West Pakistan: Rural Education and Development

WEST PAKISTAN: RURAL EDUCATION AND DEVELOPMENT

Abdur Rauf

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TO

HIM (PEACE BE UPON HIM)

WHO STOOD FOR

THE CAUSE OF THE UNFORTUNATE

Foreword

AN OVERWHELMING majority of Pakistan's population lives in the villages. In order to be effective, any worthwhile program aiming at the understanding and development of the Pakistani people must be categorically village-centered. During the period of colonial dominance, the village society was more or less completely ignored. Independence and the consequent wave of national awakening ushered in a new era of rural development. Failures and frustrations notwithstanding, post-Independence village development programs are now being followed up more vigorously than ever before.

Professor Abdur Rauf's interest in the rural problems of Pakistan is undoubtedly genuine, creative, and constant. He is inspired with a missionary zeal and is dedicated to the study of our rural mentality and its multifarious demands. By virtue of his eminent intellectual caliber and varied experience in village education and development projects, Professor Rauf is decidedly the most competent and trustworthy person to listen to on this fascinating subject.

It is a sad fact that no systematic study has been conducted so far on the strategy of rural development. Being so comprehensive and realistic, Professor Rauf's stimulating and pioneering study answers a fundamental need of the time. In fact, it could be safely adopted as a basic guide by all local and foreign individuals and agencies who are interested in the dynamics of the rural patterns of life, education, and development in Pakistan in particular and in all other Afro-Asian states in general.

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February, 1970

Preface

CAUGHT in the postwar wave of reconstruction and development, the sturdy people of Pakistan have launched an intensive campaign for maximal exploitation of their human and natural resources. This book, coming as it does in the midst of the U.N.-sponsored decade of development, narrates the details of the West Pakistani villagers' struggle to alter the course of destiny; it portrays the toil and sweat of these people, flowing in both right and wrong directions, who have sought rural development.

The subject was originally suggested to me by Professor Cole S. Brembeck, of Michigan State University, who thought that by virtue of my close professional association with education and development in Pakistan I should attempt an appraisal of the field. To what extent I have come up to the expectations of my learned friend is for him and the readers to judge.

Written partly in Pakistan and partly in the United States, where I was a senior specialist in residence at the Institute of Advanced Projects of the East-West Center at the University of Hawaii, Honolulu, the book endeavors to provide a panoramic view of the current war on hunger, illiteracy, and disease being waged so desperately in a rapidly changing region of the world. The physical setting of the study is an integral part of Asia, but the salient features of the process, the triumphs and turmoils, and the balance of hope and frustration also contribute considerably to understanding the gigantic developmental tide now sweeping over other Asian and African lands where the basic situation is very much alike.

I have proceeded fairly cautiously, relying on national plans, government reports, official records, published materials, and even unpublished data. But the interpretations of the course of events made here and there and the occasional suggestions for improvement, whatever

degree of harmony or divergence they might bear to the official policies, reflect my own views, made in pursuit of a purely academic analysis and motivated by a genuine concern for the welfare of a forlorn people.

As is apparent from the pile of data squeezed into the book, I feel obliged to an unusually large number of leaders in government departments and voluntary agencies, writers of insightful works cited in the text, and many Pakistani and Western institutions and individuals. An attempt to express the depth of my gratitude to all of them appears to be impossible. I have thus been obliged to make a departure from this convention.

Abdur Rauf

Honolulu
January 13, 1970

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Introduction: The Land and the People

ON AUGUST 14, 1947, Pakistan emerged on the world map as a sovereign state. Although politically young, the territory which constitutes Pakistan has been the center of one of the earliest known civilizations of mankind. Contemporary Pakistan comprises two main geographic zones or provinces known as East Pakistan and West Pakistan, which are separated by over a thousand miles of Indian territory and by 2,500 miles of sea.

West Pakistan—the subject of the present survey—comprises the following units: (1) the four former provinces and natural subdivisions, namely, Sind, Panjab, Northwest Frontier, and Baluchistan; (2) the states of Bahawalpur and Khairpur, the Baluchistan States Union, and the Frontier States; and (3) the tribal areas of Baluchistan and the Northwest Frontier. With the introduction of the One-Unit System in October, 1955, all of these constituent parts were merged into a single unit and named as the province of West Pakistan. In terms of topography, the province is divided longitudinally into three zones: (1) the northern and northwestern mountainous regions, (2) the central Indus valley, and (3) the eastern desert strip. In terms of administration, it is split into twelve well-defined divisions: Peshawar, Dera Ismail Khan, Rawalpindi, Sargodha, Lahore, Multan, Bahawalpur, Khairpur, Hyderabad, Quetta, Kalat, and Karachi. Each division is divided into districts that are further divided into *tehsils*. Each *tehsil* is divided into *dehs* or villages. (See Table 1 for village distribution.) A village, thus, is the primary administrative, economic, and cultural unit in West Pakistan.[1]

The two wings of Pakistan are strikingly dissimilar in climate and topography. While East Pakistan is relatively unvaried, West Pakistan is a land of contrasts—a mixture of lofty mountains and low plains, barren tracts and fertile fields, overcrowded cities and underpopulated districts.[2] Sprawling over 310,236 square miles, West Pakistan com-

Table 1: Villages by Division

Division	*Number*
Peshawar	2,269
Dera Ismail Khan	850
Rawalpindi	4,434
Sargodha	4,313
Lahore	6,329
Multan	6,256
Bahawalpur	2,903
Khairpur	2,452
Hyderabad	3,214
Quetta	3,114
Kalat	2,081
Karachi	232
Total	38,447

prises 85 per cent of the total area of Pakistan and is about the combined area of Spain and Italy. From sky-high mountains and snow-clad peaks in the north, the landscape slopes southward toward orchard-laden valleys in the foothills and wheat-rich fields in the riverain plains. Farther south, barren sun-burnt hills, rent by huge chasms and gorges, alternate with sandy deserts and stony plains. Although the seacoast is arid and devoid of vegetation, the sea itself abounds in colorful varieties of fish, supporting a big industry.[3]

West Pakistan has a continental type of climate. Winter, summer, autumn, and spring set in at regular and predictable intervals. In some parts of the province winter is extremely chilly but generally dry. The three summer months, beginning in mid-April, are hot, the temperature occasionally reaching as high as 120 degrees Fahrenheit. Cool and pleasant climate returns to most parts of the province, however, from November to March. Rainfall is not excessive anywhere, the maximum monsoon rains averaging about ten to fifteen inches.

The major sources of irrigation in West Pakistan, apart from rains, wells, tube wells, and canals, are the five rivers: the Indus, which, emerging from mighty glaciers in the Himalayas, flows through the main snowy ranges of Kashmir down the very heart of West Pakistan; and the Jhelum, Chenab, Ravi, and Sutlej, which, though all smaller than the Indus, irrigate the soil of West Pakistan and feed the Indus. Forging

its path through hills and valleys, the Indus enters the plains of the former Panjab region; it then glides gently into the Bahawalpur division and the former Sind areas; and after a course of 1,500 miles, it finally merges into the Arabian Sea. The four subsidiary rivers of the Indus are the lifeblood of West Pakistan; without them the entire area would be a desert. When in spate, however, they often create problems for people residing within their range, and usually the villagers are the most adversely affected.

The average annual flow of the Indus and its tributaries is twice the flow of the Nile and three times that of the Tigris and Euphrates combined. In Europe the Danube alone compares in size, and in the United States only the Mississippi and the Columbia are larger. The Indus River system feeds an area larger than the areas irrigated by the Nile in both the United Arab Republic and Sudan.[4] The river is significantly called the *Abasin*, which in the Pushtu language means "the father river."[5]

West Pakistan has been the home of peoples of varying racial stocks who came in many waves of migrations and military episodes. The people of the province could be classified into two racial groups: (1) Indo-Aryans and (2) Turko-Iranians. The majority of the people inhabiting the plains to the east of the Indus are Indo-Aryans. The Panjabis and Sindhis show Indo-Aryan origin in their dark and wavy hair, black eyes, brown complexions, and tall statures. The people of Baluchistan and the Northwest Frontier Regions—that is, the Baluchis and the Pathans —are Turko-Iranians. Their fair complexions, dark eyes, long noses, and sturdy physical builds reflect an obvious admixture of Turkish and Iranian characteristics. On the whole, however, Aryan traits dominate throughout the province, and all West Pakistan's major languages—Panjabi, Pushtu, Baluchi, Sindhi, and Makrani—belong to the Aryan group.

The people of West Pakistan, however, are essentially homogeneous, regardless of status or racial origin, for one of the significant cultural traditions of these people has been their extraordinary potentiality for cultural assimilation and synthesis; no regional or racial discriminations play a part in their interrelationships. Their cultural alignment with the enlightened civilizations in the West—for example, Sumerian, Babylonian, Greek, Iranian, and Arab—fostered a liberal and a democratic outlook. "The people here imbibed the spirit of adjustment and accommodation, as compared to the rest of the Indian subcontinent steeped in mythology of gods, dominated by the super race of the Brahmins, and bound by the rigid laws of joint-family and caste-system."[6]

Table 2: Population by Division

Division	*Total*	*Rural*	*Rural (in per cent)*
Peshawar	6,372,467	5,698,821	89
Dera Ismail Khan	1,205,719	1,096,201	91
Rawalpindi	3,979,139	3,220,715	81
Sargodha	5,976,939	4,804,515	80
Lahore	6,448,575	4,247,381	66
Multan	6,602,924	5,616,231	85
Bahawalpur	2,574,066	2,216,879	86
Khairpur	3,133,712	2,628,719	84
Hyderabad	3,290,956	2,536,691	77
Quetta	630,118	467,419	74
Kalat	530,893	473,101	89
Karachi	2,134,870	219,133	10
Total	42,880,378	33,225,806	77

This homogeneity extends far back into remote history. Archeological diggings in widely separated parts of West Pakistan show an early civilization possessing certain age-old common patterns. The geographic character of the province has established both an ecological unity and a cultural entity which are quite separate and distinct from the rest of the Indo-Pakistan subcontinent. Random sampling of the various regional products of art, architecture, and literature further strengthens this impression of unity. The spoken languages and dialects—and there are many—all share a sizeable percentage of Arabic and Persian words; further, the majority of the people understand and speak Urdu, the lingua franca of the province. A major unifying factor is religion. Ever since the invasion of Sind under the leadership of Muhammad bin Quasim, West Pakistan has been the nucleus of Islamic civilization and culture, and Islam has given the people a common ideological orientation that transcends the kaleidoscopic patterns of somewhat varying cultures from region to region. Finally, the people are homogeneous economically as well, for the majority of them are engaged in agriculture.

As in East Pakistan, agriculture is the main industry and the principal source of livelihood for the villagers in West Pakistan; rural life predominates in all parts of the province except Karachi, as shown in Table 2.[7] Out of a total population of 42,880,378 the figure for rural

population stands at 33,225,806, the over-all rural percentage being 77. In the language of the First Five-Year Plan "agriculture along with its branches of animal husbandry, forestry, fisheries and horticulture is the largest segment of the economy of Pakistan."[8]

The current pattern of rural society in West Pakistan and the prevalent system of ownership and cultivation of land have evolved over a long period of time under the impact of changing political, social, and cultural forces. Distinct rural classes have emerged, their differences based on their respective tenure statuses. These rural classes are: (1) the landlord, (2) the peasant-proprietor, (3) the tenant, and (4) the casual agricultural worker.

Landlordism in Pakistan is the legacy of British rule. The landlord, or *zamindar*, occupies the top position on the social ladder. He generally holds big tracts of land which he does not cultivate himself; instead he depends entirely on huge rents from the tenants. He invariably has enormous power and prestige in the village. Next in the socioeconomic heirarchy comes the peasant-proprietor. Unlike the big landlord, he owns small areas of land which he cultivates himself with the help of his own family or of hired labor or both. "Traditionally he is considered to be the backbone of agriculture in West Pakistan."[9] The tenant occupies the place below the peasant-proprietor. Generally he has no permanent interest in the land which he cultivates on the basis of rent, in cash or kind or both, paid to the owner. At the lowest rung of the ladder stands the casual agricultural worker. Already belonging as he does to a downtrodden class, the agricultural laborer has suffered a further disadvantage from the growing popularity of mechanized farming tools and technology.

The British left another undesirable legacy, apart from landlordism: the huge agricultural estates. During their stay on the Indo-Pakistan subcontinent, especially after the collapse of the Revolution of 1857, the colonial rulers lavishly bestowed big tracts of crown land to such "loyal" elements as rendered "meritorious services" to the cause of British imperialism. Such lands were termed *jagir*s and the holders *jagirdar*s. The *jagirdari* system gave rise to an elite class with selfish and vested interests in the rural setup. Like the wealthy landlords, the *jagirdar*s exploited rural labor in a variety of inhuman ways; and the *jagidari* system sapped the very foundations of rural life and rural economy.

A series of land reforms are now being carried out actively to remedy these unfortunate features of the economic structure in rural West

Pakistan. Working conditions for the agricultural laborer have improved tremendously with provision for better wages, better facilities, and job security. The most spectacular step has been the curtailing of the unbridled power of big landlords and the conferring of proprietary rights on the farmers. On the recommendation of the provincial Land Reforms Commission, the government has decided that "no person can own or possess an area of more than 500 acres of irrigated land or more than 1,000 acres of unirrigated land."[10] By fixing a ceiling on agricultural holdings and by completely abolishing all *jagirs*, coupled with enforcement of other labor welfare measures, the current land reforms are revolutionizing the economic prospects of the average farmer and are changing the socioeconomic pattern of the entire rural community.

Other reformative measures that have affected the village life, especially that of women, are the West Panjab Muslim Personal Law (Shariat) Application Act, 1948, and the West Pakistan Muslim Personal Law (Shariat) Application Act, 1962. The law that was replaced by these two acts had denied the widow and daughters of the deceased owner their share in the property of the deceased. Under the two new acts the rights of the female heirs have been restored in conformity with the tenets of Islam. A recent survey conducted by the Board of Economic Inquiry, Panjab, in a few selected villages of the Lahore region reveals that although these enactments have met with considerable opposition from interested sectors of the male population, they have awakened rural women to a new consciousness of their social and economic rights.[11]

Besides agriculture the village community is sustained by a number of other professions. Rural business, which does not usually go beyond petty shopkeeping and retail selling, ranks next to agriculture as a vocation of prestige. This is followed by government service. Even petty revenue officials, the *lambardar* and the *patwari*, enjoy considerable prestige and reputation in the village. The village teacher (*muallim*) and the priest (*maulvi*) also command the respect and esteem of the rural population. Their advice is sought and valued in the affairs of everyday life.

The provincial village communities also include small numbers of such craftsmen as blacksmiths (*lohars*), carpenters (*tarkhans*), weavers (*jaulahas*), tailors (*darzees*), bakers (*nan-bais*), oil crushers (*telis*), fishermen (*mahigheers*), barbers (*nais*), washermen (*dhobis*), cobblers (*mochis*), and village bards and musicians (*mirasis*). These craftsmen, by providing skilled services locally at cheap rates, play quite an important role in

promoting the health and efficiency of rural communities, for owing to the poverty and poor communications media, each village has of necessity to be largely self-sufficient in all essential goods and services.

Village trades and professions are usually hereditary, and it is not easy to change one's occupation. Thus the son of a fisherman will grow up to be a fisherman, the son of a carpenter, a carpenter. Some villagers pursue more than one profession simultaneously.

> Division of labor does not exist in rural areas and one may even follow two professions at the same time. Thus, the village baker is also a fisherman and the washerman is also a tailor. The barber is the jack of all trades. He used to be the village surgeon and is still regarded as an expert in large-scale cooking. His knowledge of men and affairs is valued. He is a trusted messenger and he delivers important communications, one of his most important jobs being to arrange suitable matches for the sons and daughters of his clients. Incidentally, he plays the major domo at weddings.[12]

Although women and children share considerable professional responsibilities with men, essentially, women remain less preoccupied with field work and more concerned with child care, nursing, cooking, spinning, weaving, sweeping, and other domestic chores. During wars and emergencies when men leave for the front, however, women and children manage the village affairs.

The family is the basic social and economic unit in rural West Pakistan. It continues to retain its preeminence as the most vital bond of human association. "Family is the smallest 'in-group' in the social structure and normally behaves as a compact unit in all intra-village affairs."[13] The common family pattern is patriarchal. The average rural family size is about 4.7. All family members have their apportioned duties and play well-defined roles in domestic, professional, and social spheres. Events like weddings, births, and deaths are attended to by the family in accordance with religious injunctions and local traditions.

Three festivals which are celebrated with spectacular festivity and enthusiasm throughout West Pakistan are: (1) Eid al-Azha, the festival of sacrifice, falling immediately after the day of Pilgrimage (Hajj) at Mecca; (2) Eid al-Fitr, the day of rejoicings, marking the termination of the month of fasting (Ramadhan); and (3) Eid Milad al-Nabi, the birthday of the Prophet Muhammad (peace be upon him). In addition to these, a number of regional festivals, seasonal fairs, and harvest festivities are observed from time to time, bringing relief and happiness to the average villager whose life is otherwise overburdened with work.

Occasional village sports and cattle exhibitions also lessen the drudgery of rural life. These gay occasions include delightful renditions of regional folklore and folk dances.

Marriage is an important event in the life of the village and is celebrated with festivities which stretch over several days. The exchange of gifts among the relatives of the couple is regulated by custom. In order to give her a comfortable start in life, the girl is given a dowry by her parents, which usually consists of clothes, jewelry, basic items of rural furniture, and cutlery; the quality and quantity of the dowry depend upon the socioeconomic status of her parents. Since the scale of expenditure on a marriage has immense bearing on the social prestige of the families concerned, it frequently entails considerable economic and emotional strain, often involving debts and allied financial liabilities. A marriage contract (*nikah*) may be written or verbal. The trend towards the former type is on the increase these days. The choosing of a marriage partner is usually guided by parents, although enough scope for individual initiative and voluntary selection exists for more enterprising youngsters. Kinship, caste, and religious affiliations often figure foremost in the matter of mate selection.

Sexual waywardness and illicit relations between unmarried villagers are strictly taboo, and they rarely occur. The incidence of divorce, separation, and familial disruption—all strongly disapproved—is negligible; moreover, children are given enough parental affection. Thus, although marred by poverty, the rural social structure presents a picture of emotional balance, cohesion, and harmony, leaving only a few undesirable aspects.

One such undesirable aspect is the village factions. "A faction may be defined as an informal group seeking to promote the interest of members through conflicts with similar groups,"[14] the dominant objective of a rural faction being extinction of the "enemy." Members of the faction derive satisfaction in inflicting social humiliation, physical suffering, and economic loss to the rival group. The faction chief attains leadership through personal initiative, prowess, and notorious reputation. By promoting intergroup hostility and futile litigation, such factions are often responsible for disturbing the peace and tranquility of rural life and thereby retard the pace of social, cultural, and economic growth. Rampant poverty and widespread illiteracy; a dearth of educational, recreational, and guidance facilities; and often defective legal handling are mainly responsible for the emergence and operation of rural factions. There has been, however, an appreciable decrease in the

operations of rural factions in recent years, brought about by the combined influence of such factors as improved village administration; land reforms; enlightened labor legislation; the spread of fundamental education; cultural experience gained by village soldiers through participation in two world wars; the impact of the recent Indo-Pakistan conflict; and the efforts to reconcile all intergroup clashes and conflicts shown by the Council of Elders (*Jirga*) in the Tribal Areas, and the rural communes (*Panchayats*) in the rest of the province.

Another undesirable aspect of the rural society concerns health and sanitation. Most of the houses are small mud structures, and rural household furniture consists usually of a few beds (*charpais*) and an occasional chair. Separate bathrooms are a rare phenomenon, for villagers usually go out to the fields for the disposal of human wastes. Ponds, wells, canals, and rivers are favored freely for washing and bathing purposes, and cow-dung cakes (*upplas*) and dried wood are usually used as fuel for cooking. Obviously, a basic knowledge of everyday health and hygiene is lacking, apart from the paucity of medical facilities. And because of this discouraging status of rural health and sanitation, malaria, cholera, and plague take a heavy toll of life every year, although the Pakistanis are fundamentally a strong and sturdy people, as are those living in certain mountainous areas like Swat and Hunza, for instance, who are known all over the world for their longevity (the average life span is above one hundred years).

One final point to be made about the West Pakistani villagers is the significant role religion plays in their lives. As is obvious from Table 3,[15] the preponderant majority is Muslim. Islam is so intimately interwoven in the lives of the rural population that it is a way of life to them. People pray, keep the fasts, read the Holy Quran, offer *zakat*

Table 3: Distribution of Religious Groups

Religion	*Number of Persons*	*Percentage of Total*
Islam	41,666,153	97.2
Christianity	583,884	1.4
Scheduled Caste	418,011	1.0
Hinduism	203,794	0.5
Buddhism	2,445	0.006
Others	6,091	0.01
Total	42,880,378	100.12

(the compulsory charity), go on pilgrimage (Hajj) to Mecca when they can, and observe all religious festivals with devotion. Religion is a basic source of solace in crisis and emergencies.

> At a time of flood, when the soaked walls of their houses tumble down in a heap and the cattle are carried away in a muddy torrent, they help one another to collect what is left of their possessions and, the moment the waters withdraw, start to build their houses again. There is no feeling of despair or of challenge. God is never against them, "He knows best." People will look wistfully at their wasted fields after a swarm of locusts has devoured the standing crop and say "It is the will of Allah." At a time of death, they mourn but never feel that the death was a punishment from above, for "Allah knows what is best for them."[16]

This firmly positive spirit is the key to the future of rural West Pakistan. It is now being strengthened by a multiplicity of reclamation forces at work in the province. Various agencies are bringing out the latent potentialities of the rural population and are giving new directions to their energies. The present survey presents an account of the way education and other developmental efforts, official and voluntary, are working to reshape the lives and attitudes of the villagers of West Pakistan.

CHAPTER 2

Historical Perspective

Education

IT IS NOW universally acknowledged that the area constituting West Pakistan has been a cradle of culture and learning throughout the ages. Our image of the ancient educational picture must be based, however, almost exclusively on secondary sources and indirect references, for "in the pre-Muslim period, there was still no continuous and systematic recording of history, which only came into vogue during the Muslim period. Religious and mythological literature, however, throws considerable light on the educational system of the country."[1] The developments that took place during the Muslim and British periods have been recorded. Finally, although no systematic study of the current position has so far been reported, a mass of helpful data is available in miscellaneous documents published during the last two decades.

The available information indicates that in West Pakistan learning has always been highly valued and that learned men were held in higher esteem than warriors and administrators. It appears that the modern distinction between urban and rural education scarcely pertained and that learning as an awareness of the immediate surroundings and as a realization of basic goals of life was fairly widespread in most areas of ancient West Pakistan.

THE BRAHMINIC PATTERN OF EDUCATION

Of all the ancient races that thrived on the soil of West Pakistan the Aryans appear to have made the greatest impact on the life and destiny of the people. Entering the land through the northwest defiles at some unknown date before 1000 B.C., the early Aryans, dependent on a pastoral economy, divided themselves into certain religio-vocational groups that later solidified into four rigid and mutually exclusive castes. In the order of their social and cultural prestige, these Aryan castes

were: (1) Brahmins (priests), (2) Kashatriyas (nobles and warriors), (3) Vaisyas (agriculturists and traders), and (4) Sudras (untouchables).

During the earlier stage, education, which was mostly confined to the learning of ritual lore and the Vedic hymns, remained a virtual monopoly of the superior group, the Brahmins. Consequently, it exerted little impact on the life of the non-Brahminic majority. It appears that towards 500 B.C. the Kashatriyas and the Vaisyas also began to receive education from the Brahmin teachers in preparation for their avowed professions. The lowest group, the Sudras, continued to be deprived of all scholastic facilities.

A number of educational institutions emerged from the ancient Brahminic educational pattern. The one that is significant in the context of the present study is the *pathshala* (primary school), which existed in all larger villages and towns. An average *pathshala* was a one-teacher school with enrollment ranging from one to two dozen pupils of the three higher castes; the children of the Sudras were barred entry. Instruction was held usually under trees, inside temples, or in village premises set apart for this purpose. The syllabus, which had no precise contents, consisted mostly of the three R's and Vedic legends and mythology.[2] Leaves, earth, sticks, reeds, and charcoal were used as writing materials. As time passed, this primitive stationery was gradually replaced by ink and crude paper.[3]

No fees were charged for attendance, but as influential functionary of the rural community, the teacher received from the villagers frequent presents, rent-free land, and a substantial share of the village harvest. Teaching was only a subsidiary function for the *pathshala* teacher. His main job was to offer worship to the village deity on behalf of the entire village population. Often, too, he supplemented his income by farming or petty trade.

IMPACT OF THE BUDDHIST ORDER

The advent of Buddhism in the fifth century B.C. heralded a new era in the ancient history of provincial education. The Buddhist educational designs differed from those of the Brahminic mainly in the following ways: (1) Buddhist education was not based on the study of the Vedas; (2) teaching was entrusted to the *Bhikshus* (Buddhist monks) rather than the Brahmins; (3) the monastery replaced the *pathshala* as a seat of learning; (4) education was open to everyone and no longer remained a monopoly of the three higher Aryan castes; (5) the ultimate goal of education was defined as a life of solitary meditation as demon-

strated by Buddhist monks (although most of the monks lived communally in the monasteries).[4]

During his visit (A.D. 399–414) to the Panjab (now the Lahore region), Fa-hien, the celebrated Chinese traveller, found that although the common method of Buddhist instruction was oral, writing was used more freely in the eastern regions. The syllabus included religious worship, elementary mathematical formulas, and language study. The duration of education was from six to twenty years. Normally a boy left the monastery at the age of twelve or even earlier, but those who elected the monastic life stayed permanently. A number of well-established seats of learning were reported to be engaged in mass dissemination of knowledge and culture. In the northwest, Takashashilla (now known as Taxila), capital of the ancient Gandhara province, enjoyed considerable reputation as an important center of Buddhist learning.

The Buddhist system of education flourished until the middle of the seventh century when Brahminism began to show signs of revival. Although the Buddhist system never produced a workable educational program for the masses, and was eventually displaced by Brahminism, it nonetheless left a permanent impress on the history of popular education; for by opening the doors of education to all, irrespective of their caste or status, it had broken the Brahminic monopoly over education. This early attempt at the democratization of education paved the way for a more revolutionary educational system and for the far more liberal social and cultural changes that were bound to take shape subsequently with the emergence of Islam on the soil of West Pakistan.[5]

GROWTH OF EDUCATION UNDER THE MUSLIMS

Early accounts of the sporadic visits of Arab traders and sailors to the coastal regions of Sind are recorded in history. Regular entry of the Muslims into West Pakistan began in A.D. 712 with the invasion of Sind by Muhammad bin Qasim. Muslim rule, however, had its real beginning in the eleventh-century conquests of the northwestern territories by Mahmud of Ghazna, reached its climax with the great Mughals, and came to a close with the collapse of the abortive Revolution of 1857 against the British.

Transformation of Indian life. In his famous *Memoirs*[6] the Mughal Emperor Babur wrote of the sociocultural backwardness of the pre-Muslim Indians, and his impressions were echoed in the subsequent writings of Emperor Jehangir[7] as well. But Islam changed all this for

the Indian people. Its stress on the acquisition of knowledge by everyone, the equality of high and low, and other similar socialistic precepts and practices transformed the mental and material horizon of the natives. Mahmud Husain speaks of this transformation below:

> Just think of any of the finer aspects of life in India, Muslim influence will strike you at once. Apart from the material progress made under the Muslims, Islam gave to India new spiritual values, new cultural ideas and new philosophical concepts. Muslim kings and statesmen, Muslim saints and scholars, Muslim artists and poets, Muslim engineers and architects made India a much better and more beautiful place to live in than they had found it.[8]

Islam's unique emphasis on the acquisition and dissemination of knowledge, coupled with the Muslim rulers' keen personal interest toward education and with the liberal state patronage of learning, led to a rapid expansion of education in practically all parts of the subcontinent. The Muslim educational pattern reached its apex under the Mughal rulers.

Popular rural institutions. Of the various educational institutions that flourished during the Muslim period, the three that were most common in the rural areas of West Pakistan were: (1) the *maktab*s, (2) the Quran schools, and (3) the system of private home tutoring. The *maktab*s, also known as *madrasah*s, were the early primary schools. Unlike the *pathshala*s, the *maktab*s were open to everyone irrespective of caste or creed, although a large number of these were attached to the mosques. The syllabus used in the *maktab*s revolved around the three R's. In contrast, the Quran schools concentrated exclusively on the teaching of the Holy Book and the Arabic language, and they were usually housed in, or attached to, the mosques, although quite a few *maulvi*s (priests) also organized such schools in their own houses. The system of arranging individualized private tutoring for children at home was also fairly common. Householders of some means usually engaged the services of experienced teachers to instruct their children in reading, writing, and arithmetic.[9]

Although a variety of other educational institutions also functioned during this period, the three categories described above had the widest impact on the rural communities of West Pakistan.

Dynamism of the Muslim school organization. With the advent of the Muslim educational system, both the Brahminic and Buddhist systems began to lose ground. In fact, owing to their inherent inadequacies,

neither of the pre-Muslim systems had gained a permanent hold over the masses. In contrast, the dynamism of the Muslim school system proved far more popular, effective, and lasting. The Muslim system owed its popularity to the following factors: (1) Unlike the earlier Brahminic and later Hindu *pathshala*s and the Buddhist monasteries, the Muslim schools were neither priest- nor ritual-ridden. Whereas admission to a pre-Muslim institution often involved a break with secular knowledge and everyday responsibilities, the Muslim educational system blended spiritual and secular thought and behavior fairly amicably. (2) The spirit and content of the Muslim educational system was thoroughly democratic despite the monarchical pattern of the Mughal government: Admission was open to all, including non-Muslims. Moreover, the *pathshala*s, the monasteries, and other non-Muslim centers of learning were allowed to continue freely; some were even given state grants. (3) Unlike the rigid paternal and authoritarian pattern of discipline prevalent in the pre-Muslim institutions, Muslim schools were characterized by a cordial and personalized relationship between the teacher and the taught, and although education was subsidized by the government, the teacher enjoyed complete freedom from state interference. This distinctive aspect was far more in harmony with the character of the people and with the idealism of the rural community than were the preceding systems. (4) Being based on humanitarian rather than utilitarian considerations, the Muslim institutions possessed a far greater potential for becoming popular with the poor rural masses than had the more taxing non-Muslim seats of learning. One reason for this was the congenial pupil-teacher relationship that characterized the Muslim educational system. The teacher loved his profession; and the pupil and the entire community showed extraordinary respect for the teacher, who wielded considerable influence and was an effective medium of social and cultural change. Frequently teachers also provided pupils with free board and lodging. "Fees in *maktab*s and *madrasah*s were accepted when offered but seldom demanded. Arrangements also existed for providing poor students with scholarships and allowances."[10]

This last feature not only differentiates the Muslim educational pattern from preceding systems but also distinguishes it from the one that succeeded it; i.e., the British educational system, which as transplanted on the soil of the subcontinent was utilitarian and exploitative.

The decline and its aftermath. The Muslim educational system began to deteriorate with the disintegration of the Mughal empire. The decline

adversely affected the life of the people of the entire subcontinent, and its effect on the social, cultural, and economic growth of the rural population in West Pakistan was disastrous. All hopes for a revival of the decaying system were finally abandoned with the collapse of the Revolution of 1857. Thus were the rural masses eventually deprived of a system of education that was cheap, liberal, democratic, and that, above all, was in consonance with their cherished ideals and aspirations. The alien educational system that replaced the Muslim system was damaging on the whole, and under its impact the rural masses fell victim to increasing illiteracy, poverty, backwardness, and degradation.

British Colonial Policy

British rule in the Indo-Pakistan subcontinent was a "British rule lacking British principles."[11] From an educational and wider cultural point of view the period from 1857 to 1947 was the gloomiest era in the history of West Pakistan.

DAMAGE TO THE RURAL ECONOMY

The alien economic, political, and cultural ideals which the colonial rulers were eager to implant on the villages made little appeal to the local imagination, for the economic policy they followed was based on exploitation and disruption. The British creation of landlordism and the *jagirdari* system was a shrewd attempt at disrupting the agrarian economy to further their own political and economic ends. "Big landowners were created by the British after their own English pattern, chiefly because it was far easier to deal with a few individuals than with a vast peasantry. The village community was deprived of all control over the land and its produce; what had always been considered as the chief interest and concern of that community now became the private property of the newly created landowners."[12] The imposition of such injurious patterns of feudalism led to speedy disintegration of the rural community: it opened the doors to poverty and created a system of surveillance inimical to a people who had long been accustomed to a life of self-sufficiency and self-respect.

The destruction of the local rural economy served more than one purpose of the alien regime and its loyal landlords. For colonial designs, it was easier to hire a half-starving rural populace who were reduced to abject poverty; the stalwart villagers of West Pakistan, the sturdiest stock in the entire subcontinent, therefore, were deliberately bereft of education and prosperity so that they might be readily available

for recruitment into the armies of the British. For the pro-British feudal landlords, also, a necessitous rural populace presented a most favorable proposition, for it assured an abundant supply of cheap agricultural labor. The policy of keeping the village population deprived, therefore, of even the basic amenities of life and the most fundamental educational facilities seemed obviously advantageous both to the colonial rulers and to the local landlords they had created. Because of this, the rural communities of West Pakistan suffered much more than their urban counterparts during the British domination.

HARMFUL EDUCATIONAL NOTIONS

The British were far too preoccupied with conquests and consolidations to allow genuine education a place in their early administrative policy. Even when they did turn to educational problems their approach was invariably characterized by expediency as shown by their colonial educational system, which was originally inspired by Lord Macaulay, who was convinced that "a single book of English was worth libraries of oriental learning."[13] In Macaulay's views, the function of education in the Indo-Pakistan subcontinent was to raise a select class of loyal English-appearing citizens to be exploited as an instrument for the propagation of Western ideals and values among the natives. Wrote he in his *Minutes*: "We must at present do our best to form a class who may be interpreters between us and the millions we govern, a class of persons Indians in blood and color, but English in taste, in opinions, in morals and in intellect."[14] This rather strange notion of education, also labeled the Filtration Theory, is based on the assumption that if certain select classes are indoctrinated in a given set of ideas, their knowledge will gradually percolate down to the masses.

Macaulay's Filtration Theory, which formed the basis of official policy from 1835 on, wrought immense social, cultural, and economic havoc in the urban sector. About seventy years later, Lord Curzon himself, then Governor-General of India, admitted frankly that "ever since the cold breath of Macaulay's rhetoric passed over the field of Indian languages and Indian textbooks, the elementary education of the people in their own tongue has shrivelled and pined."[15] Fortunately, however, in the case of the village population, the dream of having English culture "filter" down to the lower strata was never completely realized.

Later educational history is full of references to inadequate legislation that pretended to aim at the expansion of basic education. One

frequently reads of increases in the number of rural schools, of the inauguration of institutions for low-caste children, and the like.[16] Nevertheless, the truth remains that these devices did not make any appreciable impact on the life of the unfortunate rural people. In actual practice official policies resulted in a systematic destruction of the indigenous educational ideology and its machinery while foreign missionary institutions, European-type schools, and institutions for the princely classes continued to be patronized.

BITTER REACTION OF THE RURAL MASSES

Another noteworthy feature of the British educational system was its strong anti-Muslim bias. Having usurped power from the Muslims, the British regime was constantly apprehensive of a possible Muslim political and cultural regeneration; hence, it deliberately adopted measures designed to cripple the Muslim educational and cultural structure. From the beginning the Muslim population had been bitterly critical of British designs. Reviewing their grievances, a contemporary British historian wrote: "They accuse us of having introduced a system of education which leaves their whole community unprovided for, and which landed it in contempt and beggary."[17] The same writer later justified the Muslim protest by this candid statement: "Before the country passed on to us, they (Muslims) were not only the political but the intellectual power in India."[18]

The British educational system met with resentment and hostility almost everywhere. Frank and outspoken by temperament, the rural masses of West Pakistan could not possibly reconcile to such a humiliating pattern. Their initial reaction, although varying in content and form, was marked by two common trends: (1) complete boycotting of the British educational policies and refusal to attend their institutions, and (2) striving to revive the *maktab*s and other educational centers deep-rooted in their own religion and culture.

In the urban areas the tendency to dissociate with the British educational institutions was gradually lessened by political pressures and exigencies of the times. Leaders like Sir Syed Ahmed Khan made considerable headway in forging a positive and reconciliative attitude towards Western education. The mass of the rural population, however, were not swayed by any pro-Western trends. Their own system having been uprooted, the rural population held an indifferent or negative attitude towards the substitute system; this made conditions far worse and was largely responsible for the widespread illiteracy, the techno-

logical backwardness, the cultural stagnation, and the poverty of the predominantly Muslim rural areas of West Pakistan. This disintegration and decay became a colossal challenge to the post-Independence nation-builders much later.

Era of Rural Reconstruction

After the dawn of independence in 1947 things began to take an appreciable turn for the better. The economy of West Pakistan, which all during the foreign regime had remained shaky and dependent, began to show a visible shift towards stability and autonomy. The period through which Pakistan is now passing may be legitimately described as an era of rural reconstruction. And since rural reconstruction is the crux of socioeconomic development, the Pakistani economy now revolves unambiguously around the village and the villagers.

CLEARANCE OF INITIAL CONFUSION

On the eve of Independence, West Pakistan was the venue of a large-scale exodus of non-Muslims and an improportionately massive influx of Muslim refugees migrating from India. The outgoing population consisted mostly of skilled workers, technicians, engineers, doctors, traders, and bankers. In contrast, the incoming population was made up largely of destitute farmers and semiskilled craftsmen. This unfavorable population exchange had ominous repercussions for the rural economy, for it multiplied the number of farm laborers in an already overcrowded agricultural field.

Besides the "labor explosion," the province underwent a multiplicity of unusually trying circumstances that retarded progress to an alarming extent during the intitial years. Chronic political instability and too frequent collapses of the feeble coalition governments had generated insecure conditions. Opportunist civil servants who often played into the hands of unscrupulous politicians had weakened the administration. Business, commerce, and trade all presented a picture of chaos. Disruption in the rank and file of the rural community, augmented by increased hoarding and smuggling, had intensified food shortages. More food had to be imported, causing an abnormal drain on the fast-depleting foreign-exchange reserves.

Mounting political chaos, deteriorating administration, and a precarious economy finally precipitated the inevitable crisis: in October, 1958, the country saw a revolution. A martial regime took over the government and set itself to the gigantic task of putting the house in

order. "Drastic measures which the new Government took to contain inflation and to halt the loss of exchange reserves caused some initial uncertainty, but popular confidence in the regime increased as it gave increasing evidence of political, economic and financial rectitude, political stability and a desire to support measures for developing the economy."[19]

The situation improved further with the promulgation of a new constitution in March, 1962, which heralded a new era of democracy. The new political system was named Basic Democracy. The members of the Basic Democracies, forty thousand for each province, were to be elected through free elections; the pattern of government was federal with a President, who was to be elected by the eighty thousand Basic Democrats as supreme head of the state; the members of the two provincial assemblies were also to be elected by the Basic Democrats. The restoration of political stability through the progressive elimination of political and economic chaos had a favorable impact on the life and economy of the country and on the rural economy of West Pakistan. Village life began to show signs of regeneration.

SALUTARY CHANGE IN THE VILLAGERS' ATTITUDE

At present a strong tide of revival and reconstruction is sweeping all sectors of national life in Pakistan, but immediately after the 1958 Revolution, it was education that received the highest priority. The Commission on National Education, in their report published in 1960,[20] presented a fairly comprehensive outline of educational reforms. The many and varied recommendations of the commission created a new wave of enthusiasm for the cause of education, which was further augmented by the more recent declaration of the New Education Policy by the Government in 1969.[21] The new proposals which are far more revolutionary in spirit and content are now being carried out after scrutiny and relevant modifications.

The post-Independence awakening to the necessity and utility of education for everyone is now spreading with altogether new momentum in the villages, affecting all sectors and strata of rural economy. Public demand for expansion in all basic sectors of rural education is intensifying, and the very same rural folk who, during British rule, were not only indifferent but also often hostile to the idea of the spread of education in their areas, are now pressing hard for more and more schools for their villages.[22] "Recently, when the Governor went to a village and he offered a rupee to a small girl of nine years she refused

to accept it and demanded instead that the primary school in her village should be raised to the secondary standard."[23] In fact, the demand for the expansion of educational facilities in the far-flung regions of rural West Pakistan is now gaining such unprecedented momentum that the very best efforts of the government often fail to meet it in its entirety. Interested voluntary organizations, therefore, will have to play a crucial role in meeting one of the most vital challenges of the age.

NEW DIMENSIONS OF THE RURAL RENAISSANCE

With the current educational awakening, life in provincial villages is assuming hitherto unknown dimensions. The contemporary rural renaissance, however, is not propelled by the educational enterprise alone. It is a multidimensional process with a number of government and voluntary agencies joining hands with the educators in a well-planned war on rural inadequacies.

One such government organization is the Basic Democracies Department, which is engaged in reconstructing the social and political life of the province. An active wing of this department, the Directorate of Rural Works Programs, specializes in rural development. A recent analysis of the rural sectoral priorities published by the directorate[24] reveals that the department is according education one of the highest places in the entire spectrum of current rural projects. The Department of Agriculture and the Department of Irrigation are developing farming on modern technological lines and are thereby making a direct impact on the economy of over six million agricultural families living in thirty-eight thousand villages in West Pakistan. The Department of Forestry, the Department of Animal Husbandry, and the Department of Fisheries are also rendering much-needed service in their respective spheres. A host of economic and technical problems of the rural agricultural community are being promptly dealt with by the Agriculture Development Corporation. The Cooperative Societies Department is contributing substantially to building up the economic and social life of the villagers. By making valuable improvements and innovations in rural electrification, supply of irrigation water, and prevention of waterlogging and salinity, the West Pakistan Water and Power Development Authority (WAPDA) is changing the rural standards of living. The Health Department is not only launching an effective crusade against rural disease but also carrying out a revolutionary program of rural health education. The training of rural social workers and the fulfilling of social development schemes are the major concerns of both the Basic

Democracies and the Department of Social Welfare. The famous Pakistan Academy for Rural Development, with headquarters at Peshawar, is attending to a multiplicity of village development programs in a methodical manner.

By linking the most distant hamlets and rural centers through a network of rails and roads, the Pakistan Western Railways and the Department of Buildings and Roads are effectively doing away with rural isolation and backwardness. Work in this sector is further accelerated by the services of the Road Transport Corporation. No less significant are the valuable contributions of Radio Pakistan, all of whose stations in various regions of the province are offering carefully prepared programs for the entertainment and education of the rural masses. The Pakistan Television Service has established a station in Lahore, which is now effective within a radius of about a hundred miles, so that a vast network of villages lying within this range is now being enlightened through a diversity of specially prepared rural telecasts. Similar stations have also been established in Islamabad and Karachi.

Added to these official endeavors are the noteworthy contributions of a number of religious, social, cultural, and political organizations, which operate in their respective fields either independently or in collaboration with the official machinery and whose membership is drawn from the most patriotic sectors of the provincial population. These voluntary organizations are financed through public contributions and government aid.

THE CURRENT IMPACT

All roads in West Pakistan now lead to the village. Failures, shortcomings, and setbacks notwithstanding, the war on rural illiteracy, ignorance, poverty, and disease has gathered an unprecedented momentum. "The political and planning energies of the government are engaged in developing the vast human resources available in the rural areas and in enabling them to make a maximum contribution to the growth of a stable economy."[25] The current endeavor—focussing on progressive elimination of all unjustifiable inequalities; remedying social, cultural, and economic inadequacies; and bridging the gulf between the rural and the urban—is now yielding increasing satisfaction and hope. The subsequent chapters present a brief review of the specific impact of education and other developmental processes on the life and economy of the villagers of West Pakistan.

CHAPTER 3

Primary Education

"THROUGHOUT the developing world primary education, with its great appeal to the mass of the people, is the most touchy educational subject; a politician slights or neglects it at his peril."[1] The government and people of Pakistan have come to realize fully the fundamental truth that universal primary education is indispensable to a proper growth of skilled manpower and intelligent citizenship. The inexorable demands of rural life necessitate a realistic approach and a perspective analysis of all the variables involved in the expansion of primary education. In a setting where bare survival is a miracle and where even young children have to assume responsibilities that elsewhere fall normally to adults, it requires considerable tact and foresight to bring the child to the school and to keep him there for a reasonable length of time, ensuring that when he finally leaves school he does not relapse into illiteracy. Thus, in the context of an economically underdeveloped region such as rural West Pakistan, primary education has to be thought of as a self-contained unit, even though it may also serve as a preparatory stage for the minority of children who go on to further studies in the secondary schools.

Form and Content

Although efforts to expand primary education began sluggishly in 1947, considerable progress has been made since, as can be noted in the two previous Five-Year Plans (1955–60, 1960–65) and in the current and Third Five-Year Plan (1965–70) and the Twenty-Year Perspective Plan (1965–85) all of which have accorded prime importance to the expansion of primary education in rural areas. The aim now is to achieve free and universal primary education as soon as possible.

The measures for expansion and consolidation of elementary rural education have been undergoing a process of evolution. The major

revolutionary change took place in 1962 when primary education was provincialized. All primary schools, previously administered by district councils and town committees, were transferred to the District Primary Education Committees (D.P.E.C.'s) set up under the West Pakistan Primary Education Ordinance of 1962. The D.P.E.C.'s, however, were abolished recently, and the government assumed direct responsibility for primary education. This welcome move, designed to remove all regional disparities hitherto marring the form and content of primary education, has given new impetus to the uniform expansion of educational facilities throughout the province.

A BROAD-BASED ORIENTATION

All over West Pakistan primary education starts at the age of five and now covers the first five grades (classes I to V) of the educational ladder. Because a majority of rural children—unlike urban children—discontinue schooling during or after this stage, the basic concern at the primary stage has been to make the child functionally literate as early as possible. Nonetheless, consideration has been given to such other concerns as preparation for a fuller and productive life, development of national and international understanding, inculcation of a spirit of universal brotherhood, and a mental orientation for the acquisition of knowledge and skill. The major objectives of Pakistan's broad-based system of primary education have been defined as follows:[2] (1) to develop all aspects of a child's personality—moral, mental, and physical; (2) to equip a child with the basic knowledge and skills, in accordance with his abilities and aptitude, that he will require as an individual and as a citizen and that will permit him to pursue further education with profit; (3) to awaken in him a sense of citizenship and civic responsibility as well as a feeling of love for his country and a willingness to contribute to its development; (4) to lay the foundation for desirable attitudes, including habits of industry, curiosity, and personal integrity; and (5) to foster a liking for physical activity and an awareness of the role of sports and games in promoting physical well-being.

The dismal fact that primary education constitutes the terminal point for a large percentage of rural children makes it all the more imperative that this significant stage be given the broad-based orientation described above.

A BALANCED CURRICULUM

In the framing of the primary curriculum due regard has been

paid to the mental makeup of children in the age range of five to ten and to their concrete needs in the context of the normal situations they are apt to face in everyday life. Consequently, a fair amount of balance has been achieved between courses designed to develop the basic skills in reading, writing, and arithmetic, on the one hand, and those relating to elementary science, social studies, and handwork, on the other. The nurturing of a sense of patriotism has also been kept in view. Religious instruction has been made compulsory at this stage and due emphasis accorded to language study, which includes Urdu and the regional dialect of the child. Table 4 shows a fairly even distribution of emphasis on the various school subjects.[3]

Limitations, Obstacles, and Remedies

PAST PREJUDICES

The process of expansion and consolidation of primary education in the province presents a host of difficulties because certain unfortunate developments came to be associated with education during the days of colonial rule. A substantial sector of the rural population, being suspicious of British policies, opposed the opening of schools in their areas in those days. Resistance to the spread of education was especially pronounced in the tribal belt whose elders were fearful that the opening of schools and hospitals, followed by other associated measures of the foreign regime, would endanger their freedom.

> The religious leaders resisted the system of education introduced by the British and denounced it as incompatible with the spirit of Islam. They feared that it promoted secular tendencies among the people and thus weakened the religious sentiment. The learning of English language was regarded as anti-Islamic. The religious leaders proclaimed that those who would send their children to English schools would become infidels. Thus in their ignorance of the role that education could play in bettering the lives of their people, they advocated that children not be sent to schools opened by the foreign rulers.[4]

There were exceptions in which sophisticated and more liberal tribal chiefs welcomed the opening of primary schools in their villages, but such cases were relatively few.[5]

Although the antieducation feeling lost its intensity after the British left the scene, its aftereffects have lingered on to a much later date. In regard to the education of girls, especially, the residue of early hostility and suspicion still remains in many tribal regions as also in some rural areas of settled districts.

Table 4: Time Allocation for Primary-School Subjects

Subjects	Classes I and II				Class III				Classes IV and V			
	No. of Periods of 30 Min. per Wk.	No. of Hrs. per Wk.	Percentage of Total Time	No. of Hrs. per Year	No. of Periods of 40 Min. per Wk.	No. of Hrs. per Wk.	Percentage of Total Time	No. of Hrs. per Year	No. of Periods of 40 Min. per Wk.	No. of Hrs. per Wk.	Percentage of Total Time	No. of Hrs. per Year
Language	15	7.5	33.3	282	11	7.33	28	275.66	11	7.33	28	275.66
Elementary mathematics	6	3	13.3	112.5	6	4	15.4	150	6	4	15.4	150
General science	3	1.5	6.6	56	3	2	7.7	75	3	2	7.7	75
Social studies	–	–	–	–	4	2.66	10.2	100	5	3.33	12.8	125.33
Physical education (including health)	6	3	13.3	112.5	4	2.66	10.2	100	4	2.66	10.2	100
Religious education	5	2.5	11.1	94	4	2.66	10.2	100	4	2.66	10.2	100
Arts and practical arts	10	5	22.2	187.5	7	4.66	17.9	175.33	6	4	15.3	150
Total	45	22.5	99.8	844.5	39	25.97	99.6	975.99	39	25.98	99.6	975.99

NOTE: The ages corresponding to classes I, II, III, IV, and V are 5, 6, 7, 8, and 9, respectively.

ECONOMIC FACTORS

A multiplicity of economic factors are also impeding the government measures aiming at universal and compulsory primary education, finances being the major obstacle. Although the official expenditure on primary education in the rural sector rose from Rs. 11,794,000 in 1948–49 to Rs. 104,990,000 in 1968–69—an increase that occurred despite other equally pressing and high-priority items consuming a considerable portion of the exchequer—existing resources of the provincial government are obviously inadequate to finance an effective and speedy program of compulsory primary education.

The inherently backward economic structure of rural society itself also retards the progress of primary education in several ways. Some of these unfortunate features of the rural economy are: (1) A large number of parents depend on the labor of their young children. This situation raises special problems in the enforcement of school attendance and curtailment of dropouts. During an on-the-spot investigation of dropouts in mosque primary schools in Bahawalpur villages, a Western observer noted that: "Almost always they had stopped because their parents had needed them to work. Only a few boys showed no real interest in school as such. But the demands of a village economy are inexorable; children are born to work."[6] In another revealing study[7] conducted in the rural regions of the Peshawar division, it was established that the economic factor most responsible for discontinuation of formal schooling was the heavy demand of parents on the services of their children to care for and graze the cattle and to help with domestic and professional responsibilities. (2) Rural home conditions and housing facilities are far from being congenial for study. The child, therefore, feels unusually handicapped and little inclined to follow the school program at home. (3) The subnormal financial status of the parents is a bar to investment in books, stationery, clothes, and transport. (4) Occasional vagaries of nature such as floods, droughts, and epidemics frequently interfere with the life and education of village children.

A rural primary-education program must, therefore, be perspective and realistic. Certain helpful measures—as, for instance, adjusting the school timetable and schedule of studies so that the young learner is relieved during sowing, watering, harvesting, and marketing days—are practicable financially as well as administratively. There are other steps: (1) the offering of liberal scholarships, free textbooks, and cheap stationery; (2) the preparation of an educationally congenial atmosphere for rural children by giving serious attention to such matters as helping

the farmers to better their housing facilities, improve field operations, and raise agricultural income; and (3) the organization of effective preventive measures against floods, salinity, waterlogging, locusts, other pests, and epidemics. But these and other similar useful measures entail huge financial outlays usually far too heavy for an already overburdened exchequer. It is clear, therefore, that, to be productive, the government endeavor in the primary-education sector will have to be supplemented by large-scale voluntary effort. Although the community awakening to the demands of the situation is a recent phenomenon, the present response appears hopeful.

DEARTH OF STAFF AND BUILDINGS

Training rural teachers and raising schoolhouses commensurate with the current need of the community presents another major hurdle. Owing to the villagers' enthusiasm for education, normal schools (institutions for the training of primary-school teachers) have not been able to keep pace in size or output with the needs of the rural population. The unsatisfactory scale of wages prescribed for primary-school teachers further complicates the difficult task of attracting and holding the requisite number of capable teachers in the profession.[8]

Similarly, the problem of providing adequate school buildings is a perpetual headache. In the initial stages local philanthrophy seemed rather indifferent towards its obligation to the community. A survey conducted in the Lahore district confirms the impression that until recently local communities were not much interested in the matter of raising schoolhouses.[9] Moreover, although there is much more voluntary response today, here too is a problem because in some cases a donor may aggravate rather than help the situation. If motivated mainly by a desire for self-assertion and social distinction, an obstinate donor may insist that the school building be constructed near his residence regardless of the suitability of the site or its convenience for the local children. Propelled by purely personal and political motives, some donors even go to the extent of willfully interfering with school administration. At the same time the demand for schools in certain villages often remains unmet because of a complete lack of local initiative and for want of adequate donations.

Some remedial devices. Several measures have been taken to overcome the dearth of school facilities. One such device is the introduction of the double-shift system, one shift receiving instruction up to midday

and the other in the afternoon. However, owing to a number of inadequacies—undue strain on the teaching staff, irregularities in attendance, and inconvenience to children studying in second shift—this system has proved ineffective in most cases.

A more effective step has been a mass campaign in rural areas for the construction of schoolhouses on a self-help basis. This idea is now catching the imagination of rural groups all over the province. Furthermore, a novel design for *katcha* school buildings, reducing to an absolute minimum the expenditure on labor and construction materials, has been developed recently and has been carried out with considerable success.[10]

THE VILLAGE MOSQUE SCHOOL

The experiment that has been most successful in meeting the shortage of primary-school staff and buildings in rural West Pakistan is the Tanzeem-ul-Makatib (Organization of Mosque Schools) Scheme, popularly referred to as the Maktab Scheme. This project, which was initiated in September, 1953, endeavors to persuade the illiterate villagers to develop their own primary schools when neither money, nor teachers, nor school buildings are readily available. The major objectives of this revolutionary scheme are: (1) Utilization of the village mosque as a primary school during nonpraying hours, with the mosque leader taking on the additional role of schoolteacher. (2) Bridging of the gulf between the exclusively religious and the exclusively secular educational theory and practice by blending the teaching of everyday religion with that of the three R's. The authors of the scheme thus emphasize instruction in the four R's—reading, writing, 'rithmetic, and religion—rather than the traditional three. (3) Encouragement of rural communities to set up around the mosque school, on a cooperative basis, small reading rooms, libraries, health clinics, rural clubs, and welfare centers, thus enhancing and extending the effectiveness of village education.

This ingenious scheme was initially tried in the Bahawalpur division. From its inception in 1953 up to 1958, a total of 132,000 children remained on the rolls of a chain of mosque schools in the villages of that division. The average monthly cost per child was about forty *paisa*s (approximately eight cents), the lowest expenditure for elementary education ever recorded anywhere in the world.

The Maktab experiment has been widely acclaimed for its specific suitability to economically underprivileged regions.

The fascinating role of the almost penniless maktab is that it has opened new horizons by showing the villager how he can expand his own skies through his own efforts. The enduring strength of the maktab lies in the resourcefulness it has developed in the villagers, and in the fact that, however crudely and unevenly, it does offer education where there had been no education before. . . . The maktab program is a fine example of how democracy develops out of the responsible pride and hard work of individuals on the bottom rather than by being funneled in from the top.[11]

These penniless mosque schools are now playing a revolutionary role in the development of rural life and education in the Bahawalpur division. A demand for the establishment of such economical and effective institutions is growing in urban areas as well. Recently the provincial Department of Education has joined hands with the Auqaf (Religious Endowments) Department in organizing a network of *maktab*s throughout the province. The New Education Policy (1969) has now presented a dynamic plan for a complete reorganization of the education programs of the *maktab*s.[12]

Toward Universal Compulsory Education

Hurdles and limitations notwithstanding, the village primary-education programs are now making fair progress. The major objective of the educational sector of the Third Five-Year Plan is to accelerate enrollment at the elementary level so that universal primary education may be achieved as early as possible and within the period of the Twenty-Year Perspective Plan.[13] The present position generates reasonable optimism, and the avowed targets are expected to be achieved on schedule.

OVER-ALL PROGRESS IN RURAL REGIONS

Table 5 shows the increasing financial investments the provincial government has made since 1948 in primary education in rural and urban areas. It also indicates the pace of progress in the opening of schools, recruitment of teaching staff, and enrollment of pupils.

These figures reveal that primary education has made appreciable strides in both rural and urban regions and that the predominant emphasis throughout has been on expanding facilities in the rural sector. In the case of rural areas there was an over-all rise in expenditure from Rs. 11,794,000 in 1948–49 to Rs. 104,990,000 in 1968–69, the increase being 790 per cent. The number of schools jumped from 8,075 in 1948–49 to 31,431 in 1968–69, and the enrollment, from 400,493 to

Table 5: Primary Education

	1948–49 (a year after Independence)			*1958–59 (the year of the Revolution)*			*1968–69 (latest available figures)*		
	Rural	*Urban*	*Total*	*Rural*	*Urban*	*Total*	*Rural*	*Urban*	*Total*
Schools	8,075	998	9,073	15,587	1,927	17,514	31,431	5,703	37,134
Enrollment	400,493	163,582	564,075	1,053,805	430,427	1,484,232	2,255,700	1,251,331	3,507,031
Teachers	13,323	4,927	18,250	31,988	11,831	43,819	58,245	30,759	89,004
Expenditure (in thousand rupees)	11,794	3,327	15,121	45,491	12,831	58,322	104,990	56,322	161,312

NOTE: This and subsequent tables for which sources are not indicated comprise unpublished statistics collected by the author from the relevant agencies and tabulated at the West Pakistan Bureau of Education.

2,255,700, yielding increases of 289 per cent and 463 per cent respectively. The teaching staff also expanded from 13,323 to 58,245, an increase of 337 per cent.

Although the figures in Table 5 do not include data on the tribal belt and Azad Kashmir, reports coming from these areas confirm that the rural sectors of these territories are not far behind the rest of the province in educational development. Forty-seven primary schools were started in 1968–69 in various tribal areas, raising the total to 589.

ROLE OF THE BASIC DEMOCRACIES DEPARTMENT

Developing primary-education programs in the villages is by no means a monopoly of the provincial Department of Education. Until 1960 the main task of rural development was in the hands of an official organization known as the Village Agricultural and Industrial Development (V-AID). Its programs suffered enormously because of lack of coordination between V-AID and other nation-building departments. V-AID was, therefore, wound up in 1960, and its projects were entrusted to the Basic Democracies Department, an official agency. Owing to a paucity of adequate resources, the rural development programs of this department also suffered considerably in the initial years. It is, however, now fairly well set and is doing fine work particularly through its Directorate of Rural Works Programs, an important unit created in 1963. The programs of this directorate include the construction and organization of small schools, community buildings, dispensaries, veterinary centers, fish ponds, rural link roads, river spurs, sanitary drains, and small drinking-water supply projects.[14]

The Directorate of Rural Works Programs is obviously charged with a heavy work load. An analysis of its over-all expenditure reveals that primary education is receiving high priority. The precise order of sectoral priority accorded by the directorate during the first three years of its program is shown in Table 6.[15]

During the first year of the program, education claimed the major share (27.7 per cent) in sectoral expenditure. The shift of emphasis from education to communications in the years following and the consequent reduction in educational expenditure are accounted for by two factors. First, in 1964–65 the provincial government directed that road-building projects be accorded first priority. Secondly, after having constructed more than three thousand schools in 1963–64, the government shifted its emphasis during the following years to proper utilization of the school space provided in the preceding year. Even then, educational

Table 6: Expenditure of the Directorate of Rural Works Programs by Sector

	Percentage of Grant Spent		
Sector	*1963–64*	*1964–65*	*1965–66*
Education	27.7	19.3	19.5
Communications	21.2	37.7	43.5
Health	20.2	17.7	12.0
Social welfare and housing	12.6	5.9	6.5
Water and power (irrigation)	8.0	4.9	10.5
Agriculture	3.5	5.5	2.5
Other projects	6.8	8.8	5.5
Total	100.0	99.8	100.0

projects received second priority in both 1964–65 (19.3 per cent) and 1965–66 (19.5 per cent).

Although it is still too early to attempt precise assessment of the impact of the Directorate of the Rural Works Programs, it is apparent from the information thus far available that the projects of the directorate are yielding fruit. By contributing substantially to educational expansion, by bettering the village surroundings and improving farming conditions, such well-planned projects are bound to exercise a subtle impact on rural economy.

CONTRIBUTION OF RELIGIOUS ORGANIZATIONS

Apart from the government departments, a number of religious organizations are also playing a constructive role in the spread of elementary education in the villages. In 1959 the Jamia Chistia Trust of Lyallpur conducted a survey of educational, cultural, and social programs of the provincial mosques. The findings of the survey were published by the Trust in 1960 in the form of a comprehensive report in Urdu.[16] The survey reveals that since the inception of Pakistan there has been in the province a spectacular increase in the number and activities of rural educational institutions run by religious bodies. Although almost all these institutions emphasize the teaching of the Holy Quran and Hadith (the sayings of the Prophet Muhammad), a fairly large number of them provide instruction in the three R's and have attached units for regular primary education. Some of them even offer practical training in basic rural vocations. Moreover, education is

free in almost all of these intitutions, which are financed by voluntary donations.

The number of Muslim religious organizations devoted to the spread of education in the rural regions has risen sharply in recent years. One such organization is the Jamaat-e-Islami, whose role in the national crusade on rural illiteracy has been one of the most constructive of all and well planned as well. Currently the Jamaat is running a number of primary schools in the villages, whose distinctive feature is a dynamic synthesis of the secular subjects, training in village crafts, and graded grounding in the theory and practice of Islam.

Services of Christian missionaries. Of the non-Muslim religious bodies, the role played by the Christian missions has been very commendable.[17] At present many well-organized local and foreign Christian organizations are operating actively in the villages.[18] They enjoy complete freedom of action and even state protection.

The number of educational institutions functioning in the villages of West Pakistan under the patronage of various Roman Catholic missions exceeded eighty during the year 1968–69, of these more than 50 per cent were primary schools. Most of these schools today are co-educational, and admission is open to all denominations. Each year a few more rural schools are added to the list. The majority of the missionaries running the Catholic schools are from the United States, Ireland, the United Kingdom, Holland, Belgium, and Italy; and they work under the supervision of six bishops based at Rawalpindi, Lyallpur, Lahore, Multan, Hyderabad, and Karachi.

Also furthering the cause of rural education is the Anglican Church, whose headquarters is in Lahore. During 1968–69 this Church had thirteen primary schools functioning in various villages of West Pakistan. It is also running a rural teachers' training center for girls at Clarkabad in the Lahore district.

Other prominent Christian organizations also interested in rural-education programs are the Methodist Church, the Presbyterian Church, the Salvation Army, and the West Pakistan Christian Council.

Influence on the Community

The village primary-education programs are not only revolutionizing the over-all structure of rural life but also revitalizing the children, the parents, the homes, and the community in general.

THE NEWLY EMERGING RURAL CHILDHOOD

The advance of primary education in rural West Pakistan makes a fascinating story, for children are growing—intellectually, emotionally, physically, socially, culturally, and vocationally—with the increasing number of educational facilities.

Continuous association with interesting books and progressive ideas is providing direly needed nourishment for the intellectual growth of rural children; their mental horizon, once restricted to the unstimulating surroundings of their hamlets, is now undergoing infinite expansion. Children are beginning to discover new interests in their environment; their life is becoming at once more thrilling and more creative. The vocational efficiency of the younger generation, moreover, is improving in many ways, for increasing proficiency in reading and writing is helping them understand the various facets of their ancestral professions. And as these educated village children grow older, they learn to appreciate the popular literature published by the West Pakistan Bureau of Agricultural Information and are then able to offer better help to their parents in the fields.

The emotional health of village children is also improving as the schools provide opportunities for training in the arts of self-expression, mutual understanding, and cheerful striving for constructive goals. Regular attendance at a local seat of learning, close association with children drawn from diverse strata of village society, working and playing together—all are having a socializing influence. In addition, there are the carefully graded and thoughtfully produced textbooks on elementary social science, civics, history, and religion that are making a wholesome impression on rural childhood. These textbooks, by providing a correct perspective on practical religion and Oriental culture, are removing from the children's minds the residues of ignorance and superstition.

Finally, the physical health of village children is showing considerable improvement also mainly because of their having invigorating activities, better school health facilities, and elementary practical training in personal and environmental hygiene.

Studies of educational impact. Very little research has been done of the precise impact of primary education on rural families. Most of the reported studies, however, highlight the fact that the impact of present educational programs has been constructive on the whole. One such study was conducted in 1961 in the villages of Peshawar, under the

guidance of the Pakistan Academy for Rural Development.[19] The investigating team was comprised of 27 development officers, supervisors, and instructors of the V-AID Department; the respondents were 135 parents and guardians of rural schoolchildren. The respondents' impressions concerning the effect of education on their children (*see* Table 7)[20] clearly indicated that an overwhelming majority of the respondents subscribed to the view that education had a desirable effect on the child.

Some studies, however, have presented a relatively less encouraging picture. A section of the rural population still tends to adopt a lukewarm and even hostile attitude towards child education because of its allegedly injurious effect on the younger generation. Reproduced in Table 8 are

Table 7: Parents' Impressions about the Effects of Education on Children

Effects	*Number of Responses*
Good	
Keeps a child from social evils.	50
Is a means to good employment.	35
Makes a child wise (develops ability to distinguish between good and evil).	24
Makes a child useful.	9
Keeps a child well informed and broadens his outlook.	9
	9
Makes a child a good citizen.	6
Makes a child more efficient in his occupation.	5
Improves a child's health.	4
Makes a child more responsible.	3
Teaches a child respect for elders and is an asset for him.	3
Improves a child's prospects in this world as well as the next.	1
Bad	
Is incapable of making a child perfect.	2
Makes children of no use.	1

Table 8: Parents' Attitudes towards Child Education (in per cent)

Type of Education Favored	*Fathers*	*Mothers*
Education for both sexes	33.7	42.0
Education for boys only	15.9	7.7
Religious education only	27.9	31.5
No education	22.5	18.8
Total	100.0	100.0

the findings of a study, conducted by the Sociology Department of Panjab University during 1957–59, of a group of parents (151 fathers and 143 mothers) in a cluster of villages in the Lahore district.[21] This study showed that the percentage of parents favoring education was not very encouraging: a fairly significant proportion of the respondents (22.5 per cent of the fathers and 18.8 per cent of the mothers) were hostile towards the idea of their children getting any education whatsoever; a much higher percentage (fathers, 27.9 per cent; mothers, 31.5 per cent) indicated a desire for religious education only.

More disturbing, however, are the findings of those few studies and observations that indicated categorically that education had an undesirable effect on the village children. In an observation of this sort[22] it was noted that children who were exposed to the relatively sophisticated atmosphere of the school and to books presenting unconventional ideas developed a dislike for manual labor, showed diminishing interest for the village community, and even displayed their aversion to local surroundings.

Although manifestation of such uncongenial reactions is rare, it warrants serious attention, nevertheless. Adequate measures are now being adopted by rural educators and social workers to analyze and correct such unfavorable effects. Also in operation to check these unfavorable effects are school programs highlighting the following points: the dignity of manual labor; regard for the rural community; and fostering love for the immediate environment.

DYNAMIC CHANGE IN THE PARENTS

The wave of child education has not left the adults untouched. Children returning from school with interesting stories to tell, children lending helping hands to their parents in the reading and writing of letters,

children displaying incessant enthusiasm for putting their newly acquired knowledge to use in the service of their elders—all such children are reported to have brought about a tremendous change in the attitudes and outlooks of the parents. School contacts established between children hailing from diverse cultural, economic, and vocational strata have tended to minimize the social distances and disparities existing among their parents. In many cases juvenile friendships formed at school have been responsible for bringing to an end chronic misunderstandings, hostilities, feuds, and litigation at the parental level.

The growing bonds of understanding and friendship between adults have been further strengthened by occasional functions at the schools, as parents get together in a spirit of goodwill and cooperation with the teacher for the welfare and development of their children. Many an old hostility at the adult level has come to a close with a warm shake of hands in the school compound on Parent Day. A similar and even more effective socializing experience has been the assembling of all the diverse strata of a village population for the express purpose of raising a schoolhouse on a self-help basis. Working in close collaboration with each other in a mutually beneficial project has often helped belligerent factions and jarring individuals to come nearer to each other.

Sometimes, however, an educational project becomes instrumental in generating ill will, antagonism, and even violence. An influential villager may insist on the construction of a new school building at a particular place, near his lands but inconvenient for the majority. The holding of classes under a particular banyan tree may be violently opposed by a headstrong villager who wishes to tether his horse under the same tree.[23] One unruly parent, clashing with the teacher over the latter's concept of reward and punishment, may disturb the entire school equilibrium.[24] Although it is true that adults may display such idiosyncrasies and resort to violence over issues that revolve around the school and its activities, the incidence of such unpleasant occurrences is rare.

THE RURAL COMMUNITY IN TRANSITION

The collective effect on the rural community of the spread of primary education inspires hope in the minds of all those engaged in the colossal task of uplifting the village. As a matter of fact, the expansion of education and the ensuing wave of adult enthusiasm for it have been conducive to the rise of a new rural community which is liberal,

progressive, and creative in outlook and which is determined to face life and its challenges.

The most appreciable impact of juvenile education has been a reduction in the gulf between rural and urban ways of life. Reading the same books as urban children do; becoming increasingly familiar with urban social values and practices; striving towards the same targets as urban children do; undertaking frequent trips to nearby urban shopping centers, markets, and holiday resorts; enjoying frequent associations with the town dwellers—all these have opened up new horizons for rural schoolchildren and their parents. The rigidity and seclusion heretofore characterizing the rural regions are being done away with as education brings the village ever nearer to the town and the city.

Rapid change in the rural ways of life and increased mobility, however, have not been an unmixed blessing. In the course of the educationally inspired interaction now under way between rural and urban patterns, many an educated village family has succumbed to the lure of a nearby town and decided to desert its ancestral abode in order to settle down there. Such events have impeded the normal growth of rural life and economy. The primary-education programs, however, appear to be less directly involved in causing this phenomenon than are a multiplicity of other economic, social, and political factors. Moreover, the flight of rural intelligentsia is not too serious a problem in terms of quantity; and, with the recent concentration on electrification of villages, growing expansion of communications media, and increased provision of health and recreation facilities, the migratory trend itself is on the decline.

Another unfavorable impact of education on the rural community has been the generation of school-centered group hostilities. Rival factions, feeling suspicious or jealous of each other's alleged influence over school affairs, may react in a manner that not only disturbs village law and order but also hampers the progress of education. Such unfortunate intergroup conflicts are bound to happen in a fast-changing socioeconomic structure, but they have decreased in number considerably in recent years; and even when conflicts do break out, peace is usually restored by the village community itself or by the union councils, without the intervention of an outside authority.

CHAPTER 4

Secondary Education

SECONDARY EDUCATION is universally acknowledged to be the most significant rung of the entire educational ladder. The high-school student passes through the most impressionable and most formative years of adolescence. At this stage the features of future citizens, responsible men and women, begin to take shape. From these high schoolers is drawn the skilled manpower of a nation and the raw material for the universities. In order to guide their destinies effectively, therefore, the high-school program must make the greatest effort to meet the intellectual, emotional, social, and physical requirements of young learners.

High-School Education in West Pakistan

Although the high schools of the Indo-Pakistan subcontinent have long been the subject of deep concern, reform in the past remained mostly ineffective—measures that were carried out were inadequate while some were not carried out owing to financial and political considerations. Consequently, the secondary-school system continued to be marred by unrealistic notions and bookish traditions.

> The tradition of the literary type secondary schools has been so strong among the public as well as among educators that resistance to change has frustrated the intention of nearly all reformers. The result is that in many important respects these schools retain many unwelcome characteristics dating from the last century.[1]

EXTRAORDINARY IMPORTANCE FOR PAKISTAN

For a developing country such as Pakistan, secondary education occupies a particularly significant place. Highlighting the practical importance of this stage of education, the Third Five-Year Plan (1965–70) comments:

While the expanded primary education provides the nation with a wider base of talent, it is at the secondary stage that this talent acquires the education and training through which it may contribute to the economic and social life of the country. Primary education creates a potential and higher education caters for the specialist. It is secondary education that provides the largest number of people the requisite skills and intellectual ability to meet the immediate and multifarious needs of a rapidly expanding economy. This stage of education should, therefore, be looked upon mainly as terminal rather than merely preparatory to university. It is for this reason that secondary education in Pakistan is undergoing something of a revolution. It is changing in form from one which was predominantly literary and general to one which is largely geared to the needs of industry, agriculture, commerce and government.[2]

This change in emphasis is also reflected in the recommendations of the 1958 Commission on National Education and in the proposals of the New Education Policy (1969). It is now being increasingly realized that by the time a high-school student leaves the institution he should be well grounded in the technological requirements and the cultural heritage of his community; and because of this realization and its importance, secondary education has been the subject of a chain of reforms and reorientations.

NEW OBJECTIVES

The focal point in the recommendations of the Commission on National Education is this thought: that, instead of being considered merely a preparation for, or an "entrance" to, the university, secondary education should be recognized as a complete stage in itself and should be organized as a distinct academic and administrative unit, clearly demarcated in all respects from university education.[3] In order to give concrete shape to the projected change, the commission had pinpointed the new objectives of secondary education for the inspiration and guidance of all those handling high-school curricula, syllabuses, textbooks, teaching practices, school management, and teacher training. Secondary education now focusses on promotion of a harmonious development of the child as an individual, as a citizen, as a worker, and, above all, as a patriot. To place on a sound footing the development of all these facets of the secondary-school student, the following broad-based set of objectives has been outlined:[4]

Nurturing of the individual. (1) To foster in the children the spirit of

enquiry and independent thinking and the ability to apply knowledge to concrete life situations; (2) to relate all teaching to the needs and interests of the growing adolescent; (3) to develop the qualities of leadership by redesigning teaching practices and the organizational pattern of school activities; (4) to develop the aesthetic sense of the students and an appreciation for cultural values; (5) to cultivate a liking for, and a skill in, manual labor and sports through a reorganization of games, sports, and physical education.

Preparing for effective citizenship. (1) To rear children in the habits of industry, self-discipline, and honesty; (2) to cultivate a sense of social responsibility and the habit of participation in socially useful programs; (3) to develop a spirit of service and cooperation; (4) to relate teaching to the needs of practical life and local environment.

Laying the foundations of the worker. (1) To cultivate a deep appreciation for the dignity of labor; (2) to provide full facilities for technical, scientific, and vocational education as a preparation for further professional education or for qualification for a career; (3) to provide adequate academic and vocational guidance and thus direct the energies and talents of adolescents towards the most appropriate courses and careers.

Developing patriotism. (1) To provide a form of education with foundations rooted in the national culture and Islamic values; (2) to nurture a pride in the nation, an understanding of its history, and an aspiration and a willingness to serve it; (3) to promote an appreciation of the universal brotherhood of man and a spirit of international understanding.

THE SCHOOL STAGES

The existing system of secondary education in Pakistan is divided into two stages: (1) the middle or the junior-high-school stage that extends three years after the primary stage and includes classes VI through VIII; (2) the high-school stage that extends two years after the middle stage and includes classes IX and X. At the middle stage the average ages range from ten to thirteen; at the high-school stage, from thirteen to fifteen.

In the big towns and cities of West Pakistan the middle school as a distinct unit is a rare phenomenon, almost an extinct species; in rural areas, however, quite a number of middle schools continue to flourish.

With the projected raising of the compulsory schooling period to eight years, the middle school is expected to play a central role in the more scattered and sparsely populated areas of West Pakistan, particularly the villages.[5]

Middle schools: subjects and examinations. More subjects are taught in the middle schools than in any other. The eight compulsory subjects are: Urdu, English, mathematics, social studies, general science, religious education, physical education, and one other chosen from a range of seventeen subjects, ten of which are grouped as arts and crafts and seven as arts and practical arts. The first group includes clay modelling, toy making, basketry, pottery, fabric printing, leatherwork, puppetry, bookbinding, weaving, and cane and bamboo work. The second group offers a range of choices including woodwork, metalwork, applied electricity, agriculture and gardening, fish culture, pottery, and home economics. The elective subjects are modern Oriental languages (Arabic and Persian), the regional dialects, and other subjects such as drawing and music. By making art compulsory for every pupil, the middle-school syllabus puts a premium on the development of aesthetic appreciation, powers of self-expression, and emotional stability. The comparative emphasis on the various compulsory subjects is reflected in Table 9.[6]

The examinations for middle schools are conducted by the six regional directorates of the provincial Department of Education located

Table 9: Compulsory Subjects at the Middle-School Level

Subject	*Number of Periods per Week*
Urdu	8
English	8
General mathematics	7
Social studies	5
General science	5
Religious education	3
Physical education	2 or 3
One subject in the arts and crafts group or the arts and practical arts group	4
Total	42 or 43

at Peshawar, Rawalpindi, Lahore, Hyderabad, Quetta, and Karachi.

High schools: subjects and examinations. The compulsory subjects for high-school classes are Urdu, English, general mathematics, social studies, general science, physical education, and manual work.[7] As compared to the middle school, the high school offers a wide variety of elective subjects from which the student may choose one. The six broad categories of elective subjects are: humanities (offering thirty-seven choices), science (seven choices), commerce (four choices), industrial arts (fifteen choices), home economics (five choices), and agriculture (five choices). The last-mentioned category, agriculture, has obvious significance for rural students. It includes five groups: (1) physics; (2) chemistry; (3) agriculture and social sciences; (4) botany, zoology, animal husbandry, horticulture, gardening, and fisheries; and (5) mathematics. Table 10[8] indicates the weekly periods prescribed for each compulsory and elective subject. Recently Islamic studies has also been introduced as a compulsory subject.

Table 10: Subjects at the High-School Level

Subjects	*Number of Periods per Week*
Compulsory	
Urdu	6
English	9
Social studies	4
General mathematics	6
General science	5
Physical education	3
Manual work	1.4
Total	34.4
Elective	
Humanities group Commerce group Science group	13
Industrial arts group Home economics group Agriculture group	18
Total	31

Table 11: Secondary Education

Item	*1948–49 (a year after Independence)*			*1958–59 (the year of the Revolution)*			*1968–69 (latest available figures)*		
	Rural	*Urban*	*Total*	*Rural*	*Urban*	*Total*	*Rural*	*Urban*	*Total*
Schools	149	225	374	2,074	893	2,967	3,329	1,717	5,046
Enrollment	309,124	207,200	516,324	439,686	425,967	865,653	1,020,739	772,108	1,792,847
Teachers	11,783	7,216	18,999	15,688	14,504	30,192	33,854	29,529	63,383
Expenditure (in thousand rupees)	17,744	7,420	25,164	34,665	23,367	58,032	83,792	91,912	175,704

The examinations for secondary schools are conducted by an autonomous body, the Board of Intermediate and Secondary Education. Four such boards are now operating in West Pakistan, with headquarters at Peshawar, Lahore, Hyderabad, and Karachi.

EXPANSION IN RURAL FACILITIES

Although expanding quite fast, the growth rate of secondary education is far slower than that of the primary sector. In Table 11, which reflects the pace of development of secondary education in the rural and urban regions of West Pakistan, a comparison of present figures with those for the year 1948–49 indicates that rural secondary schools have increased by 2,134 per cent and the teaching staff, by 187 per cent. Similarly, enrollment has gone up by 230 per cent; expenditure, by 372 per cent. That the government is giving the rural sector priority over the urban is another point to be noted in this table.

An upward trend in the field of secondary education was maintained also in Azad Kahmir; the number of schools went up from 71 (middle) and 17 (high) in 1947–48 to 119 (middle) and 35 (high) in 1968–69. Similarly, available data from the Tribal Areas reveal that the number of middle schools rose from 9 in 1947–48 to 83 in 1968–69; that of high schools, from 2 to 69.

CONTRIBUTION OF RELIGIOUS ORGANIZATIONS

A large number of religious organizations are putting in extremely constructive effort toward the development of secondary education. As in the case of the primary sector, the Islamic organizations rank foremost in providing facilities for secondary education in the villages. Next in rank are the Christian missions: The Roman Catholic Church is now running about thirty middle and high schools in various villages of West Pakistan, and this number is increasing rapidly; the Anglican Church is maintaining thirteen secondary schools. A number of other local and foreign missionary organizations in addition to these two churches are also doing useful work in spreading secondary education in the rural regions.

The Strategy of Reform

Ever since the inception of Pakistan, secondary education has been subject to reform. In order to make a perspective appraisal of the post-Independence changes, a brief review of the major inadequacies of the

old secondary-school system, against which the current measures are directed, appears necessary.

DEFICIENCIES OF THE OUTGOING SYSTEM

Some of the basic drawbacks of the old system were: the school's immunity to change, an overliterary bias, inadequate attention to the development of the student's personality and character, exclusive emphasis on preparation for the university, mechanical teaching methods based on rote memory, and inadequacy of the teacher's social and economic status.[9]

During the last century the socioeconomic structure in the Indo-Pakistan subcontinent underwent a series of changes. The schools, however, remained static and isolated from the social, economic, and industrial upheavals taking shape around them; they thus fell behind the spirit of the newly emerging social order. Marked by inflexibility and lack of diversification in program content, the secondary-school system was particularly unsuited to the unsophisticated rural population.

The major objective of secondary education under the old system was to produce many civil servants and office workers capable of running the administrative machinery of the colonial regime. The high school, therefore, was considered sheerly as a means of entering into government service or as a preparatory stage for admission to the university. Consequently, its curriculum laid great emphasis on purely literary subjects at the expense of neglecting training in the vocational and technical subjects as well as the development of the students' personality and character. The aim of the educand had narrowed, in other words, to exploiting education as a means of getting an easy and lucrative job rather than as an opportunity to develop a vision of life and its responsibilities;[10] passing of the secondary-school examination ("Matriculation") had come to be regarded mainly as a qualification for university admission rather than as a terminal stage in itself. As a result, a majority of the students—in the rural areas, almost all—dropped out of school at some point during the high-school years.

The teaching methods in vogue in the old secondary school ran parallel to the bookish trend of the educational curriculum: they were mechanical, putting too great a premium on rote memory. High-school students were expected to cram for the examination and to parrot the crammed material in the examination rather than to grasp the essence of a given subject. In the same token, no attempt was made to motivate the students to correlate school studies with concrete realities of life.

The teachers' plight in the old system was as equally poor as the students'. Low salary and inadequate social status were major obstacles to attracting talent to the teaching profession, which, in turn, led to an all-round deterioration in teaching standards and to a growing sense of frustration among the teachers.

DIMENSIONS OF CURRENT REFORMS

A series of educational reforms is now being carried out, aimed mainly at remedying the defects and inadequacies mentioned in the foregoing paragraphs: (1) Reading courses have become diversified to rid the bookish tradition that characterized the old secondary-school syllabuses. (2) More and more opportunities for technical and vocational training are being provided through which the gulf that had existed hitherto between school programs and community needs is now being narrowed day by day. In the rural areas, for instance, secondary-school students are being trained to handle farming responsibilities with the help of modern agricultural tools and technologies, and the provincial Technical Education Department is preparing plans for the establishment of mobile auto and diesel workshops to train rural students in tractor technology. (3) Appropriate attention is being paid to the development of the personality and character of students by liberal provision of organized sports and games and a variety of interesting extracurricular activities both in and outside the school. (4) Increasing attention is being given to improvement of instructional methods. Teacher-training institutions are being properly staffed and elaborately equipped; and adequate emphasis is being placed on the use of audio-visual aids. (5) Suitable steps are being taken to ameliorate the status of teachers, one of them being the revision of the salary structure for teachers. As a result, teachers now have higher salaries (about 50 per cent higher) and better provident-fund facilities and retirement benefits.

TRAINING OF RURAL TEACHERS

Basically, there are two types of institutions that develop teachers, one run by a university and the other by the provincial Department of Education. The universities of Peshawar, Panjab, Hyderabad, and Karachi belong to the first group; they have full-fledged education faculties that offer bachelor of education and master of education programs. Any recipient of these degrees qualify to engage in teaching at the secondary level. The four teachers' training colleges—three for men at Lahore, Multan, and Karachi and one for women at Lahore—that

are run by the provincial Department of Education offer training facilities leading to the bachelor of arts degree. The bulk of the secondary school teachers, rural and urban, is drawn from the latter group. Both types of teacher-training institutions are undergoing a process of continuous expansion and evolution.

Apart from the basic professional grounding given by the universities and teachers' training institutions, teachers now have adequate facilities for in-service training in the Education Extension Service Center, an agency created by the provincial Department of Education. The center, located at Lahore, organizes refresher courses, educational conferences, workshops, exhibitions, and study tours for teachers employed in the secondary schools of West Pakistan.

At present, rural and urban teachers receive training in the same institutions, all of which are situated in towns. Moreover, courses of study, requirements for qualification, scales of pay, and conditions of service are alike for both rural and urban teachers.[11] The need is now being recognized for some sort of differentiation in spirit and content between the training programs prescribed for the two groups.

Special refresher courses. Although no separate training institution for rural teachers has so far been established, a number of refresher courses and workshops have lately been organized for the exclusive benefit of teachers working in the villages. One such in-service training course was organized by the provincial Education Extension Service Center in 1963 in the Bahawalpur division. Thirty-three middle-school headmasters and eleven teachers took part in this ten-day course, which revolved primarily around short talks, group discussions, and demonstration lessons pertaining to a host of problems—instructional material, school buildings, funds, community interest in education—faced by rural schools in the area. Another refresher course, organized for the benefit of the rural teachers of Azad Kashmir, was held in 1965 in Chakar, a village near Muzaffarabad only seven miles from the Cease-Fire Line. The fifty participating teachers had fruitful discussions on problems and methods of teaching general science, social studies, and arithmetic to schoolchildren from the Azad Kashmir villages.

NEW HORIZONS, NEW FACILITIES

Secondary education today is characterized by a chain of new moves and new experiments. One such welcome measure is the introduction of guidance and counseling services[12] through which a number

of rural high schools now offer helpful guidance to their students in matters pertaining to choice of subjects, methods of study, adjustment with classmates, improvement of emotional and physical health, and preparation for a future vocation suiting one's aptitude.

Another new development is the new vista of cooperation that is opening up before teachers and parents. The growth of parent-teacher associations has brought the school nearer to the community; and this close relationship between the school staff and parents has begun to bear fruit—school programs are now becoming more effective and more economical. It must be added, however, that the idea of parent-teacher cooperation is just beginning to take hold; it has not yet gathered the momentum required in the context of the present rural structure.

A third welcome feature in the development of secondary schools has been the recent stress on health education. The Health Department has established throughout the province health education units, which impart needed information to school children on all matters pertaining to healthful living. The health education officers assigned to these units visit rural schools periodically in order to carry out the projects of the department. The provincial branch of the Maternity and Child Welfare Association of Pakistan also undertakes much the same work on a voluntary basis.[13]

One final area that is receiving increased attention today is the development of libraries in rural schools. Most of the holdings in the rural school libraries consist of literature on agriculture, horticulture, animal husbandry, poultry and dairy farming, cottage industries, fundamentals of modern sciences, and social living. In many cases, rural school libraries are supplemented by the libraries attached to mosques and churches, in particular, the rural mosque libraries, which play a constructive role in promoting the knowledge and health of high-school adolescents and in stimulating their interest in the life of the village community.[14] In order to improve the structure and functioning of the provincial libraries, the Department of Education has recently set up the Directorate of Libraries, which is carrying out an ambitious plan to improve library facilities in the rural areas.

Preparing Rural Children for Modern Democracy: The Mansurah Project

A large number of secondary schools are now experimenting with modern media in trying the latest teaching techniques and in formulat-

ing and carrying out perspective guidance plans; they have also launched quite a large number of revolutionary projects that purport to familiarize urban students with the demands of modern democracy. Of the reports on such experiments that have come in from rural regions, one in particular is outstanding.

In 1961 the Idara-e-Taameer-e-Millat, a voluntary cultural organization of Pakistan, started a novel educational project at Mansurah, a village near Tando Adam in Sindh. The project, still in progress, focuses on the Millat High School, a modern secondary school for boys in classes VI through X.

The most constructive aspect of this dynamic training program is the Children's Republic (Bachun Ki Riasat) whose aims and objects, as set out in its constitution,[15] are: (1) to enable rural high-school students to appreciate Islamic values and to practice the Islamic way of life; (2) to promote in them self-confidence, a sense of responsibility, and other basic human virtues; and (3) to offer practical training in modern democracy and in the art of administering a welfare state in the light of the tenets and traditions of Islam.

The structural pattern of the Republic is unitary; it preaches and practices Islamic democracy. The three wings of the state are the Executive, the Parliament, and the Judiciary. The Executive comprises the following officeholders: the president, the cabinet ministers, the election commissioner, and the auditor-general. The cabinet comprises ten ministers. The ten ministries are: (1) Finance and Administration, headed by the prime minister; (2) Education and Training; (3) Propagation of Good and Eradication of Evil; (4) Law, Justice, and Public Safety; (5) Food and Agriculture; (6) Health and Sanitation; (7) Sports, Recreation, and Physical Training; (8) Defense; (9) Information and Public Relations; and (10) Foreign Affairs. All elections are conducted and all appointments made by the boys themselves in accordance with modern democratic principles and practices; all state affairs are managed by the Leader of the House, who pays due regard to criticism and suggestions from the Leader of the Oppostition. The Republic publishes nine journals—issued on a quarterly, monthly, fortnightly, or weekly basis—and thus provides training in modern journalism as well. Needless to say, the press in the Republic enjoys complete freedom.

Other facets. The Millat High School, a small school situated in a remote village of Sindh, is affiliated with the Board of Intermediate and Secondary Education, Hyderabad. It offers practical training in modern

agriculture and woodwork side by side with effective instructional program in the arts and sciences; it has a trained and wellpaid staff and offers complete scholarships to fifty deserving students from an enrollment that is never allowed to exceed two hundred. Tuition fees have been kept low, ranging from Rs. 4.25 to Rs. 6.70 (about $1.00–$1.50) for the various grades. The academic program of the school is developing quite satisfactorily, as is demonstrated by the students' performance in the annual secondary-school examinations; results for the years 1962 to 1966 show a creditable pass percentage of 85.

Attached to the school are a dispensary, a furnished hostel—whose boarding charges usually do not exceed Rs. 25 (slightly over $5) a month—and a spacious farm that spreads over an area of 328 acres. The farm is equipped with tractor and tube-well facilities thus offering opportunities for the citizens of the Republic to learn improved techniques of farming, gardening, and animal husbandry. In this way, instead of breeding aversion for the ancestral profession, the entire school program and the general tenor of life in the Republic foster a positive love for agriculture. The boys get a most thorough grounding in the hardy way of life characteristic of the rural regions of West Pakistan.

Evaluation. The impact of the experiment on the thought and behavior of the boys was evaluated in 1962, after one year of successful functioning. The results of the evaluation, as discussed by Nazim Tarbiat Ghah, indicated that: (1) a visible and widespread improvement was seen in the life and attitudes of the citizens of the Republic; (2) a creative code of self-discipline was evolving, which was being honored by a majority of the boys; (3) the trend towards creative studies, experimentation, and hard work was on the increase; (4) the general emotional and physical health of the boys had changed for the better; (5) the general sanitation standards of the area bound by the Republic had improved; (6) there were fewer deviations from socially acceptable conduct—most of the citizens had given up any previously formed bad habits and unhealthy pastimes such as truancy, pilfering, and other more serious delinquencies; and (7) mosque attendance had increased.[16] Subsequent evaluative reports confirmed these findings.

The Millat High School thus appears to be a fruitful attempt to educate the rural adolescents of West Pakistan for self-government and effective citizenship. Moreover, the influence of its Republic now seems to be extending beyond the limits of the school campus and attached

farms on to the adjoining villages, for a new and progressive colony has emerged in the neighborhood of Mansurah village—about two hundred houses, eighty shops, a small commercial street, a mosque, and a primary school on a charming stretch of land comprising twenty-five acres—and is now pulsating with a new life rarely found in most provincial villages. As the Mansurah colony grows, the boys of the Republic will have still better opportunities for empirical training in healthful living and modern democratic government.

Secondary Education and Rural Life

In the rural regions of West Pakistan, facilities for secondary education are not as widespread as those for primary education. Moreover, as stated earlier, most children discontinue schooling during or after the primary stage. Be that as it may, the proportion of the rural population that comes under the sway of secondary education invariably derives a variety of benefits from the programs at the high-school level.

EFFECT ON THE RURAL STUDENTS

A primary school is generally situated in or near the village. The secondary school, in contrast, is usually located farther from the village, obviously because it has to serve a group of villages. This means that the social horizon of a child entering high school expands considerably because he comes into contact with children from villages other than that he has known in the primary school. This wider exposure has a salutary effect on his personality, making him more understanding and more accommodating, as he gains respect for individual differences and learns the art of living in a wider "family." In short, there is a tremendous improvement in the student's social health once he enters high school. Similarly, the diversified academic program of the secondary school has a desirable effect on the child's cultural health also. Increased understanding of his national culture and growing familiarity with everyday science prove eye-opening and thought-provoking.

On the emotional plane, however, quite a few adolescents fall prey to anxieties, tensions, and conflicts, albeit there are some who adjust to their new environment. Being accustomed to their own pastoral values and ancestral traditions, some react unfavorably to the relatively sophisticated way of life preached and practiced at the high school and fail to effect a workable reconciliation between rural tradition and school ideology. These students are often afflicted with worries

and anxieties that, if not remedied in time, may eventually lead to more serious emotional breakdown.

THE IMPACT OF BOOKS AND MEDICINES

An average rural high-school library, which usually holds helpful literature on agriculture, everyday science, religion, fiction, and folkways, plays an immensely constructive role in rural life. Not only school students but also a few enlightened villagers use the school library either for concrete guidance in specific vocational matters or just for leisurely reading, and these villagers, though small in number, usually come to wield considerable influence in the village by virtue of their practical knowledge and empirical outlook. They are respected, and their views valued. Consequently, these knowledgeable people begin to matter in the political and economic matrix of the village, eventually assuming leadership roles.

More widely used than books are the newspapers and periodicals subscribed to by the school reading room. Besides the literate villagers, a fairly large number of interested illiterates assemble near the newspaper stand in the afternoons in order to be told about the march of events around them. News about market trends, weather forecasts, soil and cattle problems, and modern agricultural implements, as well as brief informative features on agricultural practices and farming operations, are what interest them most. Usually a secondary-school student or a teacher reads out the main news items and enlightening feature articles to eagerly listening crowds of rural illiterates.

Similarly, the rural school dispensary plays a vital role in the village by looking after the health of schoolchildren, their parents, and others living nearby. Thus the dispensary not only creates a climate favorable to development of the school programs but also often stimulates rural resourcefulness in many other directions leading to healthful living.

Unfortunately, however, books and medicine are rare in the rural setting. Not all schools have libraries, and fewer still have dispensaries. Moreover, most of the few school dispensaries that exist are so inadequately equipped and so poorly staffed that they do not seem to influence the health of the villagers to the desired degree.

INTELLIGENTSIA SUPERSEDING ILLITERATES

Secondary education contributes substantially to the aggregate rural brainpower. The addition of even a handful of high-school grad-

uates to a mass of ignorant villagers makes a world of difference to the village life and economy, for educated young people introduce new ideas and improved techniques to the ancestral way of living and farming. Increasing use of modern amenities such as the electric fan and lights, oil stove, and radio adds new cheer to the home atmosphere; and the application of science and technology to problems of agriculture and marketing yields better results. Similarly, when a host of other urbanized values and practices are transplanted on village soil through the agency of the high-school products, rural talent and resources begin to unfold their hidden potentialities. Sluggish, convention-ridden patterns of thought and behavior respond with creative change. Habits of indolence give way to prompt and spirited activity. Idle gossiping and aimlessness decrease. The belligerency of rural emotions is gradually replaced by warmth and cordiality in human relations. Turning away from factionalism, crime, delinquency, and litigation, rural imagination eventually begins to focus on positive and pragmatic pursuits.

The village high school is the harbinger of peace, prosperity, and progress. It paves the way for transition of rural leadership from combustible illiterates to a trustworthy intelligentsia. Although this process is neither easy nor peaceful, it nevertheless is bound to take place one day or another under the impact of the high-school programs and associated activities.

EFFECTS OF THE PROEDUCATION ATTITUDE

Education is now steadily gaining favor in the rural regions of West Pakistan. That the mental horizon of the rural population now stretches beyond even the primary and secondary stages of education is borne out by the data shown in Table 12, taken from a previously cited study conducted in the villages of the Lahore district.[17]

These figures reveal that a majority of parents favored primary, middle, high-school, and religious education for their children and that some even felt inclined towards higher education in the fields of the humanities, law, and medicine. This enthusiasm for education undoubtedly proves favorable to the sound development of rural life and economy, for even if only a handful of villagers get the opportunity for higher education and return to their villages at the end of their studies, their impact on village economy is always spectacular.

The process of higher education, especially when received by villagers in the towns and cities, also is instrumental in reducing the social and technological gap between rural and urban patterns of living. The

Table 12: Level of Education Desired for Children by Parents Favoring Education (in per cent)

	For Male Children		*For Female Children*	
Level	*Father*	*Mother*	*Father*	*Mother*
Primary	23.7	22.6	23.8	29.3
Middle	–	–	4.8	9.3
High	32.9	28.0	1.6	4.0
Senior Cambridge	–	–	–	1.3
Intermediate (higher secondary)	2.6	1.2	–	–
Bachelor of arts	6.6	5.7	–	–
Master of arts	1.3	–	–	–
Bachelor of medicine and Bachelor of surgery	1.3	2.3	–	–
Bachelor of law	2.6	2.3	–	–
Religious education	15.8	17.9	57.1	40.0
Whatever fate brings	13.2	20.0	12.7	16.1
Total	100.0	100.0	100.0	100.0
Number	76	89	63	75

process nevertheless is pregnant with risk, for the more highly educated villagers often begin to find the rural environment unstimulating and incommensurate with their potentialities. The ensuing flight of rural talent causes considerable damage to the collective village brainpower. Some members of the rural intelligentsia may refrain from deserting the village physically, yet resort to adopting a style of life marked by aloofness and indifference towards rural affairs. In either case the damage to village life and economy is bound to be inestimable.

EFFECTS OF THE ANTIEDUCATION ATTITUDE

A sizeable section of the rural population still believes that education has an unfavorable effect on their children. This adverse opinion centers around the apprehension that education would impair the younger generation's attitude towards farming and village life. Table 13[18] lists the occupations desired for their children by parents who oppose education. We can infer from this table that these parents felt education would not help their children in farming, manual labor, and other vocational pursuits commonly available in the village setting. These mistaken notions and apprehensions impede the development of

Table 13: Occupations Desired for Male Children by Rural Parents Not Favoring Education (in per cent)

Occupation	*Father*	*Mother*
Farming	33.3	29.6
Labor	15.1	14.8
Any job	12.1	18.5
Whatever children choose	18.2	14.8
Whatever fate brings	21.3	22.3
Total	100.0	100.0
Number	34	27

Table 14: Occupations Desired for Male Children by Rural Parents Favoring Education (in per cent)

Occupation	*Father*	*Mother*
Clerical service	32.9	34.8
Agriculture	28.9	30.3
Village official	9.2	11.2
Military service	6.6	3.4
Professional/Managerial	5.3	3.4
Manual labor	5.3	2.2
Business	2.6	4.5
Whatever fate brings	9.2	10.2
Total	100.0	100.0
Number	76	89

rural education and the village economy and, therefore, need careful analysis and effective treatment.

Unfortunately, the apprehensions of the antieducation group are given indirect support by many proeducation parents who choose professions other than agriculture for their children, because, as shown in Table 14,[19] only 28.9 per cent of the proeducation fathers and 30.3 per cent of the mothers favored agriculture as a vocation for their

educated children. This unhealthy trend warrants equally serious attention. If the village mind continues to construe the ultimate function of education as an escape from the drudgeries of agriculture and as a shortcut to urbanized affluence, the village economy is doomed to suffer tremendously, whereby rural education will have scant chance of achieving its targets.

CHAPTER 5

War on Rural Illiteracy

ALTHOUGH the achieving of literacy does not of itself constitute adult education, it forms an integral part of a progressive program designed to develop the adult population. While adult literacy essentially involves the learning of the three R's, its aim "is a functional literacy, which will enable the adult to engage in all those activities in which literacy is required for effective participation in his group and community, to use his knowledge and skills towards his own development and that of the community and to take an active part in the life of the country."[1]

Illiterate adulthood in general and illiterate labor in particular are undesireable not only culturally but also economically, for they are economically unproductive. Thus, far from being a wasteful drain on the exchequer, expenditure on adult-literacy drives is a fruitful investment on human capital; and a growing realization of this fundamental truth forms the basis of Pakistan's current endeavor towards a speedy liquidation of illiteracy.

The two national censuses so far conducted in Pakistan have given different definitions of literacy. The first census, conducted in 1951, defined literacy as "the ability to read a clear print in any language even without understanding."[2] Given such a definition of literacy, the literacy percentage would obviously be high for any country, but particularly for Pakistan, whose population is dominated by Muslims—Muslims many of whom can read, but not understand, the Holy Quran, which is in Arabic. Herein lay the key to the first census, which resulted in a literacy percentage much higher than that yielded by the second census, conducted in 1961, which defined literacy as "the ability to read with understanding a short statement on everyday life in any language."[3] Although the inability to write the same statement did not exclude a

Table 15: Literacy in Urban and Rural Areas by Sex

	Number of Literates		*Percentage of Literates (age 5 and over)*	
Sex	*Urban*	*Rural*	*Urban*	*Rural*
Male	1,931,424	2,329,162	42.2	17.5
Female	748,591	371,131	21.2	3.2
Both sexes	2,680,015	2,700,293	33.00	10.9

person from the pale of literacy, persons who were able only to read the Holy Quran, but not understand it, were not treated as literate in the second census. Because of the different definitions of literacy used in the two censuses, the literacy figures presented in them are not strictly comparable.

The definition used in the 1961 census is neither comprehensive nor capable of meeting all the requirements of functional literacy; it is, to be sure, an improvement over that of the 1951 census but still inadequate. Even with such an inadequate definition as the criterion, however, the picture evoked by the results of the 1961 census is serious, as shown in Table 15, which presents a general view of the literacy prevailing in both the rural and urban regions of the province.[4] As against the national literacy rate of 19.2 per cent, the rural literacy rate stands at 16.6 per cent; the literacy rate in the villages of West Pakistan is 10.9 per cent. The rural literacy rate (10.9 per cent), moreover, is not even one-third the urban rate (33.0 per cent), and rural female literacy (3.2 per cent) appears negligible compared to the rural male literacy (17.5 per cent) and to the urban female literacy (21.2 per cent). The report of the 1961 census comments:

> The higher percentage of urban literacy compared to rural literacy may be attributed to the existence of better educational facilities in the urban localities and the usual tendency of the rural males to move to the towns for earning better livelihood after completing their education. The disparity in urban and rural literacy is most glaring in the case of females. In West Pakistan the ratio is 7 to 1.[5]

Illiteracy poses a serious threat to rural economy and has crucial implications for the development of the province. The success of the crusade against illiteracy obviously calls for Socratic foresight and Herculean courage.

Review of Literacy Campaigns

A brief look at past and present literacy campaigns would be helpful in understanding the concepts and trends underlying the various developments in the field.

INADEQUATE PAST APPROACHES

During the pre-Independence period the problem of adult education was either neglected or inadequately met. The foreign regime was not interested in raising the educational and cultural level of the native people, much less of the rural masses from whom it drew the bulk of its mercenary militia. Even when the colonial administrators were obliged to pay some attention to literacy problems because of periodic sociopolitical pressures, especially during the early part of this century, the little outward concern they displayed was not based on a sincere desire for the spread of literacy. Those entrusted with the task of developing adult literacy did not seem genuinely interested in it and spent their time preparing unrealistic plans and compiling statistics on imaginary progress; what plans and policies that were drawn up showed a marked concentration on towns and cities to the neglect of the villages.

After Independence adult education began to receive considerable attention. The appalling rate of illiteracy, together with the realization that illiteracy placed insurmountable barriers on economic, social, and political progress, prompted much genuine effort at official and voluntary levels. However, a review of the practices and procedures of adult education that remained in vogue long after Independence reveals that the early approaches were basically inadequate. Some of the deficiencies characterizing the early period, which continued to mar some of the later literacy campaigns, were: (1) Teaching techniques were faulty, and the contents of the reading material were not related to the daily life and needs of the rural masses. (2) Adequately trained and genuinely inspired instructors and organizers were not available in sufficient numbers. (3) Appropriately graded reading material for the neo-literates was not available in sufficient quantity. (4) Adult-literacy campaigns seldom provided the desired degree of motivation to strive for personal progress through literacy. (5) Literacy projects and experiments were neither evaluated nor followed up. (6) Administrative and organizational affairs pertaining to literacy education lacked sound planning and were tended to only sporadically.

THE VILLAGE-AID PROGRAMS

In 1956 the provincial government entrusted the responsibility for organizing literacy work to the Village Agricultural and Industrial Development (V-AID), which through persistent effort was able to work out new media and techniques for literacy education, thus, being fairly successful in giving new impetus to the movement. While outlining new programs, the V-AID carefully examined the defects of earlier efforts and endeavored to remedy them; it also formulated elaborate plans and initiated several new projects. For example, it organized a total of eleven thousand centers with an enrollment of nineteen thousand adults in various villages of the province; and it introduced box-libraries and initiated a planned program of follow-up activities to help the rural adults form a reading habit.

Several training centers for village workers were also opened in various parts of the province, of which the most efficiently run was the Village-AID Training Institute at Lalamusa, a large village near Gujrat. A special unit of the institute, the Fundamental Education Wing, was devoted to the training of rural-education workers. This wing had a trained staff, including experts working on deputation from the Department of Education, and the advisory services of UNESCO specialists on fundamental education. After receiving six months' training as village workers in various centers of the V-AID organization, a select number of qualified trainees would be transferred to the Fundamental Education Wing at Lalamusa for advanced training in the theory and practice of adult education. A survey[6] reveals that up to 1959 the wing had trained 267 adult-education workers hailing from different parts of the province, including 8 from Azad Kashmir.

The Fundamental Education Wing developed fairly effective methods of spreading literacy among the villagers: (1) it developed and experimented with a variety of interesting audio-visual aids; (2) its production unit compiled and published a diversity of helpful literature, including primers, for neo-literates; basic vocabularies; several series of motivational publications; and elementary books on arithmetic, everyday science, health and hygiene, agriculture, folk songs, and rural stories. Although the plans and projects of the wing were frequently upset by certain basic difficulties, such as lack of appropriate accommodation, shortage of trained staff, insufficiency of equipment, and paucity of printing facilities, the wing continued to do quite useful work till it was closed down in 1961.

THE ARMY'S PROGRAM

Pakistan's army offers a model of an organized and integrated program of adult literacy. In its approach, range, and results it is one of the outstanding endeavors in the developing regions of Asia. In order to qualify for enrollment in this program on a regular basis, a Pakistani soldier must pass a literacy test during his first few months in the army. This is followed by a continuous program of adult education that includes vocational training and general education.

Much has been learned from the army's program, as pointed out below, by the National Study Group, which was set up by the Central Ministry of Education to prepare guidelines for a comprehensive and effective plan for adult literacy and adult education: (1) Adult literacy is a prerequisite for adult education. (2) An illiterate adult fails to be an effective member of an organized group. (3) An adult has fairly well-formed attitudes, habits, and beliefs, which are very often based on pseudoreligious concepts. For this reason, the army literacy experts stress that: (*a*) the literacy teacher must proceed cautiously, showing due respect for the attitudes, habits, and beliefs of his audience; (*b*) in order to overcome the adult learner's resistance, the teacher's approach must be rational and dynamic rather than rigid and dogmatic; (*c*) for optimum student participation in the literacy program, the class size must be restricted to between twelve and fifteen, the maximum being eighteen. (4) An adult learner must be offered a strong economic incentive if a literacy program is to succeed. (5) Whereas an adult learner needs encouragement, recognition, and a sense of achievement just as a child does, there is no system of punishment in adult-literacy education as there is, for example, in primary and secondary education. A teacher, in adult education, therefore, has to be very tactful, patient, and understanding to be effective. (6) Compared to a schoolchild, an adult is more apt to note defects, absurdities, and contradictions in the form and content of a lesson and even in the media of its presentation. Care must be taken to remedy all such inadequacies because such a critical attitude on the student's part makes teaching difficult for the teacher. (7) Literacy education when combined with pleasant and interesting activities proves more effective and more economical than when conducted in a detached, rigid, and boring manner. (8) If properly motivated, the adult learner shows quick progress through self-learning, for which adequate facilities should be provided.[7]

The army approach is so methodical and foolproof that it is reported to be achieving perfect results. It may be remembered that the

majority of those who stand to gain directly from the army contribution to literacy education are village folk, obviously because the bulk of the soldiers are from the rural regions.

CURRENT OFFICIAL EFFORT

A number of government agencies and voluntary organizations share in the adult-literacy effort in the villages of West Pakistan, the major role being played by the provincial Department of Education and the Basic Democracies Department. Between the two, the Department of Education comes first; it operates seventeen adult-literacy centers in various rural regions of the province, employing eighty-five full-time and forty part-time instructors. But because this is just a drop in the ocean, a more comprehensive, dynamic plan for the liquidation of adult illiteracy has been prepared.

The Basic Democracies Department, ranking next in activity in this field, has put in commendable effort through its Directorate of Rural Programs and claims to have adopted effective measures for a massive attack on rural illiteracy.

Although not directly or exclusively involved in the rural literacy campaigns, other government departments that associate with the Department of Education and contribute in one way or another to the provincial adult-education programs are: Agriculture (including Fisheries and Forestry), Animal Husbandry, Irrigation, Auqaf, Cooperatives, Defense Services, Jails, Labor, Health, Industries, National Reconstruction, Information, Radio, Television, Communications, Railways, and Social Welfare.

THE ROLE OF VOLUNTARY ORGANIZATIONS

Adult literacy does not appear to be receiving the desired degree of attention from existing social and cultural organizations, for no distinct voluntary agency specializing in adult literacy has so far been formed in the province. Some useful work, however, is being done by the provincial branches of the West Pakistan Youth Movement, the All-Pakistan Women's Association (APWA), the Lions Club, the Girl Guides, the Rotary Club, the Maternity and Child Welfare Association of Pakistan, and the Chamber of Commerce and Industry; and a large number of smaller organizations, including a number of Muslim and Christian organizations, are also operating at regional, divisional, district, and even *tehsil* levels. Although these voluntary organizations are doing useful work, their efforts are yielding results that are far from

satisfactory, the primary reasons being the absence of a systematic plan, a paucity of funds and staff, and lack of coordination.

Meeting the Challenge of Rural Ignorance

There has been a growing feeling lately that the current effort to combat rural illiteracy is not keeping pace with the size of the problem. This dissatisfaction is shared equally by government and voluntary agencies, particularly by the former among whose people it is assuming unprecedented proportions. As a result, the entire picture has been reviewed perspectively, and a new plan developed.

OVERCOMING THE SHORTAGE OF TEACHERS AND WORKERS

A major impediment to the progress of rural literacy is the shortage of trained teachers and voluntary workers. In order to meet this situation, appropriate steps had been taken in accordance with the following line of action suggested by the 1958 Education Commission.[8]

The mosque leader as teacher. It was felt that by virtue of his unique social and cultural prestige, the rural mosque leader (*Imam*) could play an effective role in the national crusade against illiteracy; the mosques, moreover, could be utilized as literacy centers during after-prayer hours by having the *Imam* serve as the instructor. Such an arrangement would solve many problems connected with buildings and finances that hinder the fulfillment of adult-education programs. In some villages, especially in the Bahawalpur division, the *Imams* did some effective work.

Schoolchildren as parents' teachers. Although orthodox rural tradition is not favorably inclined towards the idea of having illiterate parents learn from literate schoolchildren, it could yield satisfactory results if carried out with precaution and foresight.

Each-one-teach-one. Laubach's slogan, "each-one-teach-one" (*parho aur parhaoo*), is based on the idea of having each neo-literate successfully motivated to teach at least one adult. This idea has been tried effectively in a number of villages.

Contribution of students. Reports of various college unions, student affairs departments of provincial universities, and the West Pakistan Youth Movement reveal that many college and university students feel inclined to spend substantial parts of their summer vacation in the

villages, participating in rural-literacy and other nation-building projects.

THE CHANGING STRATEGY FOR ADULT LITERACY

Charged by the Ministry of Education to prepare an outline of a comprehensive and effective plan for adult literacy, the National Study Group for Adult Literacy and Adult Education held its deliberations in 1964 and came forth with the following conclusion: that mass illiteracy puts a stranglehold on the social and economic development of Pakistan and thus presents a serious national emergency; that mass illiteracy, therefore, must be tackled with courage and prudence and without further delay.[9] The group recommended that the government should take up a program of adult literacy with the sense of urgency it deserves; and that the government should find appropriate ways and means of mobilizing public and private national and international resources for a speedy execution of the program.

One major concrete measure suggested by the group was the establishment of a Directorate of Adult Education, which would be responsible for planning, direction, over-all control, and supervision of adult-literacy and education programs in the province. It also recommended the setting up of a provincial Advisory Council on Adult Literacy and Adult Education, whose functions would be: (1) to offer advice to the directorate on pertinent matters; (2) to assist in coordinating the work of various official and voluntary agencies furthering adult education; (3) to review all programs and policies relating to adult education and adult literacy; and (4) to suggest ways of coordinating adult-education programs with various developmental efforts within the province.[10]

Also suggested was the formation of a provincial institute of adult education that would provide supporting technical services for the production and distribution of teaching aids and reading materials and for training, research, and evaluation.

The new strategy for adult literacy suggested by the group also outlined patterns of organization and administration; discussed the contents, methods, and media of literacy education; and spelled out the specific roles of different official and voluntary organizations. Its plan claimed to make "radical departures from the traditional practices," present "new and courageous solutions," and initiate "pioneering experiments."[11]

The changed strategy included a plan to introduce in the province

four to six pilot projects consisting of four broad types suiting the economic and social environment of the selected areas. Their general objectives were: (1) to test and demonstrate the economic returns of literacy; (2) to experiment with contents, methods, and media; (3) to provide demonstration and training areas; (4) to create nuclei from which to extend the program to other parts of the province.[12] Their specific objectives were to eradicate mass illiteracy from the project area and to provide appropriate adult-education facilities. Skeletal details of two such projects, one meant for an advanced rural region and the other for a general rural area, are presented below.

The advanced rural-area project. The advanced rural-area project was meant for an advanced rural area comprising a population of four to five hundred thousand people of whom about 75 per cent would be farmers, with the rest engaged in other rural occupations such as cattle-raising, weaving, and woodwork, and about one hundred thousand, illiterate in the age range of twelve to twenty-nine. Although such advanced rural areas—as would be found in the Mardan, Lyallpur, Mirpurkhas, and Tandojam districts—would have fertile soil with excellent irrigation facilities, they would not have fully exploited yet the modern ways of increasing production, such as the use of fertilizers, crop rotation, and cooperative farming, owing mainly to the high rate of illiteracy (80 per cent). For illiteracy hinders the growth in popularity of modern agricultural methods, scientific irrigation practices, and farm management. Some age-old customs and traditions, which still have a hold on people's minds, would be additional deterrents.[13]

This plan purported to raise the literacy level of the project area, and, at the same time, to help the rural community to improve its economic, social, cultural, and physical health. Its major objectives were:[14] (1) to integrate the adult-literacy and education program with general agricultural development in the area; (2) to make all adults aged twelve to twenty-nine literate within three years, with the instructional program for the first year focussing primarily on reading, writing, and arithmetic; (3) to provide facilities for literacy to those adults beyond the age of twenty-nine who may seek it; (4) to employ an approach to literacy that will help cultivators and others in the community to improve their productivity; (5) to supply necessary reading and teaching materials suited to the population of the area; and (6) to provide knowledge pertaining to personal and community hygiene, nutrition, and child care, which would help improve the family and community life;

(7) to offer opportunities for continuing education in order to avoid relapses into illiteracy.

The project elaborated broad features of the instructional program regarding content, methods, and media. According to the tentative cost estimates, the total estimated expenditure for three years amounted to Rs. 3,920,000. The suggested sources of revenue were grants from the central and provincial governments and union councils, aid from foreign sources, fees from adult learners, and income from books.

It was proposed that the project be evaluated at the end of three years on the following points: the number of neo-literates made; extent of the impact of literacy on the life of the people; the new skills, knowledge, and attitudes formed by the community; and the support given by the program for the functioning of agricultural extension services in the project area.

The general rural-area project. By a general rural region was meant an area that has an average concentration of population but no intensive development program underway. Examples of such areas are Kohat, Dera Ghazi Khan, and G. M. Barrage. A reasonable land size for a project of this type would be two or three contiguous *tehsils* that has an illiterate population of about one hundred thousand in the age group of twelve to twenty-nine. The population would not be entirely rural as there would be, within the area, a few small towns that have slightly urban characteristics.

The basic objectives of the project were to make the adult population of the area literate within three years, by concentrating on persons between the ages of twelve and twenty-nine; and to promote individual, family, and community life, by undertaking a continuous adult-education program. As there would be no likelihood of any intensive development, the literacy and adult-education programs could not be linked to a particular project. However, there would be some general development activities going on in the fields of agriculture, cooperatives, and general education. The literacy program was, therefore, to aim at supporting these activities. A third objective of this project was to have the project center[15] undertake: (1) the training of adult-education teachers, lay leaders, and youth; (2) the production of reading materials appropriate to the local context; (3) the organization of rural libraries; (4) the use of audio-visual aids and mass media; (5) the supervision of adult-literacy and adult-education programs; (6) the promotion of group work and community organization.

The over-all cost of the project over a period of three years was estimated to be Rs. 3,870,000. As with the preceding project, it was proposed that the expenditure be met out of government and union council grants, fees, and foreign aid. Evaluation of the project, to be undertaken from the start of the program, was to be effected by the proposed Institute of Adult Education through a small team of research assistants and interviewers, who would be either stationed in the project area or visiting it at frequent intervals.

The above-mentioned projects, however, had to be discarded owing to paucity of funds and lack of proper public response.

THE CURRENT LITERACY PLAN

Of all the literacy plans outlined so far the one presented in 1969 by the Ministry of Education and Scientific Research is the most dynamic.[16] The new proposals which are now being carried out aim to impart literacy to 68 millions by 1980. In order to make the new literacy operations effective elaborate adult education authorities have been proposed for each one of the two wings of the country, with the leadership of the authorities being entrusted entirely to the youth of the nation.

The new plan concentrates initially on three principal sectors, where motivation for literacy is expected to be strongest and where there is relatively greater scope for using adult education as a basis to accelerate economic growth. The three sectors are: (1) the urban manufacturing sector, including mining, electrical, water, gas transport, and communications service, presently employing about 3.3 million workers, whose number is expected to rise to 6.7 million by 1980; (2) the vicinity of big upcoming project areas in advance of the actual commencement of such projects as the Tarbela Dam, the Rooppur Nuclear Power Project, and the Fertilizer Factories Complex; and (3) the rural areas, to cover the dropouts from the elementary school system and those who have not been able to go to school and are still below age twenty. For them a net work of well-organized rural literacy centers are being started, imparting literacy, civic education, and agricultural training, with stress on new practices in irrigation, drainage, pest control, mechanized farming, and application of fertilizers.

Since this task is so obviously challenging and formidable, it could only be accomplished by battalions of dedicated young men and women who would be willing to work as missionaries. Approximately 28,000 literacy teachers are expected to be needed in 1970, 72,000 in 1975, and

a similar number in 1980. It has, therefore, been proposed to conscript all young men who pass the higher secondary-school examination and all young women who pass the secondary-school examination in the age group of 18–22. The conscripted workers shall be required to serve for a period of two years as members of the proposed National Literacy Corps (NLC), which is being raised after the pattern of *Sipah-e-Danish* (the Militia of Wisdom) currently engaged in combatting illiteracy in Iran. The NLC members will be disciplined by the literacy experts from the Pakistan Army for three months, and they will be given a condensed course in the art of teaching for another three months. On the completion of their training they will be posted to rural literacy centers. "During the period of conscription, they will be paid pocket money, provided with a uniform, simple food, and lodging in the rural areas, not very different from what the villagers enjoy. Throughout the period of their stay in the villages the members of the NLC must feel as part of the village community and share their pains and pleasures in a spirit of togetherness rather than strangeness."[17]

On completion of the two-year compulsory service, all those members of the NLC who have passed the higher secondary-school examination prior to joining the NLC will be allowed to qualify for the bachelor of education examination at any one of the Pakistani universities after passing the prescribed examination. The successful members will be offered teaching jobs and given due credit for the two years of service in the NLC in matters determining their starting salary, seniority, and the like.

LOOKING AHEAD IN RURAL LITERACY

The campaign to overcome rural illiteracy has received a growing interest both from the government and the people mainly because of the heartening improvement it has brought about in rural literacy qualitatively and quantitatively. It would be unrealistic and eventually disappointing, however, to expect miracles to take place immediately. Says Harold Shearman:

> There are some who look to adult education to create a brave new world in one generation and are inclined to underrate any system which fails to enroll big battalions. But among the few things in this world which cannot be created by mass production is an educated community. Nor is a superficial clean up in adult years going to put right the mischief already wrought by the imperfect and misdirected ideals.[18]

Obviously, an effort which is at once more vigorous and more patient is needed at all levels, and this is the precise object of raising the National Literacy Corps. In order, however, to be effective the new plan shall have to accelerate coordination between the various voluntary organizations that are contributing to adult literacy and make them cooperate more actively than ever before with the official machinery set up for this purpose.

Finally, in order to be economical and successful, all literacy operation will have to be outlined and carried out according to more well-defined schedules: Functional literacy, not literacy for its own sake, should be the central aim; the development of the content, media, and methods of the literacy program will have to be attended to with care and insight; and the production of suitably graded reading material and follow-up literature for neo-literates is indispensable in order to avert large-scale relapses into illiteracy and ignorance. In fact, the rural literacy programs must assume the shape of an organized mass movement, with official and voluntary individuals and agencies joining hands in working toward a common goal.

Dimensions of the Impact

As pointed out earlier, the adult-literacy campaigns in the past were marred by several oversights and inadequacies, and only recently have appropriate steps been taken in the right direction. Thus, it is too early to attempt a worthwhile appraisal of the impact of rural literacy programs on the villagers. Most of the available information, however, confirms the impression that such programs are proving quite effective in reshaping rural skills and attitudes, exerting a healthy influence on practically all facets of village life and economy.

RISE IN AGRICULTURAL PRODUCTIVITY

Because modern agriculture is becoming increasingly mechanized, a working familiarity with tractors, power tillers, tube wells, and other modern agricultural equipment is becoming almost indispensable to productive farming; and those farmers who still must depend on bullocks and camels for ploughing feel greatly handicapped. A successful cultivator must be equipped with a functional knowledge of veterinary science, animal husbandry, and pest control; moreover, because productive farming calls for a basic fund of information about salinity, waterlogging, and other soil problems, a farmer who has the ability to understand modern irrigation techniques and weather trends saves him-

self from many a hazard. Similarly, a farmer who has a functional knowledge of modern techniques of processing and marketing usually gets rich dividends. The contemporary farmer, therefore, has of necessity to be armed with a fair amount of fundamental knowledge about a host of techniques.

Finding that the adult-education programs of his village provide information useful to rural life, the farmer feels a strong incentive for enrollment at the center. Adding to this incentive is the sense of competition evoked by his neighbor who improves his economic position through information received from agricultural officers. Tempting extension materials available at the adult-education center further strengthen his desire for literacy. During his association with the center, the farmer picks up much practical information about various vital aspects of his profession. Moreover, the spread of literacy in the villages invariably proves helpful in increasing the yield per acre and improving over-all agricultural productivity. In contrast, it has been found that illiteracy is positively correlated with inferior agricultural output, that the factionalism and litigation found among belligerent illiterates affect agricultural productivity adversely because they waste a considerable portion of the farmer's farming time, emotional energies, and economic resources. In such situations adult-literacy campaigns play a multipurpose role.[19] Needless to say, an effective program of functional literacy, besides equipping a farmer with the ability to read and write, also lays the foundation for vocational, economic, social, and emotional change in the villages.

PREPARATION FOR HEALTHFUL LIVING

Functional literacy is also an aid to healthful living. The leisurely reading of simple materials on fiction and folklore yields immense pleasure and does away with the drudgery and monotony of rural life, opening up new vistas of joy and excitement. By adding pleasure and equilibrium to the life of villagers, literacy programs are paving the way for sound emotional health.

The impact of literacy campaigns on the physical health of rural communities is similarly heartening. Literacy facilitates understanding of health and nutrition. In villages where the impact of literacy projects is felt, there has been an improvement in the people's knowledge of the causes and prevention of common ailments and epidemics. As a result, the incidence of disease and other physical maladies is now on the decline in such villages.

Successful motivation of the rural female population to become literate yields even more salutary results as far as health and well-being of the family, especially the children, are concerned. Because literacy aids the acquisition of elementary knowledge on child care, family planning, and everyday hygiene, female-literacy programs are giving a new impetus to the improvement of rural health.

EMERGENCE OF AN ENLIGHTENED RURAL WOMANHOOD

In the rural areas of West Pakistan, illiteracy is far more widespread among women than among men. Literacy programs, therefore, possess added significance for rural women. Although comparatively little attention has been paid to the female sector, surveys reveal that whatever little endeavor has been made in this field invariably has yielded encouraging results.[20] So that it will be immediately beneficial to the families and especially to the children, literacy teaching for women is being linked with elementary education in such areas as home management, child care, nutrition, and other aspects of home economics. And because of this practicable content, the female-literacy program, which is conducted by sympathetic urban women workers, such as the All-Pakistan Women's Association, is exerting a constructive influence on the attitudes of rural women, giving rise to a new and progressive rural womanhood. The newly literate village woman is less tradition-ridden and less superstitious than her illiterate sisters; and contrary to popular apprehension, she proves to be a better mother and a more efficient housewife.

Instances have been reported, however, wherein female-literacy programs have been impaired by male suspicion and hostility. Skeptical husbands and conservative elders in some villages think that literacy of the fair sex would take them beyond the pale of religion and morality, which is an antieducation sentiment, a hangover from the days of foreign rule, when imported textbooks and carelessly prepared syllabuses proved inimical to the growth of the local genius and, in some cases, openly clashed with the concept and values of Oriental womanhood. Whatever it may be, even a partial continuation of such a hostile attitude in the changed context of the present situation is very unfortunate. The feeling against female education has often been calmed by a literacy instructor's thoughtful explanation of the general necessity and utility of female education, emphasizing the Islamic obligation on women to acquire knowledge and, above all, tactfully interpreting the expanding role of modern womanhood.

SOCIAL AND CULTURAL CHANGE

The corporate group life and formal discipline at the village literacy center have been found to have a great socializing effect on the participating adults. Besides acquiring reading and writing skills, they also learn the art of understanding each other, respecting individual differences, settling disputed issues through discussion and negotiation, and placing the common good above personal interest and individual gain. Moreover, current rural literacy programs have been found to be weakening the hold of uncongenial social customs and orthodox tradition,[21] on the one hand, and promoting social cohesion and a new sense of civic responsibility, on the other. It has been commonly observed that on joining the literacy center even the most unsocial and antisocial villager undergoes a change in social behavior. If he continues to attend the center, most of his leisure is invested in constructive pursuits and in enjoying the newly discovered pleasures of listening and reading. He is, therefore, left with little spare time to dissipate in factional conflicts, futile litigation, and other unproductive pastimes. Properly organized literacy programs have thus been responsible for diminishing the incidence of purposeless, antisocial, delinquent, and criminal patterns of behavior in many villages.

On the cultural side, the impact of literacy has been equally satisfying, for rural literacy programs have been instrumental in reviving cultural traditions and promoting moral values; moreover, they have been found to be constructive and forward-looking in terms of all social and ethical standards. From a moral angle the most effective programs have been those that were launched on religious premises, had the goodwill and cooperation of the religious leadership, and were in manifest harmony in form and content with the spirit of Islamic culture and civilization.

GROWTH OF VILLAGE MORALE

Owing to the spread of literacy which is now infusing a new spirit of optimism into the villages, the rural environment seems to be taking on a new appearance. A majority of the adult-literacy workers report that the morale of a newly literate farmer rises far above that of his illiterate neighbors, for the ability to write one's letters, keep one's own accounts, and read the newspapers makes a world of difference to the simple rural folk. He now has a new zest and enthusiasm for life. Never in his life has he been so assertive, so cheerful, and so hopeful of the future. At the same time, the daily application of reading and

writing skills to professional affairs further builds up his confidence; and each successful move confirms his faith in the necessity and utility of literacy and strengthens his desire to pursue knowledge further.

The development of individual morale proves contagious. As literate farmers carry out successfully the agricultural operations and domestic affairs through their rational and methodical approach, others promptly follow suit in a bid to compete and to prove serviceable to their family and to the village community. Soon the entire adult population of the village is engulfed by the literacy fever. As a result, the collective morale is aroused whereby more and more village elders set out to pursue knowledge in preparation for a more prosperous and more joyous future.

A MOMENTOUS COORDINATION OF HUMAN ENERGIES

The Department of Education plays the major role in all rural adult-literacy programs. Since, however, the scope of modern literacy instruction is fast expanding to cover social and economic development of the individual and the community, the activities of this department are being closely integrated with the development projects of a host of other government departments: Agriculture, Animal Husbandry, Fisheries, Forestry, Irrigation, Auqaf, Cooperatives, Defense, Health, Jails, Labor, Industries, Information, Radio, Television, Railways, Roads, Communications, National Reconstruction, and Social Welfare. Often a number of these government departments work together on a rural project and endeavor to achieve the objectives through mutual collaboration and coordination of energies. For instance, an adult-literacy center as an attached unit to the village mosque might have several government departments working with it: the departments of Auqaf, Social Welfare, and Defense might cooperate with the Department of Education either in lending the services of teaching personnel or in offering expert advice on organizational matters. For the formation and execution of a comprehensive teaching program, the united efforts of the following departments would be extremely helpful: Agriculture, Irrigation, Animal Husbandry, Fisheries, Forestry, Cooperatives, Health, Labor, and National Reconstruction. Then there are others like the Department of Industries and the Department of Jail, which might be instrumental in providing suitable equipment at reduced rates; and the departments of Information, of Radio, of Television, and of Social Welfare, whose cooperation might become necessary in raising funds and in motivating people toward literacy. In fact, a dynamic

literacy program calls for the coordination of the greatest possible number of relevant official agencies and the helping hand of voluntary organization. The cultural wings of political organizations—even some with marked leftist leanings—are examples of the latter, extending wholehearted cooperation to the government officials in the promotion of rural literacy programs.

The cooperative effort, as discussed above, has a much wider implication for rural development than the mere spread of literacy. By demonstrating the best possible example of a coordinated endeavor, a well-planned literacy program stimulates village imagination in several other constructive channels, which in turn results in a growing incentive in the villagers to apply the same cooperative spirit and methodology to other sectors of their life. A well-organized literacy program, moreover, strikes at the roots of rural indifference, egotism, partisan feelings, and factionalism. In short, the villagers learn, by doing, the art of striving for a decent, corporate, and worthwhile living.

ADULT LITERACY AND RURAL MIGRATIONS

Although there have been cases of adults migrating from villages to towns after attaining literacy, they are few in number, and the small incidence of postliteracy migrations can be accounted for by a number of variables. First, in contrast to the secondary-school adolescent, the member of the rural literacy center is an adult, who is relatively more mature, more responsible, and more discriminating than an adolescent. His decisions about settlement issues, therefore, are generally devoid of the impulsiveness that usually characterizes the thoughts of a secondary school student who is being lured by the city. Secondly, the neoliterate fully realizes that whereas the newly acquired ability to read and write would increase his capacity to enjoy life in the simplicity of the rural setting, in a sophisticated urban structure, he would very likely become the focus of discord. Hence, how futile to desert the village! Thirdly, he is aware that mere functional literacy and rural know-how would not suffice for effective survival in the complex urban culture that is dependent on modern science and technology. In other words, adult literacy and rural migration do not seem to have any positive correlation.

In sum: a perspective analysis of the impact of adult literacy leaves no doubt that the over-all results of adult literacy are productive for the individual as well as the community. Functional literacy introduces visibly fruitful changes in the professional, social, cultural,

emotional, and physical sectors of village life. And, by virtue of their effectiveness, the literacy-education programs are laying the foundations of a progressive and creative pattern of rural life itself. The tempo of current development creates immense hope for the future.

CHAPTER 6

New Horizons in Political and Social Awakening

The Pre-Revolution Political Picture

THE PEOPLE of Pakistan had long felt that the political structure which they had inherited was not suited to the needs of the country; and as this feeling grew in intensity, they began to lose faith in their leadership. The political leaders seemed to have little genuine regard for the needs and potentialities of the masses; their feelings seemed to be that a chosen few could run the state successfully and that there was no need to take the masses into their confidence.[1]

Traditionally and historically, the Pakistani villages had thrived as small, autonomous, socioeconomic units wherein the villagers enjoyed administering their own affairs and rendering justice through informal leadership based on hereditary or tribal factors. But the political structure Pakistan inherited from the colonial regime in the decade following Independence was one that relied heavily on a queer brand of universal franchise. What this meant was that the voter in a big constituency had scant chance of even seeing the faces of contesting candidates once the elections were over. Moreover, the undeveloped state of mass communications media, the widespread illiteracy, and the restricted coverage of the press and radio compounded the difficulty of reaching the masses and the large constituencies.[2] Thus the illiterate mass that went to the polls under such conditions was akin to the herding of cattle—a sheer mockery of the concept of universal adult franchise.

The pre-Revolution period was further characterized by strange political practices and a constant jockeying for power in the name of democracy, parliamentary government, and even religion. The Bureau of National Reconstruction sums up this period well:

> A large number of pressing problems had been allowed to remain unsolved and many fresh ones to grow. The country had inherited an outdated and unjust agrarian system based upon oppressive feudalism. The prevailing

pattern of education was ill-equipped to produce the right type of men and women needed for a progressive and forward-looking country. The legal system was outmoded, dilatory and expensive. Millions of human beings had continued to live as refugees for over a decade under sub-human conditions. Political intrigues and misconduct had strained the civil services to the utmost resulting in corruption, demoralisation and inefficiency in their ranks. Violation of law in the form of tax evasion, hoarding and smuggling was ever on the increase.[3]

The stage was thus set for a revolution. Convinced not only that what had failed in Pakistan was not democracy but a particular brand of it—a democracy imported from outside—but also that in order to attain her destiny Pakistan must not tread any path other than the democratic, the leader of the Revolution hoped to restore a democracy that was meaningful, understood by the people, and fully responsive to their hopes and aspirations.

On October 27, 1959 the Revolutionary regime introduced the Basic Democracies system, which aimed at direct and active participation of the people in the development and administration of the country. Decentralization of authority and delegation of responsibility to lower levels were the key marks of the new system, for whereas "the tendency hitherto had been to prepare plans of development at the provincial and central headquarters," the programs of rural development under the Basic Democracies system were to "originate in the villages and proceed upwards, except in spheres such as large-scale industry and major irrigation and power projects."[4]

THE FOUR TIERS OF THE BASIC DEMOCRACIES SYSTEM

The four tiers of the political structure of the Basic Democracies system are: (1) the union council, (2) the *tehsil* council, (3) the district council, and (4) the divisional council.

The union council. The basic unit of the four-layer system of the Basic Democracies system is the union council—a council that is closest to the village level—which has been conceived as a multipurpose institution that would comprehend the entire corporate life at the village level when fully developed.[5] Its members were supposed to be representatives elected by the people on the basis of adult franchise, although until the abolishment of the appointive system, two-thirds of its members were elected, and one-third, appointed by the government. Although membership varies from union to union, depending upon the population of

the union concerned, on an average, a union council represents a population of ten thousand scattered over a number of villages constituting the union. (One elected member of a union council represents about one thousand persons.)

The main functions of the union council are to provide for rural police, to undertake small development projects, and to cooperate with various government departments in day-to-day administration. It has the power to impose local taxes and to finance its activities; it also has some judicial power to try minor civil and criminal cases; and the chairman of a union council is also the chairman of the Conciliation Court. Because local affairs are comparatively simple and do not require technical guidance from the government, no government official is present in the union councils. The two corresponding institutions for urban areas are the town committees for small urban areas and the municipal committees for larger towns.

The tehsil council. The tier above the union council is the *tehsil* council, which is composed of (1) the chairmen of the constituent union councils and town committees, called "representative members," plus (2) the government appointees (according to the 1959 Basic Democracies Order, the total number of government appointees cannot exceed that of representative members). The *tehsil* council, whose chairman is the Tehsildar, is entrusted with the task of supervising and coordinating the work of the constituent union councils, but it does not have the authority to impose taxes.

The district council. The third tier in the Basic Democracies is the district council, which consists of official members selected from the district-level officers of the development departments and of nonofficial members including chairmen of the union councils and town and municipal committees. There are elected representative members and appointed members, the former not being less than the latter in number. The district council, whose chairman is the deputy commissioner, has powers to impose taxes and to raise funds for its development programs, which usually consist of building schools, dispensaries, and roads.

The divisional council At the apex of the tier is the divisional council, constituted on the pattern of the district council and presided over by the commissioner of the division. This council is only a supervisory body that looks after and coordinates the activities of the district councils; it has no power to levy taxes or to incur development expenditure.

From the discussion above, it is apparent that the *tehsil* and divisional councils are primarily coordinating bodies, which take stock of existing conditions and needs, plan at the *tehsil* and divisional levels, and offer leadership and guidance to the lower tiers. The actual executing bodies are the union and district councils, which have full powers of taxation and which are entrusted with functions aiming at a balanced, all-round development of the union and district. Besides carrying out their municipal functions, these bodies introduce plans and projects that may accelerate economic development and that may also induce social changes and reforms.

A Revolution in Rural Politics

INITIAL MISGIVINGS, APPREHENSIONS, AND CONFUSION

The advent of Basic Democracies gave rise to many doubts. Professional politicians with vested interests reacted very sharply against the new system. The concept of winning the people's confidence in a restricted constituency through close personal contacts and genuine service to the community did not appeal to those who preferred to approach the voters *en bloc* in large constituencies. Powerful landlords resented the very idea of ordinary peasantry vying with big shots for election to the union councils.

Many of the villagers themselves suffered grave apprehension about the new political system, because, for one thing, suppressive colonial rule had led the illiterate villagers to reconcile to a "mother and father" (*mai bap*) concept of government, with the officials posing as authoritarian "parents." The villagers had simply to obey them and forget about constructive criticism or voluntary participation in community affairs. Then there were those who still nursed bitter memories of the days of struggle for independence. Their attitude of suspicion, hatred, and hostility toward all official authority lingered on even after they were freed of foreign domination. And finally, there was the die-hard section of the bureaucracy who felt threatened by the new system.

> The traditions of administration as passed on to us by colonial rule were based on aloofness, fear, collection of revenue and maintenance of law and order alone. The spirit of participation enjoined by the new system, therefore, seemed to pose a natural threat to the exclusive preserve of bureaucratic authority.[6]

All of these people, with their interests and outlooks, were responsible for creating considerable resistance in the beginning. But the clouds

of apprehension and misgivings soon began to clear as a result of a trial of the new system, which was backed by heavy official support. A newly emerging relationship of understanding and cooperation between landlord and peasant and between bureaucrat and commoner stabilized the situation. And an enlightened concept of the application of power and the discharge of responsibility seemed to open up new horizons in the political life of the villagers.

DIMENSIONS OF THE NEW POLITICAL CONSCIOUSNESS

In contrast to the traditional notion of political activity based primarily on group formation and electioneering, the approach introduced by the Basic Democracies claimed to combine healthy party politics with economic development.[7] What it sought was the opening up of new areas of cooperation between the government official and the voluntary worker, the ultimate objectives being decentralization of governmental administration and citizen participation in the government as partners. By serving as the electoral college for the members of the national and provincial assemblies and the President of the country, the Basic Democracies endeavored to revive the ultimate sovereignty of the people, for their primary concern was to make the new political institution an effective instrument not only of local government but also for building up a law-making elite.

The *élan vital* of the new system was the belief that one way to prepare for local government in an underdeveloped country is to guide the people into a series of developmental activities, for in the course of time, honest and effective handlers of community projects come to acquire political insight. A. P. Snyder elaborates this concept thus:

> The implementation of public "brick and mortar schemes" also gives opportunity to build and test political leaders. The skill and integrity of a local leader can be detected as easily as slip-shod workmanship and dishonesty. When a project is completed with community money in a manner which gives pride to the community, a new leader, who may also earn political respect and following, is in everyone's view. Likewise, neighbors may detect a crook—one who fails to earn the respect and one who could not be trusted to make right decisions for the good of the Union.[8]

Through this different approach, the Basic Democracies attempted to make a deep impact on the wide socioeconomic setup and the developmental pace of the rural regions; through it, they tried to pave the way for the emergence of self-managed communities: Considerable con-

structive political enthusiasm was generated among the rural people, who, in the past, had either been neglected or unnecessarily antagonized; villagers all over the province seemed to be participating in the development of their own areas by contributing in cash, kind, and labor and visibly keen to make a success of the development programs going on around them.

The community had great expectations in the new system, which claimed to change the entire social, political, and economic environment of the people, especially the underprivileged villagers. In the words of a former President of Pakistan:

> Let us hope that a time will come that these councils would have attained such maturity, that as education spreads in the country, . . . they run their own police, they run their own revenue system and they run everything. I would not be surprised if in ten to fifteen years' time a situation may arise when the officials are only there to guide and assist and not to function as administrators and rulers.[9]

GLIMPSES OF ACHIEVEMENTS

Despite some inherent weaknesses of the new system, the changed concept of political theory and practice seemed to have inspired a large number of villages with a new, forward-looking enthusiasm. Table 16 gives a picture of the small development projects that were undertaken by the Basic Democracies in the rural areas of West Pakistan during 1963–64, the year when the new institution was at its peak. These projects were financed out of Rural Development Funds provided by the provincial government, with an additional sum of Rs. 2,403,700 contributed by the local rural communities. The central role in all such rural uplift projects was played by the Directorate of Rural Works Programs.

The Basic Democracies Department was invested with a diversity of social, cultural, developmental, judicial, and administrative functions. A proper discharge of such responsibilities necessitated adequate training of the Basic Democrats as well as the government officials. Regular training institutions were, therefore, established, offering a number of programs for officers, chairmen, secretaries, and members of the various councils. Examples are the Rural Development Academy at Peshawar and two Basic Democracies training institutes at Lala Musa and Tandojam. During 1964–65 training was imparted to 542 secretaries of the union councils, 167 development officers and supervisors, and 51 assistant directors.

Table 16: Rural Development Projects Undertaken by the Basic Democracies in 1963–1964

Sector	*Things Built or Started*	*Volume*
Education	Primary schools	305
	Middle schools	42
	High schools	14
	Other institutions	14
Agriculture and animal husbandry	Model farms	84
	Veterinary dispensaries	17
	Poultry farms	5
	Fertilizers supplied	10,071 tons
	Improved seeds distributed	25,000 tons
Irrigation and drainage	Irrigation channels	60,520 ft.
	Embankments (bunds)	54
	Tube wells	5
Health and sanitation	Civil dispensaries	2
	Rural health centers	15
	Maternity centers	12
	Wells	35
	Hand pumps	218
	Water tanks	50
Communications	Roads	380 miles
	Streets	60,000 sq. ft.
	Drains	112,000 ft.
	Bridges	148
	Culverts	1,470
Miscellaneous	Union halls	112
	Mosques	3
	Eid Gahs*	2

* Places for the offering of congregational prayers on Eid festival days.

The Basic Democracies Department also established a massive training program in March, 1966, with 780 training centers operating in various rural regions, each accommodating forty to forty-five Basic Democrats. The curriculum included such subjects as Pakistan's Constitution, the theory and practice of leadership, coordination between the Basic Democracies Department and other nation-building depart-

ments, civil defense in rural areas, rural works programs, Muslim Family Law, and the Conciliation Court Ordinance.[10]

To supplement the training program, short courses in rules, regulations, and accounting procedures were also organized for the chairmen, secretaries, and members of the councils at district, *tehsil*, and union levels. Seminars, conferences, and conventions, together with rural fairs, exhibitions, and workshops, formed part of a political-education program designed to train rural leaders and government officials alike in the indigenous techniques of democratic thought and behavior.

PREPARATION FOR NEW OBLIGATIONS

Apart from the regular training programs mentioned above, emergency training courses were also organized whenever new obligations devolved on the Basic Democracy councils.

> The idea was to bring home to them immediately the reasons for assigning a particular function to them, the rationale behind the functions and the obligations that they were required to carry out. For example, when the Conciliation Courts Ordinance was promulgated, the councillors were given training in their judicial responsibilities, explained the provisions of law and it was emphasized that the main objective of the Conciliation Courts was to bring about a harmonious community life through reducing litigation and quarrels.[11]

Social Development of Village Communities

ORGANIZATION OF RURAL SOCIAL SERVICES

The Basic Democracies Ordinance of 1959 considered the organization of rural social services to be the fundamental responsibility of the Basic Democracies. It was for this reason that the provincial government was asked to draw up a plan for what was then known as "Social Services under Basic Democracies," which was to be carried out during the Second Plan period. The plan, however, was never drawn up, mainly because the administrative structure of the Basic Democracies was then evolving slowly.

One of these programs, the Rural Works Program, concentrated on social welfare and housing. In 1963–64, it spent 12.6 per cent of its total funds on the building of small housing projects, community halls, and village social centers; but in 1964–65, only 5.9 per cent. The main reason for decrease in government investment during 1964–65 was that the local communities deliberately reduced expenditure on buildings out of the Rural Works Program funds. The social centers that had been con-

structed prior to this reduction were utilized by the union councils as places to hold meetings; to run adult-literacy classes; to store seeds, fertilizers, and insecticides; and as headquarters for a variety of social welfare activities. The low-cost housing projects provided cheap and modern residential accommodation on installment purchase.[12]

A NEW MOMENTUM IN VOLUNTARY EFFORT

A chain of voluntary social welfare committees was established on all levels. Their functions were: to organize and promote welfare activities in their respective areas; to supervise, coordinate, and evaluate the work of all voluntary agencies; and to assist in combatting social evils and in popularizing a self-help spirit among the people. These committees were also charged with founding special funds for the rehabilitation of financially handicapped individuals and families.

Both public and private sectors of the provincial social welfare programs—especially those meant for the rural regions—had long since been suffering from various limiting factors, the primary ones being a lack of trained personnel, organizational ineptitude, and occasional misuse of funds; there had been, moreover, little diffusion of social awakening among rural local bodies because the responsibility for social development had been too closely centralized in government departments. The new measures that were set up for the voluntary social welfare committees aimed to promote favorable conditions for the utilization of voluntary workers and to create welfare funds for the larger good of the rural masses.

Among the voluntary organizations were a number of religious organizations, which had already initiated drives against social evils. Some of the most effective campaigns in the north were organized in the villages of Peshawar by the Pir Sahib of Manki Sharif and other religious workers; their endeavors achieved fair success in diminishing litigation and factional rivalries and in diverting rural energies to constructive pursuits. Similarly, a number of non-Muslim religious organizations also undertook useful projects.

DEVELOPING THE VILLAGE WOMEN

Whereas women residing in the urban areas have access to academic, training, and development facilities, their rural counterparts, being relatively neglected, have very little of it. In order to correct this situation, efforts were shown toward the social and cultural development of rural women. Such efforts, at first, were sporadic, as were those

in several villages during the First Plan period; but they became systematic later, as were those in the systematic projects that were initiated at several levels during the Second Plan period. The divisional council at Lahore, for instance, is reported to have conducted several successful experiments in running women's social centers under the Intensive Development Areas Scheme. The wide range of subjects in which training was imparted at these centers included: sewing, knitting, embroidery, cottage industries, home management and economics, food, nutrition, child care, health, sanitation, family planning and social adjustment, and rural women's welfare problems.[13]

According to the findings of the people who have worked with the scheme mentioned above, the major problems of rural women are: (1) the widespread currency of superstitious beliefs and frivolous customs; (2) a lack of adequate pastimes and remunerative activities; (3) a paucity of appropriate recreational and health-promoting facilities; (4) a lack of training and guidance in socially wholesome forms of everyday living; and (5) an absence of assistance and cooperation from nation-building departments, voluntary agencies, and even from the rural women themselves for the success of programs aiming at their social and cultural amelioration.[14]

In 1965 a specially appointed subcommittee reviewed the functioning of these centers and recommended the organization of similar centers in other divisions of the province. Their recommendation was further discussed in a seminar held in March, 1965, which made a survey of the problems of rural women and which resulted in an outline for another project for the social development of rural women. The outline covered the following aspects: setting up of the multipurpose Rural Women Development Centers at the village level; selection and training of female workers; coordination between social centers for women, all relevant government departments, and voluntary social welfare agencies; and integration of social welfare projects with family planning, health education, and vocational training. The seminar recommended also that a separate organization, to be known as the Project for the Social Welfare and Development of Rural Women, be established to assure adequate execution of the project.

Impact of the New Movement

Backed by liberal official patronage, the institution of Basic Democracies remained a powerful instrument for the social, political, and economic growth of rural communities for quite a long period of time.

Although, with the political evolution of the Pakistani masses, the new system started to register a steady decline despite the frantic efforts of President Ayub Khan to arrest its unpopularity and opposition, some critics claim that the new system was instrumental in creating mass awareness of rights and liabilities and the growing reliance of the rural communities on their own potentialities and resources. Hostile criticism notwithstanding, the collective impact of the new movement on rural life and economy is claimed to merit considerable credit.

EXTENSION IN SCOPE OF POLITICAL ACTIVITY

Prior to the formation of the Basic Democracies, the concept of political activity had been narrowed down to mean group formation, political canvassing, electioneering, and all the patent techniques of grabbing power. That concept was extended by the Basic Democracies to embrace social, cultural, and economic development as integral components of the new political theory and practice. Under that concept, a Basic Democrat was supposed to be the initiator and coordinator of all developmental activity in his village. Such an extension of political activity wherever applied sincerely was responsible for stimulating wider public interest in rural affairs. Even the humblest villager was made to believe that he mattered and that the management of rural affairs was not a monopoly of the privileged landlords. In many instances villagers of humble origin assumed leadership over landlords and other well-to-do persons whom they defeated in open elections. By breaking the hegemony of select families and hereditary feudal lords, the new system endeavoured to give birth to a classless political structure, which is now assuming a more refined shape under the wave of the new awakening.

It is further claimed that the extended concept of political leadership was also instrumental in expediting development programs. With the ousting of corrupt politicians, callous leaders, and their accomplices from the administration and their replacement by honest and hard-working representatives of the people, the possibilities for wastage and dissipation of funds are claimed to have been diminished. The pace of development projects, moreover, was further reported to have been accelerated by the rising tide of voluntary endeavour supplementing official resources. Although this claim carries some material weight the rivals allege that the institution of Basic Democracies was responsible for the emergence of a new cadre of corrupt bureaucrats, unscrupulous

politicians and greedy industrialists who flourished under official patronage.

IMPETUS TO SOCIAL REFORM

In the past, the purpose of many development programs was defeated by the barriers of irrational tradition and superstition;[15] social rigidity and conservatism characterized practically all sectors of rural society. The big landlords held tenaciously to their feudalistic complexes marked by callousness, indifference, oppression, and tyranny. On the cultivator's side, ignorance and rigidity played havoc. Under the yoke of perpetual oppression and deprivation, the poor peasantry had lost all hope for a better future based on individual effort. The picture was blurred further by a multiplicity of extravagant customs and frivolous traditions penetrating deep into the social fabric of rural life. On both gay and grim occasions the propelling force of custom and tradition would often drive the villagers to extravagance and irrationality and to a social life characterized by factionalism, crime, and litigation.

Rural social life was thus on the verge of disintegration when the new system endeavored to make a planned attack on social inadequacies in the rural setup. Through mass social education media, the irrational core of rural tradition, superstition, and rigidity was softened. By organizing welfare committees and rural clubs and by highlighting the utility of mutual understanding and cooperation, the system endeavored to usher in a new era of social health and equilibrium. Belief in the indispensability of a harmonious community life and congenial family relations was further strengthened by the rural arbitration and conciliation courts established under the Muslim Family Law Ordinance and the Conciliation Court Ordinance.

Such and similar developments are claimed to be responsible for a decrease in the number of cases of tension, strife, conflict, and litigation in rural regions; and, with further developments from other and diverse sources, this phenomenon has had a far-reaching impact on village life. The recent peasant demonstrations, which were backed by the students, lawyers, and political organizations, have carried the task further which the Basic Democracies system had either left untouched or failed to fulfill. Consequently, the improved social equilibrium now tends to accelerate fully the developmental pace of various schemes designed to make the villages better places to live in. In expanding the social services today, the emphasis is no longer placed solely on human-

itarian rescue work; for there is today a deliberate effort to link all social welfare projects with cultural and economic development.

CHANGING ROLE OF THE OFFICIAL

During the days of colonial rule the gulf between officials and nonofficials had been so abnormally widened that both parties had begun to harbor mutual ill will and suspicion, and this lack of understanding and cooperation lingered on to a considerable extent even after Independence. In contrast, the new system claimed to provide for a partnership between government officials and people's representatives in the planning and execution of a variety of projects. The village officials in the system were supposed to cease functioning as indifferent administrators and autocratic rulers.

The new system endeavored to provide for free intermingling and cooperation between both parties in practically all sectors of rural administration.

> Basic Democracies provide a platform for maximum collaboration between government officials and the public and coordinate administrative efforts of different departments at all important levels. By providing a common assembly at these levels, the distance between the government officials and the public tends to tone up the efficiency of local government and soften harshness of bureaucracy. It has created self-confidence among the people and has rendered the actions of officers of government departments subject to the searching scrutiny by the people which was hitherto unknown. The immensity of this change in a society where government officials have played a very dominant part and where the villagers have displayed only patience and endurance in the past cannot be overemphasized.[16]

Having had further growth in the political awakening, which has received added impetus after the recent political upsurge, the correct image of the precise role of the government official has now emerged far more clearly.[17] The changing role of the official is having far-reaching effects on the rural economy: The pace of development has been accelerated; the chances of inefficiency, bribery, nepotism, and corruption minimized; and lack of understanding and goodwill between the government and people eliminated in a most pragmatic way to the benefit of both.

ANSWER TO RURAL INADEQUACIES?

A study conducted as early as 1960 by the Social Sciences Research

Center of the University of the Panjab[18] claims that the villagers had developed a working familiarity with the constitution and functioning of the Basic Democracies; and that the rural communities were developing a positive attitude towards the system and were putting great expectations in it for the solution of their everyday problems.[19]

Nevertheless, the path that the new system had trodden was never without opposition. Outbursts of violence and unpleasant incidents had occurred during elections and even in the course of having the development programs carried out. In contemporary Pakistan, especially in East Pakistan, the mass reaction to the Basic Democracies does not seem to be favorable any longer, and although constitutionally still valid, the system seems to have crumbled down like a house of cards. The nation now seems to be in an aggressive and more serious search for a more pragmatic and satisfying answer to rural inadequacies. It is needless to emphasize that such instances of upheavals in public opinion are expected and even inevitable when revolutionary experiments and follow-ups designed to bring about social, political, and economic changes are under way.

CHAPTER 7

Rural Health Programs

ORGANIZED rural health services were not generally available in West Pakistan before the advent of the Second Plan period (1960–65), because the health authorities of the post-Independence period remained preoccupied with the urban population. The Constitution of Pakistan, however, had laid emphasis on the provision of adequate medical facilities for every citizen,[1] and as time passed the realization grew that negligence in the provision of rural health facilities was not only repugnant to the Constitution but also contrary to the ideology of a welfare state based on the principles of Islamic socialism. Consequently, priority began to be assigned to rural health problems during the Second Plan period.

Some of the significant problems which were spotted for attention were: the lack of vital statistics, poor sanitation, high infant and maternal mortality rates, malnutrition, the dearth of school health services, the paucity of public health laboratories, widespread incidence of communicable diseases, inadequate preventive and curative facilities, the threatening population explosion, and the apathetic attitude of rural communities towards their own health and well-being.[2]

At the root of most of these problems is the shortage of qualified medical personnel, which Pakistan has experienced for many years and which is mainly responsible for the imbalance in the distribution of doctors in Pakistan. The large urban areas have as many as one doctor to seven hundred persons; in the rural areas the ratio is one for ten to twenty thousand. The rural health situation is further complicated generally by the large number of doctors who leave the country every year to seek alluring employment abroad; and specifically by the fact that most of the doctors are reluctant to work in villages owing to a multiplicity of factors: (1) Doctors posted in rural regions are ranked under class I service, which has inadequate financial status. As com-

pared to his urban counterpart the rural doctor has little scope for private medical practice. (2) Working conditions in rural health centers and referral hospitals leave much to be desired: investigation facilities are inadequate; not enough medical equipment and trained personnel are provided; and competent supervision and guidance are completely absent. When posted to such an unstimulating place, the young doctor finds himself in a blind alley and soon starts to feel bored and frustrated. (3) General living conditions in the rural areas are not satisfactory. Modern technological conveniences like electricity, quick transport, and telephone are not readily available, and the social life is devoid of charm for an accomplished young man. Rural health centers and dispensaries, therefore, hold little attraction for the sophisticated medical graduate accustomed to an urban style of living.

During the Second Plan period, attention began to be paid to these and allied inadequacies pertaining to rural health. First of all, the 1960 Medical Reforms Commission presented an outline of radical changes in the following areas: medical education, health personnel, curative and preventive facilities, nursing, equipment, buildings, administration, and finance.[3] Secondly, the Primary Health Centers Scheme was initiated, also in 1960, which provided a network of health centers in the villages, each center consisting of a primary unit and three subcenters that provided medical coverage to a population of fifty thousand on the average. The staffing and budgetary allocations for each rural center, moreover, were designed to provide integrated preventive and curative medical services to the village population, who had been hitherto neglected even if they had constituted a clear statistical majority of the total population. The rural health programs under this scheme have enjoyed the cooperation of the following organizations: the United Nations Children's Fund, the World Health Organization, and the International Cooperation Administration.

In the past the health staff assigned to rural centers had been overburdened with curative work and thus had little time for preventive programs. To meet this situation and to make the village health centers more effective, a pilot project has been initiated at Sheikhupura to study various approaches for developing balanced and integrated health services in rural areas. Integration of the malaria and smallpox eradication programs, school health, and maternity and child care projects with the rural health services are also being carried out.

Attention is being paid also to the social and professional problems of the rural health staff. The Pakistan Medical Association, for example,

is following improved ways of promoting a planned dispersal of doctors through the rural regions; and is linking the rural health centers with medical colleges and referral hospitals to rotate medical graduates through the rural health centers during the period of their internship instead of being posted exclusively at the urban hospitals attached to medical colleges. The latter step is expected to raise the quality of health services and to provide an incentive for working in them. The private sector is being persuaded to share the financial implications of these measures.

Rural Health Services

At the time of Independence facilities for the training of doctors were very meager: there were only two medical colleges in the province, one at Lahore and the other at Karachi. At present, however, there are six medical colleges, each with a teaching hospital attached, that have a combined yearly output of nearly eight hundred graduates. One of these, the Fatimah Jinnah Medical College at Lahore, is devoted exclusively to the training of women doctors. Also in Lahore are post-graduate training facilities, at the King Edward Medical College and at the Institute of Hygiene and Preventive Medicine, and one dental college. Another institution for the training of dental surgeons has been established as a full-fledged department in the Liaquat Medical College, Hyderabad.

Great strides have been made also in the development of training institutions related to medicine, as described below: Institutions for the training of nurses total 21, with an annual average admission of 275. The number of registered nurses stood at 4,055 at the end of 1968. The number of the schools for the training of women health visitors rose from 1 at the time of Independence to 5 towards the close of 1968. The total annual admission capacity of these training schools is 195. Towards the close of 1968 the number of qualified Lady Health Visitors stood at 1,532. There are now 16 institutions for the training of mid-wives, the total number of the midwives trained so far being 559. Arrangements for the training of paramedical staff are also improving. Two health-technician schools have been established at Bahawalpur and Quetta for the training of various categories of health technicians for rural health centers. During the past years quite useful work was done by American Peace Corps volunteers in improving the rural health situation, especially in the training of nurses.[4]

The continuous process of expansion and improvement of existing

training facilities has eased considerably the problems of staffing the rural health services.

MEDICAL UNITS FOR VILLAGES

In past years the distribution of health services between urban and rural areas was uneven, the urban areas receiving most of the benefits. A rural health program designed to correct this imbalance is now being actively carried out. The program consists of a network of health centers, which are located throughout the villages, one such center serving the needs of forty to fifty thousand villagers. These centers are controlled and guided by *tehsil*-headquarters hospitals, which in turn have the technical assistance of divisional-headquarters hospitals; and these divisional hospitals are being linked with medical training institutions in the cities.[5]

To each rural health center is attached a primary unit and three subcenters. The primary unit is manned by a male and a female doctor, a health visitor, laboratory technicians, and other auxiliary staff. Besides providing preventive and curative medicine to the villagers, a primary unit attends to problems pertaining to such areas as maternal and child health, family planning, environmental sanitation, prevention and control of communicable and infectious diseases, inoculation, vaccinations, health education for the general population and schoolchildren, and compilation of rural health statistics.

So far eighty-five rural health centers—centers that are carrying the benefits of modern medical research to the remotest villages—have been organized; and they will be backed up, during the Third Plan period, by two hundred new centers and by two hundred existing dispensaries that will be upgraded to function as rural health centers. The successful functioning of these centers depends partly on financing and interest. As in many other rural programs, here, too, the Rural Works Program has proved quite helpful by contributing financially and by stimulating the village communities to participate actively in the rural health projects.

Apart from these centers, a number of hospitals, clinics, dispensaries, and maternity and child health centers are also operating in the villages. Table 17 shows the type and number of medical units that were functioning in the provincial villages towards the close of 1968.

SCHOOL HEALTH SERVICES

In 1960 the Report of the Medical Reforms Commission empha-

Table 17: Medical Units in Rural Areas in 1968

Medical Units	*Number*
Rural health centers	85
Hospitals	117
TB clinics	3
Maternity and child health centers	131
Dispensaries	1,283
Mobile dispensaries	54

sized the urgency of providing adequate health services for school-children.[6] This need for school health facilities is even greater today because of the rapid expansion of educational facilities in rural areas that has taken place since. Unfortunately, however, appropriate facilities are still lacking even in most of the urban schools. At the close of the Second Plan period, only fifteen school health service units had been added in the whole of the province.

For similar reasons, the scope of maternity and child health services has been limited to the juvenile population below the age of five. The medical profession is strongly in favor of altering this policy, and proposals are being examined to extend the scope of these services to include all children up to the age of fifteen. Should this proposal pass, the coverage of the services would be extended to the entire school-age population.[7] As a step in this direction, the provincial Health Department has recently undertaken a project for the establishment of regular school health services through the maternity and child health centers and the rural health centers. A number of school health clinics have also been established, each clinic looking after five to eight thousand children. The current Plan envisages expansion and improvement of the existing facilities.

School health services now do not cover the socially, emotionally, and physically handicapped children. Only rarely do a few privileged rural children suffering from these handicaps get the opportunity to be referred to the mental hospitals, psychological clinics, guidance centers, and other specialized institutions located in big cities. Such facilities, however, are very meager even in urban areas. In view of the present economic conditions, however, establishment of comprehensive health services covering various juvenile handicaps can hardly be expected soon.

PREVENTION AND TREATMENT OF COMMUNICABLE DISEASES

The war against communicable diseases occupies a significant place in the Health Department's charter of functions, for the adverse effect of these diseases on the physical efficiency and agricultural productivity in the rural communities is all too apparent. The more common and detrimental of the communicable diseases affecting the villagers are malaria, tuberculosis, enteric fevers, dysentery, diarrhea, smallpox, worm infestations, and trachoma. The inadequacy of rural health services, heightened by poverty, ignorance, superstition, and apathy, poses a serious challenge to all programs attempting to control these maladies. In rural regions they are still known as pests and plagues and fill the minds of the villagers with horror.[8]

Malaria eradication program. Malaria continues to be the major health problem of rural West Pakistan, for about five to eight million cases of malaria, resulting in one and one-half to two million deaths, occur annually in the provincial villages.[9] Many of the villages in the vicinity of Gujrat, Gujranwala, Lyallpur, and Sheikhupura are highly malarious due to waterlogged tracts, riverbeds, irrigation canals, and storm channels.[10] The highest seasonal prevalence is in April, May, and June and again in September, October, November, and a part of December. These months are agriculturally significant, being the sowing and harvesting periods for the main crops of the province, wheat and rice. An ambitious program, launched in 1960–61, to eradicate malaria over a period of fourteen years at a total cost of 325 million rupees is now progressing in the villages of forty-six districts of the province; the rural health centers play a significant role in speeding up the pace of this program.

Tuberculosis-control measures. Another major public health problem is tuberculosis, which kills an estimated sixty to seventy thousand persons annually in the rural areas of West Pakistan. (The mortality rate is about 0.2 per cent, with the incidence rate estimated at 4.8 per cent.)[11] This scourge is more marked in those villages that are either near large industrial cities or connected with them through modern communications media, the incidence and mortality rates being even higher in the crowded and socially stressed urban areas.[12] There are 6 TB sanatoriums, 12 hospitals, and 75 clinics in the urban areas of the province, but only 3 TB clinics, in the rural regions. In view of this situation, the Health Department and the National Tuberculosis Association of Pa-

kistan more and more are paying attention to the rural sector, in particular to the providing of adequate hospital and BCG vaccination facilities, especially for children up to the age of ten.[13]

Steps against other maladies. Measures are being taken to control the incidence of typhoid and paratyphoid fevers, cholera, smallpox, worm infections, trachoma, and other diseases that commonly occur in the villages. Recent drives to rid the villages of houseflies, mosquitoes, stray dogs, and rats have borne encouraging results. Rural water-supply, drainage, and sewerage schemes, and other health engineering measures have also gone a long way in bringing down the appalling morbidity and mortality rates. Effective prevention and treatment of the intestinal, abdominal, and other water-borne diseases not only has improved rural health but has also made it possible to save a large portion of the foreign exchange which used to be spent on the import of drugs.[14] Cleanliness drives under the auspices of the provincial Cleanliness Council are proving effective in helping the preventive programs achieve their objectives.

RURAL QUACKS AND THEIR MEDICAL MATERIAL

Despite all official and voluntary effort to promote rural health, quacks and quackery still continue to hold sway over a sizeable section of the village population. In a study conducted in the villages of the Lahore district, it was learned that 63 per cent of the villagers relied on strange varieties of "home treatment" for common ailments and sought medical advice only in cases of serious illness.[15]

Some of the indigenous remedies commonly used by villagers are rather interesting. Malaria is treated with anise seed and black henbane seed. For typhoid a mixture of milk, sugar, and pepper is a favorite prescription; an amulet or charm is also recommended, as is squirting goat's milk over the patient's head. Ashes of banana leaves mixed with sugar, *ghee*, or ginger are a medicine for whooping cough; all sour things are prohibited. A bad cold is treated with curds or curd-milk (*lussi*) mixed with salt and pepper. Dysentery is treated with rice, curds, and banana mixed with a beverage prepared from leaves of the jaman tree or sago. The popular treatment for cholera is a combination of onion juice, an indigenous medicinal flower (*gulqand*), and mint or cardamom. Mustard or sesame oil is massaged on the chest of a pneumonic patient. Bloodletting is also practiced. Stomachache is treated with anise seed boiled in milk, essence of lemon, salt, and lemon soda or digestive salts (*chooran*). A common remedy for itch is massage with mustard oil

(*taramira*) or a dose of the same oil after breakfast. In some cases an ointment of sulphur is applied, and a bath with muddy water is recommended. For the healing of wounds and injuries, alum ointment and turmeric or burnt cloth mixed with oil is applied. Some villagers also apply dirt from a ginning, oil-crushing, or sugarcane-crushing machine. A headache is treated with tea or milk and even with a specially prepared amulet. Favored prescriptions for boils include indigo mixed in water, dirt from a ginning machine, leaves of the shisham tree, and abbasi flower petals.[16]

Often the villagers who profess extraordinary efficiency in the knowledge and administration of these odd species of medicines come to wield enormous influence over rural communities. The main factors responsible for the popularity of rural quacks and quackery are obviously the shortage of appropriate health services, the paucity of medical know-how among rural masses, and rampant ignorance and poverty. With increased provision of health facilities, expansion in rural health education, and the spread of general education, the hold of quacks and the popularity of their novel prescriptions are declining fast. Moreover, with further advances in homeopathy and the indigenous systems of Unani and Ayurvedic medicine and with the consequent availability of medical remedies at cheaper rates, rural quackery is bound to dwindle.

Educating Villagers for Healthful Living

A feature that is common to all developing countries of the world is the lack of health consciousness amongst rural communities. The villagers of West Pakistan are no exception; mostly unsophisticated and ignorant, they usually resist any drastic change in their style of life, many of whom showing no urge to follow the basic principles of healthful living. Such an indifferent attitude of the people accounts in large part for the failure of many an official and voluntary project designed to improve their lot. A dynamic and comprehensive health-education program aiming at producing a radical change in villagers' attitudes towards matters of personal and environmental health is obviously the right answer to the problem. A well-planned health-education program not only serves as a reliable base for all other rural health activities but also averts heavy, unnecessary investment in curative measures.

EXPANSION IN HEALTH-EDUCATION SERVICES

A comprehensive school health-education program could not be

initiated during the First Plan period because there were not enough trained health educators. Health education gained new impetus, however, when the Health Department was reorganized in 1962, and created six health education units, one each for the six regions, namely, Peshawar, Lahore, Sargodha, Khairpur, Hyderabad, and Quetta-Kalat. The technical staff of these units was given preliminary training at the Institute of Hygiene and Preventive Medicine, Lahore, and was sent to the American University, Beirut, for further training. These units are now operating in their respective regions through their health educators, who organize popular talks and demonstrations in the union councils on such subjects as: proper use and maintenance of latrines, hand-pumps, wells, compost pits, and general sanitation. In order to facilitate their functioning, a separate Directorate of Health Education is now being set up.

The current Plan assigns due priority to problems of health education. "One of the principle objectives of the Third Plan health program is the promotion of training in modern health education techniques which will be organized for health workers as well as for teachers and those community development personnel who are required to deal with health problems."[17]

A number of voluntary agencies are also active in this hitherto neglected field. The Tuberculosis Association, the Maternal and Child Welfare Association, and the Public Health Association are each contributing to the health education of the schoolchildren as well as the general populace, and all three are producing considerable popular literature on the subject.

AN EXPERIMENT IN RURAL HEALTH EDUCATION

In 1962 the Rural Academy of Peshawar conducted a health-education experiment in Jagra, a village in the Peshawar district[18] that had a high incidence of malarial fever. The project was designed to determine the causes of the widespread incidence of the disease, to minimize its occurrence by educating the villagers in basic antimalaria principles, and to stimulate them to cooperate actively with the health authorities by adopting appropriate antimalaria measures on a voluntary basis.

The project threw a flood of light on the attitude of the rural communities towards problems of health and disease and on the obstacles that tradition and ignorance usually present to the success of prevention and treatment programs.

Experience has demonstrated, without doubt, that any program of health education which develops the abilities of people to recognize the causes of ailments and which helps the people to help themselves provides a stimulus towards the attainment of the goals of better health. People are eager to improve their conditions but lack necessary knowledge and skills. Hemmed in by tradition, often limited by religious taboos, and always operating near the brink of economic ruin, the Pakistani villager finds it difficult to embark on a program of health education that changes his usual ways of living. He, like any other careful person, is unwilling to exchange something that works, even poorly, for something that he is not sure will work at all. The villager, taught by his forefathers, does not like to experiment with new and unproven things.[19]

The engineers of the project discovered, in other words, that, although hindered by tradition, the villagers could often be successfully motivated to experiment with new ideas if their practicality could be demonstrated. Experiences in DDT spraying gave evidence of the truth that if convinced of the utility of a new measure for better health the villagers will usually exhibit extraordinary zest in carrying it out, even on a self-help basis.

Health Campaigns and Village Life

The rural health programs have brought about a subtle change in the life and attitudes of village communities. Although no specific study has yet been conducted on the subject, all available indications confirm that the rural war on disease has been fairly effective and will become even more fruitful as health programs become further expanded during and after the current Plan period.

RISE IN EFFICIENCY AND PRODUCTIVITY

Until not too long ago, disease and ill health were a common sight in rural regions. But as a result of the Health Department's drives against diseases, the incidence of disease and mortality is now registering an appreciable decline.

A criticism has sometimes been levelled against this development that the decrease in infant mortality, the rise in life expectancy, and the increase in the number of aged persons have aggravated the population imbalance. Although such a line of thought is devoid of all humanitarian considerations, it merits examination.

Perhaps a reasonable answer lies in the fact that the Health Department is paying equal attention to family-planning projects and that the

advantages of the new health services far outweigh the disadvantage of population imbalance. The decreased incidence of disease and the resultant improvement in health and physical fitness have enabled the average farmer to approach his domestic problems, field operations, and community affairs with new vigor and enthusiasm; i.e., his improved health and physical vitality have generated in him a new concern for his home and the problems connected with his home life. Likewise, his interest in sanitation, in interior decoration, and in the care and development of children has also been aroused. And the enlightened approach shown him towards family planning is adding to the health and happiness of the rural family as a whole. The benefits of increased physical vitality has been shown in another way, namely, greater agricultural productivity: the loss and wastage resulting from the farmer's absence from the fields or from defective farm operation caused by physical disease or debility have decreased considerably. Better livestock health has also affected the quality and quantity of agricultural output.

The most spectacular impact, however, has been on community life. There is a visible increase in the demonstration of comradeship, mutual goodwill, and cooperation. The enthusiastic way in which villagers are helping each other and are extending active cooperation to the health staff in spraying DDT, inoculating children, launching cleanliness drives, and carrying out other vital health projects on a self-help basis has no precedence in the history of rural development.

ATTACK ON TRADITION AND SUPERSTITION

The pre-Partition village was an isolated unit, completely cut off from the towns. But post-Independence developments have changed this picture. For example, the education programs that have been introduced into the rural communities have destroyed their social and cultural aloofness; and the adult-literacy centers have affected the villagers into favoring all activity directed towards their betterment.

Having had such a congenial background, the health programs have been fairly effective in breaking through the age-old rural tradition and superstition about human health and hygiene. More and more villagers are beginning to realize that diseases have causes that are well within human control—that they are not manifestations of divine wrath. Similarly, on the remedial side, they are learning to rely more and more on standardized means of prevention and treatment rather than to resort to quackery or resign themselves to fate.

The spectacular results achieved by the health programs have led

the villagers to think that the concept of causation as applied to physical health can also be profitably applied to matters in the social, cultural, and economic fields. Although the deeply ingrained tradition and superstition have offered some resistance to this causal outlook, thereby slowing the progress of a few developmental activities, the hold of such resistance has been small. In contrast, the effect has been notable of the lifting of the veil of mystery and uncertainty shrouding many everyday events, because all types of endeavor, pleasant and unpleasant, productive and unproductive, have begun to be interpreted in understandable, accountable, and even predictable terms.

NEED FOR A RURAL MENTAL-HEALTH PROGRAM

No survey has yet been made of the incidence of emotional maladies and psychological breakdowns amongst rural communities, but this much is known—an unfortunate truth—that financial considerations stand in the way of an adequate provision of mental-health services in the villages, although the Medical Reforms Commission has emphasized the vital significance of mental health.[20] Consequently, though rural conservatism, tradition, and superstition are losing their hold where physical health is concerned, they are still the basis of popular treatment where mental health is concerned.

There has been, however, a growing feeling among health experts and social workers lately that an effective rural mental health program is vitally needed to accelerate the pace of the socioeconomic revolution under way in the villages; this feeling has resulted in the formulation of the Total Health Endeavor Program (THEPRO), which endeavored to cover all aspects of the health complex. However, owing mainly to financial and technical considerations, the program was dropped and substituted by a more comprehensive and practical program, namely, the Rural Health Program, under which pilot projects and experiments are now progressing fairly well in a number of selected villages of West Pakistan.

CHAPTER 8

Developing the Farmer and His Farming

IN MANY developing regions of the world, agriculture still occupies a conspicuous place in the national economy; in Pakistan it is the most vital and most popular occupation: in the context of world crop production, Pakistan is first in jute, third in rice, sixth in cotton, and tenth in wheat.[1] Says Bakhash:

> The primacy of agriculture in Pakistan's economy is clearly established by a number of indicators. It is the largest single contributor to the Gross National Product (46 per cent), provides 75 per cent of the population with employment and accounts for 73 per cent of the foreign exchange earnings from exports. The agricultural sector, while supplying many of industry's requirements for raw materials, consumes 80 per cent of its finished goods. Agriculture is and will continue to be the major source of provincial government revenues. To quote from the Revelle report: "Whether one considers population count, contribution to national income, markets for industry, the supply of raw materials or products for export, agriculture is the base and farmers are the foundation of Pakistan's economy."[2]

In fact, farming is the only hope for better future and agricultural economy, and, therefore, matters to everyone in Pakistan.

West Pakistan, as is East Pakistan, is basically an agricultural unit with 77 per cent of the population deriving their livelihood from farming. Even the urban population engaged in commerce and industry depends on agriculture for the supply of essential raw materials. Hence, the fullest development of agricultural resources is vital to the survival of the urban as well as rural population. A planned development program, therefore, must assign a perspective emphasis to the agricultural sector. Unfortunately, however, during the initial years following Independence, this important point had been lost sight of and neglected amidst the feverish enthusiasm for industrialization; consequently, no

effective measures were adopted to arrest the migration of a large and influential section of rural society to industry and big towns. Bereft of rural leadership, the farmer, backbone of the agricultural economy, was unable to fulfill his potential role in national development. In other words, the decade preceding the Second Five-Year Plan registered considerable stagnation in agricultural output.

The Second Plan period (1960–65) was characterized by a heartening increase in gross national products, the progress of agriculture during this period being one of the most spectacular aspects of the entire developmental effort. And it is the accumulated agricultural momentum of these years that the objectives and strategy of the Third Five-Year Plan intend to take advantage of. Realizing more surely than ever before that agricultural progress is the *sine qua non* of a sound economy, the government is now according first priority to agriculture and is waging an all-out war on agricultural problems. Because of this effort, agricultural productivity and the per capita income of the farming community have begun to show a steady rise, and if the current pace of progress continues, the avowed targets of self-sufficiency in food and promotion of education among the rural masses are bound to be attained within the Perspective Plan period (1965–85).

Various aspects of the changing strategy for West Pakistan's agricultural development are highlighted in this chapter: (1) the dynamic programs of the Agricultural University at Lyallpur; (2) the efforts to boost productivity made by the Department of Agriculture and the Agricultural Development Corporation; (3) the roles of the provincial Water and Power Development Authority and the Department of Irrigation in exploiting the rural water potential, (4) the valuable services of the Department of Food in the storage and distribution of wheat, rice, and sugar; and (5) the various credit and cooperative facilities now available to the farming community. The discussion shall be focused on the precise contributions of these agencies and their impact on the educational and cultural life of the villages.

Raising the Agricultural Manpower: The West Pakistan Agricultural University

The Commission on Food and Agriculture, which was appointed by the Government of Pakistan in 1959 to diagnose and correct the persistent food deficits and the general backwardness of the farming community, concluded that ignorance of improved agricultural tech-

niques and the dearth of trained manpower constituted the fundamental cause of low agricultural productivity; it, therefore, strongly recommended the establishment of at least one agricultural university in each of the two wings of the country.[3] The proposed universities were to train agricultural scientists, technicians, and skilled workers who could act as agents of a rural revolution inspired by modern agricultural technology.[4] Because the Commission on National Education had made a similar recommendation,[5] the West Pakistan Agricultural University was established in November, 1961, around the facilities then available at the Agricultural College and Research Institute at Lyallpur.

The university has an agricultural educationist as its vice-chancellor. Its academic staff consists of 50 teachers with doctor of philosophy degrees; 243 teachers, with master of science degrees; and 180 qualified instructors. Equipped with the most modern agricultural laboratories, practicing farms, and library facilities, the university functions on a fourteen-hour-a-day schedule, and it now has an enrollment of nearly four thousand students.

During the eight years that the university has been in existence, it has established three things: (1) five faculties—agricultural science, agricultural engineering and technology, animal husbandry, veterinary science, and agricultural economics and rural sociology; (2) one division of basic sciences and arts; and (3) one institute for the training of teachers and organization of extension lectures and short courses. A student is free to take the courses of his choice (there are 253 term courses, 201 annual courses, and 73 short courses) in the appropriate constituent faculty, division, or institute, within the limits prescribed by the academic regulations of the university and within his academic program level, for there are three academic program levels: the postgraduate, the undergraduate, and the diploma and short course.

The postgraduate level. The program for the postgraduate level is designed to train agricultural scientists, research workers, and specialists and is subdivided into two sublevels: (1) the early postgraduate, leading to the master of science degree, and (2) the advanced postgraduate, leading to the doctor of philosophy degree. The master of science degree is offered in twenty-four fields. A student has to complete advanced courses of study incorporating 650 instructional hours and a research project that forms the basis of his thesis. The doctor of philosophy degree is awarded in nineteen fields. A doctoral candidate is expected to attend advanced courses for 500 hours in addition to

those prescribed for the master of science degree. He is also required to do original research and submit a dissertation. Also included in the postgraduate program is a one-year course leading to the master's degree in agricultural education, which was instituted to train teachers of agriculture for the secondary schools.

The undergraduate level. The program for the undergraduate level offers courses of study leading to the following degrees: (1) bachelor of science (honors) in agriculture, requiring five years of work after matriculation; (2) doctor of veterinary medicine, requiring a six-year postmatriculation program of study; (3) bachelor of science in agricultural engineering, involving six years of work after matriculation; and (4) bachelor of education in agricultural education, requiring one year's study after graduation in any agricultural discipline. The course in bachelor of education covers agricultural education, science education, and extension techniques.

Diploma and short courses. The program for the diploma and short courses is specially designed to enlighten practicing farmers on the latest developments in agriculture and related fields and to train practical technicians and skilled workers of intermediate level. These courses, totaling seventy-three and open to the public, vary in duration from one week to two years, most of them being offered in the evenings or during vacations.

The university has, in addition to the above, a research program called the Directorate of Advanced Studies and Reşearch, which is responsible for the development, coordination, and supervision of higher research. The university's current research falls into two broad categories: postgraduate student research and faculty research. Owing to the diversification of courses and expansion in teaching departments and a corresponding rise in student enrollment, the number of research projects increased from 100 in 1961 to 701 in 1968. Results of the research projects completed during each year are published in the university journal, *Research Studies.*

An important wing of the directorate is the Ayub Agricultural Research Institute, which, apart from conducting advanced research, holds occasional "Field Days" as well when research experts and practicing farmers get together in a mutually enlightening exchange of knowledge and experience.

Of the three things established by the university thus far, as mentioned earlier, the Institute of Teacher Training, Extension, and Short

Courses needs further explanation. This institute is made up by three departments—Teacher Training, Agricultural Extension, and Short Courses—and its objectives are: (1) to train students in agricultural extension work; (2) to provide facilities for postgraduate work in the field of agricultural extension; (3) to develop agricultural extension cells in all teaching departments to make available to farmers the results of studies and research in every specialized field; (4) to develop liaison with the farming community to relate the university work to needs; (5) to organize various programs for the training of agricultural teachers; and (6) to arrange informative courses for the general public.

Teacher training. Keeping in view future needs and resources, the Department of Teacher Training institutes programs that are aimed at producing trained agricultural teachers. Its program for a bachelor of education in agriculture offers seven courses: general and educational psychology; introduction to agricultural education, extension methods, community development, and adult education; principles of education and curriculum development; methods of teaching science and agriculture; school organization; health education; and student teaching. Its program for a master of education in agriculture also offers seven courses: history of education; education administration and supervision; introduction to guidance; philosophy of education; advanced educational psychology; educational tests and measurements; and thesis research.

In view of the acute shortage of trained schoolteachers at lower levels, the department is contemplating the institution of a training program for intermediate-level agricultural teachers. A short program of in-service training for teachers already engaged in various agricultural teaching jobs in the provincial schools is now being developed. A laboratory school for student teachers has also been constructed.

Agricultural extension. The Department of Extension works closely with the farming community through its specialists, who are provided with facilities by the department to carry out a searching study of all problems, discovery of effective solutions to them, and dissemination of agricultural and general information in the villages. Having been expanded and reorganized lately, the department now provides specialist staff responsible for such specific areas as plant production and protection, animal production and health, rural home economics, communications, cooperation, and youth work.

An interesting program that has been initiated by the department,

for example, is the Student-Farmer Brotherhood Program. The students in this program visit the villages of Lyallpur *tehsil* and spend Sunday nights with the farmers, discussing concrete agricultural problems and pertinent rural affairs. On Monday morning each student brings his adopted "brother farmer" to the university and, making the rounds of various teaching departments, arranges informal problem-solving discussions with interested colleagues and specialists. The whole program is organized in such a way that twelve groups of fourteen students each visit twelve villages during the month, and twelve corresponding groups of fourteen farmers each, accompanied by their respective student partners, are shown around the twelve departments at the university. In this way one group of farmers from one village gets the opportunity of visiting one university department a month. The farming community and the mass educational activities of the university are thus brought closer together through this dynamic program.

In addition, the department also organizes adult-education classes on the university campus—there are now over five hundred adults enrolled—and publishes literacy material as well through its Mass Communication Media Cell. So far, it has published three primers, one reader, and five interesting follow-up books and a large number of pamphlets and bulletins for adult learners. An adult-education guide has been published recently that deals with various aspects of teaching literacy skills to the farmers. The Cell is also working on motivational film strips and fifty specially prepared booklets—they are based on a restricted vocabulary of 1,200 basic words—for neo-literate farmers, covering significant aspects of agriculture. The organizing of short training courses in floriculture and beekeeping has been another way in which the department has been helping the neo-literates.

A Farm Library Scheme has also been started by the Cell for the distribution of helpful literature among the farming communities. At present 542 farm libraries, started under this scheme, are operating in various villages of the province.[6]

Short courses. In order to meet the need for intermediate-level workers, the university has developed a large number of short-term courses of varying duration that rank somewhat as pilot programs in the history of agricultural education in the province. During the academic year 1967–68, the department conducted about 100 such courses having a total of 2,466 participants. The three most noteworthy in this category are: (1) a two-year course for estate managers; (2) a two-year

course for livestock assistants; and (3) a one-year course in mechanized cultivation. It is hoped that well-staffed and well-equipped agricultural technical institutes and farm schools will ultimately be established throughout the province, so that short courses may be offered on a more extensive scale.

In addition to its teaching and research programs, the university is rendering another significant service to the nation by offering opportunities to students for rural social work designed to build up their characters and to imbue them with a spirit of service. By being sent out from the University to live and work at big farm plantations, students develop insight into problems of the village community. A brief review of such rural social work programs organized by the students during the year 1964–65 is presented below:

Adult education operations. About four hundred First Year students participated in the adult-literacy campaign organized on the university campus under the "Each-One-Teach-One" program, and the senior students working in the neighboring villages under the Student-Farmer Brotherhood Program, besides bridging the gap between students and farmers, brought literacy to a number of villagers. For example, over one hundred farmers were made literate at the adult-literary center started by the students at a village on the outskirts of Lyallpur. The adult-education program has now been extended.

Afforestation work. A group of students worked for a fortnight at the Kamalia Forest Plantation. They prepared the soil, planted saplings, watered plants, and did other jobs promoting forest growth.

Smallpox vaccination. In collaboration with the health authorities of the Lyallpur Municipal Committee, the students organized a three-week campaign for smallpox vaccination during the summer vacation. They vaccinated about one hundred thousand persons in various villages around Lyallpur.

Campaign against poultry diseases. Student volunteers from the faculties of Animal Husbandry and Veterinary Science launched a campaign against Ranikhet disease in poultry. Besides training about two hundred poultry men in the art of vaccination, these volunteers vaccinated some fifty thousand birds in the areas adjoining the university campus.

Civil defense training. A group of students won the Civil Defense shield and first prize for Civil Defense Operations at the Fifteenth Students' Civil Defense Course held at Barian. This trained group is now training the other students in particular and the neighboring rural community in general in the theory and practice of civil defense.

National defense service. During the 1965 conflict with India, the entire student community rushed to the Risalewala airport-extension site and worked eight hours a day for a week, along with the villagers, digging, levelling, and laying bricks. Commendable services were also rendered in the fields of blood donation and defense fund-raising.

The academic programs and field operations of the West Pakistan Agricultural University are exercising a constructive influence on rural life and rural economy that is direct, intimate, and pragmatic. Some of the areas conspicuously affected by the University programs merit examination.

Agricultural productivity. The university's emphasis on scientific research, methodical teaching, and planned dissemination of agricultural know-how has given a new impetus to agricultural productivity. In those areas in which students conduct their experiments, crop production usually rises in quality and quantity. Similarly, modern techniques of animal husbandry and the spread of practical veterinary knowledge are gradually improving the quality of livestock. Both have resulted in the steady climb in the economic returns of the average farmer.

Agricultural teaching. The traditional pattern of agricultural education has proved inadequate in meeting the needs of adequately trained manpower, which is indispensable to all economic and technological progress. The West Pakistan Agricultural University, which was founded to meet this need, opened up a new era of professional teaching designed to train insightful agricultural scientists, educationists, research workers, and specialists in various agricultural disciplines. The establishment of the Teacher Training Department at the university and its diversified training and extension programs have brought about a dynamic reorientation in the entire field of agricultural teaching. As a result, the provincial schools, which were experiencing an acute shortage of agricultural teachers, are now being supplied with well-trained teachers appropriately grounded in the technological foundations of the

subjects they teach as well as their wider social, cultural, and economic implications; and whatever level of instruction a university-trained graduate engages in, he invariably functions as an effective agent of change and development.

Production of intermediate-level workers. One of the most serious lacunas in current patterns of agricultural training in almost all developing countries of Asia and Africa is the relative neglect of the problem of producing an adequate number of intermediate-level workers, for most of the underdeveloped countries have a surplus of college-level teachers and white-collar workers in the field of agriculture, but almost no suitably trained technicians at the intermediate level. In contrast, in the advanced societies, which have learned to exploit their technological resources to the maximum, a great deal of the burdensome routine work is carried out by men who have the diploma and other intermediate-level qualifications. By providing such a manpower, the university has fulfilled a long-standing need.

Rural education and culture. Equipped with the latest agricultural know-how, gotten through the university's extension courses and popular programs, the farmers are beginning to gain an insight into their professional problems. Adult-literacy programs and community development projects sponsored by the university staff and students are proving effective in raising the general educational and cultural level of the villagers. The Farm Guide Movement, sponsored recently by the university, meant for the training of the farm leaders in improved agriculture and community service, and patterned after such youth organizations as the 4H Clubs and the Future Farmers of America, is also proving immensely helpful in this direction.[7]

Relationship between the university and the village. The university and the farming community now seem to be bound together by a common purpose, as reflected in the entire structure of the academic and operational programs of the university, that is so designed that it is readily acceptable to, and practicable for, men and women practicing agriculture in West Pakistan. The villagers have benefited from their close association with the university through the university's mass educational activities, the best example being the Student-Farmer Brotherhood program, which is yielding spectacular results in bridging the gulf

between urban and rural attitudes and outlooks and in minimizing the technological and economic inadequacies of the average farmer.

The Government Serving the Farming Community: The Department of Agriculture

Improving the villagers' economic productivity is the primary concern and contribution of the provincial Department of Agriculture. The minister of agriculture, who is advised on all administrative affairs by the secretary of agriculture, is the supreme government authority on food and agricultural affairs of the province, which is divided into three agricultural regions—northern, central, and southern, with headquarters located at Peshawar, Lahore, and Hyderabad, respectively. Each region is headed by a regional director of Extension. Each division of the department is headed by a deputy director, assisted by five specialist officers who deal with the subjects of agricultural economics, marketing statistics, horticulture, information, and administration; and within each division is a district agricultural officer, who is helped by an assistant plant protection officer, an agricultural assistant (horticulture), and two budders. All in all, there were 563 agricultural assistants and 2,331 field assistants working in the department during the year 1964–65. Of these, the field assistants are trained at the agricultural schools, the minimum prescribed qualification for all higher-ranking staff being a degree in agriculture.

The major objectives of the department are:[8] (1) to achieve self-sufficiency in food in the shortest possible time; (2) to increase the yield per acre and also to bring as many new areas under cultivation as possible (6 million acres of cultivable wasteland and 2.5 million acres of riverain are still available for such development); (3) to accelerate production of cash crops to improve the economic condition of the farmer by ensuring a good market and fair prices for his produce; (4) to educate farmers in accepting improved agricultural practices and procedures; and (5) to raise, through the above-mentioned and allied measures, the living standards and investment potentialities of communities depending upon agriculture.

Keeping these objectives in mind, the department has launched a crusade against all existing inadequacies in the field of agriculture; it has been showing, moreover, a marked shift in recent years in the methods and media it uses in carrying out the revolutionary schemes in the areas of farms, seeds, soils, fruit development, mechanization, tube-well installation, pest and flood control, statistics, agricultural educa-

tion, agricultural extension, agricultural research, and dissemination of agricultural information. What the department has been doing in the last four areas is discussed below.

Realizing fully that professional education is vital to agricultural development and that an adequate supply of properly trained personnel is essential in achieving worthwhile results, the department improved and expanded agricultural education and training the First and during Second Plan periods, as reflected in the following official statement:

> During the Third Plan period particular attention will also be paid to improving the quality and standard of agricultural education and training in various agricultural universities, colleges, schools and training institutes. This will mean selection of competent personnel having an aptitude for teaching and research, training of local teachers abroad, and even importing well-qualified teachers from outside universities.[9]

Some of the programs run by the department in the educational sector are: (1) the two agricultural colleges at Peshawar and Tandojam; (2) the five agricultural training institutes—at Peshawar, Sargodha, Rahimyar Khan, Sakrand, and Quetta—which, apart from graduate courses, have a training program for field assistants; (3) the three agricultural schools offering a six months' training course for tractor operators at Lyallpur, Dera Ismail Khan, and Tandojam. To these may be added the plans now under way for the organization of a number of other agricultural institutions and for the training of personnel abroad.

The importance cannot be exaggerated of the role of educational extension services in agricultural development, for they affect a wide range of programs at various levels. One important role pertains to the dissemination of agricultural knowledge to farmers. For example, you will find below all known methods of educating the farmers that the department has employed through the extension services: large-scale circulation of leaflets and bulletins; holding of public motivational meetings to boost productivity; exhibition of documentary films through mobile vans; and organization of fruit and vegetable shows, exhibitions, and competitions. All have yielded encouraging results. Anti-insect sprays and effective locust- and flood-control measures, which have gone a long way in relieving the farming community of these hazards, and a horticultural development program, which have stepped up production of pedigreed fruit plants, are examples of the agricultural knowledge disseminated through the extension services.

Another role played by the extension services has to do with the mechanization of agriculture, a key to increasing agricultural productivity: the extension services, under the department, have the effective Agricultural Machinery Organization, whose major objectives are (1) to level the land by means of heavy earth-moving machinery; (2) to plough and disk the land with tractors; (3) to drill and open tube wells; (4) to operate and maintain workshops; (5) to train tractor operators and mechanics; and (6) to conduct research on the development of indigenous farm implements.[10] (This organization is now being jointly controlled by the Department of Agriculture and the Agricultural Development Corporation.)

There are now seven major agricultural workshops that are functioning in various parts of the province, providing service and repair facilities for farm equipment; and there are also a number of subshops under construction. Furthermore, various other measures to mechanize provincial agriculture are being adopted, a related fact being an increase in the imports of agricultural machinery. That 250 bulldozers and 144 wheel-type tractors were employed to level and plough about 110,000 acres of land during the year 1964–65 and that dozers and tractors were also hired out to needy growers at rates that were 50 per cent subsidized speak for themselves the extent to which acreage is being reclaimed for crop production. It might be added here that further imports of bulldozers and workshop machinery from Russia have been effected under the Rice Barter Deal.

A third area in which the department has been working hard is agricultural research, for, needless to say, a long-term development of provincial agriculture will depend ultimately on sound, indigenous research based on such agricultural techniques and technologies as are relevant to local conditions. Hence, the department now is running three agricultural research institutes at Tandojam, Lyallpur, and Peshawar; three research stations are also functioning at Quetta, Khanpur, and Dera Ismail Khan. Manned by the best available talent, these research centers are engaged in constructive work on new varieties of wheat, rice, cotton, vegetables, and fodders; high-yielding and disease-resistant seeds; horticultural plants and practices; water requirements and fertilizer-response of crops; salinity, alkalinity, and other allied soil problems; and plant maladies due to fungus or insect-attacks. Of these, the department is especially concerned with the soil problem, for it is estimated that about thirty-five thousand acres of cultivated land are lost every year because of soil erosion and gully formation. In order

to control this, the department launched two things: (1) the Rapid Soil Fertility Survey Scheme, which includes soil-survey work, analysis of soil samples, and making recommendations for the proper application of fertilizers; and (2) the Soil Conservation Project (1954), which covers improvement of existing terraces, arrangements for disposal of surplus water, use of explosives, introduction of green manuring, construction of ponds, and reclamation of land in gullies. Inspired by impressive demonstrations of the effectiveness of such practices, farmers in several villages are now reported to be undertaking more and more such projects on a self-help basis.[11]

Such a trail-blazing research effort is giving currency to new ideas and practices that are bringing increasing prosperity to the farming community as well as ensuring self-sufficiency in various commodities. The rise in yield per acreage consequent to recent research has been most pronounced in the cases of wheat, sugarcane, rice, and cotton. The cotton crop patterns have been considerably improved as a result of cotton researches. Besides increasing the economic returns for the grower, the new varieties of cotton are revitalizing the provincial textile industry.[12]

The dissemination of agricultural information is a fourth area in which the department has done a lot through the Bureau of Agricultural Information, a specialized agency for this purpose, which is staffed by trained agricultural educationists and experienced writers on rural problems. One important work of this bureau is its publishing activity. It publishes popular books and pamphlets on various agricultural subjects, including literature for the training and guidance of field workers; and also an English-medium quarterly, the *West Pakistan Journal of Agricultural Research*, and a popular Urdu fortnightly, *Zaraat Nama*, whose circulation now exceeds fifteen thousand. Right from its inception in 1961, *Zaraat Nama* has been faithfully serving the agriculturists of West Pakistan by offering easily understandable information on all professional problems; a readership survey conducted in 1963 revealed that it was highly popular with the farming community as a fairly fruitful and effective organ for the transmission of informative and educative material.[13] An example of the bureau's publication on the subject of agriculture is the helpful literature in Urdu on farming methods, cotton, rice, and sheep that was published during 1964–65; another is the new series of pocket guides for farmers.

But publishing is not the only way through which the bureau disseminates information. For example, the bureau releases to the press

Table 18: Principal Crops (in thousand tons)

Year	*Food Grains*	*Cotton*	*Sugarcane*	*Grams and Pulses*
1960–61	5,836	1,692	11,547	742
1961–62	6,274	1,823	14,130	756
1962–63	6,448	2,100	18,148	824
1963–64	6,550	2,350	16,320	816
1964–65	7,169	2,275	15,340	750

photographs, articles, and other publicity materials on the annual Fruit, Vegetable, and Honey shows and Tree-planting weeks. Another is the effective "Grow More Food" campaigns it launched, which consisted of weekly programs, pertaining to information about crops, orchards, fertilizers, and farm equipment,[14] that were broadcast from the Peshawar, Lahore, and Hyderabad stations of Radio Pakistan.

In spite of tremendous difficulties in handling the complex task of agricultural development, the department has effected worthwhile achievements in several areas. The soundness of the department's functioning is reflected in Table 18, which shows the production statistics of major crops during the Second Plan period.[15]

The department has also been successful in a model scheme called the Cash Program, in seven selected districts, which aims at improving cultivation practices to increase per-acre yield. One area in which the Cash Program has been experimenting successfully has to do with the cultivation of new crops such as jute; another is in the field of horticulture, where great strides were made, especially in the production of citrus fruits in the central region and bananas in the southern. As a result of these successes, the province now has a surplus in citrus fruits and is self-sufficient in apples and mangoes of fine quality, which is why the Export Promotion Bureau is now exploring possibilities of having increased exports of fresh fruits and preserved products to such countries as the United Kingdom, Lebanon, Iraq, Yemen, Kuwait, Saudi Arabia, Ceylon, Malaysia, Hong Kong, and New Zealand.[16]

Increased agricultural production is not the only outcome of the efforts of the Department of Agriculture, however; its efforts have brought about many changes touching all facets of the economy of the provincial villages.

Changes through mechanized farming. The increasing popularity of mechanical farm equipment is changing the entire pattern of agricul-

ture; new agricultural concepts and practices based on science and technology are fast replacing the tradition-ridden, slow, and unreliable approaches to problems of work and management. Owing to the effective reliance on tractors, tube wells, and trucks, traditional ploughing methods, cumbersome irrigation techniques, and slow-moving methods of transport are fast losing their former significance. Farm operations and management are thus improving tremendously under the impact of mechanized media of cultivation, processing, and marketing.

Rising rural morale. The growing application of timesaving and effective agricultural techniques is vitalizing rural morale. Discovering the economic utility of modern farm equipment and planned agricultural operations, people in many villages are starting ventures on a purely self-help basis—the department seems to have succeeded in instilling in the minds of the rural community the revolutionary idea that nothing lies beyond human endeavor.

Effect of economic prosperity. Economic prosperity has enabled a growing number of rural families to partake of the pleasures of modern living and to invest more and more of their rising income on health, education, and recreation. Improved health, a rising educational level, and diversified recreation in turn are giving birth to new values, new outlooks, and new hopes.

Social and political implications. Mechanical farm equipment, which once was either unknown or the monopoly of a few big landlords, is now becoming increasingly available to the farmers of modest means, because the Department, through government-subsidized schemes, easy loans, and installment buying, has tried to bring modern farm equipment to the average farmhouse. In so doing, it has struck at the roots of the few surviving remains of feudalism and uneven distribution of wealth and power in rural areas. In short, mechanization has given birth to a new rural social order and a pattern of political awakening, both of which provide a fascinating study for all those interested in the rural sociology of the fast-developing Asian regions.

In some cases, however, agricultural mechanization and the accelerated pace of rural development seem to have rudely shaken rural self-complacency to the point of upsetting the emotional equilibrium of a few of the more conservative villagers. For some deeply tradition-

ridden and uneducated villagers, the invasion of machines and the mad rush of modernized living seem to have opened up doors to discontentment, tension, and anxiety. In the official agricultural policies, therefore, due note is being taken of such unfortunate possibilities, although the momentum of rural development does not permit the inconvenience of a static minority to retard the march of a massive revolutionary process designed to yield the maximum good for the maximum number.

Beyond any doubt, the achievements of the Department of Agriculture have been commendable, the prospects for farmers being far brighter today than they have been in the past. But because the number and needs of the farming community have been multiplying at a much faster rate than the number of achievements, there has been an intensifying feeling that the needs of the farming community seem to require a far more comprehensive and revolutionary approach than that which has been used by the Department of Agriculture and which has not been able to bring forth results commensurate with the needs because of the inherent limitations of the department as a government agency.

Forging New Horizons in Productivity: The West Pakistan Agricultural Development Corporation

In 1960, the Commission of Food and Agriculture, feeling that the task of agricultural development was too enormous to be tackled single-handed by the conventional government department, recommended that a new, autonomous body be set up to boost agricultural productivity on a massive scale. The proposed organization was to be "effective, comprehensive enough to make an impression on the farmer, [and] big enough to be a force in the highest counsels of the nation; [it] should have resources which permit the development of a program matching the immensity of the problem and flexible enough to meet the variations inherent in the panorama of Pakistan's agriculture."[17] As a result, the West Pakistan Agricultural Development Corporation (WPADC) was established under the WPADC Ordinance XXV of 1961.

The WPADC is administered by the Board of Directors, consisting of a chairman who functions as the chief executive; three full-time member-directors; and the commissioner of Cooperatives as an ex officio member. Structurally, the corporation is split into four divisions: the Administrative Wing, the Finance Wing, the Supply Wing, and the Field Wing. The Administrative Wing, which functions directly under the chairman, while the remaining three wings come under their

respective member-directors, consists of the administrative secretariat, the advisors of corporation, the Planning and Evaluation Division, and the Public Relations Division. The chief coordinating authority for all administrative matters is the secretary, who functions as the main administrative channel between the corporation, on the one hand, and the central government, the provincial government, and other departments and organizations, on the other. The corporation's headquarters staff includes two advisors, one each for agriculture and irrigation, coupled with the advisory services of a seed expert from the United Nations' Food and Agriculture Organization.

In general, the corporation is fundamentally responsible for widespread introduction of what the report of the Commission on Food and Agriculture has described as the "five firsts" in agriculture: fertilizer of good quality, better seed, adequate plant protection, improved cultivation techniques, and short- and medium-term credit.[18] While each of these can singly effect considerable increase in production, it is their combined application that yields substantial results; hence, the emphasis on the need to bring them to the farmer's door as a package-deal, which is a revolutionary idea in itself, given tangible shape through the agency of the corporation.

Below are given the charter of duties assigned to the corporation under the WPADC Ordinance of 1961:[19] (1) to deal with all matters pertaining to agricultural development, including land reclamation, organization of agriculture in new colonies, planning of crop rotation, training of farmers, marketing, and organization of cooperatives and block farming in the project areas; (2) to encourage intensive and coordinated use of improved seed, fertilizers, and plant-protection material and to introduce better cultivation techniques and a sound credit system; and (3) to make suitable arrangements throughout the province on a commercial basis for the procurement, transport, storage, and distribution of essential supplies such as seeds, fertilizers, plant-protection equipment, pesticides, and farming machinery and implements. Its functions, moreover, at times extend beyond what was discussed above. It was required, for example, to take over and manage all seed-multiplication and livestock-breeding farms and fruit nurseries as were owned or managed by the provincial government. And it may also assist, encourage, and promote the manufacture of improved agricultural machinery. Furthermore, although the corporation operates primarily within specified project areas, it does extend its operation throughout the entire province in certain matters, as in the supply of

seeds and implements, for its general objective is to provide a dynamic leadership for the farming community in all aspects of their life.

The corporation fulfills most of the aforementioned functions through specific projects. For instance, there are five projects, based on a multipurpose colonization scheme, that are run by the Field Wing of the corporation. The five projects, whose common objective is to turn vast wastelands into green fields, are: (1) the G. M. Barrage Project comprising over 2.8 million acres; (2) the Gudu Barrage Project, 2.7 million acres; (3) the Taunsa Barrage Project, 1.2 million acres; (4) the Thal Development Authority, 1.6 million acres; and (5) the Soan Valley Land Improvement Project, 3.0 million acres. Of these, the G. M. Barrage Project is the biggest, having a gross cultural command of 2,805,779 acres, of which more than half has been brought under cultivation and made available to thirty thousand settlers. Its outstanding feature, moreover, is the allocation of 20,000 acres of land to tribesmen from the Frontier Regions, Baluchistan, and Quetta. Similar work is in progress in the Gudu Barrage Project, which has a gross culturable command of 3,250,000 acres, and which, upon full development, is expected to increase the irrigated area by about 1,192,000 acres that would add an estimated 440,000 tons to crop production.

The corporation has other projects—such as construction of small dams, agricultural estates, irrigation channels, drains, and roads; development of animal, fishery, and forest resources; and large-scale experimentation in tea and jute plantation—and of these I shall discuss further those pertaining to jute. An important point has to be first made, however; that is, any project or experiment pertaining to jute cultivation stems from an interest not only in improving the quality of the fiber and in increasing the quantity but also in finding a potential for seed production. What this means, for example, is that although the climatic conditions in East Pakistan are admirably suited for fiber cultivation, they are inappropriate for seed production. Keeping such objectives in mind, the Agricultural Development Corporation introduced jute to the G. M. Barrage settlement; the results have been encouraging in terms of the quality of fibers, for an analysis by the British Jute Trade Research Association has shown that the fibers have a good degree of fineness and strength. To complement the WPADC's jute cultivation, a jute mill has been started at Kotri by a well-known Pakistani firm; and following the WPADC's lead, the Department of Agriculture, too, has started jute cultivation and a jute mill in the Muzaffargarh district. The ultimate aim of these jute-cultivation projects in West Pakistan is to

undertake large-scale jute cultivation and seed multiplication on a scientific basis, for, through these, West Pakistan hopes not only to help keep Pakistan's lead in the world jute market but also to ensure an adequate supply of good seed to the East Pakistani farmers. It might be added, finally, that, because of the threat posed by the new synthetic material that has appeared on the international market as a substitute for jute, the Central Jute Committee is now giving financial aid to universities for jute-research that would concentrate especially on the following points: improving quality, reducing production cost, increasing per-acre yield, and discovering new uses for jute.

Another concern of the Agricultural Development Corporation is to keep West Pakistan supplied with tractors. Conservative estimates put the annual demand for tractors in West Pakistan now at around two thousand. A tractor-assembly plant having a capacity to produce fifteen hundred units per annum has already been set up at Wah in the Peshawar region by a Pakistani firm in collaboration with a West German concern. What the WPADC is trying to do now is to bring to a completion the arrangements to have tractors manufactured locally according to a phased program. These measures, together with the number of training centers in mechanized cultivation that is being increased and with the mobile workshops that are being set up for repairs of farming equipment, are expected to meet the province's entire tractor demand as well as demands related to the operation of the tractor.

The agricultural revolution envisaged in the plans of the Department of Agriculture appears to be materializing through the comprehensive policies of the WPADC, some of whose projects by virtue of their magnitude and momentum resemble the massive agricultural schemes launched by the most developed states of the contemporary world. Below are highlighted some of the areas that are manifestly affected by the new upsurge.

Growth of modern villages and market towns. The development programs of the WPADC have led to the emergence of modern villages and new market towns in and around the project areas, whose people have responded favorably to the new kind of rural life made possible through the civic amenities provided by the WPADC in the fields of education, health, communications, and recreation. The availability of all basic facilities right in one's own village and in close proximity to the farm has minimized the temptation to leave the village in search of urban

comforts, and such a favorable effect has been extended even to relatively remote areas.

Widespread mechanization. The favorable impact of mechanized farming has already been discussed elsewhere. What I wish to add here is that the WPADC has been instrumental in accelerating the pace of agricultural mechanization.

Promotion of technology, education, and culture. A growing network of schools, literacy centers, agricultural and technical institutions, roads and railroads, hospitals, playing fields, and small markets has elevated the educational, cultural, and social level of the settlers in the project areas; moreover, the WPADC's emphasis on the usage of farming machines has been responsible for a mass dissemination of the technological know-how. These projects thus have not only raised the per capita income but also blazed the way for a cultural awakening among rural communities; and thereby have brought forth a socioeconomic change that has been more meaningful and more widespread than that wrought by the Department of Agriculture.

Emergence of a progressive rural community. The dynamic pattern of picking up villagers from all over the country and settling them in the same developed colony has led to the emergence of a new and progressive rural community. Within a short time after arriving in their new places of work and residence, these heterogenous settlers are found to be forming into integrated, closely knit communities. In G. M. Barrage, for instance, the newly settled Bengalis, Pathans, Tribesmen, Panjabis, Haris, Mohagdars, and Mohajirs are all living together as one large, happy, and homogenous family.[20]

Inter-wing cooperation through jute. Because jute is traditionally regarded as an exclusive product of East Pakistan, the West Pakistani experiments on jute cultivation were looked upon initially with doubts and apprehensions and were even called a futile economic trespass and a manifestation of a "separatist mentality."[21] The facts, however, are that because the climatic conditions in East Pakistan are unfavorable for seed production, their Department of Agriculture had never been able to supply more than one-twentieth of the seed requirement of the farming community. The continued dependence upon imported seed

was jeopardizing the quality of the jute crop and was likely to lead to the deterioration of Pakistani jute fiber. The only alternative, therefore, was to develop the seed-producing potentialities of West Pakistan. There is a growing realization today that the experiments on jute conducted in West Pakistan will not only help stabilize the East Pakistani economy but also herald a new era of understanding, cooperation, and economic growth for farmers in both wings of Pakistan.

Exploiting the Rural Water Potential: The Water and Power Development Authority and the Department of Irrigation

Agricultural development, so vital to rural economy, depends on the successful exploitation of all water resources. An effective water-development program for Pakistan, however, entails serious problems. Climatically, West Pakistan is arid and semiarid except for the small area stretching along the windward slopes of the Himalayan-Hindu Kush mountain complex in the north. Out of a total geographic area of approximately 200 million acres, only about 41.4 million are cultivated. Of this, one-fourth is rain-fed and the rest is irrigated by a vast canal system. Rainfall is scanty, highly erratic, and unevenly distributed, which makes irrigation indispensable to effective agriculture and sustained economic growth.[22]

Owing to the limited irrigation water supplies in many regions, the cultivators have been spreading the water thinly, allowing it to percolate only to the depth of the plant root. This practice has resulted in large accumulations of salt in the root zone, which together with extensive seepage from the canal network, has produced conditions of salinity, alkalinity, and waterlogging. As a result, about seventy to one hundred thousand acres are being lost to cultivation annually.

Water development, therefore, is vital to the life and economy of the villagers. The two main agencies that are now engaged in improving the situation are: the West Pakistan Water and Power Development Authority (WAPDA) and the provincial Department of Irrigation.

Established in 1958 as a statutory corporate body, WAPDA is responsible for developing the water and power resources of West Pakistan on a unified and multipurpose basis. Its water-development programs include irrigation water supply, drainage, recreational uses of water, flood control, prevention of waterlogging and salinity, and inland navigation. Its most significant project is the ten-billion rupee Indus Basin Project,

consisting of two dams—the Mangla Dam on the Jhelum River and the Tarbela Dam on the Indus; of these, the first has been completed and the work on the second is in progress.

By the end of 1963, WAPDA had succeeded in providing weir-controlled irrigation to 3 million acres of land, which on full development will contribute 200 million rupees annually to the gross national product. WAPDA has also constructed waterlogging and salinity-control structures in the form of over twenty-one hundred deep turbine tube wells and drainage facilities to reclaim 1.5 million acres, which, on maximal reclamation, would make a net additional contribution of 130 million rupees per annum to the national income.[23]

WAPDA has also embarked upon a program of rural electrification that is supported by the water-development projects. By the end of 1964, twelve hundred villages in the Peshawar, Lahore, and Hyderabad regions were provided with electricity for both domestic and agricultural consumption. The present rate of electrification is one thousand villages per annum.[24]

> As is borne out by facts and figures, WAPDA has amply justified its existence as a powerful instrument of economic progress in the very short span of five years. The gigantic task entrusted to this body called for Herculean effort, initiative, drive and speed; and from what has so far been achieved, or is in the various stages of execution, or planning and investigation, WAPDA can truly be proud of its achievements.[25]

Encouraged by WAPDA's success, the government of West Pakistan created, in 1964, another semiautonomous body, the West Pakistan Land and Water Development Board, whose major objective was to accelerate the pace of agricultural development by making further improvements in the irrigation system and reclamation of waterlogged lands.

Although most of the massive water-development projects have been transferred to WAPDA, the job of the Department of Irrigation continues to be onerous. Its main objectives are: to extend irrigation facilities to new areas by assessing the surface and underground water potential and harnessing it for maximum benefit of the cultivators; to improve waste and impoverished areas through proper reclamation and drainage; and to adopt effective flood-control measures. The functions of the department include: efficient maintenance of existing irrigation canals and headworks; assessment of water rates; execution of new development projects; and compensatory development of economically backward areas in the Quetta, Frontier, and other regions.

The reclamation work of the department is proceeding satisfactorily. It was able to reclaim, in Panjab alone, 556,000 acres of saline land and about 40,000 acres of alkali land; and during 1963–64, it carried out effective flood-control schemes in 478 villages wherein a total area of 39,209 acres had been inundated by floodwater. The department's network of irrigation canals was functioning to optimum capacity throughout the Second Plan period, the total of the irrigated area during 1963–64 being 26,529,558 acres. Thus, through a variety of planned drainage, reclamation, and flood-protection measures and by bringing more and more virgin lands under the plough, the department has contributed substantially to the prosperity of the provincial farmers.

As described below, the current water-development programs are expected to improve further the life and economy of rural West Pakistan.

> The additional water resources potential developed in the Third Plan period would amount to 21 per cent of the potential as against 8 per cent in the Second Plan period. The total utilisation of potential in the Third Plan would thus amount to 75 per cent as against 54 per cent in the Second Plan. It is estimated that the gross value of agricultural production resulting from the development of additional resources over the Plan period would amount to Rs. 1,360 million which is a considerable contribution to the gross national product.[26]

Some of the ways in which the water-development programs have contributed to the village community are briefly reviewed below:

Rural prosperity. The irrigation projects have brought about rural prosperity by bringing wastelands under cultivation, increasing crop intensity, improving crop patterns, accelerating the output per unit area, and by averting the destruction of crops through floods; they have also increased the supply of agricultural raw materials to indigenous industries. The ensuing wave of prosperity is pregnant with far-reaching cultural implications. For example, in the developed areas, the crime curve is falling, and the trend of rural thought and behavior is turning to constructive pursuits and positive goals.

In some cases, however, the new prosperity seems to have affected the farming community adversely, for certain *nouveaux riches* are reported to be indulging in waywardness and crime, thereby disturbing the emerging atmosphere of peace and prosperity.

Rural electrification and educational development. WAPDA's rural electrification programs have turned a new page in the history of rural education: the availability of electric light and the use of fans in the village schools and adult-literacy centers have made things easier; and rural electrification has provided new incentives for children to follow up the school programs at home as well as a new opportunity to take advantage of modern teaching aids, television, documentary films, and other audio-visual equipment that require the use of electricity.

Decline in migratory trends. Owing to the steady rise in per capita income and the consequent increase in comforts and pleasures now available in the villages, the lure of the towns is waning; thus, the number of people deserting the native village is now declining.

The water-development projects thus have contributed in many ways; but they have also brought on sadness to some people, as expected of any massive construction project that involves displacements, evacuation, and resettlement of the population of the area concerned. The Mangla Dam is an example of such a construction project, which was carried out by WAPDA, that resulted in sadness—and joy, to be sure—for at least a section of the farming community. Its construction involved displacement, evacuation, and resettlement of the entire population of the area that has now been submerged by the one-hundred-square-mile Mangla water reservoir. Two small towns and two hundred villages lying in adjoining territories were severely affected. About 18,500 families, composed of nearly 81,000 individuals, were uprooted. Tearing people away from their ancestral homes and transplanting them on unfamiliar land presented a formidable array of economic, social, and emotional problems; WAPDA faced them with fortitude.[27]

Procurement, Storage, and Distribution of Food: The Department of Food

The provincial Department of Food, too, plays a role in developing the rural economy. Its main activities are: to procure and purchase wheat, rice, and sugar at floor prices, if voluntarily offered by the producers; to maintain these essential food reserves through storage in government godowns; to control roller flour mills; to regulate distribution of wheat, rice, and sugar at government-controlled prices through ration depots; and to procure all essential food commodities to be supplied to deficit areas in both wings of the country, and to arrange for

their export and import in cases of surplus and deficit crop production.

The department made considerable progress in achieving its targets during the Second Plan period: the process of procurement, conducted on a voluntary basis, was smooth and speedy; food depots were selling food grains at fair prices and were functioning efficiently; considerable quantities of superior rice were exported, and construction of new food godowns kept up at a steady pace. The department publishes each year two informative documents, namely, the *Annual Bulletin of Food Statistics,* and *Food and Agriculture Statistics for West Pakistan.*

Although the activities of the Department of Food cater essentially to the requirements of urban food dealers and consumers, they are also immensely helpful to growers in the villages. By providing effective arrangements for the movement, storage, and sale of food commodities, the department relieves the growers of considerable bother. Active association with official food policies and practices opens up new venues for pragmatic cooperation between the rural masses and the government food machinery. Participation in an organized process of food supply to deficit areas at home and abroad helps the farmer to understand the basic human factors in the production and distribution of food. In other words, the activities of the department not only widen the farmer's mental horizon but also increase his association with various local and foreign channels for the sale and purchase of foodstuffs.

Agricultural Credit and Agricultural Cooperatives

The need for credit is paramount in the field of agriculture, especially in Pakistan, because the government campaign to promote improved agricultural practices led to a proportionate growth in the demand for credit. During the first two Plan periods the official endeavor was to strengthen the institutional sources of credit and to facilitate their working so that a larger number of farmers could benefit from this program. There are now three sources through which credit is usually obtained by farmers: (1) the agricultural cooperatives, (2) the Agricultural Development Bank, and (3) the government loans (*taccavi*) that are made available through either the Department of Revenue or the Department of Agriculture.

THE AGRICULTURAL COOPERATIVES

Cooperation has played an effective role in developing West Pakistan's economy, for, through its encouragement to people of limited resources to form cooperative societies in a spirit of self-help and mutual

Table 19: Cooperative Societies by Region

Region	Number			Membership			Working Capital (in million rupees)		
	Urban	*Rural*	*Total*	*Urban*	*Rural*	*Total*	*Urban*	*Rural*	*Total*
Lahore	3,440	8,908	12,348	211,233	287,052	598,285	292.29	39.13	331.42
Multan	2,900	8,527	11,427	166,098	372,476	538,574	204.41	75.64	280.05
Hyderabad	390	845	1,235	49,600	72,313	121,913	170.15	68.35	238.50
Peshawar	234	2,610	2,844	15,810	118,004	133,814	24.94	14.39	39.33
Karachi	471	36	507	90,795	4,165	94,960	240.14	8.28	248.42
Quetta	223	190	413	10,420	5,088	15,508	23.68	1.11	24.79
Total	7,658	21,116	28,774	543,956	959,098	1,503,054	995.61	206.90	1,162.51

aid, it has enabled such people to contribute their highest potential to the life of the province; and what gave momentum to the cooperative movement was the establishment, in 1962, of the West Pakistan Cooperative Board, which has since drawn up the ambitious Cooperative Third Five-Year Plan within the framework of the national Plan. The specific objectives of the board's Plan are: "to enable the common man to pool his resources for making the maximum contribution towards the national development effort and, in turn, to receive an appropriate share of the fruits of such development."[28]

Table 19 gives statistics by region of rural and urban cooperative societies, their membership, and their working capital as they stood at the close of 1964–65.[29] (The board is now engaged in revitalizing and expanding the cooperative structure.) Out of a total of 28,774 societies, 21,116 are rural; and 959,098 of the 1,503,054 members belong to the rural societies. It is thus quite evident that cooperation has become a popular movement in the villages.

The Cooperative Board's eleven projects in the public sector include reconstruction of rural credit and agricultural marketing, introduction of mechanization in cooperative farming, sheep-raising and marketing, and cooperative education; its fourteen projects in the private sector pertain to such areas as establishment of sugar and rice mills operated primarily for the benefit of growers; fruit and vegetable farming and marketing; cooperative stores; cooperative educational facilities; and rural community development projects. The board also operates, with the help of the Federal Republic of Germany, the Pak-German Cooperative Training and Research Institute, in Faiz, a village in Multan, which provides training facilities for farm managers, tractor drivers, tube-well operators, and electricians. For a period in the past the board also enjoyed the collaboration of American Peace Corps volunteers in developing tractor maintenance and training programs, conducting soil surveys, and introducing new poultry and livestock schemes.[30]

One reason for the inadequate and uneven growth of the cooperation movement in the past has been the people's lack of appropriate knowledge about the usefulness of cooperatives. The board therefore, has launched both a general and a specific program for cooperative education and training: the general program endeavors to disseminate cooperative know-how through educational institutions and mass communications media; the specific program concentrates on developing the facilities available at institutions imparting specialized training in

the theory and practice of cooperation. Under these programs is the West Pakistan Cooperative Training College at Lyallpur, which trains assistant registrars, inspectors, account clerks, and farm managers and which offers short courses in agricultural supply and marketing. During 1964–65, the college held twenty-two classes for 367 trainees. Also under these programs are five regional cooperative training institutes at Peshawar, Lahore, Bahawalpur, Hyderabad, and Quetta, which are turning out subinspectors and welfare workers. Fifty-five classes and courses, having 925 participants, were conducted in these institutes during 1964–65.[31]

The English-language quarterly, *West Pakistan Cooperative Review*, and the Urdu fortnightly, *Imdad-e-Bahmi*, have both been instrumental in the mass dissemination of knowledge about the cooperative movement, by offering informative features, news, and views on cooperation; both are published by the West Pakistan Cooperative Union.

THE AGRICULTURAL DEVELOPMENT BANK

The Agricultural Development Bank of Pakistan (ADB) was inaugurated in 1960–61 through the merger of the Agricultural Development Finance Corporation with the Agricultural Bank of Pakistan; and it is this merger that has given the ADB the broad functions it now has: it is authorized to give loans for the storage and processing of agricultural products, beekeeping, sericulture, and cottage industries in the rural regions. The number of branches, subbranches, and pay offices of the Bank totaled 120 by the end of the Second Plan period; the number is probably much larger today because the program is being extended further during the Third Plan period. The proposed line of credit has been arranged through the International Bank for Reconstruction and Development, and the contribution of the government in the form of share capital has risen from 100 to 175 million rupees since its beginning. Moreover, the policy recommended in the Second Plan that the ADB concentrate on long-term requirements of the farmers is now being carried out vigorously.

The Bank plays a constructive role in the postwar agricultural reconstruction by granting special interest-free loans for five years to the farmers in the war-hit areas, with a grace period of two years. The Board of Directors of the ADB has also approved a scheme to import pipes worth two million rupees out of the IDA credit in order to speed up installation of tube wells in the war-affected border villages of the Lahore and Sialkot districts. Having these broad-based policies and

programs, the ADB can legitimately be expected to render improved services to its rural customers during and after the current Plan period.[32]

GOVERNMENT LOANS TO CULTIVATORS (TACCAVI)

The Credit Inquiry Commission of 1959 had recommended that *taccavi* loans be made on a progressively declining scale and that they be replaced eventually by the institutional credit available through the cooperatives and the ADB.[33] The Second Plan made a similar recommendation. These recommendations were not carried out, however. Now, in the Third Plan period, the *taccavi* loans are being given on a relatively restricted scale and are being confined to regions where other institutional credit services do not exist or where special needs of rural communities in new areas and land-reform programs warrant the provision of such loans; they are now given only for genuine production purposes. Distress loans and other irrecoverable loans that are in nature of grants do not form part of this program, and the provincial government discontinued offering long-term *taccavi* loans when the ADB came into existence.

Apart from revolutionizing agricultural economy, the new credit and cooperative facilities are also exercising a healthy influence on educational, social, and cultural facets of village life. The fields where their impact is most visible merit a brief review.

The village market structure. By distributing the fruits of growing economic activities over a wider section of the rural population, the cooperative facilities are reducing the imbalance in the distribution of wealth. In 1963, for the first time in the history of the province, the sugarcane growers feeding the Rahwali Sugar Mill (an enterprise of the West Pakistan Cooperative Board) shared in the Mill's profits to the tune of Rs. 124,874.[34] Since then the practice of having cultivators, who supply raw material to cooperative concerns, receive their share of the profits is gaining popularity. Similarly, the expansion and improvement of agricultural marketing is eliminating common fraudulent practices and is minimizing the middleman's profit. The growing sale of agricultural produce at incentive prices is another factor that has helped to socialize the economic structure of the village.

Training in banking. Organized and institutionalized credit facilities have not only given a fillip to agriculture but also provided opportunities for villagers to become familiar with bank dealings and with

planned and economical modes of handling personal and community finances—keeping the hours of credit societies, observing bank formalities prescribed for the drawing and returning of loans, and following other formal procedures have all been instrumental in promoting a sense of economic discipline and professional ethics at individual, family, and community levels.[35]

Educational development. By adding to the number of schools, literacy centers, libraries, and reading rooms, the cooperatives have accelerated the pace of educational development in many rural regions. Under the Khanewal Community Development Project,[36] for instance, one school as well as three male and four female adult-education centers were established. Similarly, mill-workers in the Rahwali Community Development Project organized adult-literacy classes and successfully induced villagers to initiate primary schools on a voluntary basis; and in 1964–65, a scheme was introduced to have scholarships for workers' children.

Healthful and wholesome living. Wherever they operate, the cooperative societies have prepared the rural community for better living. In the Rahwali Community Development Project,[37] for instance, the community workers have been offering guidance not only in the field of education but also in other areas: they cleaned up drains and streets, removed rubbish, and organized mass inoculations and vaccinations; they improved village agriculture by introducing better farming methods, chemical fertilizers, and timely poultry inoculations; they developed communication facilities by constructing roads and culverts on a self-help basis; and they brought about striking changes to the life of village women by introducing training programs in sewing, embroidery, knitting, family planning, and home economics. Finally, the Cooperative Farm Service Center, which has been started at the mill recently, is adding to the happiness of the farming community living in adjoining areas.

Cooperative societies operating in other regions have reported of similar work. In 1965 the Board of Economic Enquiry conducted a comparative study of twenty-six villages spread over the Multan, Montgomery, and Lyallpur districts.[38] Of the 2,306 families surveyed, 1,298 were in villages having cooperative farming societies, and 1,008 in villages without them. The study established the over-all superiority of the cooperative villages over the noncooperative villages on the following points: educational, social, and cultural level; health and sanitation conditions; farming practices; and per capita income.

CHAPTER 9

Livestock and Other Rural Resources

APART from the major agencies most directly concerned with agricultural productivity, there are a few other government departments that are associated with the growth of rural life and economy. This chapter reviews the role of four such departments—Animal Husbandry, Fisheries, Forestry, and Game—in terms of their programs and in terms of the impact these programs have had on the life and attitudes of the rural communities. Brief references are also made to contributions of the West Pakistan Agricultural University and some other nongovernment institutions.

Improving the Livestock: The Department of Animal Husbandry and the West Pakistan Agricultural University

The economic solvency of the rural population engaged in agriculture depends considerably on the health and productivity of its animals, for the development and improvement of livestock helps to improve the people's diet, to supply additional draft power, and to provide hides and other raw materials to national industries.

Having had little improvement in the past decade, the general condition and productivity of livestock in West Pakistan now are very poor. The main problems that hamper development include: (1) shortage of forage and concentrated food, (2) high mortality rates, (3) poor genetic potential for production, and (4) inadequate marketing and processing.[1] In West Pakistan no feeding standards have been fixed so far, and breeders are not acquainted with improved feeding practices. Losses resulting from diseases and parasites are very high, as noted by the members of the Commission on Food and Agriculture, during their visits to rural areas, that even when major epidemics did not break out

disease took a heavy toll of the livestock.[2] Considerable improvement is needed in the genetic potential of most of the farm animals as well as in the marketing and processing facilities, which are now grossly inadequate, although dairying and poultry raising hold good prospects.

The main agencies now concerned with the livestock are the provincial Department of Animal Husbandry and the faculties of Animal Husbandry and Veterinary Science at the West Pakistan Agricultural University, Lyallpur. The activities of the Department of Animal Husbandry can be grouped under three broad categories:[3] (1) propagation of better livestock—cattle (including buffaloes), sheep, horses, donkeys, and poultry—by supplying better sires and by castrating and eradicating scrub males; (2) improvement of the production potential of all animal species to increase the production of milk and milk products, meat, eggs, wool, etc.; (3) conservation of the present animal wealth by controlling contagious and infectious diseases and by launching prophylactic vaccination campaigns; and (4) provision of veterinary aid and treatment for the sick and injured animals that are referred to veterinary hospitals and dispensaries. The department renders services in these and other allied areas through its five regional directorates, at Peshawar, Lahore, Multan, Hyderabad, and Quetta; and also through its separately established directorates for Livestock Farms and Disease Investigation.

Some of the specific projects carried out by the Department of Animal Husbandry are listed below. It conducted, during the Second Plan period, extensive breeding work at various livestock farms and artificial insemination centers: it did research on how to improve quality and lower the cost of breeding; it subsidized maintenance of approved varieties of bulls and rams; and it launched a new scheme to improve poultry, through which it supplied hatching-eggs and birds of different ages to breeders at subsidized rates. The department also adopted effective measures for prevention and treatment of animal diseases: it employed more stock assistants in order to effectively control contagious diseases; it organized new veterinary hospitals, dispensaries, and mobile units; and it had the Bureau of Disease Investigation do research on vaccines to combat common animal ailments—a number of which were produced and used as well.

Another area in which the Department of Animal Husbandry has worked hard concerns education, training, and research. Realizing that a successful execution of a livestock-development program depends partly upon the availability of properly trained technical personnel, the

department has been operating a specialized institution, the College of Animal Husbandry, at Lahore, which is devoted to the education and training of personnel dealing with various aspects of animal health and productivity. It is staffed by qualified and experienced veterinarians and has an attached veterinary hospital. At the close of 1967–68, 600 students were studying in various classes of the five-year course leading to the degree of bachelor of science in animal husbandry. The college's research output during the Second Plan period was fairly satisfactory.

Realizing the significance of livestock and poultry in the nation's economy, the West Pakistan Agricultural University established in 1961 the Faculty of Animal Husbandry. Today, this faculty is devoted to teaching and research in various fields of breeding, nutrition, and management of animals and poultry, and handling of their products, the main objective behind all these being to familiarize provincial agriculturists with improved techniques of livestock and poultry husbandry, in order to increase the production of livestock and livestock products. It offers fifty-seven courses, of which forty-six are postgraduate and eleven undergraduate, and thirteen short courses of varying duration. The faculty consists of five departments—Livestock Management, Animal Breeding and Genetics, Poultry Husbandry, Nutrition, and Livestock Farming—and three special cells—Artificial Insemination, Dairy Science, and Wool Science—that aim at expanding teaching and research facilities and devote special attention to the underdeveloped areas in the field.

Also established by the university, in 1962, the Faculty of Veterinary Science is concerned with research in, and teaching of, the subject at undergraduate and postgraduate levels. Supported by well-equipped departments of Anatomy, Parasitology, Pathology and Bacteriology, Clinical Medicine and Surgery, Physiology, and Pharmacology, the faculty offers a six-year course of studies leading to the degree of doctor of veterinary medicine. The entire training program is focused on producing teachers, researchers, field workers, and administrators with a thorough grounding in the theory and practice of livestock development.

The pace at which research has been kept up is encouraging. The Faculty of Animal Husbandry completed twenty-five projects and initiated twelve during 1964–65; and the Faculty of Veterinary Science published twenty-two research papers. Fruitful research has been conducted also at the Veterinary Research Institute, Lahore; the Livestock Research Institute, Bahadurnagar; and CENTO Institute for Animal Reproduction, Malir.

As stated in the beginning of this chapter, the general conditions concerning livestock are poor in West Pakistan; efforts have been made, however, to improve these conditions. How these efforts are being reflected by the rural communities are briefly discussed below.

Rise in the farmers' income. Recent advances in the health and productivity of livestock have brought about a change in the agricultural operations of those farmers who depend mostly upon animal power for ploughing, irrigation, and transportation. Increase in the farmers' income from the sale of milk, milk products, and eggs has added to the farmers' health and prosperity.

Impetus to adult education. Fundamental knowledge about animal health and efficiency forms part of the instructional program of almost all rural adult-education centers. Finding that this aspect of the program brings immediate dividends, an increasing number of farmers have begun to join the center.

Strengthening of urban-rural bonds. Because almost all veterinary experts hail from the towns, their increasing dedication to the cause of livestock health serves as a gesture of goodwill towards the village community. Correspondingly, the improved supply to the towns of milk, milk products, eggs, and poultry from the villages symbolizes the rural appreciation of valuable urban services. Thus, expanding improved animal health services and economic cooperation between towns and villages have strengthened the bonds between the two.

Exploiting the Fisheries Potential: The Department of Fisheries

In a country where the average diet is very low in protein, the significance of having fish as a source of protein cannot be exaggerated. For one thing, it takes much less time and money to produce fish than to raise livestock. For West Pakistan, however, there is an additional factor pointing toward expanding fisheries: it has potential for expansion in its inland and marine sources—the sea, rivers, streams, lakes, artificial reservoirs, tanks, and ponds—particularly those in the waterlogged areas.

An effective fisheries-development program—though it calls for a maximum private and public effort—if thoughtfully carried out, promises not only a substantially improved diet at low rates but also increased foreign-exchange earnings. Thus, in 1958, the Directorate of

Table 20: Fish Production (in tons)

Year	*Production*
1960–61	17,857
1961–62	18,571
1962–63	19,643
1963–64	20,357
1964–65	21,286

Fisheries was created, whose manifold functions included fisheries development, conservation, marketing, research, and training. The current Plan targets are mainly a continuation and expansion of the program of accelerated fish production that was planned during the First and Second Plan periods. That the extensive activities of the Department of Fisheries have been responsible for a steady rise in fish production is shown in Table 20.[4]

Much has been done for fish conservation and fish cultivation since the creation of the Directorate of Fisheries. For one thing, 13,960 cases of illegal fishing were dealt with, during the Second Plan Period, through the enforcement of the West Pakistan Fisheries Ordinance, 1961, which pertain to conservation rules. Then, there were the extensive water areas—lakes, dams, reservoirs, abandoned canals, ponds, and waterlogged tracts—that were put to use for fish culture: those at the Warsak Dam and at Kalri Lake were used for fish cultivation; those at Kaghan, Chitral, Swat, and Quetta were used for the culture of trout; and those with saline water in the Hyderabad and Khairpur districts were used for the culture of *tilapia*, an exotic fish of African origin now freely propagating in West Pakistan. The number of government-managed farms thus rose from 512 in 1960–61 to 1,235 in 1968–69.

While work went on in the area of fish conservation and fish cultivation, attention was also given to other related areas. For example, effective measures were taken for fish-egg collection and stocking; and a fish harbor was constructed at Karachi to provide adequate market facilities. Now, cold-storage and ice-plant facilities are being developed and expanded. Attention, moreover, is being paid to the promotion of trade, transport, and curing facilities—fishermen's cooperative societies have already been formed at Karachi; and government fish shops, selling at controlled prices, have been opened in many towns, including Rawalpindi, Lahore, and Bahawalpur. Finally, the Department of Fisheries has extended medical and economic relief for poor fishermen.

A mobile dispensary service was started in 1964–65; dry milk, cloth, and blankets were distributed among the fishing communities in areas around Mancher Lake.[5]

As in other rural development programs, that of fisheries also needs trained people in order to be effective. The Fisheries Training Center, therefore, was established in 1959, which was based on the following three-fold objectives:[6] (1) to impart in-service training and orientation to personnel of the provincial Department of Fisheries to provide qualified workers and technical manpower; (2) to introduce modern techniques and skills of fish farming to the rural population through regular vocational training courses; (3) to popularize fish farming and to make people fish-minded. Equipped with a laboratory, a museum, and library facilities, the center trained, during 1968–69, seventeen officers of the department, forty-three members of the general public, and a large number of students from the College of Animal Husbandry (which offers fisheries as a subsidiary subject.) Apart from its regular training course, the center has set up a number of short-term training courses in progressive fish farming; and is now in the process of setting up an institute for the training of master fishermen and marine engineers.

The Department of Fisheries has also put in some effort in the areas of research and publication. It does research on such subjects as the culture of sea fish in inland saline waters, the cultivation of prawns (*jhinga*), and the analysis of seasonal variation in demersal stocks;[7] it carries on exploratory surveys of inshore and offshore waters; and it experiments on the control of aquatic vegetation in lakes. The department's publications include technical papers, books, survey reports, proceedings of the provincial fisheries conferences, fish gazettes, annual reports, and popular literature for mass circulation.[8] The department has also been displaying on bulletin boards at major fish farms, short descriptions of important fishes, their habits and habitat.

The effectiveness of the Department of Fisheries in its various projects is discussed below. It has been fairly successful in arousing rural interest in fish and fishery; and it has raised the farmers' income as well as increased, in many cases, foreign-exchange earnings. It has improved, through fish cultivation, not only the agricultural productivity of the land in many waterlogged areas but also the food situation, through the utilization of wastelands and the construction of artificial water reservoirs. Moreover, by making more fish available—fish, which is rich in protein—it has helped nutritionally the poor farmers who cannot afford to buy the more expensive meat.

A by-product of the drive to develop the provincial fisheries has been the increased charm of the rural landscape, especially the rural fishing spots, which attract town-dwelling anglers. The more enticing trout hatcheries in Quetta, Swat, Chitral, and the Kaghan Valley are now attracting fishing enthusiasts even from abroad. As a result, the income of the department from the sale of fishing rights and licences has been growing; in 1964–65, for example, it exceeded one million rupees.

Harnessing the Forest Resources: The Department of Forestry

Forests play a vital role in the expanding economy of Pakistan. They offer protection against soil erosion and floods; provide timber and fuel wood; and supply raw material to the furniture, plywood, matches, paper, rayon, resin, pharmaceutical, tanning, and sporting-goods industries.

Despite expanded afforestation projects, West Pakistan continues to be deficient in forest resources, the total forest area being estimated at 7.1 million acres. (See Table 21)[9] for the various categories of forests and the areas covered by them.) But not all of these 7.1 million acres are productive forests because of the extremely arid conditions and a consequent slow rate of growth. Only a small area located in the Rawalpindi and Peshawar divisions receives rainfall adequate for good tree growth. According to available statistics, the commercially productive forests constitute only 2.7 per cent of the total land of West Pakistan in contrast to the 25 per cent that the international standards require to sustain a balanced economy. Existing forests, moreover, hardly begin to meet the provincial demand for timber and fuel wood. State forests

Table 21: Forests

	Areas	
Types	*(in million acres)*	*(in per cent)*
Coniferous forests	2.2	27.7
Irrigated plantations	0.5	6.8
Riverain forests	0.7	9.5
Coastal forests	0.8	10.8
Scrub forests	2.6	39.2
Linear plantations	0.3	4.0
Total	7.1	98.0

are estimated to produce only 10 per cent of the total requirements, the rest being met by foreign imports, by felling on private or community-owned lands, and by burning cow-dung and other varieties of crude fuels. The gap between demand and supply is widening rapidly. The multiplying population, expanding industries, and increasing construction programs are accelerating the denudation and disappearance of private and community-owned tree growth. West Pakistan, therefore, is facing the double menace of siltation of reservoirs and water channels, and frequent floods.

Although the prospects of acquiring sufficient new areas for afforestation appear bleak owing to socioeconomic pressures,[10] the urgent situation obviously calls for prompt undertaking of an extensive forest-planting program. Large-scale irrigated plantations and afforestation along rivers, canals, roads, and railroads appear to offer a practical answer to West Pakistan's demand for wood.[11]

During the First and Second Plan periods, the Department of Forestry concentrated mainly on effective management of existing forests. Its developmental activity included afforestation; range development; watershed management that gave industrial dimensions to irrigated plantations and plantations along canals, roads, and railroads; and expansion of training and research programs.

Of these, the afforestation program received special emphasis throughout the Second Plan period. An area of 7,100 acres in the irrigated zones of Lloyd Barrage and certain areas of the Bahawalpur region were planted with species having industrial value. In addition, strips were planted along about 1,600 miles of roads, 2,600 miles of canals, and 2,300 miles of railways; 1,500 acres of riverain land were also planted. In order to boost tree growth, moreover, "Grow More Trees" campaigns were vigorously launched, during which 700 acres of new nurseries were used to augment existing resources of planting stock for free distribution and for use in various afforestation projects.

The department's effort to improve range land was seen in many ways in many regions. For example, it started in 1963 the Bhurban pilot demonstration project, covering about 13,000 acres, to rehabilitate and stabilize the badly eroded hill lands within the Mangla Dam watershed area and to preserve the remaining forest areas in the vicinity. This project is now concentrating on such activities as terracing, afforestation, planting of fruit trees, and antierosion work. Effective arrangement and exploitation of existing forests being its objectives, the department also provided better communications facilities in its hope to control forest

fires and to exploit charcoal production. National parks being also the concern of the department, the department developed and maintained two of them, one in Kaghan Valley and the other in the Changa Manga Forest. In the latter, the department created the Wild Bird Farm for the preservation and multiplication of wild birds. And now the department is busy developing a new national park at Kalri Lake. Owing to improved communications and better working conditions, the over-all revenue of the department increased by 40 per cent during the Second Plan period.[12]

The current Plan aims at further improvement in management and expansion to maximize forest production. Emphasis is given to forest communications and to the control of pests, which were causing considerable damage to the trees in irrigated plantations and to fuel stocks. Due attention is also being paid to developing forest resources in the Azad Kashmir and northern areas.

In order to put the meager forest resources of the province to optimal economic utilization, stress is now being laid on forestry education and research. Forestry training in West Pakistan covers three broad areas: (1) vocational, (2) technical, and (3) professional. The courses and curricula of all forestry institutions have been evolving over the past years. Research and training facilities were considerably improved during the Second Plan period. A number of research projects were completed, and some were reported in the *Pakistan Journal of Forestry*, published by the Pakistan Forest Research Institute at Peshawar. Experiments with hundreds of exotic species were conducted and a fifty-acre seed orchard was set up at Lahore. Training and research programs also kept up a steady pace at the Agricultural University, Lyallpur, which has developed a full-fledged teaching department on forestry and range management.

The personnel training programs advanced steadily. Sixty-one training facilities for foresters and rangers at the forest institutions at Ghoragali and Bahawalpur were strengthened by improving staff, buildings, equipment, and transport. Superior forest service officers and 110 rangers were trained at the Pakistan Forest Research Institute. According to the provincial government estimates, however, an additional 70 superior forest service officers, 300 forest rangers, 230 deputy forest rangers, and 950 foresters are needed to carry out various expanded forestry-development programs during the Third Five-Year Plan. These requirements are now being met by expanding the existing training facilities. The Third Five-Year Plan also provides for the establishment

of forest-research centers in the northern areas, which are scheduled to undertake silvicultural research, including the preparation of volume and yield tables and the trial of exotic species.[13]

The new forest policies and procedures are exercising a healthy impact on the life and economy of the provincial villages. Wood and wood products are yielding extra income to farmers. Expanding forest-development projects are providing increasing employment and business opportunities. Some broad categories of new remunerative opportunities are: (1) recruitment into government service—the whole range of jobs in the provincial Forest Service; (2) employment in the Department of Forestry on a wage basis in projects dealing with the development of forest reserves; (3) service in the timber industry—mostly labor and transport assignments; and (4) employment in secondary timber and forest industries—a vast range of jobs in the firewood, furniture, paper, cardboard, pencil, plywood, and match industries.[14] By lessening the threat of floods and soil erosion, moreover, these projects are effecting substantial improvements in agricultural conditions. Range-management projects are developing pastures and thereby supplementing efforts of the Department of Animal Husbandry in raising livestock productivity.

Forest programs are also making a healthy sociocultural impact on rural life. Development of national parks, wild bird farms, and forest-research centers is beautifying the village landscape, which is perhaps why local holidaymakers and foreign tourists are now drawn more and more to the rural forest spots. The growth of this type of urbanized impact is proving economically and culturally profitable for the rural communities, although it may occasionally disturb the village peace.

Preserving and Multiplying Wildlife: The Department of Game

West Pakistan abounds in game birds and animals. Besides giving sport and adorning the rural landscape, wildlife contributes considerably to the increasing of agricultural output, for some of the game species, especially the partridge, eat pests and insects that are a source of danger to agricultural produce.

The partridge, widely spread over the plains, is the most significant indigenous game bird of the province. The chikor inhabits hilly tracts in the Sargodha and Rawalpindi divisions and the Quetta district. Other common varieties of wild birds are duck, goose, snipe, sand grouse,

bustard, woodcock, pigeon, dove, peafowl, jungle fowl, pheasant, and swan.

The big game consists of urial, ibex, markhor, and hog deer. The urial is found in the Jhelum, Campbellpur, Karachi, and Quetta districts, and in the Hyderabad, Khairpur, and Kalat divisions. The ibex is distributed over the Hyderabad division and the Lasbella district. The Quetta and Sibi districts abound in markhor. The hog deer flourishes in riverain tracts in the Hyderabad and Karachi divisions and in the Mianwali, Muzaffargarh, and Dera Ghazi Khan districts.[15] Other wild animals are the blue bull, goat, and deer.

The preservation, multiplication, and variegation of all wildlife, especially the rare and valuable species, are the functions of the provincial Department of Game. The department endeavors to prevent extinction by letting wildlife loose in regions where it is scarce and by creating game reserves and sanctuaries in which shooting is either forbidden or discouraged and in which game species live and breed freely, undisturbed (game reserves discourage but allow shooting under special permits; game sanctuaries absolutely prohibit the killing of any wild bird or animal). There are now twenty-five game reserves spread in various districts over an area of 240,175 acres and twelve game sanctuaries covering 221,706 acres.[16] The department also pays due attention to the menace of vermin, which takes a heavy toll of the young of game species; in 1964–65, it destroyed 3,938 jackals, 1,968 wildcats, and 2,498 prey birds.[17]

To make people game-minded is another function of the department, which it fulfills by publishing informative material on the general characteristics of wild birds and animals, shooting seasons, game-rich regions, prohibited areas, and legal requirements for hunting; it disseminates similar helpful information through the daily press and by radio and television.

The West Pakistan Wildlife Protection Ordinance, 1959, regulates the legal aspects of provincial game affairs, under which offences are detected by field staff of the department and offenders dealt with by the law courts. The income of the department is derived from fines realized from offenders and fees charged for issuing game licences and permits. Financial statistics for the Second Plan period reveal that the department not only supports itself but also contributes substantially to the provincial exchequer—which has a surplus each year.[18]

By promoting those species of wildlife that live on pests, insects, and other enemies of crops and livestock, the department has been re-

sponsible for considerable improvement in agricultural productivity; and, through its preservation and multiplication projects, it has enhanced the beauty of the rural landscape and has thereby increased the earnings of foreign exchange coming from the tourists and scholars who visit the province in quest of adventure and knowledge.

The growing wave of interest in game does have an unpleasant aspect, too, however. Stray cases of hunters trespassing in cultivated fields and coming into conflict with farming communities are being reported, for instance. Barring such infrequent incidents, however, the rising surge of interest in wildlife is exercising a wholesome influence on rural life and economy.

In order to improve its functioning, the Department of Game was merged into the Department of Forestry since March 1, 1967.[19]

CHAPTER 10

Conclusion: A Reappraisal of Fundamental Problems

THE PRECEDING nine chapters have told the story of what remarkable headways West Pakistan has made educationally, socially, economically, and culturally since Independence. To be sure, West Pakistan is basically still handicapped by dire poverty and crippling illiteracy. But people are better off today in every way than they were only a few years ago. What is important, moreover, is that, animated by a powerful surge of change and development, the people now look forward to the future more confidently. The progress they have made in the short span of time they have had is comparable to that made by any developing country anywhere in the world—and this in spite of the innumerable obstacles they have faced.

What has inspired and sustained Pakistan's developmental endeavor is its wish to fulfill its ultimate aim: the realization of Islamic values and ideals. A proper understanding of the story of development in Pakistan necessitates a perspective appraisal of Islamic ideology, which has often been inadequately appreciated by the West. This concept, which is almost interchangeable with human welfare, in addition to its familiar welfare goals, also implies that:

> The cultural and religious heritage of the country should be preserved and not allowed to be destroyed by the ruthless pursuits of economic development. It is, therefore, a concept much broader than the "welfare state" and embraces all phases of an individual's life.[1]

At all stages of rural development due regard has been paid to these fundamental ideological requirements.

Errors and omissions notwithstanding, the over-all spirit of current progress indicates that the villages of West Pakistan are now moving swiftly towards the realization of the nation's cherished goals. There

are obstacles, however, many of which have already been touched upon —though only briefly and separately—in earlier chapters. Here in the concluding chapter, they shall be reviewed together in the context of rural development as a whole, followed by a discussion of ways to overcome them.

Obstacles to Educational Development

With the expansion of educational facilities, the impact of education on rural masses has been widened. Educational expansion, however, has also generated new suspicions, new tensions, new worries, and new conflicts. Although these unfavorable developments are statistically insignificant, many of them do impede educational development. Four such impediments are discussed below.

Relapses into illiteracy. Owing to the absence of adequate follow-up programs, large-scale relapses into illiteracy have been reported from many villages. Such unfortunate developments entail a stupendous waste of human effort, and, moreover, tend to discourage the adult-education workers. The situation necessitates a more insightful approach. The fundamental requirement is surely the preparation of suitably graded follow-up literature revolving around the basic facts of rural life and rural vocations and serving as a powerful incentive for the neo-literates to keep the torch of literacy alight. Occasional follow-up classes are also indispensable. By virtue of its structure and prestige, the mosque seems to be the most suitable place in the village framework for such classes to be held. For one thing, the mosque leader could be trained to function as a literacy teacher; and this proposal, moreover, provides a practicable answer to the paucity of funds, buildings, and staff.[2] It is hoped that this idea, which is in line with current official thinking, will be carried out on a large scale.

Apprehensions about female education. Despite initial hurdles, a quite favorable atmosphere has now been created for the education of rural women. "The demand for educated girls has become widespread, and in the villages people have already learned to inquire whether a marriageable girl has completed primary or high school. In fact, as people are coming to prefer for a daughter-in-law an educated girl with a small dowry to an uneducated girl with a large dowry, parents are becoming eager to educate their daughters."[3]

Unfortunately, however, a sizeable section of the female population

still remains uneducated, as are, for instance, most of the daughters of the unskilled laborers and peasantry and girls from the big landowning class. The primary cause of this phenomenon is the feeling of suspicion and hostility that is found in certain quarters toward the idea of having girls educated—a feeling stemming from the apprehension that educated women are most likely to ignore the demands of religion and morality, to deviate from the Eastern way of life, and, above all, to shun household responsibilities. Such a hostile attitude is understandable, because it is a legacy of the days of colonial rule when the local leadership looked with grave suspicion at the forcibly imposed alien educational system; and because in certain cases some of the apprehensions have reportedly come true—although there is a growing realization that such stray unfavorable incidents in themselves do not establish any causal relationship between female education and the maldevelopments. Understanding does not mean condonation, however; that in certain regions the rural mind still appears to be unfavorably disposed towards education of the fair sex is deplorable, especially in view of the changed social and political conditions. It is unfortunate, indeed, that such obsessions should linger on in a progressive society that derives its inspiration from Islam, whose stress on the education and development of women has been so categorical. Rural educators in West Pakistan, therefore, shall have to take proper cognizance of this residue of rural resistance to a vital national need.

Desertions from the agricultural ranks. The new wave of education is alleged to have generated in some cases a repulsion for manual work and the ancestral agricultural profession; i.e., some newly educated villagers are reported to be developing a strong preference for industrial and secretarial jobs available in the neighborhood. Although this trend is not widespread, it is feared that it might spread further as industry expands. At the same time, it is hoped that the growing mechanization of agriculture, reducing physical toil to an absolute minimum, will curb the tendency to give up agriculture for a vocation less irksome manually.

What is important about this maldevelopment lies not so much in its magnitude but in its implication: that rural-education projects often fail to achieve their avowed objectives. An important function of an effective adult-education program, particularly in an underdeveloped Asian country, should be to implant in the participants a sense of social responsibility and a willingness to accept a life of hard work, rather than to promote indolence and escapism. In this context the fundamen-

tal education programs of the West Pakistan Agricultural University deserve appreciation, for they are successfully cultivating a positive love for agriculture among the participants. The Farm Guide Movement and the "Student-Farmer Brotherhood" program of the University, despite its limited scope, could serve as a model for further effort. With the declaration of an all-out offensive against illiteracy as spelled out in the New Education Policy,[4] the scope of such and similar other programs is bound to be extended.

Migrations among educated villagers. Much similar to the problem just cited is that of villagers migrating from their ancestral hamlets after being educated. Such a flight of talent is obviously deplorable for an underdeveloped rural society. Had he stayed, each educated emigrant could have added to the social, cultural, political, and economic strength and stability of his village.

An adequate understanding and control of the migratory trend and a check on its possible flare-up in the future are essential to a successful fulfillment of any village development project. The already meager rural resources and the dearth of enlightened leadership make it imperative to put an immediate halt to the exodus of talent through a careful analysis of such issues as: the precise aspects of the educational program that in spirit or content evoke aversion for the village and promote attraction to the towns; special features of the town life and environment that appeal to the imagination of the neo-literates; the physical, social, and cultural inadequacies of rural life that lend strength to the migratory trends; and the types of villagers who fall easy prey to urban temptations. Research on these and other related issues could be profitably sponsored jointly by the Department of Education, the Auqaf Department, and the Department of Social Welfare and also by the education and social science faculties of the universities.

Sometimes it is argued that the migratory trend is declining and that the problem, therefore, has lost much of its former urgency. It is reported that many rural emigrants have returned to their native village disillusioned, having found life in the town, complex and taxing. At the same time, the inhabitants in many villages are said to have reacted bitterly against the "black sheep" who deserted their kith and kin. Such strong social censure, it is reported, is providing a further check on the tendency to quit one's native village and form contacts with city-dwellers as soon as one is educated. These reports are heartening, no doubt. But are they based on reliable statistics or on wishful thinking?

The answer can be ascertained only by a careful analysis of facts—if they are facts, indeed—which unfortunately has not yet been done.

Obstacles to Rural Development

While the new era of reconstruction is affecting practically all facets of village life, attempts are being made to narrow the gap between rural and urban economies. The process of development, however, has highlighted certain formidable issues, which are further complicated by confused thinking. Although these issues have been examined in the foregoing chapters, some of the basic ones are being reexamined here.

AGRICULTURAL VERSUS INDUSTRIAL EXPANSION

The government fiscal policy is according preferential treatment to agriculture in order to meet food deficits: (1) income from agriculture is left untaxed; (2) water revenue rates have been raised only moderately, the revised rates bearing no relationship to the soaring prices of agricultural commodities and to the corresponding increase in the incomes of the farming communities; and (3) a multiplicity of technical and financial facilities are being liberally extended to the farming communities. As a result, there have been criticisms directed at the government for the heavy emphasis it places on the development of agricultural potential by those who fear that a lopsided emphasis on farm economy is liable to arrest the growth of industry that is so vital to progress and prosperity.

This apprehension is not well-founded, for industrial growth is receiving as much official attention as that given to agricultural development. A planned and proportionate growth of industry in the rural regions is paving the way for a new harmony between agriculture and industry. Furthermore, mechanized agriculture has begun to yield a better quality and greater quantity of agricultural products. Consequently, the food requirements of the province now do not seem to demand the physical extension of agricultural projects over such large tracts of land as they used to be required prior to the introduction of mechanized farming. Moreover, the installation of industry in rural areas in no way threatens the quality and quantity of agricultural output. An ill-planned and one-sided development of either industry or agriculture might have disturbed the situation. As it is, the government is maintaining a judicious balance between the two; hence, the concern over possible damage to either sector does not appear to have any justification.

INADEQUACIES OF THE RURAL ENVIRONMENT

The inherent inadequacy of the village environment is an impediment to rural development, because the unstimulating setting and absence of modern facilities in the villages make it hard for development experts, technicians, medical men, educators, and social workers, who are accustomed to urban conveniences, to live and work in the villages. Even a genuinely inspired professional interest in rural development begins to wane when working and living conditions are uncongenial.

The improving of the physical conditions of the villages is thus imperative. Rural housing needs drastic improvement. Local communities could be motivated to cooperate with relevant authorities in working towards this end. For example, village schools and dispensaries could be remodeled into comfortable, brick structures that could be utilized to accommodate specialists and workers from the towns during nonworking hours. There are many other inadequacies. Rural electrification projects and rural road and communications projects all need to be speeded up. Rural health problems, especially those relating to sewerage, drinking water, and malaria eradication, demand immediate attention. Cultural and recreational facilities need to be organized on an extensive scale. Small branches of the development offices dealing with villages, which are presently located in remote urban areas, need to be opened in the big villages. This last measure is likely to eliminate a great deal of red tape and much inconvenience. These and allied measures would provide a congenial environment for all rural reconstruction workers. Although some work on these lines has already started, it is not proportionate to the urgency and magnitude of the need.

PROBLEM OF DEPRIVED GROUPS

One of the acid tests of a welfare state lies in the quantity of improvement wrought in the lives of the underprivileged. In West Pakistan certain special categories of villagers who have particular problems demand concerted attention. Of these the most conspicuous are: (1) the landless peasantry, (2) the villagers displaced as a result of development projects, and (3) the villagers of the war-hit border.

The landless peasantry. Affluent feudalism and a starving peasantry—an imbalance in the rural economy by the coexistence of an overlanded and a landless class—are both a legacy of the colonial rule, now a serious concern of most of the progressive states of Asia and Africa.

Table 22: Land Allotment to Peasants by Division (under the Land Reforms Scheme, in acres)

Division	*Land Allotment*
Peshawar	71,639
D. I. Khan	20,538
Rawalpindi	62,137
Sargodha	95,213
Lahore	5,023
Multan	159,873
Bahawalpur	37,556
Hyderabad	99,071
Khairpur	286,244
Karachi	1,342
Total	838,636

West Pakistan has tried to remedy this imbalance through the Land Reforms Scheme, which, as shown in Table 22, allotted 838,636 acres of cultivable land to the landless peasantry in the various divisions of the province towards the close of 1968. Although land reform is being carried out slowly, the figures in Table 22 show that beginnings have been made in the right direction. The scheme has recently been extended to the newly constituted Malakand division, comprising the former states of Swat, Dhir, and Chitral. Projects for the reclamation of wastelands, founding of new colonies, and mass resettlement of peasants are further reducing the number of landless peasants.

Project-displaced persons. Several massive development projects under way in rural areas have uprooted a large number of families, creating thereby a complex of socioeconomic problems. The biggest instance is that of the Mangla Dam reservoir, which has dislocated 18,500 families composed of 81,000 persons who are now being resettled on other lands.

Villagers of the war-hit border. A third category of persons in need of rehabilitation is the population of border villages who bore the brunt of aggression during the 1965 conflict between Pakistan and India. The displaced population in the Lahore and Sialkot villages numbered

371,761; the cultivable land affected by the conflict totalled 220,000 acres. All relevant government departments—Revenue, Agriculture, Public Works, Health, Social Welfare, and Education—are working as a team in resettlement operations, because, if overlooked or poorly handled, the problem of the displaced villagers could affect adversely a number of rural development projects that would lead to far-reaching repercussions on the urban economy.

To meet the problem of the displaced villagers, we need a more active community effort at the voluntary level, with the urban population joining hands in bettering the plight of their less fortunate rural brethren. College and university students have held a series of manual-work camps in the affected villages; and quite a few voluntary organizations are also reported to have engaged in the reclamation work. Such a voluntary response is fairly encouraging, to be sure. But its size and momentum is not commensurate with the need; it is, moreover, frequently marred by a lack of consistency, coordination, and accuracy. More planned and coordinated voluntary participation is needed for a speedy rehabilitation of the rural communities afflicted with deprivation and displacement.

Need for Dynamism and Coordination

The magnitude of the contemporary problems obviously calls for a comprehensive and coordinated approach that would minimize wastage and delay in the realization of the national targets of universal primary education, high rate of adult literacy, self-sufficiency in all essential foodstuffs, and decent living conditions for all strata of rural population.

VIGOROUS PROMOTION OF EDUCATION

The effort now given to the problems of rural education demand certain radical changes, for although commercial centers, technical institutions, and colleges are being set up by voluntary organizations right in the heart of rural regions, such attempts are sporadic and are manifestly inadequate in meeting the limitation of existing facilities. Rural education obviously calls for large-scale expansion, so that village students who wish to continue their studies after the secondary stage are not handicapped simply because of the absence of adequate facilities in their neighborhood. The establishment of separate rural education departments and rural universities would provide an ideal remedy, although it is not financially feasible at the moment.

As rural environment and requirements differ somewhat from the urban, curricula and textbooks used in rural areas should be different in content from those used in urban institutions. It is desirable, therefore, that separate wings for the development of rural curricula, preparation of textbooks, and administration of rural educational institutions and teachers' training centers be set up, either as autonomous organizations or as specialized units of the regional Directorates of Education, the Boards of Intermediate and Secondary Education, and the Textbook Boards. An example of a specialized unit exclusively devoted to the educational advancement of an underdeveloped region is that of the Directorate of Education, Frontier Region, although the scope of this official agency is limited primarily to administrative affairs.

Another vital need is coordination of effort, now conspicuous by its absence, especially at the adult-education level. In rural regions adult-literacy centers are run by the Department of Education, the West Pakistan Agricultural University, the West Pakistan Youth Movement, and a number of other voluntary associations. Unfortunately, there is little coordination between their functioning, resulting in considerable duplication and wastage. Immediate steps, therefore, should be taken to correlate the efforts of all relevant agencies. Such a procedure would be in harmony with the over-all thinking of the New Education Policy.[5]

Lastly, the state exchequer and official edicts alone will not bring about the desired reorientation. Investment of more voluntary funds and effort is direly needed. In this connection the community expects a lot from the industrial sector, which is still lukewarm in the discharge of its obligation towards the rural population. The landlords appear to be equally indifferent. As their tax-free agricultural incomes shoot up, these prosperous feudal lords hasten to quit the village in favor of luxury villas in a fashionable metropolis. The alluring possibility of exercising a privileged grip over provincial politics, wielding influence in the administration, and the thought of indulging themselves in all sorts of earthly pleasures often make these men oblivious of their basic obligations towards the unfortunate peasantry. More dynamic motivational techniques shall have to be evolved to clear away the mental cobwebs of these moneyed strata of society.

ACCELERATING RURAL RECONSTRUCTION

A similarly constructive and coordinated approach is needed in the planning and execution of other rural development projects. A more liberal policy in the import, local manufacture, and distribution of mod-

ern agricultural equipment is sorely needed. Easy availability of tractors, for instance, would step up mechanized farming. Adequate attention, however, must be paid to certain basic problems. Whereas big landowners will not experience any difficulty in acquiring tractors, small holders are liable to face obstacles in their purchase, operation, and maintenance. The obvious solution lies in the organization of petty farmers into cooperative societies that would enable them to buy and use tractors on a collective basis.

A tractor, however, is not the only equipment needed to boost productivity. Farmers require a score of other technical and financial facilities, of which the most basic are: a large-scale expansion of rural credit; a more extensive hydrological development and fertilizer facilities; organization of more convenient marketing arrangements; a better-planned extension of agricultural education; and effective training for modernizing agronomic practices. The recent setting up of high-powered committees on agriculture, on the recommendation of the National Economic Council, reveals a realistic awareness of the gigantic task ahead. These committees are charged with keeping a constant vigil on all facets of agricultural development to promote an integrated agriculture. In fact, commendable beginnings in this direction have already been made by the Water and Power Development Authority, the Agricultural Development Corporation, and the Department of Agriculture. Steps are also being taken to carry out the revolutionary measures outlined by the Food and Agriculture Commission.[6] In doing so, constant care shall have to be exercised to maintain a proper balance between agricultural and industrial priorities.

In the ultimate analysis, rural development is closely linked with sound agricultural research. The National Council of Agricultural Research can play a significant role by giving financial and technical support to various research programs. Another way of financing agricultural research would be to have big organizations, such as the Agricultural Development Corporation, the Water and Power Development Authority, the Agricultural Development Bank, and the West Pakistan Industrial Development Corporation, allocate funds to the Agricultural University for the study of their problems. The case of the Central Jute Committee, which offered financial aid to the universities for jute research, could be cited as a stimulating example. Care should be taken, however, to keep the research atmosphere free from bureaucratic interference. "At all levels the active scientist as against the arm-chair administrator should have the final say in framing research policies."[7]

Village development also hinges considerably on bridging the gulf between rural and urban environments and living standards. Unless this aspect of the problem is attended to effectively, no development program is likely to make any worthwhile progress. The Directorate of Rural Works Programs has set an inspiring precedent, for underlying its massive development projects is the fundamental aim of making available to the villagers most of the basic amenities of life that are being enjoyed by the townsmen. It is desirable that a similar approach be adopted by all government departments. Voluntary organizations could follow the stimulating example set by the directorate, joining hands with official agencies in the colossal task of rural regeneration so that even the humblest of villagers might have a taste of democracy and modernization.

INDISPENSABILITY OF A MULTIDIMENSIONAL APPROACH

It is needless to reemphasize that rural reconstruction poses a series of challenges. Unless a development worker approaches his assignment with courage and vision, he is not likely to cut much ice. A specialist committing the error of the four blind men of the fable, each of whom construed the image of the elephant according to his individual whim, is liable to render more harm than good. What is clearly needed is a balanced and multidimensional approach, with all government and voluntary individuals and agencies together making a well-planned endeavor at bettering the rural life and economy.

Of late there has been a shift towards coordination in the official thinking. Some appreciable instances of current interdepartmental cooperation are: the Auqaf Department and the Department of Education collaborating in rural adult education projects; WAPDA and the Department of Fisheries attending to waterlogged areas; the Department of Animal Husbandry and the Department of Forestry developing pastures and livestock; the Department of Forestry and the Directorate of Rural Works Program constructing new roads; and the Department of Game and the Crop Production Unit of the Department of Agriculture preserving partridges and other pest-eating birds. There are quite a few voluntary associations that have stepped in in a number of these joint ventures sponsored by official agencies. A recent instance of liberal cooperation is provided by the Department of Social Welfare, the Panjab University Students' Union, and several religious, social, and political organizations that joined hands in the task of rehabilitating the displaced villagers.

Patterns of such multidimensional and synthesized approaches need to be extended to all other facets of the village life and economy. For a developing region like West Pakistan, this is the most economical and virtually the only sure approach for a timely completion of all those challenging targets that have been set forth in the national Plans. As a matter of fact, owing to the basic similarity of village problems in developing nations, such an all-inclusive approach has now begun to form the basis of all sound planning for rural development in practically all emerging states of Asia and Africa.

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