteristics. These are summarized by Hermansen, as follows:

"Human activities, except for space-utilizing ones, are organized in space so that **horizontally** they are:

(a) located at regularly spaced clusters, forming triangular lattices;
(b) centrally located within hexagonally located trading areas;

(c) higher order central places are more widely spaced than lower order ones;

(d) lower order central places are located at gravity centres of triangles, formed by places at the next higher order.

Vertically, the spatial organization is characterized by:

(e) higher order centres, supplying all goods which are supplied by lower order centres but, in addition, a number of goods of a wider range that differentiate them from and set them above the lower order;

(f) higher order centres are larger, with respect to the number of activities, range of goods produced, volume of business and trading areas than lower order centres. By making an additional assumption, namely that the number of places served by a central place at the next higher order in the system is fixed, another well known characteristic of the vertical organization of the central place system can be derived, namely that

(g) a definite hierarchy can be established in the system in which a number of levels corresponding to the number of classes of goods can be identified." (19)

Taking Christaller's theory as a basis, Losch developed a system of central places starting from the lowest order. His model is more elaborate
and includes economic and service functions. Thus, Christaller's model, which was primarily service-oriented, can be considered a sub-set of Losch's theory. The other difference between the two models is that the number of centres to be served by the centre of the next higher order are not predetermined in Losch's model.(90) Losch's theory is essentially based on obtaining a pattern in which total transportation costs are minimized. Hermanson summarizes the basic characteristics of this theory as follows:

"(a) There is one superior center where all goods are produced;
(b) There is real specialization, division of labour, trade between centres, i.e., smaller centres' supply larger centres with their specialized products;
(c) There is a concentration of centres in 'city rich' sectors, separated by intersitial sectors which are less densely packed with centres;
(d) Nothing can, without further assumption, be said about the relative size of centres, except for the superior one being larger than the other. Centres with the same number of functions do not necessarily provide the same kind of functions;
(e) Assuming size of centres to be proportional to the number of plants, it can be shown that within 'city rich' sectors, size of centres increases with distance from the central place and that smaller centres tend to locate about halfway between larger ones;
(f) Although Losch asserts that the vertical organization would be hierarchical, this is doubtful and cannot be proved without further assumptions. On the contrary, it seems to follow from the model that the size distribution is continuous." (21)

In an evaluation of these theories, it needs to be recognized that they are models and have to be treated as such. They have been severely criticized on the basis of their simplistic assumptions and on their technical construction. (22) There are few real life situations which show this type of spatial organization. (23) Our discussion of these models is not intended to use them as a strategy for deconcentration of urbanization, but to demonstrate that despite their shortcomings, these models, along with other theories such as rank size rule, have established important contributions to understanding spatial organizations which are directly relevant to an analysis of our problem. These are best described in Friedmann's words:

"...it is now possible to assert a few simple, empirical generalizations whose validity has been established reasonably well. . .:".

"(1) The structure of human functions can be defined as a system of functional nodes and linkages;
(2) Nodes are arranged into a loose hierarchical order which is internally differentiated by functions;
(3) Surrounding each node there is a 'density field' of functional interaction, the densities declining with increasing distance from the centre;"
The cost of overcoming distance exerts a pervasive influence on the distribution of activities in space and on the level of activity in any given location." (24)

While this may amount to stating the obvious, the point is nevertheless important. It demonstrates, for example, that a policy for deconcentration of urbanization has to be developed within the framework of a hierarchy with differentiated functions for individual nodes. Furthermore, that the area of influence of each node will have to be determined by the density field of the functions associated with that node.

It is significant for purposes of making them operational, that the preceding characteristics described by Friedman (and as noted by him) are capable of mathematical formulation. Furthermore, the 'density fields' are capable of mapping. (26) This means that mathematical and statistical methods can be used to evaluate different levels of nodes in the functional hierarchy and their attendant 'density fields'. From the viewpoint of our analysis, this is extremely important. The basic question is how does one identify an appropriate location for prospective 'centres' from over 100 villages? The empirical work associated with central place studies have developed methods for estimating 'centrality', 'functional hierarchy', and areas of influence. These techniques can be justifiably used
to identify potential sites which could serve as the basis of our plan for deconcentration.

4.4.2 Growth Centres

We have thus far focused attention on deconcentration of urbanization through a hierarchical system. However, a relevant question is deconcentration from what level? In answering this question, we have to look in the reverse direction and focus attention on the role of higher levels of urban centres in the hierarchy. Although this subject falls within the scope of an overall urban and regional policy and is not directly relevant to our thesis, it is nevertheless important, because in the final analysis rural development is a part of the broader field of regional planning. The role of higher urban centres, i.e., at the regional level, will have an important bearing on the vitality and visibility of the urban hierarchy. Friedmann (27), in his study of the evolution of spatial organization in national development, argues that interregional balance in the spatial distribution of centres and a hierarchical vertical organization are essential for national development. In fact, in the third of the four stages of spatial transition which he postulates, there are strong forces generated for creating a Christaller-type of hierarchy. (28) Thomson points out that forces of economic change are transmitted from higher to lower order centres in the urban hierarchy in a 'size-ratchet' sequence so that continued innovation and development in large cities is critical for the existence of growth over the complete economic system. (29) Hagerstrand (30) and Brown (31) show that spatial diffusion of innovation takes place in the urban hierarchy from higher to lower order centres.
The general solution offered for strengthening regional urban centres is through 'growth poles' or 'growth centre' strategies. The idea of 'growth poles' as enumerated by Perroux is appealing for two reasons. First, it establishes general principles of stimulating growth through a multiplier effect in a matrix of poles by establishing backward and forward linkages between 'dominant' propulsive poles and 'weaker' poles. Second, the embodiment of Schumpeter's concept of the important role of entrepreneurship in achieving this objective. However, Perroux' concept of 'growth poles' is not spatial in character but derives from his highly abstract concept of space as a 'field of forces'. In fact, he considered geographical space as 'banal' The evolution of the growth pole concept under the French School is described by Darwant to be 'confused, ill-defined, and vague.' There has been a general preoccupation with the concept of growth in economic space. In its practical application, it has relied on a Leontief-type input-output matrix of industrial relationships as the mechanism for promoting growth. In this connection, Lausens remarks, quoted by Hermansen are relevant. Lausen observes:

(\textit{The use of input-output techniques has})\ldots drained the growth pole concept of the original temporal and dynamic meaning and recharged it with a static and/or comparative static content. The heavy use of the input-output technique has shifted the (French) School away from Perroux's original translation of Schumpeter in development. He failed to develop the point that the activity of a growth pole was essentially a sectoral and a geographical disturbance, not because of its larger size, nor because of its multiplier, but because it was an innovation." (36)

\textit{Among the French School, the main attempt to tie growth pole theory into a spatial setting is that of Boudeville, who suggests a }
place' type of hierarchy. (37) However, he strongly relies on inter-industrial linkages as described above.

It is evident from the preceding discussion that the 'growth pole concept' as developed by the French School has little relevance to Pakistan. Not only is the theory loosely concurred, but its heavy emphasis on inter-industrial linkages has little meaning for a society in transition, with a relatively small industrial base. In discarding 'growth pole theory' per se, we will look into the other body of literature described as 'Growth Centres,' which are 'growth poles' located in geographical space. Unfortunately, here too there is a tremendous confusion regarding concepts, techniques and applications. This confusion has led Hansen to observe that the whole growth pole concept 'is badly in need of a thorough semantic reworking." (38) The extent of this confusion is demonstrated by Mosley's comparative analysis of contemporary literature with respect to the basic conceptual elements of the growth centre theory. This is demonstrated by Table 11, which is reproduced from his work. (39) As a matter of fact, a review of contemporary literature, particularly the recent works edited by Hansen and Kuklinski (40) show that its 'growth centre' can denote anything from a rural centre, market town, medium or large city.

In the given circumstances, what is the relevance of growth pole or growth centre theory? We feel that the intuitive appeal of the basic concepts, as enumerated by Perroux, plus the flexibility afforded by the lack of dogmatic enunciation of the concepts, provide an opportunity for individual countries to develop their own framework around the concept.
### Table 11

A Comparative Evaluation of 'Growth Centre' Concept in Contemporary Literature

<table>
<thead>
<tr>
<th>Source</th>
<th>Term employed</th>
<th>Explicit definition</th>
<th>&quot;Centrality&quot; stressed</th>
<th>&quot;Growth&quot; stressed</th>
<th>Growth of what?</th>
<th>Timing of relevant attributes</th>
<th>Positive or normative?</th>
<th>Size (population)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boudouville (1966)</td>
<td>Pole</td>
<td>Yes, p. 11</td>
<td>Yes</td>
<td>Yes</td>
<td>Industry</td>
<td>Present</td>
<td>Positive</td>
<td>&gt;15,000</td>
</tr>
<tr>
<td>Carol (1966)</td>
<td>Pole, pole</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Population</td>
<td>Present</td>
<td>Normative</td>
<td></td>
</tr>
<tr>
<td>Hodge (1966)</td>
<td>Centre (synonymous)</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Population, commercial activities, infrastructure, manufacturing, incomes</td>
<td>Present</td>
<td>Normative</td>
<td></td>
</tr>
<tr>
<td>Fox (1966)</td>
<td>Centre</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Economic activity, incomes, employment, population</td>
<td>Present</td>
<td>Both</td>
<td>&lt;250,000</td>
</tr>
<tr>
<td>Allen and Hermansen (1968)</td>
<td>Centre</td>
<td>Yes, p. 64</td>
<td>Yes</td>
<td>Yes</td>
<td>Economic activity, incomes, employment, population</td>
<td>Present or future</td>
<td>Normative</td>
<td>30,000-250,000</td>
</tr>
<tr>
<td>Nicholas (1969)</td>
<td>Pole</td>
<td>Yes, p. 139</td>
<td>No</td>
<td>Yes</td>
<td>Employment</td>
<td>Present</td>
<td>Both</td>
<td>Large enough for self-sustaining growth</td>
</tr>
<tr>
<td>Karlin and Bender (1969)</td>
<td>Centre</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Employment</td>
<td>Past</td>
<td>Normative</td>
<td></td>
</tr>
<tr>
<td>Caselli, King and Odland (1970)</td>
<td>Pole</td>
<td>Yes, p. 39</td>
<td>No</td>
<td>Yes</td>
<td>Employment</td>
<td>Past</td>
<td>Positive</td>
<td></td>
</tr>
<tr>
<td>Tolosa and Reiner (1970)</td>
<td>Pole</td>
<td>Yes, p. 451</td>
<td>Yes</td>
<td>Yes</td>
<td>Industry</td>
<td>Past and present</td>
<td>Both</td>
<td></td>
</tr>
<tr>
<td>Robinson and Saith (1971)</td>
<td>Pole</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Economic development</td>
<td>Present</td>
<td>Positive</td>
<td></td>
</tr>
<tr>
<td>Byland (1972)</td>
<td>Centre</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Public investment, population, economic activity</td>
<td>Present</td>
<td>Normative</td>
<td>25,000-100,000</td>
</tr>
<tr>
<td>Lewis and Prescott (1972)</td>
<td>Centre</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Misra (1972)</td>
<td>Centre</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
<td>50,000-500,000</td>
</tr>
</tbody>
</table>

4.5.1 The two case studies in rural–urban integration which we propose to examine are that of Israel and Kenya. Both these countries have adopted this principle as a basis for integrated rural development. The objective of this study is to identify key elements of the strategies adopted and to evaluate their relative achievements.

4.5.2 ISRAEL

The strategy for rural–urban integration in Israel is based on the philosophy that:

"... development potential stems from the people, on the one hand, and their ability to produce, on the other." (41)

It is assumed that enhanced purchasing power of the peasant community will produce greater effective demand for urban services. Agricultural development will also promote the development of a wide range of processing industries. Therefore, a rational development policy should strive at a complementary development of these sectors, so that improvements in one sector have a positive effect on the other, and vice-versa. (42)

Urbanization Policies

The country was delineated into a number of planning districts on the basis of geographic and economic factors. The criteria for this delineation was to create an interdependence between the rural region and the urban centre. The pattern of urbanization conceived was of a hierarchical order (Figure 9) consisting of:

(a) village -- about 500 inhabitants;
(b) rural service centre — about 2,000 inhabitants; a service centre for a group of villages;
(c) small town — population from 6,000–10,000 inhabitants; to serve about 30 surrounding villages; types of services: administrative, cultural, educational, health;
(d) medium town — population from 40,000–60,000 persons, types of services: business, banking, administrative medical, workshops, regional industrial enterprises and cultural and educational institutions. A principal function of this type of town was to attract industry that produced for the national market and to facilitate its decentralization by offering cheap land and suitable services.
(e) large towns — population over 100,000." (43)

A high priority was accorded to the development of small towns. This was based on the recognition of the fact that wide-scale use of motorized transportation had greatly expanded the hinterland of larger cities. Therefore, to establish a viable base for small towns, it was necessary to establish processing plants and to expand their service sector. Furthermore, the location of these towns was based on the criterion that they were accessible to all parts of the region.

Location of Towns/Settlements

The location of town and settlements was based on considerations of centrality, climate, proximity to sources of employment and to national
communication arteries. One problem which was faced was the 'settllization' of small towns near larger urban centres. This problem is becoming increasingly manifest with the expansion of larger cities. One effect of this is that farmers tend to bypass these towns for goods and services. (44) In most cases, towns were developed from existing settlements, except where the advantage of setting up a new town was overwhelming.

**Location of Administrative and Institutional Services**

Location of governmental and public services generally correspond to the hierarchy, with their authority extending over the zones of influence. As a matter of fact, governmental services have been used as an important instrument to attract people from the hinterland towards the centres. However, the concentration of services in higher order settlements under the Israeli local government system has deprived residents of lower order settlements from easy access to these services.

**Rural and Agricultural Development**

The Israeli agriculture is highly organized through the collective system of agriculture settlements known as moshavim and kibutizim. The moshav is a co-operative settlement of family farms. Each family cultivates its own farm, making its own production decisions. However, the farmers are highly organized in a multi-purpose co-operative, supplying services and operating a number of joint activities, i.e., marketing, storage, purchasing of inputs, etc. (45) The kibbutz, on the other hand, is not only a managed farm, but a rural community with special characteristics. It is a multipurpose collective in terms of production, consumption and services. From the economic and management point of view, it is a single unit with an
elected committee making production decisions. The authority of this com-
mittee also extends over social matters. The functions of the family are
usually limited. While families have their own living quarters, children
live separately. All personal services, including food, are supplied to
all on a community basis. The basic economic objective of the community
is the maximization of the resources within its command.

An underlying and highly important aspect of Israeli agriculture is
the degree of its organization and the human commitment and participation
in the process of development. This derives from the ideological and
religious background of the country.

Rural-Urban Integration

Some aspects of rural-urban integration are already implied in the
preceding discussion. Other special characteristics are:

(a) the close linkage of the urban centres with the
rural areas through a developed system of communi-
cation;
(b) demand for urban services;
(c) employment of urban labour in agriculture;
(d) agricultural inputs into agro-industries;
(e) marketing functions of urban centers;
(f) investment in agro-businesses by Moshavim and Kebutizm.

As a concluding note, one point needs emphasis; i.e., the system
did not emerge developed overnight. It emerged through a gradual process
of evolution and mutual adjustment between the urban and rural sectors
of the economy. The Rural Service Centre is the key link between the
town and country and plays a crucial role in the process of integration.
These centres, described as 'quiet centres' by Weitz (46), in time developed a vibrant economic base of their own through the gradual strengthening of rural-urban linkage.

4.5.3 Kenya*

Kenya's history of rural development dates back to 1955, i.e., during the colonial period. The rural development programs launched during this period were ambitiously conceived but poorly implemented. The main focus was on agricultural development and that, too, was restricted to the small area of Kikuyuland. In the post-independence period, attention towards rural development was drawn by a conference held, in 1966 which laid down basic guidelines for a rural development strategy. While work on implementing some of these guidelines commenced in 1968, rural development was made a core element in Kenya's development strategy for the Third Plan (1970-74). The basic guidelines suggested were: base line surveys of rural conditions; the setting up of regional pilot project areas planned with a view to replicability; an integrated framework for rural development to be executed through existing agencies; effective coordination at the national and local levels; a flexibility of approach because of different ecological and socio-political conditions.(47)

The plan adopted by the government had four elements:

(a) increased agricultural production;

(b) an organizational system which would allow more local contribution to rural planning;

(c) the establishment of rural growth centres.

Accordingly, only the rural development side of the program's special development committees were set up at the District level to coordinate development. These committees, however, consist of government officials, with only one exception; e.g., the clerk of the County Council. District development committees are advised by the District Development Advisory Committee which is, again, predominantly official in composition, but has as members local members of Parliament, three members of the County Council, the District chairman of the KANDU party and two officially nominated representatives, i.e., 'eminent citizens'. At the national level coordination has been attempted by forming a National Rural Development Committee consisting of the Permanent Secretaries of the powerful ministries of Finance and Economic Planning and the Office of the President. Below the District level, there has been an erosion of the powers of the County Council through withdrawing their authority to implement small projects. Thus, under this scheme, the main responsibility for planning and implementing rural development rests on the District level.

**Spatial Planning**

Along side the rural development effort there has been a parallel effort for spatial deconcentration. The objectives are:

(a) to provide adequate level of services to the rural areas;

(b) to stimulate the economic and social development in the area;

(c) to provide an improved system of marketing;

(d) to provide a basis for a deconcentration of urbanization to prevent over-congestion in the cities.
Figure 11

Pattern of Rural-Urban Integration in Israel

Source: Rural-Urban Integration: An Approach for Developing Countries Based on Israeli Experience Institute of Development Planning, Ministry of Agriculture, Centre for Agricultural Cooperation with Developing Countries.
The concept used for spatial planning is that of 'growth centres'. In theoretical terms, the strategy is heavily based on central place theory. The spatial structure consists of a hierarchy of four types of centres in ascending order of importance: e.g., local centres, market centres, rural centres and urban centres. Urban centres are medium-sized towns. They are expected to serve the population of the entire District. These centres are expected to have a population of more than 10,000 by the year 2000. Rural centres are required to service a population of at least 40,000 people. Their functions are to provide administrative services, and social and commercial services. It is anticipated that they will grow into small towns with a population of between 2,000-5,000 within the next two or three decades. Like the 'quiet centres' of Israel, they have a critical role in providing key services to the rural areas. They are considered most suitable for rural cottage industry. Market centres are designated to provide services to a rural population of at least 15,000. The anticipated population of these centres is not likely to exceed 1,000. Their functions are to provide health facilities, secondary school facilities and to serve as chiefs' headquarters. Local centres would service a population of at least 5,000. They have no specific designated functions. However, it is planned that they will provide trading and social services particularly in the sparcely populated areas.

Selection Criteria

The location of these centres is based on existing settlement hierarchies. The various levels were selected on the basis of a grade point system for existing services being provided. An inventory of all services
having central place functions were made. Data was collected for five sets of functions, i.e., administration; social services; communication and transport; commerce; and industry and power. Each type of service was further divided and points were assigned for the quality of service provided; i.e., 3 points for a high level hospital, 2 for a medium level, etc. On the basis of this analysis, centres with scores of between 2-12 points were designated as local centres, between 13-19 points as market centres; 20-37 points as rural centres; 38-51 points as urban centres. The quantity of service offered was not considered, furthermore, levels of local entrepreneurships and trading were not fully weighted in the point grade system.

Rural-urban Integration

Under this scheme, it is proposed to achieve a spatial integration of the urban and rural sectors by providing key inputs to meet rural demand at a deconcentrated level. The schemes as originally conceived envisioned an integration of the rural development program, discussed earlier with this system of growth centres. However, this has not materialized.

In conclusion, it may be stated that under this scheme an attempt is being made to integrate the rural and urban centres by providing key services according to certain threshold standards, and by creating physical infrastructure such as roads, schools, hospitals and other services. There appears to be no institutional development or participation of rural communities in the rural development program or in this scheme of spatial deconcentration.
4.6.1 Evaluation and Conclusions

We wish to point out at the outset that a comparative analysis of the two country experience is not valid for many reasons. There is a tremendous difference between the two countries in their political, ideological and social structure, their size and stage of development. It is evident that these factors have a strong influence on the ability of a country to plan and administer the development programs. What is relevant to our discussion is that both these countries have adopted relatively similar strategies to promote rural-urban integration. However, there is a fundamental difference between the two approaches. The process of integration in Israel has evolved out of a dynamic interaction between spatial deconcentration and a highly organized institutional agrarian structure. In the case of Kenya, the spatial deconcentration has been primarily service oriented and has been undertaken without developing an institutional framework within the agrarian sectors through which peasants could develop a capacity to optimize on the services being offered. The problem has been summed up in the 'Wanachi Declaration, 1969' quoted by Taylor:

"Capital pays a large part in the rapid development of modern society. But in Africa, above all, we must remind ourselves of the truth that it is and always will be man, working with his fellow men to apply his energies and skills to the land and materials around him -- who creates development." (48).

This distinction between the two approaches is critical. The achievement of rural-urban integration in Israel is the result of an institutional system which provides, with a motivation, to improve their condition and with an ability to benefit from the services offered. The development of human institutions is therefore a key aspect of the process of integrated
development which in the case of Kenya has not been adequately taken care of under this scheme. The importance of institutional development of peasant communities is demonstrated in the case of Kenya by the success achieved in the tea production scheme for small farmers. This scheme was launched in 1961 in Western Kenya and further expanded in 1964 under the supervision of the Kenya Tea Development Authority (KTDA) (47). As tea is a highly perishable commodity and has to be processed within about 6 hours of plucking, a highly efficient system of production, transportation and processing is necessary. This supportive system has been organized by the K.D.T.A. through the improvement of road networks, decentralization of processing facilities and an organized system of providing peasants with inputs and credits. This system has enabled peasant subsistence farmers to diversify their production by planting this important cash crop. The key factor contributing to the success of this venture is the high degree of organization and motivation among peasant communities. This is described by Stern as follows:

"The KDTA gives advice via its field development section on the care of VP (vegetatively propagated tea) and the tending, pegging, pruning and plucking of tea bushes. Local courses are held and also field days when competition for the best tea bushes are organized. Enthusiasm among growers for growing tea is high and rivalry is fierce." (48)

The success of tea production by peasant farmers in Kenya show the importance of a well organized supportive system for diversifying peasant agriculture. At the same time it demonstrates the critical importance of programs for motivating peasants to enable them to benefit from this system.

In the case of the Indo-Pakistan subcontinent, the latter aspects holds special importance in agricultural development. There is considerable
evidence to indicate that socio-economic structure of peasant institutions inhibits their ability to maximize on benefits offered. For example, Johnson observes:

"It is not . . . the simple ratio between village to towns that determines whether agrarian communities are being integrated with a larger regional and national economy but the degree to which the village people are willing and able* to carry on more transactions in a larger trade centre. One factor that has seriously restricted the capacity of villagers to avail themselves of market town facilities has stemmed from the chronic indebtedness of so many village people to local money lenders, compelling them to trade inside their villages, even though they pay more for their purchases and pay less for what they have to sell." (49).

Johnson cites indebtedness as one factor. In fact, the situation is more complex and stems from the dependency structure of which we have made reference earlier.

In conclusion, therefore, a system of deconcentrated urbanization will not automatically promote development in the hinterland. This is especially true for new urban centres which have to depend upon a strong interaction with the rival sector to strengthen their own economic base. What is therefore required are complementary programs of deconcentration of urban development and rural development. The objectives of the rural development programs should be to develop rural institutions to motivate and organize the peasantry so as to enable it to effectively participate in development and derive full benefits from the services being offered by the concentration of urbanization. This, we feel, is the crucial and critical link in rural-urban integration.

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* Underlined by this author.
CHAPTER IV

NOTES


(5) Ibid., p. 3.


(7) This discussion is based on Johnson, E.A.J., Ibid., pp. 30-40.

(8) Ibid., p. 39.


(15) An earlier theory to explain the effects of an urban centre on the pattern of agricultural production through transportation cost, land rents, etc. was formulated by von Thunen (1826).
This is considered as a precursor of 'location theory' and not a theory of spatial organization. For details, see Isard, Walter S. *Location and the Space Economy*, MIT Press, Massachusetts Institute of Technology, Cambridge, Massachusetts and London, England (Paperback edition, April, 1972), pp. 188-206.

(16) The interested reader is referred to the following literature on this subject:


(22) For a critique of this model, see Hermansen, T., *Op.cit.*

(23) For reference to examples, see Berry and Pred. *Central Place Theories: A Bibliography of Theory and Applications*, *Op.cit.*


(31) Brown, Lawrence A. Diffusion Process and Location, Bibliography Series No. 4: Regional Science Research Institute, 1967, p. 19.


(34) Ibid. p. 540.


(37) Hermansen, Tamrod, Ibid., p. 38.


(41) Institute for Development Planning, Israel. Rural-Urban Integration: An Approach for Developing Countries Based on Israeli Experience, Ministry of Agriculture, Centre for Agricultural Co-operation with Developing Countries, p.2.

(42) Ibid., p. 10.


(44) Ibid., p. 16.


(46) Ibid., pp. 36-37.

(47) Ibid., p. 149.


(49) Ibid., pp. 185-186.


5.1 A Brief Review

In the introductory chapter of this thesis, we had drawn attention to eight elements which we considered were essential for the success of a rural development designed to ameliorate the socio-economic conditions for a specific target group: e.g., the rural poor. These elements have as their basic objective the development of 'access' for peasant communities to social and economic inputs which are necessary for their development and uplift. There are three principles which underlie the conceptual framework and this thesis and which we consider as basic for the development of access: e.g.,

(1) Decentralization: This means the decentralization of the administrative framework and also a decentralization of urbanization, to bring both within easy reach of peasant farmers.

(2) Integration: This means:

(a) function integration of programs for agricultural development; social development and employment through a unified approach to tackle the different facets of rural poverty;

(b) administrative integration, through effective systems of coordination so as to provide an efficient delivery system;

(c) spatial integration, through the selective location of socio-economic activities at different levels of centres (hierarchy) and by establishing linkages
between these centres and their corresponding 'fields of influence'.

(3) Popular Participation: That is, active participation and involvement of rural communities in programs designed to ameliorate their condition.

In the preceding discussion we have attempted to show that the problem of the rural poor stems from the dualistic structure of the socio-economic system in Pakistan. This structure was inherited from the colonial rulers but was further reinforced by economic policies pursued during the sixties, which had economic growth as their principal objective. This dualism is strongly manifest in the pluralistic agrarian structure; in the dichotomy between the industrial and agricultural sectors; in a colonial pattern of administration; and in a concentrated pattern of urbanization. All these factors have prevented the spread effects of development to filter down to the rural masses. The overthrow of the Aiyub regime in 1969 by mass urban unrest and the break-up of the two parts of the country in 1971, has had a deep and traumatic effect on the country. Issues of regional equity and human welfare have assumed high priority in national planning. Under the new order, the development of the agricultural sector, particularly the amelioration of the conditions of the rural poor has been accorded a high priority. Simultaneously, through nationalization of banking and major industries, an effort is being made to channel investment towards the depressed regions. While these policies are an important step towards ameliorating the condition of the peasantry, they are, however, not adequate. What is singularly missing is the establishment of linkage between sectors, which provide the basis of social and economic integration.
We have noted that the history of rural development programs in the Indo-Pakistan subcontinent spans a period of three-quarters of a century. The main characteristics of these programs have been their piecemeal approach. Commencing with the rural 'co-operative movement' in 1904, rural development programs have changed in focus and content in direct relationship to how foreign donor agencies and local planners visualized solutions to rural poverty. The primary focus of the community development programs during the fifties was on social uplift of the farmers. The underlying philosophy of these programs was that peasant communities were inherently resistant to change; consequently, a social transformation of peasants was a precondition to their acceptance of innovation. In their content, these programs were strongly oriented towards social development. A lack of impact resulted in their termination in 1960.

The compelling preoccupation with agricultural development during the sixties saw a shift of focus in rural development, particularly in India, towards the 'package of inputs' approach. In Pakistan, although a similar approach was adopted for agricultural development, it did not fall within the scheme of rural development, but was administered by a semi-autonomous corporation. The main thrust of rural development in Pakistan during the sixties was in the direction of a rural public works program which had as its main objectives the creation of employment opportunities for the rural employed and underemployed; the creation of physical infrastructure; and the development of local capability in the planning and execution of small projects. Although in physical terms, i.e., the number of projects implemented, the achievement of this program was impressive. However, it failed to achieve its employment objectives. The main reason, as we have noted, was the domination of this program by local elites, who used it to meet
This experience in rural development showed three main points of weakness:

(1) The lack of integrated approach;
(2) The incapacity of the existing administrative system to plan and implement programs at the 'grass root' level;
(3) The lack of an effective institutional framework, for motivating local communities and eliciting their active participation.

Building on these weaknesses, the East Pakistan Academy for Rural Development evolved a highly sophisticated and successful model for rural development. The main characteristics of this model are:

(a) A decentralized and coordinated system of development administration;
(b) A viable private system of co-operative societies whose main functions are economic; i.e., agricultural development, credit, marketing, etc.
(c) An integrated framework for rural development comprising programs of agricultural development, employment and infrastructural development and social uplift;
(d) An effective system of popular participation through which a high level of confidence and self-reliance has been instilled in village communities.

The Commilla projects and the parallel 'Daudzai' project adopted by the Pakistan Academy for Rural Development have achieved a high level of success in organizing peasants to participate in development, and have also
developed a viable and decentralized model of development administration. With reference to the three principles we outlined earlier, these projects have not been designed to promote spatial integration. Also, there has been no consistent strategy to integrate peasant communities into an urban system.

In our discussion on rural-urban integration, we have noted that the commercialization of agriculture means a relative de-emphasis of the on-farm aspects of farming, which assumes an 'assembly line' character, and a greater reliance on the reliability, efficiency and stability of external urban-centered activities, i.e., marketing systems, supportive facilities, etc., which provide inputs into farming and process marketed surpluses. It has also been noted that the proximity of marketing and servicing centres and their efficient linkage with farms through reliable communications networks, is one of the preconditions for the commercialization of agriculture. The other conditions are provision of services on economically attractive terms and knowledge and skills among farmers and their economic and social ability to avail themselves of the above-mentioned services.

In the context of Pakistan, the latter consideration has been taken care of under the rural development programs discussed above. However, the crucial link of marketing and services centres at a deconcentrated level is missing. The magnitude of this deficiency becomes apparent when we consider that, on the average, there is one market town to service over widely scattered villages. Therefore, the essence of the strategy which will be proposed in the following discussion is the integration of rural development with a deconcentrated system of urban, marketing and service centres.
5.2 Outline of the Framework for Integrated Development

We wish to point out that in defining the subject title of this thesis, we have used the word "Approaches for a Decentralized and Integrated Strategy for Rural Development." The focus on 'approaches' rather than on explicit definition of detailed strategies stems from the following reasons:

(a) The subject matter of this thesis is not a case study, but a theoretical construction of a conceptual framework for integrated rural development. In this context, a discussion of policies and strategies has to focus on key elements around which such a framework can be developed;

(b) A framework for integrated rural development cannot be transplanted outright, but has to evolve over time. This highlights the need for a certain degree of flexibility and experimentation. This point is aptly described by Lloyd Rodwin, when he observes:

"Perhaps one should also emphasize that an extensive development planned for select regions will take a number of years to promote. Therefore, while tentative programs may be started on existing knowledge and judgment, more detailed studies can be gotten underway. Then, at some later stage, these programs and their planned sequences could be reviewed, stepped up or contracted, as one gets a better sense and feel of the development prospects." (1)

(c) Pakistan is a large country with diverse geographical characteristics. It is evident that a uniform set of strategies cannot be adopted by each of its four provinces. It needs to be mentioned that the framework for integrated rural development is most suited for the intensive agricultural regions (IA) and extensive agriculture regions (EA). These have a
viable agricultural system based on irrigation. Its applicability in the 'rainfed regions' needs to be tested. In the arid region, we feel that the potential of agricultural development is limited.

To sum up, our discussion of strategies consists of the identification of key elements and their interrelationship, which will provide the framework for rural-urban integration, and the planning and implementation of a decentralized and integrated program of rural development. Our discussion of policies focuses on a number of issues of planning policy at the provincial and rational levels, which will have a direct bearing on the successful development of the system we are preparing.

In the light of the preceding discussion, we outline the following elements as basic to the formulation of an integrated framework for rural development.

I. A definition of aims and objectives

II. Spatial aspects
   (a) an identification of the basic 'region' for development;
   (b) the identification of an appropriate levels of settlements for locating socio-economic activities.

III. Planning and implementation
   (a) the articulation and synthesis of the programs of different agencies towards the achievement of common objectives;
   (b) administrative aspects of inter-agency coordination in plan and program implementation;
   (c) changes and modification in existing planning practices to achieve (a) and (b), above.
IV. Policies

An evaluation of changes which would be required in national industrialization policies, particularly with respect to location, structural composition, and incentives to industry, so as to meet urban demands for employment, in regional centres.

5.3 The Framework for Rural-Urban Integration and a Decentralized and Integrated Strategy for Rural Development

Aims:

The aim of the strategy is to improve the social and economic conditions of the rural poor through the integration of the rural periphery, i.e., the small farm sector into the mainstream of national developmental activity.

Objectives:

The objectives are listed as follows:

(1) Adequate investment in economic and social infrastructure in the rural areas; to increase rural incomes through increased productivity; and to provide a better level of social services for the rural population;

(2) Strengthening the socio-economic base of small towns and other specific levels of rural settlements by expanding their manufacturing and service functions with a view to improving the integration of the rural and urban sectors of the economy;

(3) Expansion of employment opportunities:

(a) in rural areas through the implementation of a labour-intensive public works program as part of the supportive structure for rural-urban integration;

(b) in urban centres, through the expansion of their manufacturing and service sectors.
(4) Establishing a framework for a deconcentrated pattern of urban development which in time will serve as a base for a better distribution of urban population.

(5) Improving the capability and efficiency of the administration to plan and implement development programs at the grass roots level.

(6) The establishment of a system for popular participation in development, through which peasant communities can be mobilized and develop a stake in exercising some control over their own destiny.

(7) The optimum utilization of scarce development resources by concentrating public sector investment in key centres (for achieving a maximum development impact) as against the current practice of random and dispersed location of projects.

Choice of Region:

Klassen observes that:

"The nature of the boundaries (of a region or area) are a function of the nature of the activities we have in mind." (2)

The objective of the development strategy which we are proposing is to integrate the rural periphery into the economic system through the process of rural-urban integration. Rural development requires being implemented at a highly decentralized level. On the other hand, from the urban perspective, the region must have some defined urban characteristics to which the proposed scheme of deconcentration of urbanization can be linked. We therefore feel that the existing District constitutes the most appropriate unit. In addition to its nodal characteristics, the choice of the district is based on the following considerations: (3)

(a) It is a separate unit for data collection;
(b) It has an economic existence which can be verified from statistical records;
(c) It is under one administrative agency;
(d) Because of historic reasons, the people of the District have developed a social and cultural cohesion;
(e) It has a well-established tradition of popular participation in development.

In making this selection, we are conscious of the grave deficiencies in the functioning of the District administration (noted in Chapter III). However, we will have some recommendations to make on this subject at a later stage of this discussion. The average District has four characteristics which are relevant. First, it is divided into three subdivisions or 'tehsils', which is the lowest rung of the formal administration. Second, the District headquarters is a city, while the tehsil headquarters are market towns. Third, the spatial linkages between the market towns (tehsil headquarters) and the nodal city (District headquarters) are well established through an efficient network of communications. Fourth, below the tehsil level there is the rural periphery consisting of village settlement of various sizes, with poor communications and no defined spatial integration.

**Definition of a Spatial Hierarchy:**

In the context of the preceding discussion, we propose a deconcentration of the urban hierarchy below the 'tehsil' or market town level. This settlement pattern will have the following structure and functional characteristics:

(a) **village**: functions: primary multi-purpose co-operative society.
(b) **service centre**: This will be the lowest level of the new spatial
hierarchy. It will service a population of approximately 10,000 persons, or villages situated not more than 3-5 miles away. The service centre will be an outlet for the supply of agricultural inputs to farmers; storage facilities for agricultural surplus and a primary market centre for agricultural produce. It will also have basic repair facilities for agricultural machinery. It will be the headquarters of the proposed primary tier of the local government system, corresponding to the 'union council' under the old 'basic democracies' system. With regard to social services, it will have a sub-post office, a primary and/or junior high school, medical dispensary, etc. The basic concept of the service centre is derived from Mosher's description of a 'farming locality' (4). The concept is similar to the Israeli model and has been strongly advocated for adoption in India by Misra (5).

(c) the development centre: this will be situated at the next higher level of the hierarchy and will service between 10 to 20 service centres with a population ranging from 100,000 to 150,000. The main functions of the development centre have been discussed in detail in the context of the Commilla and Daudzai projects. These are summarized below:

(1) It will be the centre of a new and decentralized tier of the administrative hierarchy;

(2) It will provide a location of the Central Co-operative Association with the functions of providing co-operative credit, wholesale marketing facilities, storage, full workshop facilities, etc., and other supportive structure
for modernizing agriculture;

(3) It will provide a location for the local government system. The development centre will play the key role in integrated rural development. It will provide the organizational framework for mobilizing rural communities; the adoption of improved farming practices, the provision of supportive services for the commercialization of agriculture; the training of extension farmers, local representatives and public officials and a host of other activities. Its functioning will be closely tied with that of the service centres. However, the emergence of structure shown in Figure 4, Chapter III, will span a period of 3 to 5 years. The role of the development centre is not to be confined solely to rural development. It will provide a base for key social services such as high school, health centre, and a wide range of retail and banking facilities. The location of government offices and housing will have a strong urbanizing influence on the village environment. The location of facilities such as cold storage, dairy plants and other processing industries and services will provide an economic base to this level which will accelerate this transition. The growing demand for services in the government and processing sectors will create employment opportunities for immigrants from the surrounding rural areas. We visualize that this centre will, over time, develop into a market town.
(d) market town: Most market towns, especially tehsil headquarters, have well-established urban characteristics. Their strength or weakness lies in the degree of linkage with the agricultural hinterland and on the productivity of the latter. The basic need of market towns is a transformation of their economic base which presently rests in serving the agricultural sector by the location of manufacturing industries. These industries can be of two types:

(a) For intermediate and/or final processing of agricultural products, i.e., rice husking, cotton ginning, textiles, food processing and canning, etc.;

(b) The manufacture of implements for farming, and machine parts for tractors, tube wells and pumping equipment.

We make particular reference to the latter because there has been a mushrooming of small-scale manufacturing in a number of market towns in the Punjab province. The significant features of this phenomenon are that the manufactured items listed earlier are directly linked with the technological needs of the Green Revolution. The enterprises have emerged through local entrepreneurship without assistance or backing from the government. The technology being used is that of an intermediate level and is labour-intensive (6). The urbanization effects of this phenomenon is manifest in a tremendous growth in the population of these centres in the past decade, through local immigration. Burki has noted that these developments have the basic characteristics of 'growth centres' which planners are looking
for (7). The other area that needs special attention with re-
spect to market towns is the improvement of public utilities,
i.e., water supply, drainage, sewerage, etc. Housing is also
important, but given the financial constraints, one cannot
foresee large-scale investment in housing at such a deconcen-
trated level. Sites and services projects, particularly for the
middle income group, are, however, a feasible proposition.

Cities:

The discussion of cities and metropolitan projects falls within the
larger field of urban and regional planning. We will have more to say on
this matter at a later stage.

Methodologies for Identification of Settlements:

There are a number of statistical techniques for measuring central-
itv and functional hierarchies. There are other techniques to map fields
of influence through trip functions, commodity flows, etc. In footnote 8,
we have listed bibliographical references which deal with this subject.
While these techniques provide important tools for delineating hierarchies
and their fields of influence, we wish to point out that they should not
be used blindly. In the Kenyan example (Chapter IV) it was noted that in
grading functions, enough attention was not accorded to retail business.
This resulted in displacement of certain centres from settlements which
were showing considerable indigenous development characteristics (8). We
therefore advocate the use of these techniques supported by judicious
judgment based on an intimate knowledge of the physical, resource, and
developmental characteristics of the region.
Planning and Implementation of Integrated Development

The existing system:

The planning and implementation of a program of decentralized and integrated rural development of the type that we are proposing raises issues about the synthesis of programs of different agencies to achieve common objectives; and of administrative coordination of 'line' department. To appreciate these issues, it is necessary to have an understanding of the existing planning and implementation procedures.

The planning of development at the District level is of two types:

(1) Programs of development departments, i.e., agriculture, health, education, irrigation, public works, co-operatives, etc., which are prepared by these departments independently. These programs are in the form of a portfolio project, which after approval by the Provincial, Planning and Development Department are included for funding in the "Annual Development Programme" for the entire province. Therefore, the choice of projects and their location rests largely with individual departments. However, within these departments the location of projects particularly, is determined, to some extent, by trade-offs between political elites through the Ministers in charge of these departments. The countervailing force to this trend is the Planning and Development Department, which through the Chief Minister and/or the Minister for Planning and Development attempts to ensure appropriate choice and location of projects. However, as the "Annual Development Program" is a budgetary document and has to be voted on by the provincial assembly, it has to meet the general approval and consensus of the Cabinet.

(2) The other programs implemented at the District level are small
projects under the 'People's Works Program', which are funded from a lump sum grant to the District with specified allocations for the District Council and the 'Thana' (in the case of the Daudzai projects). Under the People's Works Program, also, an annual program is prepared by each District which, after being sanctioned by the District Council, is formally approved by the Local Government Department.

The projects of development departments are implemented sectorally under the supervision of their own staff. However, the physical component of these projects, e.g., construction of school buildings, hospitals, dispensaries, etc., is done by the Public Works Department. In the case of the Rural Works Program, projects developed at the 'Thana' level are suggested by peasant communities, on the 'felt need' concept, described earlier. The technical inputs are provided by the concerned representative of the development department from the 'Thana' team. Implementation of these projects is done by local communities under the supervision of the 'Thana' officials. In the case of the District Council, the situation is not so well defined. The District Council, it will be recalled, consists of District representatives of development departments and public representatives under the chairmanship of the Deputy Commissioner. Theoretically, it is required to work as a well coordinated team, with development departments providing guidance on technical matters. However, in practice, this coordination, as we have noted earlier, is lacking. As a consequence, the District Council has to rely almost solely on its small technical cell for design and supervision of projects.

Finally, a reference to urban planning is necessary. Regretably, urban planning and municipal administration in Pakistan portrays the most
dismal picture. The functions of urban planning and municipal administration are vested in autonomous, municipal corporations in the case of the metropolitan centres of Karachi, Lahore and Hyderabad, and municipal committees of three categories based on population size, for the other cities and towns of the country. The existing system of municipal administration dates back to early colonial times. Under this system, cities are administered by an elected council with a public official as chairman. They are required to generate their own income through local taxation. However, the taxation base of urban centres has been eroded by the encroachment of the provincial and federal government on revenue sources which were traditionally those of urban local government. At the same time, financial support from the government is highly inadequate to meet growing demand for urban services. (9)

Development programs are planned and implemented by the municipal committees, themselves. This system of urban planning is described by Platt as follows:

"Although Pakistan can rightfully boast of a sophisticated national and provincial planning, few of these techniques have filtered down to (urban) local governments. In the cities, funds are usually allocated following the tradition of previous years with few, if any, self imposed targets or priorities. Lists are made of needed construction projects and works phased over several years, but this embryonic planning is seldom more than a response to the obvious, water systems or streets, or to political expediency." (10)

There is no coordination between urban planning and national and provincial planning. The recently concluded Karachi Master Plan study is the first comprehensive effort of urban planning in the country. One indication of the failure of municipal administration is that municipal bodies were suspended in 1970 and urban administration is in the charge of government-
appointed administrators.

To sum up, the existing planning and implementation of development programs is characterized by: compartmentalization of sectorally implemented programs; the absence of an efficient system of coordination at the District level to integrate development efforts towards preconceived objectives; and solution and disinterest in urban development. The only exception is that of the Daudzai projects, where an effective system of coordination has been established at the 'Thana' level.

A Regional Planning Approach to Development

The framework for integrated development which we have sketched in the preceding section is location specific. In other words, it introduces a spatial dimension in the planning and implementation of development. The imposition of spatial planning requires:

(a) An articulation of specific development objectives spelled out in socio-economic and infrastructural development along with specified locations;
(b) The collaboration and integration of the efforts of all developmental agencies to achieve these objectives;
(c) A system of administrative coordination through the delegation of authority and decision-making to appropriate administrative tiers;
(d) Active popular and political participation in the planning process so as to ensure that these objectives are not viated by random and impulsive political decisions.

It is evident from the preceding discussion that the existing planning and implementation framework is not geared to function on the basis de-
fined above. It is also unlikely that these objectives can be achieved by delegating effective powers of coordination to the District level alone. Therefore, it is our view that a fundamental re-orientation of the entire planning framework is required. The basis of this orientation is the adoption of regional planning as a basic framework for development policy. We may mention that the adoption of regional planning has been accepted by the government of Pakistan and two provinces; e.g., Sind and NWF Province, have already established regional planning agencies to develop a policy framework.

The adoption of a regional planning approach is appealing for two reasons. First, it provides a dynamic framework for understanding regional development in economic, spatial and politico-administrative dimensions. Friedmann's eight propositions related to regional development theory, enunciated in his book related to regional development in Venezuela (12) provide an excellent frame of reference on this point. Second, and in terms of application of regional theory, it provides a framework for analysing a nation's spatial system in terms of the interrelationship between a number of regional subsystems (13). Thus, Hilhorst defines a regional system:

"as a set of interrelated activities that are carried on within the physical limits of a region, the level of these activities being determined mainly by decisions that do not affect decisions in other regional systems." (14)

He further distinguishes between four kinds of activities:

"(i) local activities: those activities that (potentially) are part of the local system;
(ii) regional activities: those activities that (potentially) form part of a regional system;"
(iii) national activities: those activities that (potentially) form part of the national system;
(iv) international activities: those activities that (potentially) form part of the international system." (15)

The practical importance of this differentiation between subsystems and their related activities is that we can develop this concept into a framework from the planning and implementation of regional development by:

(a) specifying regional subsystems;
(b) specifying types of activities associated with each level of subsystem;
(c) defining procedures for achieving effective inter-agency coordination in planning and implementation of different levels of subsystems.

A Framework for Planning and Coordination

In the light of the preceding discussion, we propose the following regional subsystems below the national level:

(a) the Region; i.e., the Province;
(b) the subRegion; i.e., the District;*
(c) the micro-Region; i.e., the proposed 'Thana Development Centre'.

We do not consider the Division level of the administration, which is composed of an average of three Districts, to be an appropriate level for project implementation for two reasons. First, it is far removed from the local level and therefore does not provide a positive trade-off for the further decentralization of decision-making from the provincial government level. Second, the introduction of additional administrative

* Corresponding to the basic region described earlier.
echelon in active decision-making is likely to overbureaucratize the system. However, the Divisional level can play an important role in coordination, supervision and planning assistance.

The concept of inter-agency coordination which we are proposing will require a reorganization of the planning and implementation framework. The basis of this reorganization will be inter-disciplinary planning and a decentralization of decision-making for defined development activities for each of the subregional systems. We outline below the functional delegation of activities and planning characteristics for the three regional systems.

(i) Province:

The macro-regional development policy will be framed by the provincial government within the framework of national development policies, as laid down in the fifth Five-Year Plan (forthcoming) and other economic policies. Regional planning at the provincial level will:

(a) lay down development priorities for each sector, based on regional needs and in accordance with resource availability;

(b) a perspective, spatial plan for investment, particularly related to major projects of infrastructure; i.e., main communication links, large irrigation projects, hospitals, location of manufacturing and urban development of major cities;

(c) estimates of resources which can be made available
to the District and 'Thana' levels.

(ii) The District:

Working under the supervision of the District Council, the members of the development departments will prepare a comprehensive plan for the development of the District. This plan will be based on:

(a) an estimation of the existing and potential developmental requirements of the District to exploit its resources and to meet the population's demand for specific services;

(b) the preparation of a portfolio of development projects for each sector to be implemented over the Plan period. These projects will be formally approved by the Planning and Development Department, as usual;

(c) a spatial framework, based on the settlement criteria discussed earlier, under which an integration of sectoral activities is established through a definition of the physical location of projects.

It is evident that the preparation of such a plan will include projects of varying size and importance. This will result in an overlap in the development role assigned to different regional systems. It will, therefore, be necessary to delineate projects which can be implemented by different agencies. In this connection, we suggest the District level should be empowered to select and implement those projects which are
directly related to the endogenous development of the District; i.e., internal communication networks: schools, hospitals of the District level, small irrigation projects, and the supportive structure required at the District level for promoting rural-urban integration.

(iii) The Thana

The Thana is the grass roots level and has a critical importance in rural and agricultural development and in mobilizing peasant communities. A high level of organization already exists in the case of the Daudzai projects through the interdepartmental team. We suggest that perspective socio-economic and spatial planning be also undertaken at the Thana level. The main projects implemented at the Thana level are those which are too small to be implemented by development departments. These are mainly funded by the People's Work Program. In view of the delegation of planning and implementation functions to the District Council, we suggest that People's Work Program funds should be used solely to finance these labour-intensive projects at the Thana level. The Thana development plan should consist of a portfolio of projects, graphically and pictorially presented in the 'Thana Plan Book', so as to be comprehensible to illiterate villagers.*

It must be noted that the objective of preparing these plans

* This is in line with the concept of the 'Red Book', developed by the rural development program of Malaya and the more sophisticated 'Thana Development Plan' of the Comilla projects.
is to provide:

*a system* for integrating different programs into an optimal spatial design, needed for accelerating development;

and to integrate the functioning of development departments toward common objectives.

**Annual Development Program (ADP)**

We suggest the following changes in procedures for preparing provincial annual development programs (ADP), in view of the delegation of functions to the Districts:

(i) The provincial government shall indicate annual fund allocations to Districts for their development programs well before the preparation of the annual budget;

(ii) Each District Council shall select projects from the portfolios prepared for the District plan, for individual sectors, in close consultation with local elected representatives;

(iii) These lists of projects shall be routed to the provincial planning and development department for inclusion in the ADP, through the District Council and not through development departments;

(iv) Thana programs shall be similarly prepared by the proposed Thana councils and forwarded to the District Council for scrutiny and amendment to achieve coordination with other Thana programs of the District. Since these programs will be financed from 'People's Works Program' funds, their ap-
These procedural changes have two major advantages. First, by associating public representatives in the planning process at an early stage, the possibility of subsequent change through ad hoc decisions is pre-empted. Furthermore, through promoting political decision in the forum of the District Council, which will have members from the constituency of political representatives, greater rationality in decision-making can be expected. Second, these procedures have a built-in framework for plan coordination at the District level and below.

**Implementation**

Programs at the District level will be implemented under the administrative supervision of the District Council. Each department will, however, implement its own projects. District representatives of development departments will be directly accountable to the Deputy Commissioner. Where the physical jurisdiction of a representative exceeds that of a District, the Divisional Commissioner will ensure effective coordination at the District levels. The same procedure will apply to the Thana level, where effective coordination will be ensured by the subDivisional officer. The accountability of members of technical departments to their superiors will be indirect. The higher echelons; i.e., the District technical staff for the Thana level officials and the Provincial and Divisional staff for District level officials, will provide a supportive role on technical matters.

The changes which we have suggested are tantamount to a major overhaul of the planning and implementation machinery. However, they are concomitant to the adoption of an interdisciplinary planning framework for
regional development. We foresee some lag time for the preparation of plans which we have suggested. We also foresee the need for strengthening the planning sections of the development departments. The major deficiency, however, is in the lack of expertise in urban and regional planning in the country. The United Nations Development Program is financing an ambitious program of regional development in the country. This program needs to be more formally structured so that adequate foreign expertise is available in the initial stages. Simultaneously, a program of training of local officials in urban and regional planning abroad and within the country needs to be launched. In connection with the latter, we suggest that the Pakistan Academy for Rural Development should be redesignated as the Pakistan Academy for Regional and Rural Development and teaching facilities developed in these fields.

5.4 National Economic Policies and Regional Development

In the preceding discussion we have pointed out the grave shortcoming in national and provincial planning in the context of urban development. We have also noted the weak financial base of most regional towns. The latter situation can be attributed directly to the set of industrial and fiscal policies and controls which have promoted the concentration of capital-intensive industry in a few metropolitan centres. On the other hand, these policies, through lack of incentives to small-scale manufacturing have eroded the economic base of regional centres.

The adoption of a regional framework for development will require a concentration of investment in select core regions to stimulate development in the hinterland. Furthermore, incentives will have to be
provided to small-scale manufacturing, particularly in small towns, to service the agricultural sector. This situation calls attention for a re-orientation of national economic and fiscal policies to meet the demands of backward regions. In the aggressive free market atmosphere of the sixties, the adoption of such policies would have been difficult. However, with the nationalization of banking and major manufacturing in Pakistan, the role of the public sector has increased considerably.

We suggest that the Federal Government accord high priority to the following policies related to industrialization:

(i) The adoption of an industrial location policy under which:
   (a) public sector industrial investment can be located in specific urban centres determined in consultation with the provincial governments;
   (b) adequate tax incentives be provided to backward regions to stimulate private sector investment;

(ii) The allocation of foreign industrial credits on a region basis, tied to the industrial location policy noted above;

(iii) The earmarking of industrial loans on a regional basis by the Industrial Development Bank of Pakistan and the Pakistan Industrial Credit and Investment Corporation;

(iv) The stoppage of subsidy on the import of agricultural machinery such as threshers, combined harvesters, etc. (17)

(v) The stimulation of small-scale manufacture, through facilitating the supply of raw materials, credit and other incentives. The conversion of government polytechnic institutes, which are presently functioning in an academic and non-
practical environment, into "agencies for development and promotion of new technology." (18)

5.5 Conclusions

In this thesis we have attempted to present the framework for a strategy for integrated rural development. The basic aim of the strategy is the amelioration of the condition of the rural poor, who have been by-passed by the mainstream of national development. The focus of this strategy is on decentralization and integration. The need for decentralization stems from the fact that the problems of rural poverty have to be tackled at as close a level as they are situated. Furthermore, they have to be resolved, in the final analysis, through the personal efforts of this target group. The role of public policy, therefore, is to create an appropriate socio-economic environment at the grass roots level to stimulate rural communities into action. The emphasis on integration stems basically from the multidimensional nature of the problem of rural poverty, which requires to be tackled on many fronts, but in an integrated fashion. However, from the broader planning perspective, the need for integration arises from the dualism in the system and the consequent lack of linkages which are necessary for the transmission of development.

In our scheme we have attempted to show that the problems of rural poverty cannot be resolved solely within the rural sector. Rural development requires the economic support and propulsive dynamism of urbanization to stimulate development. Our emphasis has, therefore, been on adopting rural-urban integration as a basic approach of forcing the transition from 'peasant' to 'farmer'. In conclusion, we wish to
state that for Pakistan, the importance of rural development does not rest solely on issues of economic growth and development, but on basic questions of equity of human welfare for over 26 million people living in abysmal poverty, who would like to have a place 'under the sun.'
CHAPTER 5

NOTES


(2) Klassen, H. Leo Area Economic and Social Development, OECD, Paris, 1965, p. 27.


(8) The following is a select list of bibliographical reference for spatial analysis for determining the centrality and hierarchy of settlements:


For additional references, see Berry, B.S.L., and Pred, A., Central Peace Studies — A Bibliography of Theory and Applications, Regional Science Research Institute, Philadelphia, 1961.


(14) Ibid., p. 113.

(15) Ibid., p. 114.


(17) Ibid., p. 273.


Andrus, J. Russel and Mohammad, Azizali, F. Trade Finance and Development in Pakistan, Stanford University Press.


Brown, Lawrence A. Diffusion Process and Location. Bibliography Series No. 4 Regional Science Research Institute 1968.


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