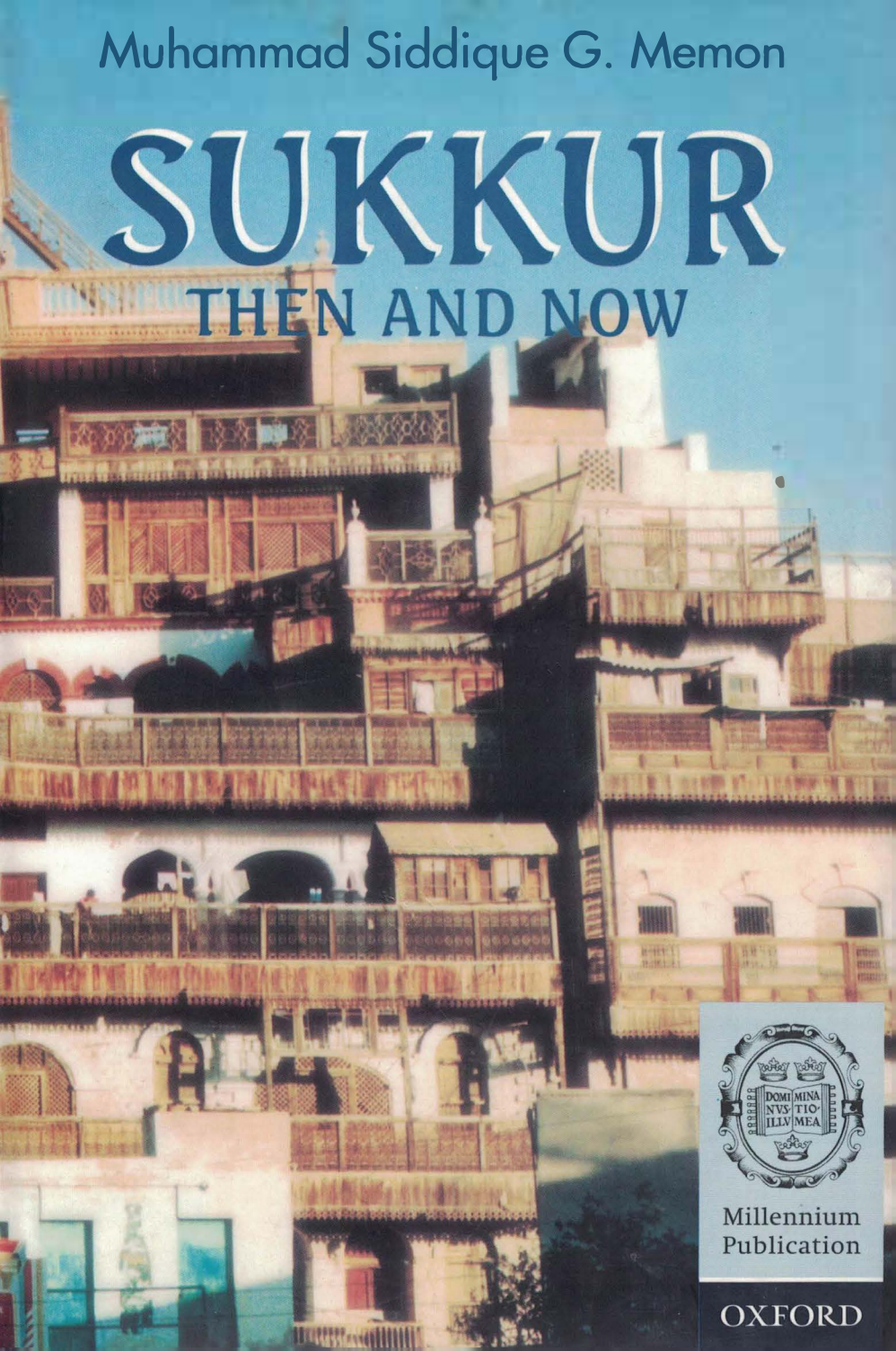


Muhammad Siddique G. Memon

SUKKUR

THEN AND NOW



Millennium
Publication

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Sukkur Then and Now

Muhammad Siddique G. Memon

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* Photographs supplied by H.M. Farooq Memon.

** Photograph courtesy of Hamida Khuhro.

FOREWORD

The first-ever *Sindh Gazetteer* was written in 1874 by A.W. Hughes, a member of the Bombay Revenue Service. He was encyclopaedic in his approach—he provided an exhaustive introduction covering historical, geographical, ethnological, and other socio-economic aspects, followed by a brief and concise narrative of each and every important village and town of Sindh in alphabetical order. Further, this *Gazetteer* delineated an evolutionary sketch of the British administration in Sindh after its conquest in AD 1843.

At the turn of the century, that is, in 1904, B.A. Brendon was asked to compile the *Gazetteer of Sindh* afresh. He planned to prepare the *Gazetteer* for each District in two volumes. Volume A was to contain material of a permanent nature, whereas B was to consist of statistical data only, to be revised and updated periodically. Brendon could not finish the task as he had to leave for Europe, and it was assigned to E.H. Aitken, who modified the original plan to the extent that there was to be one volume of a general nature for all Sindh, with separate B volumes for each District. However, he completed only the introductory volume, which was published in 1907. Later his work was taken up by J.W. Smyth, who compiled the three B volumes in respect of Upper Sindh Frontier (Jacobabad), Thar and Parkar (now Thar, Umerkot, and Mirpurkhas [Tharparkar Districts]), and Nawabshah. The first two were published in 1919 and the third in 1920. As regards Karachi, Hyderabad, Sukkur, and Larkana Districts, the B volumes were published in 1927, but this time the name of the compiler was not mentioned.

The work on the fourth edition of the *Gazetteer* was undertaken in 1957 by H.T. Sorley, an ICS officer who had served in Sindh and was already well-known as the author of *Shah Abdul Latif of Bhit*. He completed his assignment in

1959, but it was not published until 1968. His perspective was more general as he was supposed to produce a volume of more than local interest. This is discernible from his style and treatment of the subject.

The work on the fifth edition was undertaken under the auspices of the Board of Revenue, Sindh, in the mid 1970s and entrusted to Syed Bachal Shah, a retired revenue official. He tried to produce a single comprehensive volume in respect of each District, and in all he had completed gazetteers of eleven Districts by 1978, leaving out only Karachi District. It is unfortunate that, of these eleven gazetteers, only eight have so far been published. All, however, strictly conform to the prescribed traditional format, thus there is a uniform treatment of the subject matter in all the volumes.

The present work is the first endeavour on the part of any individual to undertake the compilation of a gazetteer on his own, as prior to this it has always been considered to be the Government's prerogative. The present gazetteer is different in many respects. It provides great insight into rare material on the historical background of Sukkur, where the author had the privilege of serving for a good number of years as a revenue official. Besides, it deals with a host of topics which have never been the subject matter of a gazetteer before. Being a revenue official, the author has collected valuable information about various aspects of the land revenue system in Sindh, which he has presented in a systematic and chronological fashion.

The author deserves all commendation for maintaining a high standard of research and scholarship, as is evident from his presentation. Simultaneously, I appreciate the efforts of Oxford University Press in undertaking the publication of this volume, which is definitely a precious addition to this particular kind of literature on Sindh.

Abdul Ghaffar Soomro
Commissioner, Hyderabad Division

PREFACE

The first edition of the *Sindh Gazetteer* was compiled in 1874 by A.W. Hughes, a member of the Bombay Revenue Service. After some slight amendment in 1876, the second edition was compiled in 1907 by E.H. Aitken, who worked for the Bombay Salt and Excise Department. Aitken also published the *Imperial Gazetteer of Sindh* in 1906. The third edition of Volume B for Sukkur District was compiled by J.W. Smyth, an ICS officer, in 1928. The fourth edition was published in August 1968 by Dr Herbert Tower Sorley, an eminent authority on Sindh and the author of *Shah Abdul Latif of Bhit*. A few years ago a small book, *Sukkur Past and Present*, was also published by Abdul Razak Shaikh. Later a few brief notes were prepared here and there by some of the Deputy Commissioners of District Sukkur. Since then nothing resembling the *Sindh Gazetteer* in scope and accuracy has been published.

The utility of a gazetteer, which means a geographical dictionary, can hardly be overemphasized. It is an important work of reference. I have borne this in mind while compiling this book. Sukkur District has undergone many changes, economic, political, social, administrative, and territorial, including the creation of a new District, Shikarpur, in 1977. As Additional Deputy Commissioner, Sukkur, for five and a half years (1976-82) I witnessed the ensuing developments.

Until our time, no historian has been able to trace the origin and early history of Sukkur. During the course of my tenure, this gap haunted my mind, so I started conducting research in this area. Fortunately, after hard labour, I succeeded in tracing that history, and can now offer the story of how 'Old Sukkur' and 'New Sukkur' obtained their names (see, chapter 1).

I am thankful to Allah Bux Soomro, Ali Dino Panwar, and Mohibullah Shah, Commissioner, Sukkur Division, who were helpful and generous to me. I am also thankful to Manzoor Hussain Bhutto, Ghiasuddin Junejo, and Mumtaz Ahmed Khan, Deputy Commissioner, Sukkur District, for their excellent co-operation. I am indebted to Mr Tasneem Ahmed Siddiqui, former Deputy Commissioner, Sukkur, for the valuable suggestions he gave me from time to time.

In addition to the above officers, I would be failing in my acknowledgment if I did not record the helping hand extended by other colleagues who also worked hard in collecting and typing the relevant materials. Sayed Mazhar Ali Shah Bukhari, now Director, Local Government, Sukkur Division, and Mr Basharat Hussain Butt, Assistant, Deputy Commissioner's Office, did a lot of work. Rana Rashid Ahmed, Assistant Deputy Commissioner's Office, accompanied me throughout the District and took photographs of various important places.

I hope that this book will prove useful for those who are interested in the development of District Sukkur.

Muhammad Siddique G. Memon
December 1998

INTRODUCTION

A Brief History of Sindh

Prior to the invasion by the Arabs in AD 713, Sindh was ruled by a Hindu dynasty whose capital was at Alore (or Arore, Alor, Al Rur), a large city on the banks of the Indus, also known as the Mehran. The boundaries of this kingdom extended up to Kashmir in the north, Mekran in the south, and Kandhar in the west. Prior to this Rai Siharas (AD 515-50) was the best-known king of this dynasty. The Persian army attacked Sindh in AD 626, during the reign of Rai Siharas II, defeating his forces. The king was killed but the Persians were recalled because of an attack from the west on their domains. His successor, Rai Sahasi, was a good and wise ruler. He in turn was succeeded in about AD 638 by Chach, a Brahman and the son of Rai Sahasi's chamberlain. Chach ruled for over thirty years and was succeeded in AD 671 by his brother Chandar, who ruled for only eight years. Chach's eldest son Dahir then came to the throne, and it was during his reign that the momentous invasion by Muhammad bin Qasim took place. The ostensible reason for the invasion was the alleged ill-treatment of some Arab merchants, who claimed to have been attacked by robbers while returning home from the markets of Sindh.

By the time Mahmood of Ghazni invaded India for the fourth time in AD 1019, Sindh was being ruled by a governor who was nominally answerable to the Abbasid Caliph.

Mahmood's representative, Muhammad Abdul Razai, conquered Sindh in AD 1026, but the Ghaznavids did not remain in control for long because in AD 1032 the ruler of Multan, Ibne Sumar, set up a more or less independent

rule which became the Sumra dynasty. Some three hundred years later their line was replaced by that of the Sammas, who ruled for two centuries and were followed by the Arghuns, the Daudpotas, the Kalhoras, and the Talpurs.

During the period of British rule, Lord Auckland as Governor-General concluded a tripartite treaty with Shah Shujah, the Afghan Prince, and Raja Ranjit Singh. As a result of this treaty the Sindh rulers were made to pay twenty-five lakhs of rupees to Shah Shujah to enable him to invade Kabul. The Mirs of Sindh were also compelled to allow British troops to pass through their territory. First the British took possession of Bukkur Fort, and eventually the entire territory of the Talpur was taken from him. After the death of Mir Sohrab Talpur, ruler of Khairpur, in 1830, Upper Sindh was divided equally amongst his three sons, of whom Mir Rustam Khan was the most powerful. He proposed a treaty of friendship with the British, under which they (the British) would be permitted to establish garrisons at Sukkur and at Shikarpur. As a result of intrigues amongst the Mirs, the British political agent recommended the requisitioning of Shikarpur. Sir Charles Napier strongly supported the suggestion. A treaty was concluded under which Sukkur, Bukkur, and Rohri, along with Karachi and Thatta, were annexed by the British. In 1842 Col. Wallace marched through the ceded Districts and Napier marched towards Khairpur. In 1847 the Talpurs ceded their territory to the British. After the battle of Miyani on 17 February 1843, the British took control over the entire area of Sindh except a small area of Khairpur, which was left under the control of Mir Ali Murad Khan. Sir Charles Napier became the first Governor with full political, revenue, and military powers.

Sindh was then virtually an independent province, though officially it had a liaison with the Presidency of Bombay. After Napier's departure in 1847, a Commissioner was appointed and Sindh became merely one Division, albeit the Commissioner was to a certain extent more

independent and more free than the Commissioners in charge of other Divisions of the Bombay Presidency. Even the Bombay High Court had no jurisdiction in Sindh. The Bombay Presidency was in fact just like the provincial government, exercising merely provincial powers, while the Government of India dealt with external affairs, defence, customs, railways, and the like.

At the Indian Round Table Conference held on 12 November 1930 it was decided that a subcommittee be set up to consider the question of constituting Sindh as a separate province. The subcommittee, under the chairmanship of Lord Russell, held its sittings on 12,13,14 January 1931 in London. They considered the racial and linguistic difference between the inhabitants of Sindh and those of the Presidency proper, the geographical isolation of Sindh from Bombay, the difficulties of communication between the two, and the insistence with which the separation had been advocated, and concluded that an impressive case for the division of Sindh from the Bombay Presidency existed, and that the principle of separation should be accepted.

Thus Sindh as a Governor's Province became an autonomous body in the administrative set-up of British India from 1 April 1936, and this continued until the partition of India in 1947. Under the new set-up, the Commissioner in Sindh as such disappeared, the post being changed to that of Revenue Commissioner, which lacked the authority which had attached to the Commissioner in Sindh's post. It was now merely the headship of the department in the secretariat responsible to the elected government of the day. The last Commissioner in Sindh was Mr R. E. Gibson, CSI, CEI (1934-6). The first Governor was Sir Lancelot Graham, ICS, and the first Chief Minister was Sir Ghulam Hussain Hidayatullah.

Sindh remained a Governor's Province for a little over nineteen years, from 1 April 1936 to 3 October 1955.

The West Pakistan Act 1955 came into force on 3 October 1955, under which Sindh became part of the unit of West Pakistan along with the Governor's Provinces of Punjab and North-West Frontier, the Chief Commissioner Province of Balochistan and Karachi, the states of Bahawalpur and Khairpur, the Balochistan States Union, and the states of Umb, Chitral, Dir, and Swat. This amalgamation (One Unit) took effect from 14 October 1955.

In the new arrangement, Sindh lost its individuality as a province and became merely two Divisions—Hyderabad and Khairpur—of West Pakistan, with provincial headquarters at Lahore. Therefore, after 1955, Sindh reverted to a position analogous to that which it held till 1936 as a Division in the provincial unit of the Bombay Presidency.

The province of West Pakistan was dissolved on 30 June 1970, and Sindh again reverted to the status of a province with the formation of a provincial government. The divisional administration, however, continued to operate up to 19 March 1972, when the Government of Sindh decided to abolish it. The post of Revenue Commissioner was revived after the dissolution of One Unit, but was again abolished on 31 July 1974.

AN INTRODUCTION TO SUKKUR

Major H. G. Raverty, the author of *The Mehran of Sindh*, tells us that no such place as Sukkur is mentioned in any history of the subcontinent down to the time of Syed Mir Masoom alias Bukkare. It is not mentioned in the *Ain-i-Akbari*, although Bukkur, Rohri, and Arore are. Henry Cousens, author of *The Antiquities of Sindh*, thinks Sukkur was originally Bukkur before the latter was separated from the fort by the river. He has no idea of what the name Sukkur means. Sir H.M. Elliott, in *The History of Sindh as told by its own Historians*, offers 'embankment' as the meaning, and says the place is better known to its inhabitants as Chipry Bandar.

Abdul Razak Shaikh, the author of *Sukkur Past and Present*, gives the following genealogy for the name 'Sukkur':

There are many divergent versions about the name of Sukkur and none appeals to the mind...It is said that Mohammad bin Qasim after passing through thick forest, reached a hilly plain and uttered the word *shukr* meaning *thanks*, which was in time transformed into Sukkur; but others say that the Muslim general uttered the word *sakkar* (سكر), *hell*, due to the intense heat and suffocation of the place. Some are of the view that the word has been taken from *sukh*, meaning happiness. It is further argued that there was cultivation of sugar-cane surrounding the place and it was therefore named *shakar*, meaning sugar. Some are of the opinion that it is the degenerated shape of Bakhar and 'B' was changed into 'S'.

Parsam V. Masand, in his book *Sukkur the Sweet*, published in 1940, has repeated the same history.

In 1910, G.N. Mehta was appointed as Special Investigation Officer of Government Title to Cantonment Land, Government of Bombay. In his report of 24 March 1910 he wrote that the old town of Sukkur was said to have been founded about AD 375 by a Hindu Brahmin named Verbham (Birmanji) and was first named after him. In AD 492 its name was changed to Shukar to perpetuate the memory of Birmanji's death, which took place on a Friday, *Shukar* in Sanskrit. The name was gradually corrupted to Sukkur.

As regards the creation of New Sukkur, Mehta's report stated that officers' houses were being built on the ridge of small hills situated to the south, south-east, and south-west of Native Infantry Lines, while below the ridge and to the south of the Lines, on the low ground on the river bank, a 'Saddar Bazar' supplying the soldiers' needs had also begun to spring up. This Saddar Bazar quarter is now known as 'New Sukkur'.

Topography

Climate

The District has extremes of climate. During summer the temperature sometimes rises to 122°F, while in winter it nears freezing point. The months of August and September are stuffy and suffocating. However, the nights of May, June, and July are pleasant. In winter, the climate is dry and mild. The sea breeze does not reach this District. Although cyclones and windstorms are uncommon, a hot wind strafes the District in April, blowing from morning till evening in a north-westerly direction. This searing hot wind of the desert makes life oppressive. Maximum and minimum mean temperatures are indicated below:

Maximum mean in degrees Fahrenheit		Minimum mean in degrees Fahrenheit	
Summer	114		73
Winter	85		37
Spring	109		61

Rainfall is poor in the District, the yearly average being only two to three inches.

Geology

The River Indus runs through the District, and there are lakes on both sides of the river. The eastern part of the District, consisting of part of *taluka* Rohri, juts out east of the Nara as far as Mirpur. *Taluka* Mathelo extends south and east of the Dahar Canal. This region is known as *Registan*. The predominant topographical feature of the District is a flat and level plain.

Indus alluvium occupies most of Sukkur District. It is a fairly level alluvial flood-plain formed during and since the Pleistocene period, deposited by the River Indus and its tributaries over a base of tertiary shales and limestone. Salt and saltpetre are the two minerals found in the District. There are two stone quarries in Sukkur District, one in Old Sukkur and the second in *taluka* Rohri. Stone from the Sukkur quarry has been used by the Public Works Department since 1956 in the construction of Guddu Barrage, buildings, and a road. A portion of the Rohri quarry, 900 acres, is leased by the Government of Sindh to the Associated Cement Co.; 400 acres were reserved for the Guddu Project; and 400 acres were reserved for the construction of spurs near the Khairpur Feeder. There is a fuller's earth quarry in *taluka* Rohri which has been leased out by the Government.

There are no hills in the District except the low range on the northern extremity on which Sukkur and Rohri are

built. This range runs southward from these cities to Khairpur District. They extend for some twenty-five miles, spreading out to a width of seventeen miles. They are composed of nummulitic limestone deposits and belong to the same geological group as the Kirthar range, which they resemble in their rugged and barren terrain.

Geomorphology

Intensive soil surveys show that there is a close relationship between the mode of alluvial deposition and the soil texture; it follows that an equally strong correlation exists between soil texture and the geomorphology. The soils are classified on the basis of their texture because they are too young to be classified petrologically and show no definite zonal characteristics. Considerable variations in texture in the soil profiles of the alluvial basin were found when the rocks were first studied in detail by Messers W.T. Blanford and F.Fedden of the Geological Survey of India between 1874 and 1877. The results were published in 1879 (Mem. GSI vol. XVIII) by Mr. W.T. Blanford. He divided the tertiaries of Sindh into five series, and his original classification is still followed, with slight modification. In 1900, Messers F. Noetling and E. Vredenburg discovered differences in the fossil contents in the lower and upper parts of Blanford's original Kirthar series and the older beds were separated under a distinct name, Lakhi series.

Sindh region has evoked considerable interest from the oil companies in view of the potentialities of its rocks as a source of oil. The geologists of the oil companies have contributed considerably towards the advancement of our geological knowledge of Sindh region.

The soils of the area are suitable for growing a wide range of crops. Under proper management, they are capable of producing very high yields.

Population

The main tribes living in the District are: the Pirzadas, the Bhuttas, the Mangis, the Labanas, the Pathans, the Bandhanis, the Syeds, the Jatois, the Abbasis, the Qureshis, the Khosas, the Bhayas, the Chachars, the Bullas, the Shaikhs, the Indaras, the Ghotas, the Lagharis, the Sundranis, the Mahars, the Samejas, the Dharejas, the Pitafis, the Qadris, and the Junejas, with Mohana fishermen living on the river.

A variety of faiths and subsects are represented, including Agha Khani, Memon, Kathiawari, Christian, and Hindu, although the majority of the population is Sunni Muslim.

The main languages spoken are Urdu, Sindhi, and Punjabi.

THE CHANGING FORMS OF ADMINISTRATION

On conquering Sindh in 1843, Sir Charles Napier inherited from the Talpurs a system of administration which was particularly suited to the state of semi-isolation into which Sindh had fallen since the decline of the Mughal Empire. In the workings of this system—in its revenue and judicial administration—could be discerned traces of the earlier Mughal system, the sharp outlines of which had become blurred by the patriarchal and tribal nature of the Kalhora, and particularly, the Talpur regimes which succeeded it.*

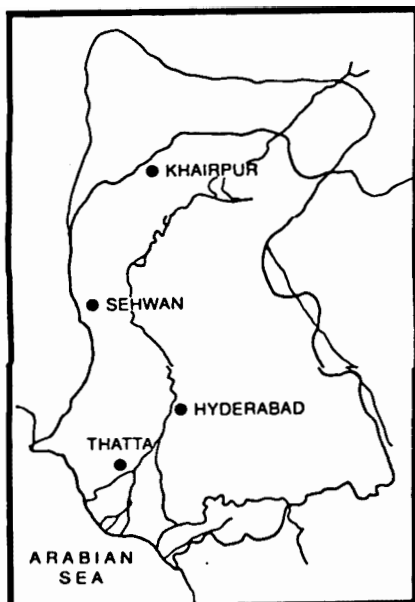
Mughal Period

Under the Mughals (1592-1737), Sindh was divided into the *Sarkars* (Divisions) of Bakhar (Upper Sindh) and Thatta (Lower Sindh) in the *Suba* (province) of Multan. In the *Sarkar* of Bakhar were the important towns of Shikarpur, Sukkur, Rohri, and Sehwan. Thatta was the most important town of Lower Sindh; it controlled the ports of Shahbunder, Lahribunder, and Aurangbunder.

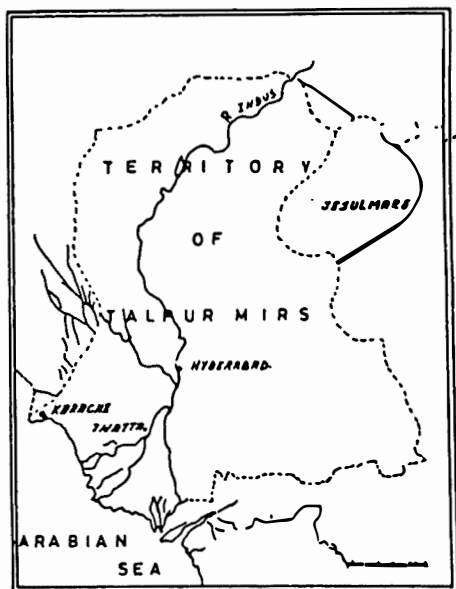
Kalhora Period

Mian Yar Muhammad was made the first Governor of Sindh *de jure*, though not *de facto*, in AD 1701 by the

* Hamida Khuhro, *The Making of Modern Sind: British Policy and Social Change in the Nineteenth Century*, Indus Publications, Karachi, 1978.



Sindh under the Kalhoras.



Sindh under the Talpurs.

Mughal emperor Aurangzeb, and the title 'Khuda Yar Khan' was conferred upon him. He may be regarded as the real founder of the dynasty. Sindh was united under the Kalhora dynasty, the first dynasty since the fall of the Sammas in 1521. The Kalhoras were in power for eighty-two years. During that period a permanent change was made in the centre of gravity of Sindh. From very early times, the two natural centres of government had been Thatta and the fortress of Bakhar, and of these Thatta had always been completely free from foreign influence. At Umerkot and Kakrala, and some other, minor, places, Hindu rulers had continued to hold more or less independent power, and the Muslim rulers, forming matrimonial alliances with Sodha and Rajput chiefs, had become 'Hinduized' to some extent. The transformation was completed under the Talpurs. The administration system was based partly on the theory of the Koran and partly on the system which the Mughals had perfected. The Kalhoras had a great reputation as builders of canals.

Talpur Period (1783-1843)

To facilitate the collection of revenue, Sindh was divided into *parganas* or provinces and again into *tapas* or Districts. The principal *parganas* in Lower Sindh were Thatta, Chachgam, Kakralo, Dhareja, Sindra, and Imamwah; in Upper Sindh, Sundra, Shahdadpur, Khairpur, Gambat, Halani, Bahlani, Lahri, Sehwan, Chandko, Mogalli, Rupar, Kacha, and Chappa. Over each *pargana* was a *sazwalkar*, or head collector of revenue, with a small establishment of *munshis* and others to administer its revenue affairs; over each *tapa* was a *kardar* with a smaller establishment. Where a town was divided amongst several Mirs, (up to six or seven), each had a representative to watch over his interests. (The office of *sazwalkar* which existed under the Mirs was abolished by the British Government and the incumbents

were made *kardars* receiving one-fifth of their former pay. The salary of the original *kardars* was also reduced by half.)

Foujdars and *daroghas* were in charge of large towns and *kotwals* were in charge of the smaller towns. The administration of the countryside was entrusted to *kardars* who held assured positions as both revenue and judicial officers.

British Period (1843-1947)

On the annexation of Sindh by the British in 1843, Sir Charles Napier was appointed Governor of the province with a monthly salary of Rs 8,000. At first he made Hyderabad his headquarters but afterwards he transferred to Karachi.

He divided the province into three Collectorates for revenue and magisterial purposes. These were: Karachi, with an area of 160,000 sq.m.; Hyderabad, with an area of 30,000 sq.m.; and Shikarpur, with an area of 11,532 sq.m. The Shikarpur Collectorate embraced roughly the whole of present-day Sukkur, Upper Sindh Frontier, and Larkana Districts except for the *talukas* of Dadu, Johi, and Sehwan. The officer in charge of each District was called a Collector, and had under him Deputy Collectors. The first Collectors were Lieutenant Rathbone in Hyderabad, Captain Preedy in Karachi, and Captain Pope in Sukkur and Rohri (Shikarpur).

Assistant Collectors were responsible for revenue collection and magisterial duties in the portions of the District called Subdivisions. Each Subdivision comprised several *talukas*. For administrative purposes, the District was divided into *talukas* and sometimes even further, into *mahals*. Each *taluka* was in the hands of a *mukhtiarkar* who, in addition to revenue duties, had magisterial powers and the custody of a subtreasury established for his *taluka*. The *talukas* were further subdivided into *tapas*, each of which was made up of a group of *dehs*. Between the *mukhtiarkar* and the *tapadar*, the man in charge of a *tapa*,

there was a cadre of inspecting officers known as supervising *tapadars*. There was one supervising *tapadar* to every four or five ordinary *tapadars*.

Sindh, though generally regarded as a non-bureaucratized province, became more and more bureaucratized as the principal regulations and acts of the other provinces were, in time, extended to it for political reasons, e.g. revenue collection and judicial efficiency. It was divided into five large portions: the three Collectorates of Karachi, Hyderabad, and Shikarpur, and the two political superintendencies of Upper Sindh Frontier, with District HQ at Jacobabad, and Tharparkar, with District HQ first at Umerkot and later at Mirpurkhas. Each Collector was assisted by deputy and extra assistant collectors and magistrates.

The political subdivisions in District Shikarpur were (i) Sukkur and Shikarpur, and (ii) Rohri. The Sukkur-Shikarpur and Rohri subdivisions are tabulated below according to the acreage in their respective *talukas*, *tapas*, *dehs*, and total area :

Name of subdivision	Name of <i>taluka</i>	Area in Sq.miles	Name of <i>tapa</i>	Number of <i>dehs</i>	Total area (in English acres)
1. Sukkur & Shikarpur	1. Shikarpur	472	1. Kot Sultan	66	302,274
			2. Nur Muhammad Sujrah		
			3. Thairo		
			4. Khairpur		
			5. Shikarpur		
			6. Jano		
			7. Muhroomari		
	2. Sukkur	279	1. Sukkur	90	178,311
			2. Gosarji		
			3. Lakhi		
			4. Chand		
			5. Bhirkan		
			6. Muhammad Bagh		
			7. Kassim		

	3. Nausharo	415	1. Garhiyasin 2. Gaheja 3. Kot Habib 4. Ali Khan Wasil 5. Dakhan 6. Abid Markiani	112	265,590
	Abro				
	Total	1166			268
2. Rohri	1. Rohri	1549	1. Kandar 2. Bharo-Pawhar 3. Nara Aror 4. Mando-dairo 5. Kingri	69	991,476
	2. Mirpur	1720	1. Hiyat Pitafi 2. Inamwah 3. Jarawar 4. Bhari Laghari 5. Khairpur 6. Shahpur 7. Saleh Mahar 8. Balhari	86	1,101,271
	3. Ubauro	450	1. Kamu Shahid 2. Ubauro 3. Raharki 4. Khairpur 5. Raihi 6. Rawati 7. Jhagul Malk	94	288,269
	4. Saidpur	167	1. Pano Akil 2. Shahpur 3. Junas	36	106,637
	5. Ghotki	372	1. Sanghri 2. Ruk 3. Dadloi 4. Adalpur 5. Mathelo 6. Jehanpur 7. Tando Nijapat 8. Gari	64	237,795
	Total	4258			349

Sukkur District formed part of the old Shikarpur District created by Sir Charles Napier in 1851. The greater part of the territory seized from Mir Ali Murad of Khairpur was added to it, i.e., Shahbela, Chak, Saidabad, Ubauro, Mirpur *parganas*, and the Alore, Bakhar, and Sanbarki *tapas*. The military administration had its headquarters at Shikarpur until 1883, when it was removed to Sukkur. In 1906, the Larkana and Mahar subdivisions, comprising Larkana, Rato Dero, Kambor, Ladbarya, Mahar, Warah, and Kakar *talukas*, were separated to form part of a new Larkana District; at the same time the designation of Shikarpur District was changed to Sukkur District. In 1904, the *mahal* of Pano Akil was converted into a *taluka*. The new District was divided into three subdivisions: Shikarpur, Rohri, and Ubauro. The subdivisions consisted of the following *talukas*:

- a) Shikarpur: (i) Shikarpur, (ii) Sukkur, (iii) Garhiyasin
- b) Rohri: (i) Rohri, (ii) Pano Akil, (iii) Ghotki
- c) Ubauro: (i) Mirpur Mathelo, (ii) Ubauro

During 1883 the headquarters of the District was transferred to Sukkur, the name of the District was changed in 1911, and finally, with the removal of a prison and the civil hospital in 1906 and 1909 respectively, the last traces of Shikarpur as the District headquarters disappeared.

Incidentally, Garhiyasin *taluka* in Shikarpur District was initially called 'Nausharo Abro', but the name was changed to Garhiyasin in Revenue Department resolution number 8298 of 24 August 1909.

Pakistan (1947 onwards)

Territorial Changes in Sukkur District

In 1969 Sukkur District was divided into four subdivisions—Sukkur, Ghotki, Mirpur Mathelo, and Shikarpur—with some modifications *vide* notification No.

8-15/62(50B-1) dated 18 December 1969 of the Chief Secretary of the Government of West Pakistan, Lahore. This change came into effect on 1 January 1970. The notification included the following provisions: i) the subdivision of the District headquarters was to be known as Saddar subdivision; ii) the designation of officers in charge of subdivisions was to be Assistant Commissioner, irrespective of the cadre to which the officers belonged. (Previously, officers of the Provincial Civil Services posted to a subdivision were called Deputy Collectors, while officers of the Civil Service of Pakistan were called Assistant Commissioners. The above notification removed this anomaly.) The new subdivisions were as follows:

Subdivision	Headquarters	Area
i) Sukkur	Sukkur	<i>talukas</i> of Sukkur and Rohri
ii) Ghotki	Ghotki	<i>talukas</i> Ghotki and Pano Akil
iii) Mirpur Mathelo	M. Mathelo	Mirpur Mathelo and Ubauro
iv) Shikarpur	Shikarpur	The existing Subdivision

Constitution of Shikarpur District

On 1 June 1977 the old Shikarpur subdivision, consisting of the two *talukas* of Shikarpur and Garhiyasin, was separated from Sukkur District, and a new District Shikarpur was created and attached to Larkana Division. (These changes were authorized through notification No.1/10/77Rev-1(iv)755 dated 30 June 1977 of the Secretary of the Government of Sindh.)

Two new *talukas*, Khanpur and Lakhi, were created in addition to *taluka* Garhiyasin and *taluka* Shikarpur and were reconstituted.* Because of this *taluka* Sukkur** was also reconstituted:

* Under notification No.1/17/78-Rev-1(12)/186 dated 30 January 1979 of the Revenue Department, Government of Sindh (hereafter RDGS).

** Under RDGS notification No.1/12/77/Rev(iv)/187 dated 30 January 1979.

<i>Taluka</i>	<i>Circle</i>	<i>Tapa</i>	<i>Dehs</i>
Sukkur	Sukkur	1. Sukkur City	i) New Sukkur
		2. Old Sukkur	i) Old Sukkur
			ii) Abad Jahir
			iii) Rahuja
			iv) Bindi Dhareja
		3. Arain	i) Arain
			ii) Nasirabad
			iii) Farash
			iv) Saidabad
			v) Angaho

Two new subdivisions, Rohri and Ubauro, were created* and the status of the subdivisions remained as indicated in the chart below :

Existing Subdivisions	New Subdivisions	<i>Talukas</i>
Sukkur	Rohri	Rohri
	Sukkur	Sukkur
Mirpur Mathelo	Ubauro	Ubauro
	Mirpur	Mirpur
	Mathelo	Mathelo

The new *taluka* Khangarh, with its headquarters at Khangarh Mahar, was also created.** As a result of this change and through the same notification, *talukas* Pano Akil, Ghotki, and Mirpur Mathelo were reconstituted. The exact location of circles, *tapas*, and *dehs* were specified in the same notification.

With the opening of the new *taluka* the subdivisions were again reconstituted:***

* Under notification No.Lr/7-2-76/Rev-1(iii) dated 17 May 1977 of the Secretary, RDGS.

** Notification Number 1/1/77/Rev-1(iv) dated 19 July 1977 of the Government of Sindh.

*** Under notification Number 1/12/77-Rev-(v)/756 dated 30 September 1977 of the Secretary, RDGS.

Subdivision	Talukas
1. Sukkur	i) Sukkur
2. Rohri	i) Rohri
	ii) Pano Akil
3. Ghotki	i) Ghotki
	ii) Khangarh
4. Mipur Mathelo	i) Mirpur Mathelo
	ii) Ubauro

In 1978 the newly-created *taluka* of Khangarh was discontinued with immediate effect.*

Other Territorial Changes

In 1977, as part of a major reorganization, the Services and General Administration Department was superceded,** resulting in the following Divisions being created in different Districts :

Division	Districts
1. Karachi Division with headquarters at Karachi	Karachi District (comprising administrative units: South, West, and East).
2. Hyderabad Division with headquarters at Hyderabad	Hyderabad, Badin, Sanghar, Tharparkar, Dadu, and Thatta.
3. Sukkur Division	Sukkur, Nawabshah, and Khairpur.
4. Larkana Division with headquarters at Larkana.	Larkana, Jacobabad, and Shikarpur

* Under notification No. 12-257-77-ESH. III dated 6 January 1978 by the Secretary, RDGS.

** Notification No. So (S&GAD) /1/25/74 dated 17 August 1974 was issued by the Services and General Administration Dept. whereas notification No. 1/18/79/Rev-1 (iv) dated 30 June 1977 was issued by the Revenue Dept. which superseded the notification of the Services and General Administration Dept. Issued on 17 August 1974.

The above account shows that District Sukkur underwent a bewildering series of territorial changes during the relatively short period of ten years (1970-79).

The Modern Administration

Revenue Collection

The District is under the general control of a Deputy Commissioner who is assisted by the Additional Deputy Commissioner, four Assistant Commissioners, and six *mukhtiarkars*. The District has four subdivisions, i.e., Sukkur, Rohri, Ghotki, and Mirpur Mathelo, and consists of sixteen circles, 152 *tapas*, and 799 *dehs*.

Policing

The Superintendent of Police is the head of the police force at the District level. He is assisted by one Additional Superintendent of Police, four SDPOs, and one Deputy Superintendent at Police Headquarters. In addition, one Superintendent of Police (Special Branch), one Superintendent of the Anti-Corruption Establishment, and one Superintendent of Police, Railways, are stationed at Sukkur. One Assistant Director of the Intelligence Bureau is also stationed there.

The District has fifteen police stations and eighteen outposts. Each police station is under the charge of a Sub-Inspector of Police, otherwise known as Station House Officer (HSO).

Judiciary

The District and Sessions Judge is the head of the judiciary at the District level. He is assisted by four Additional

Sessions Judges and five first-class Civil Judges. A special judge-cum-enquiry officer is also stationed at Sukkur.

Law and Order

The District administration is responsible for the law and order situation. In recent years, preventive measures such as extensive night patrolling on highways, apprehending notorious criminals, and performing raids on gangs of criminals have had to be intensified. In *talukas* Mirpur Mathelo and Ghotki, however, complaints have persisted of serious crimes such as murder and theft, while in Sukkur city, complaints concern thefts, pick-pocketing, and accidents.

Commissioners in Sindh

The post of Commissioner was created under Regulation No. V in 1830 with the stated object of superintending the revenue administration, which, according to the preamble, comprised general superintendence and control. Thus the Commissioner was concerned not only with the revenue administration, but with other branches of the administration as well. This is a basic feature of the administration during the early days of British rule. A second Commissioner was appointed in 1843 under the authority of Act XVII of 1842, and the Collectorates then existing were divided between the northern and southern Divisions, each Division being subject to the control of the Commissioner for that Division.

The first Commissioner appointed in Sindh was Mr R. K. Pringle (1848-1850), and the last Commissioner in Sindh was Mr R. E. Gibson, CSI, CEI.

In 1860, supervision of the police was entrusted to Commissioners, who were thenceforward styled Revenue and Police Commissioners. In 1877, a third post of

Commissioner was created, and the supervision of the small political agencies became the responsibility of these new Commissioners. As a result of this, the title of these officers was changed back to Commissioner, in line with other parts of India.

The Collectorates of the Bombay Presidency in Sindh were: Karachi, Hyderabad, Sukkur, Tharparkar, Nawabshah, Larkana, Dadu, and Upper Sindh Frontier. The latter District had, instead of a Collector, a Deputy Commissioner.

In 1936 Sindh was separated from the Bombay Presidency and became an independent province. On 14 October 1955, the Government of Sindh ceased to exist as a sovereign unit and the Province of West Pakistan came into existence. The post of Revenue Commissioner in Sindh was abolished. Three temporary Divisions with temporary Commissioners were created in Sindh, namely, Khairpur, Hyderabad, and Karachi, with effect from 1 August 1974. These continued in force until 31 May 1987.*

The office of Commissioner in Sindh was again abolished in March 1972, then revived in July 1974, at which time the headquarters for the Commissioner, Khairpur Division, were shifted to Sukkur.

In 1977, the following Divisions with corresponding Districts were created:**

Divisions	Districts
1) Karachi Division with headquarters at Karachi	Karachi District (comprising administrative units Karachi South, Karachi West, and Karachi East.
2) Hyderabad Division with headquarters at Hyderabad	Hyderabad, Badin, Sanghar, Tharparkar, Dadu, and Thatta.

* *Vide* F.D. Sox (1)-12/73 dated 1 August 1978 of Secretary to the Government of Sindh, Finance Department.

** According to notification No. 1/18/77/Rev-1(IV) dated 30 June 1977 of the Government of Sindh, Revenue Department.

- | | |
|--|------------------------------------|
| 3. Sukkur Division with headquarters at Sukkur | Sukkur, Nawabshah, and Khairpur. |
| 4. Larkana Division with headquarters at Larkana | Larkana, Jacobabad, and Shikarpur. |

Commissioners of Khairpur/Sukkur Divisions

	From	To
Mr R.A. Muhammadi	14.10.55	14.05.56
Mr Niaz Ahmed	15.05.56	19.05.57
Mr A.H. Khan	16.09.57	22.08.60
Mr Abu Nasar, SQA	22.08.60	15.09.61
Mr Niaz Ahmed Choudhary	17.10.61	15.05.63
Mr G. Yazdani Malik	15.05.63	17.01.64
Mr Darbar Ali Shah, TQA	19.01.64	22.06.65
Mr M.R. Innayat	19.07.65	10.01.68
Mr M.A. Bajiwa	15.01.68	03.06.69
Mr S. M. Hussain, TQA	13.07.69	04.10.69
Mr M.S. Choudhry, TQA	04.10.69	05.05.71
Mr A. Sami Qureshi	06.05.71	19.03.72

Commissioners of Sukkur Division

	From	To
Mr A.B. Soomro	22.08.74	12.07.77
Mr Ali Dino M. Panhwar	14.07.77	08.12.79
Mr Rafiq Hussain Agha	08.12.79	18.10.81
Syed Mohibullah Shah	18.10.81	31.05.83
Mr A.M. Qazi	31.05.83	07.11.83
Mr Ali Dino M. Panhwar	07.11.83	21.01.86
Mr Ayaz Hussain Ansari	21.01.86	30.07.86
Syed Roshan Zamir	30.07.86	17.07.88
Mr M. Javaid Ashraf Hussain	17.07.88	28.09.89
Mr Muhammad Hashim Memon	05.10.89	03.12.90
Mr Saleem Ahmed Memon	03.12.90	21.06.92

- Sources : i) *Reviews of Administration in the Bombay Presidency*, November 1933 (pp. 3 and 4)
 ii) Aijaz-ul-Haq Qudusi, *Tarikh Sindh*, Markazi Urdu Board, Lahore, 1985, part II, pp. 92-136.

Collectors and District Magistrates of District Sukkur

Name of Collector	Year
J.L. Rieu, GCSI	1901
H.G. Mules	1901-2
P.R. Cadell	1903-4
J.L. Rieu, GCSI	1905-6
E.L. Sale, B.A., ICS	1907-8
H.S. Lawrence, ICS	1909
G.E. Chatsfied, ICS	1910-12
H. Montgomery, ICS	1913
A.M. MacMillan, ICS	1913
C.S. Campbell, ICS	1914-15
Hardasmal	1916
C.S. Campbell, ICS	1916
E.L. Moysey, ICS	1917
D. Robertsfield, ICS	1918-19
H. Montgomery, ICS	1920
J.A. Pope, ICS	1921
R.E. Gibson, ICS	1922
G.H. Taunten	1923
R.E. Gibson, ICS	1924
L.N. Brown, ICS	1925-8
R. Rewbrank, ICS	1928
J.R. Hood, ICS	1929
Shaikh Yakoob	1930-32
H.T. Sorley, ICS	1933-4
T.J. Kothawala	1935-6
J. Booth	1936
Khan Bahadur Ghulam Nabi	1936
I.M. Mirchandani	1937

R.A. Mahmadi	1938	
O.V. Bedekar, ICS	1938	
Allah Bux Ansari	16.07.38	01.10.38
T.J.Kothawala, ICS	01.10.38	11.03.39
Sidney Ridley, ICS	11.03.39	15.01.41
A.E. Today, ICS	15.01.41	30.06.41
Sidney Ridley, ICS	30.06.41	17.09.41
A.E. Tooley, ICS	17.09.41	11.11.41
Ali Bux,	11.11.41	05.03.42
W.N. Gallagher, ICS	05.03.42	19.03.42
E.H. Holt, ICS	19.03.42	13.06.42
W.N. Gallagher, ICS	13.06.42	16.07.42
E.H. Holt, ICS	16.07.42	14.08.43
J.P. Cargill	14.08.43	14.10.43.
E.H. Holt	14.10.43	26.03.44
Y.R. Parpia, ICS	26.03.44	03.08.44
G.S. Kehar, ICS	03-08.44	18.09.44
Y.R. Parpia, ICS	18.09.44	07.02.45
M.H. Sufi, ICS	07.02.45	11.04.45
G.K. Agha, ICS	11.04.45	27.07.46
J.G. Kharas, ICS	27.07.46	29.08.46
L.G. Rajwada, ICS	29.08.46	22.05.47
H.A.G. Acton, ICS	22.05.47	

Partition August 1947

H.A.G. Acton, CSP	14.04.47	22.09.47
A.G. Bunn, CSP	22.09.47	26.04.48
G.M. Ray, CSP	26.04.48	30.09.48
A.G. Bunn, CSP	01.10.48	28.11.49
Ghulam Mustafa Kazi, PCS	28.11.49	14.05.51
Muhammad Ali Shah, PCS	26.05.51	01.02.52
Muzaffar Hussain, CSP	01.02.52	03.10.52
Ghulam Hussain Phul, PCS	30.10.52	07.03.53
A.H. Khan, CSP	07.03.53	22.07.53
M.A. Yusufani	22.07.53	04.10.54

Nusrat Hussain	04.10.54	14.01.54
M.A. Yusfani, PCS	04.10.54	14.10.55
Nusrat Hussain, CSP	15.10.55	12.11.55
Aftab Ahmed Khan, CSP	12.11.55	19.01.57
M.A. Yusufani, CSP	19.01.57	29.02.58
Abdullah Akhund, CSP	08.03.58	12.11.58
Allah Bux Uquaili, PCS	12.11.58	30.09.59
Mehdi Hassan, CSP	30.09.59	04.04.60
Jamshed R. Rahim, CSP	12.05.60	12.04.62
Safder Husain, CSP	20.09.62	15.07.65
Izharal Haque, CSP	15.07.65	20.07.66
A. Sami Qureshi, CSP	06.08.66	21.09.67
Asif Fasihuddin, CSP	22.04.67	26.05.69
Viqar Rustam, CSP	26.05.69	22.10.69
Amir Yusuf Ali, CSP	22.10.69	23.06.70
Sayed Sardar Ahmed, CSP	14.07.70	13.03.72
Mazhar Rafi, CSP	24.03.72	02.07.72
Abdul Aziz, CSP	15.07.72	15.10.73
Shaikh Abdul Wahab	18.10.73	16.03.74
Inayatullah Qureshi	26.03.74	25.07.74
Tariq M. Amin	25.07.74	16.08.74
K. Yusuf Jamal	16.08.74	24.10.75
Ashfaq Ahmed Abbasi	24.10.75	11.10.76
Manzoor Hussain Bhutto	11.10.76	01.09.77
Ghiasuddin Junejo	01.09.77	01.09.79
Tasneem Ahmed Siddiqui	01.09.79	22.04.81
Mumtaz Ahmed Khan	22.04.81	01.07.82
Muhammad Hamayoon Farshori	01.07.82	07.03.84
Touqir Ahmed	07.03.84	28.06.85
Muhammad Saleem Khan	01.07.85	20.01.86
Bakhshal Khan Gudaro	20.01.86	03.01.87
Shoukat Usman	03.01.87	14.05.87
Javed Iqbal	14.05.87	12.02.88
Muhammad Bakhsh Soomro	12.02.88	01.06.88
Sayed Anwar Hyder	02.06.88	07.10.88
Muhammad Bakhsh Soomro	07.10.88	12.10.88
Nazar Hussain Mahar	12.10.88	18.06.89

Badaruddin Ujjan	18.06.89	04.10.89
Kamran Lashari	05.10.89	02.12.90
Gul Hassan Channa	02.12.90	25.03.91

Governors of Sindh

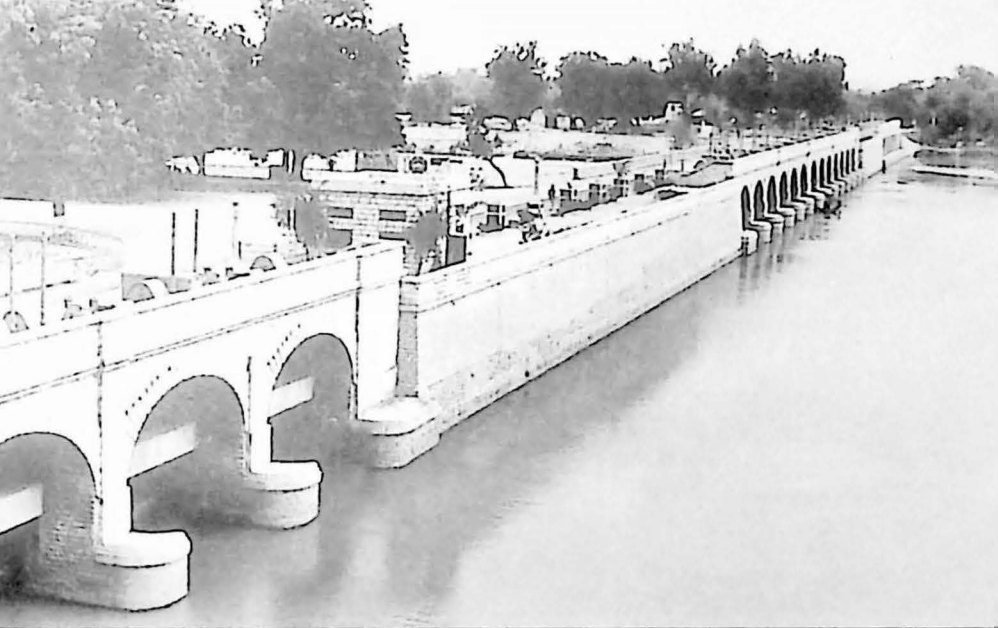
1. Sir Lancelot Graham	01.04.36	31.03.41
2. Sir H. Dow	01.04.41	14.01.46
3. Mr Francis Mudie	15.01.46	13.08.47
4. Sir Ghulam Hussain	14.08.47	14.10.48
5. Shaikh Din Muhammad	17.10.48	18.11.52
6. Mian Amin-ud-Din	19.11.52	01.05.53
7. Sir George Constantine	25.05.53	11.08.53
8. Mr Habib Ibrahim Rahmatullah	12.08.53	23.04.85
9. Mr Iftikhar Hussain Khan of Mamdot	26.04.54	14.10.55
10. Lt.-Gen. Rukhman Gul	01.07.70	22.12.71
11. Mr Mumtaz Ali Bhutto	22.12.71	29.04.72
12. Mir Rasool Bux Talpur	01.06.72	14.02.73
13. Begum Raana Liaquat Ali Khan	15.02.73	26.02.76
14. Al-Haj Muhammad Dilawar Khan Khilji	01.07.76	05.07.77
15. Justice A. Qadir Shaikh	05.07.77	14.04.78
16. Lt.-Gen. S.M. Abbasi	18.09.78	07.04.84
17. General Jahandad Khan	07.04.84	04.01.87
18. Mr Ashraf W. Tabani	07.04.87	23.06.88
19. General Rahimuddin Khan	24.06.88	11.09.88
20. Rtd. Justice Qadeeruddin	12.09.88	18.04.89
21. Justice Fakhruddin G. Ibrahim	19.04.89	06.08.90
22. Mr Mahmood A. Haroon	06.08.90	18.07.93
23. Mr Hakeem M. Saeed	19.07.93	23.01.94
24. Mr Mehmood A. Haroon	23.01.94	21.05.95
25. Mr Kamaluddin Azfar	22.05.95	16.03.97
26. Lt.-Gen. Moinuddin Haider (Rtd.)	17.03.97	

Chief Ministers of Sindh

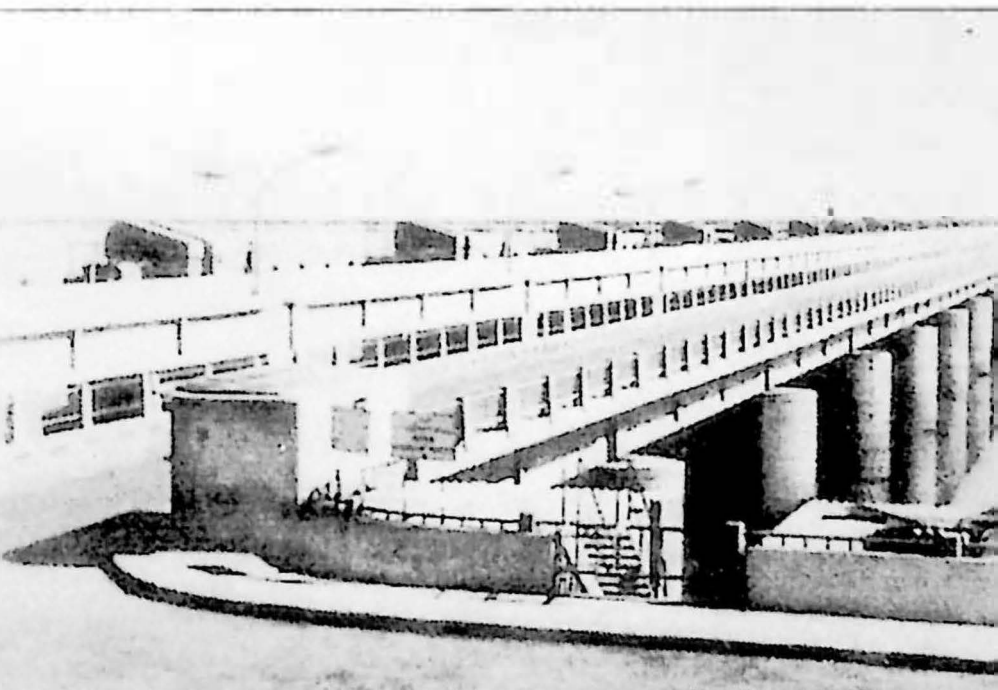
1. Sir Ghulam Hussain Hidayatullah	28.04.37	23.03.38
2. Khan Bahadur Allah Bux Soomro	23.03.38	18.03.40
3. Mir Bandah Ali K. Talpur	18.03.40	07.03.41
4. Khan Bahadur Allah Bux Soomro	07.03.41	14.10.42
5. Sir Ghulam Hussain Hidayatullah	14.10.42	14.08.47
6. Khan Bahadur Muhammad Ayub Khuhro	16.08.47	28.04.48
7. Pir Illahi Bux	03.05.48	14.02.49
8. Mr Yousuf Haroon	18.02.50	24.03.51
9. Mr Kazi Fazal-ur-Rehman	08.05.50	24.03.51
10. Khan Bahadur Muhammad Ayub Khuhro	09.11.54	25.02.90
11. Mr Abdul Sattar Pirzado	25.05.53	08.11.19
12. Khan Bahadur Muhammad Ayub Khuhro	09.11.54	13.10.55
13. Mr Mumtaz Ali Bhutto	01.05.72	22.12.73

No Chief Ministers were appointed due to One Unit and Martial Law.

14. Mr Ghulam Mustafa Jatoi	24.12.73	05.07.77
15. Syed Ghous Ali Shah	06.04.85	06.04.88
16. Mr Akhtar Ali G. Kazi	11.04.88	29.05.88
17. Mr Akhtar Ali G. Kazi	31.08.88	01.12.88
18. Syed Qaim Ali Shah	02.12.89	25.02.90
19. Aftab Shaban Mirani	26.02.90	06.08.90
20. Jam Sadiq Ali	06.08.90	06.03.92
21. S. Muzafar Hussain Shah	06.03.92	19.07.93
22. Mr Ally Madad Shah	19.07.93	20.10.93
23. Syed Abdullah Shah	20.10.93	07.11.96
24. Mr Mumtaz Ali Bhutto	07.11.96	22.02.97
25. Mr Liaquat Ali Khan Jatoi	22.02.97	



The Sukkur Barrage, the pride of Pakistan's irrigation system.

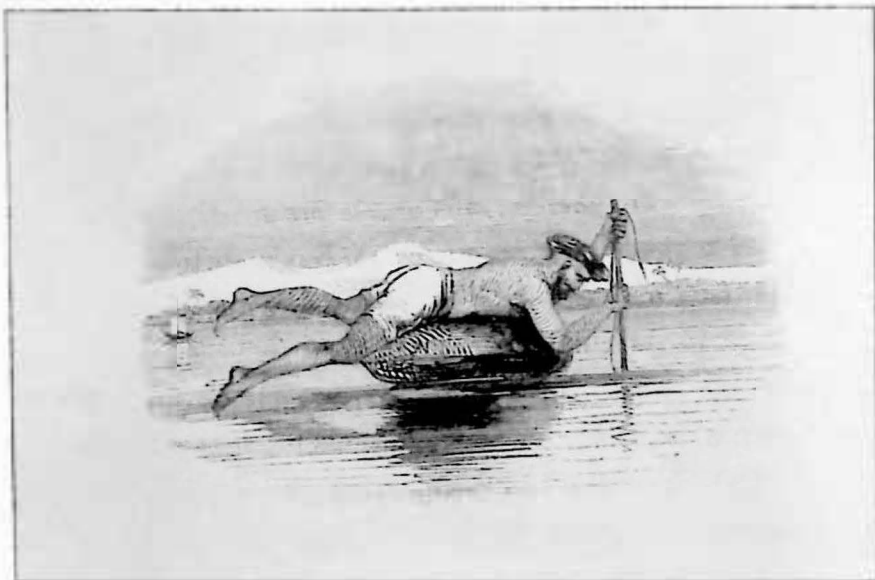




5. A scene from a wheat-field; wheat is one of the major *Rabi* crops.



6. A truck loaded with *Khajri*, ripe dates ready for the market.



7. A Mohana fisherman catching *Palla*, the finest flavoured fish of the Indus.



8. The Indus Dolphin, a rare specie found in the Indus river.

Speakers, Sindh Legislative Assembly

1. Mr Dewan Bhoj Singh	28.04.37	15.02.38
2. Syed Miran M. Shah	26.02.38	03.05.48
3. Agha Badaruddin Durrani	08.03.49	1953
4. Mr Ghulam Ali Talpur	14.09.53	1954
5. Pir Qurban Ali Shah	26.03.55	13.10.55
6. Mr Ghulam Rasool Khan Kehar	02.05.72	20.03.77

Speakers, Provincial Assembly of Sindh

7. Agha Sadaruddin Khan Durrani	31.03.77	04.07.77
8. Mr Abdullah Hussain Haroon	06.04.85	31.03.86
9. Syed Muzaffar Hussain Shah	06.04.86	01.12.88
10. Syed Abdullah Shah	01.12.88	05.11.90
11. Mr Abdul Razique Khan	05.11.90	19.10.93
12. Ghous Bux Khan Mehar	19.10.90	22.02.97
13. Nawab Mirza Advocate	22.02.97	

SHO	- Station House Officer
SDPO	- Subdivisional Police Officer
GCSI	- Knight Grand Commander and the Order of the Star of India
ICS	- Indian Civil Service
CSP	- Civil Service of Pakistan
PCS	- Provincial Civil Service
SQA	- Sitara-i-Quaid-i-Azam
TQA	- Tamgha-i-Quaid-i-Azam

IRRIGATION

The River Indus traverses the whole of Sukkur District, passing through the gorge between Sukkur and Rohri. The importance of Indus water to the agriculture of the whole of Sindh has long been recognized, and successive regimes have endeavoured to harness and utilize its flow, and to predict its flood. To that end a system of canals has been built and enlarged over the centuries, and in the past seventy years huge barrages have been erected. Canals are of two types, inundation, i.e., seasonal, and perennial. The former are primarily old river beds while the latter are artificial.

Management of water is of vital importance, hence gauges have been installed to measure the flow continuously. Four of these gauges have been set up: at Sukkur Island, in the middle of the river between Sukkur and Rohri, in 1848; at Din Belo in 1898; and two connected with the Sukkur Barrage (*see below*)—at the Outfall, four miles from Sukkur, in 1913, and at Goughal, eight miles from Sukkur, in 1932. The tables below show the maximum readings, in feet, for the decade 1971-80 at these four gauges, and the length and designed discharge capacity of the inundation canals in the District:

TABLE 3.1

Year	Date	Month	Outfall	Ghoughal	Din Belo	Sukkur
1971	18	August	14.70	15.80	14.60	15.80
1972	06	July	15.70	15.70	15.50	16.90
1973	21	July	19.70	20.00	19.80	22.60
1974	28	July	15.40	15.40	15.20	15.70
1975	02	September	19.10	19.20	19.00	21.10
1976	17	August	20.55	21.10	20.90	23.10
1977	25	July	15.80	15.80	15.60	16.40
1978	20	August	18.75	19.20	19.00	24.20
1979	25	July	16.10	16.20	16.00	16.80
1980	19	August	15.03	15.50	15.30	16.10

TABLE 3.2

Name of Canal	Length (Miles)	Discharge (Cusecs)
Sindh	20	2200
Rajib	12	240
Chitti	9	245
Gang	8	109
Garkano wah	8.6	328
Janib wah	12.5	169
Kori wah	20.5	500
Mahesru wah	20.5	300
Jari	8.4	110
L.M. Feeder	39.7	3300
Lundi wah	19.5	236
Kazo wah	21	223
Dingro wah	24	436
Massu wah	34	891
Mohro wah	44.5	110
Mahi wah	28.81	1000

Dahar Feeder	48	336
Sehar wah	27.8	424
Khandar branch	18.38	260
Dahar minor	12	359
Guddu Feeder	7.5	5317

Irrigation System

The irrigation system of the District is partly controlled by the Sukkur Barrage, but mainly by the Guddu Barrage, which was inaugurated in 1963. These barrages have brought prosperity to the District by increasing the cultivable areas. The main irrigation system of both the barrages is explained below:

Sukkur Barrage

The Sukkur Barrage, officially named the Lloyd Barrage, on the Indus about three miles below Sukkur Gorge, is the pride of Pakistan's irrigation system. It is the largest system of its kind in the world. It is the backbone of the economy of the entire country, providing, through its network of canals, irrigation to an area of 7.63 million acres, approximately 25 per cent of the total canal-irrigated area of the country. The Nara Canal, which is one of the seven canals absorbing the run-off from this barrage, is the largest in the country, carrying a discharge almost equal to that of the River Thames. Its bed width is 346 ft.—one and a half times that of the Suez Canal. It is not a man-made canal, but the south-western arm of the Hakro, the 'Lost River of the Indian Desert'.

The idea of a barrage at Sukkur was first conceived by Lieutenant J. G. Fife in about 1855, but a complete scheme was not made for another sixty years. Sir Arnold Musto, an engineer, was then appointed to develop the project.

His plans were submitted to the Government of Bombay, and in April 1923 the Secretary of State for India sanctioned the project at an estimated cost of Rs 200 million. Work started in January 1925 and was completed by 31 December 1931. In July 1923, and unanimous resolution of the District Local Board was passed that the barrage be named after Sir George Lloyd, the Governor of Bombay, who had taken an active interest in the scheme.

The barrage comprises sixty-six spans, each sixty feet wide and each divided into three sections by the two dividing walls on its upstream. The right pocket, the left pocket, and the main weir have five, seven, and fifty-four spans respectively. The central section is further divided into six bays of nine spans each. These bays are separated from each other by abutment piers that are twenty-five feet thick and ninety-seven feet long. An ordinary pier is ten feet wide and seventy-seven feet long. Abutment pier number 32, which is one hundred and ninety feet long, has eight pipes for indicating uplift pressures. The weir bays have upstream floor at Reduced Level (R.L.) 176.0 with no crest, and the downstream floor slopes to R.L. 172.39 in a gradient of 1 in 70 up to the end of the flexible talus. There is a lower bridge with a sixteen-foot roadway enabling vehicles to drive between the two banks. The bridge is just under a mile in length. Masonry walls joined to the abutment of the barrage on either bank enclose the main regulators of the various canals.

Thirty-two thousand labourers worked year-round on the project. In addition, a total of seven thousand men were employed daily to work on the large, medium, and small-size machines. Primitive methods, including bullocks drawing a metal-edged board scoop, were used side by side with huge machines each excavating seventy-four tons of earth per minute. The total amount of earthwork done came to 569 crore (5,690,000,000) cubic feet, of which 312 crore cubic feet were excavated by machines and the rest by human labour.

There are four off-take canals on the left bank:

TABLE 3.3

Canal	Gross commanded area (in acres)	Length (in miles)
i) Eastern Nara	2,176,494	24.00
ii) Khairpur Feeder East	531,110	10.00
iii) Rohri	2,956,518	10.00
iv) Khairpur Feeder West	409,121	2.40

The three off-take canals on the right bank are:

TABLE 3.4

Canal	Gross commanded area (in acres)	Length (in miles)
i) Northwestern	1,027,085	36.1
ii) Rice	547,480	81.7
iii) Dadu	597,464	131.1

On Wednesday, 13 January 1932, His Excellency the Viceroy of India graced the opening ceremony. Activities began at 10.50 a.m. with the Viceroy's tour of the barrage and the left bank canals, after which the Viceroy threw the switch operating the regulator gates and declared the canals open. At noon, a special lunch was served at the residence of the superintending engineer of Northern Sindh Circle.

On 9 April of that year a memorable dinner was held at the Karachi Club, given on behalf of the people of Sindh to celebrate the successful completion of the Lloyd Barrage and canals. Two elaborate menus were served, including one vegetarian, but the most striking feature was the table plan: the top table represented the Barrage, and five offshoots represented the Nara, Rohri, Dadu, Rice, and

Northwestern Canals. Opposite each 'canal' sat its engineer-in-charge, while the guests of honour, Sir Charlton Harrison and Sir A.K. Musto, the legendary executive engineer, sat in the middle of the 'barrage'.

The Golden Jubilee was celebrated in some style on 30 and 31 March 1982, with a lunch, a dinner, and speeches. The guest of honour was the Governor of Sindh—for whom the throne of the ex-ruler of Khairpur State was specially sent for—and Sir Arnold Musto's two daughters attended as guests of the Provincial Government.

At about the same time, it became apparent that the gates of Sukkur Barrage had lost their utility, and a project involving Rs 482 million was planned to replace fifty-five of the sixty-six gates, to be launched in fiscal year 1986-7, and completed by 1992. Besides the replacement of the barrage gates, the central 'leaves' of the gates of the canal head regulators were also to be replaced. The upper and bottom leaves of the gates did not need replacement. The British government, which had funded the barrage in 1932, agreed to provide a foreign exchange component for the financing of the replacement work. These gates and the central system were to be designed and fabricated in the United Kingdom, by an agency which had agreed to provide the necessary materials, but the fabrication of the gates was to be carried out in Pakistan using expertise acquired from the UK. In the event, work on the project did not start until 1990, by which time the cost had risen to Rs 612 million, but it was completed in 1993.

Guddu Barrage

This barrage is situated ten miles north-west of Kashmore and a hundred and ten miles upstream of Sukkur Barrage, near the western boundary of Sindh Province. It was designed to assure the water supply to extended irrigation facilities in Sindh and Balochistan, areas which have

historically been irrigated by inundation canals, which depend on the fluctuating water levels of the unpredictable River Indus. The construction of headworks was completed in 1962. The whole area influenced by the Guddu Barrage is designated non-perennial. The project cost over Rs 874.2 million.

There are three off-take feeder canals on the right bank, the Desert Canal and the Bagari Sindh Feeder, both designed for rice cultivation, and the Pat Canal, designed for dry-crop cultivation. The Ghotki Feeder off-takes from the left bank, and is the only one to pass through Sukkur District. It is also designed for dry-crop cultivation, i.e., it is a non-perennial canal, receiving water only in the *Kharif* season.

Rainee Canal Project

The scheme to re-activate the old Rainee River was first conceived by the Irrigation and Power Department of the Government of Sindh, during 1956. It was a multi-purpose project to afford benefit in the fields of irrigated agriculture, forestry management, cattle breeding and dairy farming, and fish culture. The scheme was not approved because it was not found to be economically feasible. Thereafter the Agriculture and Food Department, Government of Sindh, was approached to take up the Rainee River Spillway Channel as a Forest Project, but that too did not materialize. During 1965-71, there was a basic shift in concept, whereby the project was to be planned purely as an irrigation project, but that too met with the same fate. Again in 1974-5, the Rainee Channel was considered, with a capacity of 100,000 cusecs, but it was shelved as the cost was over Rs 700 million and accordingly not feasible.

The Irrigation and Power Department, Government of Sindh, continued its efforts to devise some scheme for irrigating this vast land. Scheme after scheme was prepared,

only to be rejected by the Planning Department due to inadequate benefits and improbable feasibility of the projects.

During May 1983, NESPAK was commissioned to conduct pre-feasibility studies and to formulate a preliminary plan for development of the project area. Its report was submitted the next year with the conclusion that the project was technically and financially viable, although it required further studies and investigation in respect of availability of both irrigable land and water.

The Government therefore entered into an agreement with Messrs Pakistan Architects and Consulting Engineering (PACE) in March 1988 for carrying out feasibility studies, who, after detailed survey, contouring, and preparation of maps, established that the irrigated area would be around 302,416 acres against assessment of 148,000 acres by the pre-feasibility consultants. The estimated cost was Rs 13,512,500. The project has not yet materialized.

Waterlogging and Salinity

Talukas Pano Akil, Ghotki, Mirpur Mathelo, and Ubauro on the left bank of the River Indus are affected by waterlogging and heavy salinity. This area was formerly irrigated mainly by the Ghotki Feeder, which was an inundation canal, not a perennial one. This system of irrigation did not cause any rise in the water table and therefore there was no waterlogging or salinity in this District. With the advent of the Guddu Barrage in 1964, the Ghotki Feeder canal was assured supplies, which meant that *abadgars* (cultivators) could start raising rice, which in turn resulted in a rise of the water table. Field observations between 1969 and 1975 show that the water table rose by 1057 ft. during that period. This abnormal rise in the water table is the cause of the waterlogging and increased salinity.

In response to the alarming situation, the Water and Power Development Authority in 1976-7 developed the Ghotki Fresh Ground Water Project, a five-year scheme to improve an area of 0.441 million acres at an estimated cost of Rs 428.252 million. Since the Guddu Barrage started operating in 1962, the controlled irrigation water supply has been more satisfactory. However, excessive use of surface water without any form of drainage gradually created problems of waterlogging and salinity due to the rise of the sub-soil water table in 35 per cent of the area between 0 to 3 feet below ground level, and 3 feet to 4 feet in the remaining 65 per cent of the area. Field observations revealed that the water table was rising every year since the area had started getting regulated canal water supplies from the Guddu Barrage. The cropping intensity in the area was 66 per cent, with the typical cropping pattern of non-perennial irrigated areas.

As a remedial measure, deep drainage-cum-irrigation tube-wells were first planned in 1966 as Phase-I and detailed planning followed in 1970 and 1976. The Ghotki Fresh Ground Water Project, with a cultural command area of 162,000 acres and 410 tube-wells, is part of the national Salinity Control and Reclamation Project (SCARP) and its planning is established in the Lower Indus Regional Development Plan.

The main objectives of the project are:

- i) Control of the water table between 10-15 feet below ground surface.
- ii) Conversion of the project area from non-perennial to perennial cultivation.
- iii) Raising of the cropping intensity from 66 per cent to 100 per cent at ultimate development.

Again in April 1987, implementation of Phases II and III restarted with the construction of tube-wells and appurtenant structures. Tube-well construction was carried out with 272 and 397 tube-wells respectively and was completed by the end of December 1989. Including the 410 tube wells

constructed earlier, altogether 1079 tube-wells were installed with varying design capacities of 1.0, 1.5, and 2.0 cusecs. The total installed capacity is 1,731 cusecs. All the tube-wells were equipped with deep turbine pumps, electric-driven hollow shaft motors, and fibre glass screens except for 50 wells where PVC glass screen was used.

Prior to the handing over of the project infrastructure to the Irrigation and Power Department, Government of Sindh, ten tube-wells had been installed by that Department.

Thus the up-to-date operational position of tube-wells in the area is as under:

<i>Taluka</i>	Functional	Non-Functional	Total
i) Ubauro	176	40	216
ii) Ghotki	361	50	411
iii) Pano Akil	417	45	462
Total:	954	135	1089

Now comes the question of effects.

In March 1990, an agriculture and evaluation sample survey was carried out by consultants in order to determine the agricultural impact of the project. The results were very encouraging. The evaluated data indicated that 21 per cent of formerly waterlogged land had been reclaimed, cropping intensity had risen by 26 per cent, the increase in crop yields varied from 27 to 77 per cent for various crops, and net returns per hectare of area cropped had doubled.

The Sindh Irrigation Water Users' Association Ordinance 1982 (Sindh Ordinance No.X of 1982)

There is a strong need for institutional structures to represent the irrigators. Organizations such as the Water

Users' Association, the Irrigators' Association, and the Community Irrigators were all established with the same objectives and for the same reasons: the farmers wanted their needs to be known, they wanted more say in decisions concerning water distribution, and they wanted an effective political agency. To this end, the Governor of Sindh issued the above ordinance,* and also issued the Sindh Irrigation Water Users' Association Rules 1982.** The ordinance was intended to improve productivity by better use of surface and ground water, to which end the various associations of water users were encouraged by the Rules to work with the Government in the operation, maintenance, improvement, and rehabilitation of their particular water courses. The experience of the associations has unfortunately not been encouraging so far.

* Under Notification No. S. Legis 1(10)/82 on 10 July 1982 through his Law Department.

** Under notification No. 6(30)SO(Mech)/78-11 on 23 October 1982.

AGRICULTURE, LIVESTOCK, FISHERIES, FORESTS, AND WILDLIFE

Agriculture

Agriculture is the mainstay of the Province of Sindh. With its varying climatic conditions and very scanty rainfall, but good soil, man has been practising agriculture in Sindh since time immemorial, helped by the Indus, one of the longest rivers in the world.

Details of the major crops and yields for 1993-4 in Sukkur District are listed below:

TABLE 4.1
Area, production, and yield of major crops

Group	Area in Hectares	Production in M. Tons	Yield per Hectare in Kgs
Rice	8265	17293	4043
Wheat	132829	277029	2086
<i>Juwar</i> (Great Millet)	13613	8350	613
<i>Bajra</i> (Spiked Millet)	744	391	526
Maize	522	270	517
Grain	10909	8955	775
Barley	312	148	474
Rapeseed & Mustard	9112	5584	613
Sesame	38	15	1250
Sugarcane	12139	537541	44.28
Cotton	110172	311748	481
Tobacco	2	3	1500

Source for Tables 4.1-4.4:- Directorate of Agricultural Extension, Sindh, Hyderabad.

TABLE 4.2
Area, production, and yield of vegetables

Group	Area in Hectares	Production in M. Tons	Yield per Hectare in Kgs
Field Vetch	28	70	2500
Lady Finger	496	3006	6060
<i>Tinda</i>	190	1324	6968
Brinjal	267	2008	7521
Bitter Gourd	37	168	4541
Bottle Gourd	20	118	5900
<i>Luffa</i>	28	203	7250
Turnips	281	3800	13523
Onion	1934	22682	11728
Carrot	40	490	12250
Tomato	119	834	7008
Cauliflower	14	138	9857
Cabbage	197	2493	12655
Potato	59	535	9068
Sweet Potato	7	25	3571
Radish	94	753	8011
Peas	9	34	3778
Garden Peas	8	17	2125
Fenugreek	18	32	1778
Other Vegetables <i>Rabi</i>	381	1037	2722
<i>Kharif</i>	29	219	7552

TABLE 4.3
Area, production, and yield of pulses

Group	Area in Hectares	Production in M. Tons	Yield per Hectare in Kgs
<i>Mash (Kharif)</i>	302	128	424
<i>Masoor (Lentil)</i>	953	475	498
<i>Mattar (Chicken Vetch)</i>	1521	750	493
<i>Mung (Green Gram)</i>	303	128	422
Other <i>Rabi</i>	356	169	475

TABLE 4.4
Area, production, and yield of condiments

Group	Area in Hectares	Production in M. Tons	Yield per Hectare in Kgs
Chillies <i>Rabi</i>	374	647	1730
Chillies <i>Kharif</i>	607	1005	1656
Ginger	24	850	354
Garlic	725	4418	6094
Fennel	2	1	500
Coriander	332	139	419
Spearmint	9	5	556
Turmeric	4	2	500
Others	39	20	513

Land Use and Cropping Patterns

Most of the agricultural land in Sukkur District is defined as arable irrigated land, with small patches of unused land under rough grazing. Prior to 1972 irrigation water was supplied only in the *Kharif* season; thereafter, however, the canals of the Guddu Barrage command area were made perennial. This led to increasing salinity and waterlogging, to the extent that now some 70 per cent of cultivable land is affected.

The land reforms of 1972 included the fixing of sixteen acres as the minimum subsistence holding in Sindh. Table 4.5 shows how those sixteen acres could yield a basic living wage.

Cotton, wheat, mustard, sugarcane, and *barseem* are the main crops grown on the left bank of the Indus, while the main crops on the right bank are rice, wheat, gram, and *barseem*. Cotton, sugarcane, and oilseed are deemed industrial crops, the rest commercial.

Horticulture plays a relatively small role in the area. The main crops of the *Kharif* season are mango, date palm, and banana, while those of *Rabi* are oranges and lemons. The

Table showing annual income of minimum subsistence holding in Sindh

[illegible]

average yield per acre of date palm is seventy-nine *maunds* (one *maund*=40 Kgs) of dry dates.

TABLE 4.6
Area, production, and yield of fruits for 1993-4

Group	Area in Hectares	Production in M. Tons	Yield per Hectare in Kgs
Banana	67	234	3453
Date Palm	2778	12632	4547
Guava	10	New Plantation	4547
Mango	413	2985	7228
Orange	28	356	12714
Lemon	70	228	3257
Grape	8	34	4250
Mossambi	9	30	3333
Kino	7	27	3857
Ber Berry	6	12	2000
Other Fruits (<i>Rabi</i>)	35	180	5143

Source: Directorate of Agriculture Extension, Sindh, Hyderabad.

The agro-industries which arise from the predominant crops include cotton-ginning, biscuit making, oilseed processing, date processing, and molasses and sugar making by traditional and modern methods.

Cropping Intensity

The overall cropping intensity in the country is 137 per cent. It varies from 159 per cent in farms of less than five acres, to 140 per cent in farms of five to under twenty-five acres, and 123 per cent in farms of twenty-five acres and above in size. The intensity of cropping is around 135 per cent on owner-operated and owner-cum-tenant-operated farms, but it rises to 141 per cent on tenant-operated farms.

TABLE 4.7

All farms classified by cropping intensity and by size of farm (in Acres)

Sukkur District	Farms Reporting Cultivated Area		Farms with average cropping intensity											
			Below 50%		50% to under 75%		75% to under 100%		100% to under 125%		125% to under 150%		150% and Above	
	Number	Average Cropping Intensity Per cent	Number	Intensity	Number	Intensity	Number	Intensity	Number	Intensity	Number	Intensity	Number	Intensity
Size of farms (acres)														
All Farms	65423	174	94	20	135	63	207	82	8942	103	2520	135	53527	193
Govt. Farms	1	100	—	—	—	—	—	—	1	100	—	—	—	—
Pvt. Farms Total	65422	174	94	20	135	63	207	82	8941	103	2520	135	53527	193
under 1	2016	194	12	1	—	—	—	—	102	100	—	—	1901	199
1 to under 2.5	13967	184	15	1	—	—	—	—	1915	100	37	134	12000	199
2.5 to under 5	14333	183	25	8	16	50	26	80	1919	101	368	134	11979	198
5 to under 7.5	13978	181	16	26	10	66	26	80	1798	103	592	136	11536	195
7.5 to under 12.5	13397	174	9	14	16	67	98	81	1940	102	777	135	10558	191
12.5 to under 25	5782	170	16	30	83	64	22	82	899	104	550	136	4212	190
25 to under 50	1379	166	1	15	9	57	17	87	238	103	140	137	976	187
50 to under 150	515	162	—	—	1	63	18	83	111	106	48	135	337	191
150 and above	55	146	—	—	—	—	—	—	19	105	8	129	28	190

The intensity of cropping in District Sukkur is shown in Table 4.7. The figures are taken from the *Pakistan Census, Agriculture, 1990—Province Report-Sindh* prepared by the Economic Affairs and Statistics Division, Agricultural Census Organization (pp.121, 127, 132, 137, 143).

Agricultural Income Tax

Income tax was first levied in India in 1860. The present tax structure was formulated in 1922 through the Income Tax Act 1922, which granted a specific exemption to agricultural income and remained in force for over forty years. Then the West Pakistan Finance Act 1965 (West Pakistan Act No.1 of 1965) was enacted, according to Section 4 of which agricultural income tax in respect of income from all land was to be assessed, levied, and collected every year with effect from July 1965. In Sindh, agricultural income tax was to be paid by all landowners paying land revenue above Rs 450.

In January 1977, the Federal Government replaced land revenue with agricultural income tax by virtue of the Finance (Supplementary) Act 1977. Thus agricultural income tax payable under the Sindh Finances Act 1965 was abolished with effect from *Rabi* 1976-7. This was itself cancelled the following year, and the Income Tax Ordinance of 1979 restored the old exemption.

In 1994, the Sindh Agriculture Income Tax Act 1994 (Sindh Act No. XXII of 1994) was enacted, according to which the imposition of tax on income from agricultural land in the Province of Sindh came into force. It was further amended under the Sindh Agriculture Income Tax (Amendment) Ordinance 1996 (Sindh Ordinance No. VI of 1996, Notification No. S. Legis.1(6)/76 dated 14 December 1996).

The Agricultural Passbook System

This was introduced in 1973 by the Federal Government to make it easier for farmers to obtain agricultural credit from lending institutions. The farmer is required to buy a set of two passbooks (one red, one green) from the Post Office and have the particulars concerning his land endorsed by the Revenue Department, after which he is eligible for a loan of up to 60 per cent of the value of his land. The Revenue Department retains the red book and updates it according to information supplied by the lender (generally a bank); the green book is retained by the bank as a guarantee for the loan.

By 1994, 9,861 Passbooks had been issued, out of a total eligibility of 25,079. Despite a mark-up rate of 14 per cent there had been no defaulting.

Price Control of Farm Produce

A government procurement programme for agricultural commodities was initiated in early 1950 which was limited to a few major crops only. Its aim was to provide food to urban consumers at cheaper rates, not necessarily to stabilize the income of the farmer. Even the price-support programme, which was initiated in the mid-1960s to ensure minimum prices to farmers, effectively became a programme of procurement of food grains at lower prices for the urban consumer.

It was soon realized that the programme was inhibiting the expansion of agricultural production. The government therefore decided to use price intervention not only to safeguard the interests of the urban consumers, but also to assure a reasonable minimum price to the farmer for his produce. Since the late sixties, the price-support programme has remained effective.

In 1977, however, it was decided that a review and suitable revision of the output prices for various commodities was needed every year and on a more rational and scientific basis than had been previously used. The government decided, in March 1981, to establish an Agricultural Price Commission which would recommend the revision of prices. The Commission recommended support prices on the basis of changes in returns for farmers and in the cost of production. Ever since the Agricultural Price Commission was established, the prices of agricultural products have continued to be revised upwards at regular intervals. Thus, for example, the Government of Sindh Agriculture, Livestock, Fisheries, and Food Department determined a province-wide minimum price for sugarcane of Rs 12.00 per *maund* for the duration of crushing year 1988-9. The Department also fixed the minimum price of various varieties of seed cotton (*phutti*) and wheat, oil seeds, and ghee.

Livestock and Veterinary Services

Livestock plays several important roles in the agricultural economy of Pakistan. Bullocks provide the motive power for many agricultural operations and also supply meat, milk, manure, and hides. The Red Sindhi cow and the Kundi buffalo are known for their high-yield milk production, while the Thari cow is a dual-purpose breed, used for both milking and working. Other livestock include camels, goats, sheep, horses, donkeys, and poultry. Blankets are made from camel-hair and sheep's wool.

A Livestock Development Programme was set up with the assistance of the Asian Development Bank with a view to improving yields of both milk and meat. The project included the establishing of a milk plant in Sukkur, but this proposal was dropped due to lack of interest. A breed improvement centre was set up at Rohri, which focuses on the Kundi buffalo.

The first civil Veterinary Department was created in 1907. Since then several reorganizations have taken place, and nowadays animal husbandry and veterinary services are the responsibility of a single department. Its interests include improving local breeds to increase production, and the treatment and control of contagious or parasitic diseases of livestock. A government-issued brochure of 1955 entitled *Sindh: People and Progress* notes that :

It has taken a long time for the *maldars* to shed apathy and prejudice, but they have started to realize the importance of veterinary services and now bring their sick animals to the veterinary hospitals and dispensaries, and report outbreaks of contagious diseases promptly.

The veterinary dispensary of Sukkur was established on 20 October 1918. The veterinary dispensaries at Pano Akil, Ghotki, Mirpur Mathelo, and Dharki are maintained by the government, while those at Kandhra, Hingoro, Dari, Khangarh, and Ubauro are maintained by the District Council. There are thirteen other government-maintained veterinary centres functioning in the District, and Mobile Veterinary Dispensaries serve the remoter areas.

Fisheries

The Sindh Fisheries Directorate was established in July 1974. Since then the importance of fish has been clearly realized. Some of the important activities pursued by the Department of Fisheries include the enforcement of laws governing fisheries, expanding the practice of fish culture, research in the field of fish life and the conservation of fish, educating the public in the proper use of fish, the provision of recreational facilities, and the introduction of modern techniques for the exploitation of fish.

Fish of many kinds are caught in the canals, particularly in the deep pools that are left standing during a canal closure. There are no fishing towns, but a class of fishermen, the *Jhabers* or Mohanas, depend exclusively on their earnings from fishing. They live scattered around the villages bordering the river. A village of Mohanas is called *Miani*. The principal kinds of fish found are *Palla* (*Clupeailisha*), *Dambhro* (*Labeoohita*), *Mori* (*Mugil Waigieusis*), *Muli* or *Poiki* (*Wallago attu*), *Morakhi* or *Morakho* (*Cirrhina Mrigale*), and *Thelli* (*Catla buchanani*).

There is another class of fish which, though considered by some as coarse and unsavoury, is preferred to the delicate kinds by the common people; at any rate it constitutes a much larger proportion of their food. These are the Catfishes and other Siluroidea, which include a number of species of enormous size. Of these may be mentioned *Khago* (*Rita buchanani*), *Lohar* (*Saccobranchus fossils*). Murrels (Sindhi *Jarko*, *Ophioc-ephealus strialus*) are found in weedy tanks. The *Ghoj* (*Mostacemblus armatus*), a mud fish, *Gandan* (*Notopterus Kaporat*) and *Phandam* (*N. Chitala*) may be added to this list.

In the Indus, there are numerous varieties of fish, but the finest flavoured and the most plentiful is the *Palla*, one of the *Cyprinide* according to Dr Winchester, but of the *Clupeida* according to Dr F. Day. It begins to ascend the Indus from the sea about February and continues to do so till September. The method adopted by the Mohana fishermen of Sindh in catching the *palla* is novel: provided with a large earthen vessel having a wide aperture, known as a *mati*, together with a kind of dagger knife and a forked pole 15 feet or so in length, with a net attached to it and check-string from the net to his girdle, the fisherman places his stomach on the aperture of the *mati* in such a way as to prevent any water getting inside, and paddles out into the stream. Here he thrusts his net into the water and by means of the check-string is at once made aware of the capture of a fish, which always swims against the current.

The net is then drawn up, and the *palla* killed with the knife and consigned to the *mati*. The fisherman continues to float down the stream for a certain distance, when he lands and walks along the river bank, with all his fishing apparatus, back to the spot where he first began and again launches out into the water, fishing until he has secured sufficient for the day's sale or consumption.

The canals are fished with standing nets (*Jari*) attached to stakes, weirs made of stakes and bushes with a net bag at the only opening, and with long rectangular nets held by two men who walk up the canal, one on each side. *Dambhro* and other carps are caught with a common device called *pathro*.

Fish farming is on the increase in the District, partly due to encouragement by the Department of Fisheries and partly due to increased recognition of the nutritional value of fish. Between 1986 and 1997 the number of privately-owned fish farms in the District rose from 58 to 126, while the total acreage rose from 852 to 2,709.

The freshwater fisheries of Sindh are extensive and rich and have three important features: first, fish is an almost indispensable source of food for poor and rich, secondly it provides a means of livelihood to a large section of the people, and thirdly as a source of revenue. The right of fish in the River Indus and in all Government canals and *dhandhs* (depressions) is sold by the Government as during the rule of the Talpurs.

Upper Sindh Fish Hatchery

This 100-acre project was set up near Mando Dero, *taluka* Rohri, under the Sindh Aquaculture Development Project. Its original cost should have been Rs 4.2 million, but changes recommended by the Asian Development Bank consultants on the project, brought the final cost to Rs 10 million. Breeding operations commenced in July 1986, even though

installation work was not completed until June 1988. Nearly three million hatchlings of two kinds of fish were produced in the first year of operation, rising to 5.8 million in 1995-6. *Rahu*, *mirgai*, and *gulfam* (*Cyprins carpio*) hatchlings are sold to private fish farmers and used to stock public water areas at a ratio of approximately 2:1. Fish farmers purchase the stock at nominal rates, hence the income to the project is not particularly high (Rs 71,369 in 1995-6).

Forests

Sukkur is fortunate in having more forests than any other District of Pakistan. Prior to the British conquest, annual inundations throughout the province were practically unchecked in their flow and forest growth covered all the land where the water reached. People cut down the timber, made temporary settlements, and tilled the soil wherever they chose. Certain riverain forests were reserved by the *mirs* (local rulers) for the chase, and walled in with mud walls. These existed in many places and were strictly protected from interference or land transfers among the people by severe laws. After 1843, these game preserves, or *shikargahs* as they were called, became the nuclei of the present forests of Sindh.

During 1847 a Major Scott was appointed the first Forest Ranger in Sindh. He was succeeded by two botanists, Dr Stocks and Mr Dalzell, and by two Rangers, Captain Hamilton and Captain Crawford. These last two Rangers demarcated all the *shikargahs* by erecting boundary markers. During the last forty years of the nineteenth century, a forest department was gradually built up until it formed a regular part of the administration of the country's resources. The first Conservator of Forests, Dr Schlick, was appointed in 1871. He organized the department and divided the then Sindh Circle into three divisions—these were later reorganized into four divisions, namely, Sukkur,

Nawabshah, Hyderabad, and Jherruk, each having fifteen rangers.

Forest management from 1860 to 1895 does not appear to have been based on any plan of exploitation and reproduction. Forests were exploited as a convenient resource to meet the local demand of the population and the larger imperialist demands of the old Indus Flotilla Company. In earlier days, the method by which forest lands and resources were disposed of had been according to social rank or need through the share system, whereby the representatives of the rulers who owned various sectors of a town or a District agreed among themselves on the proportion of revenue due to each ruler.

The system of selling *coupes* (areas set aside for felling in particular years) by tender or by auction was introduced in 1901.

The first attempt at systematic management was made between 1875 and 1895. The main methods were rotational cutting and sustained yields. Even those attempts were sporadic, and for the most part forests continued to be worked in areas within easy reach of the railway and the river, with a view to stripping as much revenue as possible and without any regard for improvement or conservation for the future. More systematic management began in 1895. A provisional plan providing for clear-felling in equal and adjacent areas, with a rotation of thirty years for *babul* (*Acacia arabica*) and ten years for *kandi* (*Prosopis spicigera*) and *Lai* (*Tamarix indica*), was adopted in that year and continued in force for six years.

Mr A.C. Robinson prepared the first regular plan during 1900-91 and 1902-3; it remained in force until 1917-18. It was on the same lines as those already sanctioned by the Government for Hyderabad, Naushehro, and Jherruk as the forests of the latter two Divisions were organized by the same officer, Mr Robinson. Mr Robinson's plan was later revised by Mr Navanis.

Shikarpur Division was constituted under Government Resolution No. 4555 dated 7 August 1917 by subdivision of the original Sukkur Charge and the addition of one range taken from the old Larkana Division. The original working plan for Larkana Division was sanctioned by the Government in Resolution No. 5567 dated 17 August 1903, and that of Sukkur Division in Government Resolution No. 4777 of 12 May 1908.

In the Navanis plan, certain changes were introduced to correct the defects of the previous plan. It remained in force for almost twenty years and served its main purpose inasmuch as the bulk of the over-mature and deteriorating trees was removed.

Revision of Navanis' plan became necessary as the scattered fellings under the plan rendered exploitation expensive and the execution and supervision of work difficult. Keeping these points in view, Navanis' plan was revised by C.B. Abichandani, whose work was so exhaustive and comprehensive that it has remained a cornerstone of all working plans till today. The plan drawn up by Abichandani came into force in 1936-7 for Sukkur Division, 1937-8 for Shikarpur Division, and 1938-9 for Larkana Division. This plan, in addition to the riverain forests of these divisions, also included the inland forests of all the three Divisions. The plan covered a period of twenty years. The salient features of the working plan, which, in the event, only remained in force till 1942-3, were that the system of clear felling was adopted, a rotation of thirty years was fixed with reservation for timber, field was regulated by area, a conversion period of fifteen years was fixed to convert the scattered exploitation operations into one concentrated operation, and regeneration was to be obtained by natural methods. The prescriptions of Abichandani's plan could not be followed rigidly on account of the exigencies of the Second World War. Between 1942 and 1945 heavy over-felling had to be carried out to meet the requirements of the defence installations in Quetta Region and the Middle East

countries. Several periodic working schemes were subsequently prepared, although the basic principles of Abichandani's plan were followed throughout. The first scheme was prepared by Wadhwani in 1948-9 and a working scheme for the forests of Sukkur and Shikarpur Divisions was prepared from the data collected by Wadhwani which remained effective until 1952-3. It was observed that the schemes developed defects, so they were revised by Ansari in 1953-4, the scheme prepared by Ansari, again following Abichandani. After that fresh stocking was done by Ahsan Ahmed between 1951-8 and his felling programme was followed for the next twenty years. Thereafter, yearly felling programmes were framed keeping in view the provisions of the Abichandani plan and the subsequent schemes prepared by Ansari and Ahsan Ahmed.

The construction of barrages and dams on the Indus and its tributaries affected the riverain forests of this region adversely. A critical study of the previous plans and the subsequent schemes revealed that certain basic principles of forest management had been neglected and as such it was deemed necessary to prepare a new plan for these forests which would take into consideration the modern trend towards intensive forest management. Mr A.R. Arain was assigned to prepare the revised working plan for the riverain forests of Sukkur Forest Division and the riverain and inland Forest Division of Shikarpur. The area of forests covered by the above plan was 130,549 acres comprising forty forests. According to this latest plan, the forests would be managed on the basis of multipurpose utility such as production of timber and firewood, provision of pastoral areas for graziers, creation of national parks and game reserves, and improvement of growing stock. In order to achieve these objectives, five working circles were constituted, covering inundation, rehabilitation, afforestation, protection, and plantation, to look after the 5,587,821 hectares of forest in Sukkur District.

The Riverain Forests

The riverain forests are irrigated automatically during the inundation season with no human attempt at regulation or control of water supply. Since 1932, however, due to the construction of a series of barrages in the upper reaches of the Indus, the intensity of floods has been adversely affected and the ecology of the area has been considerably changed. Before 1932, all areas used to receive spill water, but that has now decreased. It has been shown that 30 per cent of the crop of the riverain forests gets inundated when there is a discharge from Sukkur Barrage of 0.5 million cusecs, 60 per cent with a discharge of 0.65 million cusecs, and 95 per cent or more with a discharge of 0.8 million cusecs. Owing to reduced and uncertain inundation, these forests are dwindling.

Irrigated Forests

In the irrigated plantations, situated outside a river's protecting embankment, water is taken from the canal-irrigation system for their development. The pressure of increased population and cattle grazing around the forest blocks is building day by day, and the protective staff of the forest service is under tremendous strain to save whatever is left of these areas. Currently, only about 2.3 per cent of these forests is productive, one of the lowest percentages in the world, and if the present situation is allowed to continue, the existing forest growth will be further depleted. The extensive destruction of trees has brought miseries to the rural people, creating shortages of fuel, fodder, fibre, and small timber — the raw material for cottage industries. Ecological factors such as protection against wind and water erosion and polluted water, and the availability of clean air, have also been undermined.

Composition and Condition of Crops

Kandi, lai, babul, and bahan (Populus euphratica) are the four principal crops growing in the forests. Their distribution and growth is greatly influenced by conditions of soil and irrigation. In the riverain forests, these two factors are continually changing the plant composition of forests. The forests depend for irrigation on the lateral overflow of the river and on surplus canal water. The marketable products of forests are firewood, charcoal, and timber in small quantities, and minor produce consisting of grazing land, pods, reeds, and brushwood. Fuel is the chief produce of the forest and its principal yield of revenue.

Wildlife

Animals, a vibrant part of colourful nature, have always fascinated the human imagination and figure abundantly in its arts, crafts, and literature. Sindh, home to the prehistoric Indus Valley civilization, is rich in wildlife. From time immemorial, the waters of the River Indus have sustained the forests and wildlife which flourished in this region of the world. The enigmatic seals, painted pottery, and figurines of the Moenjodaro civilization, which dates back to around 2500 BC, give clear evidence of the existence of the two-horned rhinoceros, the tiger, and a variety of other animals, many of which are no longer found in the region.

Until a century ago the annual inundation of the river was unchecked. The water flooding over Sindh nurtured a rich forest growth which covered large areas of land. The rapid progress of human civilization, here as elsewhere in the world, began with the discovery of iron and the invention of the axe and the plough, which enabled people to fell the forests, raise temporary settlements, and till the soil wherever they chose. This process continued with the

increase of population, and the forested areas have shrunk until they are now mere patches and blocks. Such is the destruction caused by progress, which has affected wildlife habitats worldwide. While human civilization continues to flourish, it has been universally realized that all living creatures of our earth-bound home are interdependent, even though they are differently constituted, eat different foods, and operate in widely diverse ways.

In the subcontinent, protecting species informally goes back a long way. The Mughals, for example, were known to have resisted the idea of hunting female animals during the breeding season. This was to ensure the survival of the species, and, of course, continued hunting opportunities.

In more recent times the creation of game reserves and wildlife sanctuaries was facilitated by the West Pakistan Ordinance 1959. During 1971-4, provincial wildlife protection laws came into existence. The Sindh Wildlife Protection Ordinance 1972 (Sindh Ordinance No. V of 1972) was issued on 13 April 1972; it was repealed by the Sindh Wildlife Protection (Amendment) Act (Sindh Act No. III) of 1994. These efforts provided a legal basis for establishing national parks, wildlife sanctuaries, and game reserves, etc.

By definition, a national park is a large area of outstanding scenic merit and natural interest. The primary interest in such an area is to protect the landscape, flora, and fauna in their natural state. Public access is limited to recreation, education, and research.

A wildlife sanctuary is a comparatively small area protected for its soil, water, vegetation, and undisturbed wildlife breeding.

A game reserve is a similar type of area. However, the Wildlife Department issues permits for limited hunting in such areas.

In Sindh, there is one national park Kirthar, which is managed mainly for ecosystem protection and for recreation. The area is protected by officials such as the

Chief Game Warden, Game Wardens, Game Inspectors, and Game Watchers.

Among other environmentally sound strategies, such as the management of all organic resources, i.e., animals, birds, reptiles, vegetation, soil, and water, it provides a list of wildlife sanctuaries and game reserves. In Sukkur District, these are located at the following places :

Wildlife sanctuaries/ game reserves	Talukas	District	Area in hectares
Nara Desert	Pano Akil, Rohri, Nara, Khipro, and Sanghar	Sukkur Khipro Sanghar	223,590
Mando Dero	Rohri	Sukkur	1,234,335
Indus River from Guddu Barrage to Sukkur Barrage	Khanot, Kashmore, Mirpur Mathelo, Kandhkot, Ghotki, Shikarpur, Pano Akil, Sukkur	Jacobabad Shikarpur Sukkur	1,919,270

In our District, with the exception of such humbler species as the jackal, wild animals may now be said to be almost non-existent. Hyenas and wolves are now hardly ever seen, but jackals are fairly common, and foxes are seen in the rapidly contracting area of dry waste. Hogdeer are seen along the bank of the River Indus and pigs, though much diminished by the action of villagers in defence of their crops, are still found in small numbers. Hare and deer are fairly common.

Both grey and black partridges are very common in the forest plantations, geese are also to be found in fields of green wheat, and *Kunj* (crane) are also regular winter visitors. Sandgrouse of more than one kind visit the District

in the cold weather but the expansion of the cultivated area is driving them away, this applies even more to the houbara, which was in former times quite common.

Sukkur District is known for the hunting of deer and partridges, and many people come to the region every year for that purpose, although the deer is now protected under the Wildlife Protection Ordinance 1972 and should not be shot without a permit.

The Indus Dolphin

The blind, or Indus, dolphin, (*platanista indi*) is a rare species found only in the Indus River. Living in the heavily silted Indus River, the dolphins had only very limited vision which was not sufficient for navigation, so over hundreds of thousands of years, this native Pakistani mammal evolved a highly sophisticated sonar system which helps it to hunt fish, navigate safely, and avoid danger. Before, the construction of the various barrages the blind dolphin used to cruise a substantial part of the river's 3500-kilometre course, but its habitat has shrunk drastically and the mammal is now found mostly in the 170-kilometre stretch between Sukkur and Guddu Barrages, which was declared a dolphin reserve in 1974.

In that year Dr G. Pilleri came to Sindh to investigate reports of the existence of the dolphins; he was only able to count a total of 150 individuals. As a result of his study the Indus dolphin was included in the IUCN* Red Data Book and the Government of Sindh declared the stretch of the Indus between the Sukkur and Guddu Barrages a reserve for the dolphin. The Sindh Wildlife Management Board, in collaboration with the IUCN/WWF and the Volkart Foundation, launched a research and protection programme to identify the conservation requirements of

* IUCN Stands for International Union for the Conservation of Nature and Natural Resources.

this unique species. Although international funding ceased in 1980, the Government of Sindh continues to run a conservation programme.

The Indus dolphin population has been largely static for several reasons, mainly the increasing rate of pollution. Population surveys are conducted regularly; recent readings are: 387 (1990), 398 (91), 410 (92), 426 (93), 435 (94), 447 (95), and 458 (96), divided into seventeen schools (groups).

Traditionally the dolphin used to be netted to extract its oil for use as a liniment; fortunately this use has minimized owing to the widespread availability of modern medicine. Some fishermen also use the oil for proofing their boats. On the other hand, as an aquatic mammal living submerged most of the time, it has to come to the surface to breathe air. Some dolphins drown when caught in fishing nets which keep them under water for longer periods. Chemical fertilizers and pesticide-infested agricultural run-off in the Indus are also having their effect on the dolphin population.

Another major threat being faced by the Indus dolphin is the establishment of various private-sector industries and thermal power-houses (at Guddu and Sukkur) which are pouring their untreated and hazardous effluent into the river besides raising the temperature of the water. Various towns and cities on the banks of the Indus are also contaminating the river with their untreated municipal sewage. Oil and gas explorations, drilling and other operational activities in the Kadirpur (Ghotki) gas-field, and drilling in the main river stream, are reportedly threatening at least five dolphin schools, at Tori, Jungan, Bindi, Begari, and Tegani, comprising nearly 110 dolphins.

Botany

The number of different kinds of grasses and other plants of low growth in the District is considerable. Near the

canals, there is a good deal of timber. 'Lai' and *Jhao* (*amarix indica* and *dioica*)—both good fuels—are found in flooded land. The twigs are used for making baskets and the cylinders of *katcha* wells, also for fences to fields and the sides of houses. The timber is used for agricultural implements. The cog-wheels of the persian wheel are almost invariably made of it. The fuel is good and is much liked; the seeds are eaten readily by goats; and the bark is used in tanning and in the distillation of native spirits. A shrub, the *babul*, is occasionally seen; it never grows to such size as would make its timber valuable. The *Ber* (*Zizyphus jujuba*) tree is not uncommon in the cultivated parts of the District. The wood is of good quality and is used in building. It yields fine fuel which throws out a clear heat. The fruit is not much esteemed. Good walking sticks are got from this tree. *Kandi* (*Prosopis spicigera*) is always a small tree. The wood is strong and is made into agricultural implements and household furniture. It is much used as a fuel and charcoal is prepared from it, but the charcoal is said to emit too many sparks to be much liked. The seed vessels called *Siugri* are used as an item of food. This tree is met everywhere in the District where it has not been cleared away. The *Kikar* (*Capparis aphylla*) sometimes becomes a tree but generally remains a shrub. It is found throughout the district. The wood is hard, and is used for rafters and *lathis*, principally on account of its supposed immunity from attack by white ants. As fuel, it has a high reputation. Its fruit is called *dena* and is eaten in its natural state—a great stand-by for the poor in seasons of scarcity. Certain trees are generally grown about each well. The most common are *pipal* (*Ficus religiosa*) and *sobanjro* (*Hyperantheraptery gosperina*) or horse raddish tree. The *pipal* tree is venerated by Hindus.

There are few plants other than trees and grasses deserving of much notice. The *sar* (*Phragmitis karka*) is the most important. It is found generally in sandy soil. It is abundant along the river and the distribution channels of

the canals. From reeds of this very common grass, baskets and chairs are made, and its flower stems yield a fibre from which soft ropes are made, such as those used in the Indus in tracking.

Uses of Certain Wild Plants of Sindh in Medicines, the Arts and Domestic Economy

There are many such plants but the descriptions of some of them are given below:

Trade name	Scientific name	Remarks
1. Purgatives		
<i>Ayreo</i>	Probably Aloe	Aloes, name of
	<i>Soco trina</i>	Plant Put Khwar Senna
<i>Suna Mukce</i>	<i>Cassia abovata</i>	Senna
<i>Dhatoora</i>	<i>Datura alba</i>	Thorn-Apple
2. Diuretics		
<i>Gidroobij</i>	<i>Spinachia tetramadra</i>	Fruit spring
<i>Ahuber</i>	<i>Cucumis melo</i>	Melon seeds.
	<i>Juniperus</i>	Fruit sold in all
	<i>Communis</i> (L)	Bazars Juniper
		grows on hills
<i>Neem</i>	<i>Azadirachta</i>	Leaves and
	<i>Indica</i> (Ad. Jass)	bark Dried
<i>Nimaree</i>		Dried Fruit-Feverore
<i>Murwo</i>	—	Flowers of a hill
		Plant, very bitter
		and used in fever
<i>Hurmalo</i>	<i>Ruta Hurmala</i> (L)	Cocel: used
3. Demulcents		
<i>Nazbo bij</i>	<i>Ocimum Basilicum</i>	Mucilagenous seed
	(L)	
<i>Ispungur</i>	<i>Plantago Ispagual</i>	Mucilagenous seed
	(R O X)	
<i>Lesooroo</i>	<i>Cordiamyra</i> (L)	Dried fruits small
		spistans
<i>Gadooro</i>	<i>Cordia latifolia</i> (L)	Ditto, greater spistans

<i>Unab</i>	<i>Zizyphus</i>	A sweet Jujube, from the hills
<i>Kasnee</i>	<i>Cichorium intybus</i>	Seed-like fruits
4. Cooling medicines		
<i>Neelofer</i>	<i>Nelumbium speciosum</i> (Wild) <i>Nymphaea pubescens</i> (Wild)	Dried flowers
<i>Gazban</i>	It is from <i>Trichodesma Indicum</i> , <i>Heliotropium ophyoglossa</i> and <i>Heliophyllum erosum</i>	According to Arabian system, it is good against all disorders arising from heat
5. Heating Medicines		
<i>Guggar</i>	<i>Balsmodpndron Roxburghi</i> (Arn)	Gum resin
<i>Ahrio</i>	<i>Lepidium sativum</i> (L)	Seeds and herb
<i>Ahurbij</i>	<i>Sinapis ramosa</i> (Rox.)	Seed
<i>Jambobji</i>	<i>Erne Sativa</i> (D.C)	Seed
<i>Suraj bij</i>	<i>Sinapis glauca</i> (Rox.)	Seed
6. Carminatives		
<i>Paneer-ja-Fota</i>	Of family <i>Solanaceae</i>	Dried berries
<i>Phoodnoo</i>	<i>Mentha uarvensis</i> (L) and <i>viridis</i> (L)	Grows in the hills
<i>Jan walljan</i>		well known
<i>Dhana</i>	Umbelliferous	
<i>Wadaf</i>	seeds, Coriander	
<i>Jeerb</i>	Cummin, fennel, Aniseed and Co.	
7. Miscellaneous		
<i>Kinro</i>	<i>Gynandropsis Pentaphylla</i> (D.C)	Used in oil, against Crabs and lice

REVENUE ASSESSMENT IN SINDH

Land Revenue

Historical Assessment Methods

Under the Talpur rulers, land revenue was generally taken in kind by means of a share of the produce known as *battai*, the division of the crop between the owner of the land and the labourers working on it. (What is generally understood nowadays by the word is the division of the crop by the Government between itself and the cultivators.) The state's demands varied according to the type of irrigation employed. For crops grown on land irrigated artificially, the prevailing rate was from one-fourth to one-third of the gross produce, while for crops raised on land naturally flooded, the customary demand amounted to two-fifths or one-half. The rates varied much, local need being everywhere considered before the tax was levied. An additional cess, generally of one-fifteenth and also in kind, was levied to defray the cost of the state's administrative institutions, and a number of petty fees were exacted as prerequisites for officials or subsistence for their menials.

The administrative officers were: the *battaïdar*, or divider, whose duty was to superintend the grain in the field, its reaping, and its final division between the Government and the cultivator; the *battaïdar mohurrer*, or writer, who wrote the *khusra*, or accounts, of *battai*; the *karwa*, or field watchman, who watched the crops in the interest of the Government; and the *durwari*, or grain measurer.

The *zamindars*, or landowners, and the *haris*, or growers of the crop, were considered the cultivators, and were entitled to two-thirds of the gross yield. However, their share of the crop was subject to certain deductions before it was divided between them. These deductions included:

- i) the cost of the seed, to be paid to the *bania* (moneylender) or zamindar who advanced it;
- ii) the interest on it, calculated at the time the loan was advanced by fixing a rate higher than the real market value (50 per cent was the common rate of interest, but generally it was settled by the principal zamindars and *banias*);
- iii) The usual pay for the *labb* or *labarh* (reaper), which was two *pattoes* of grain a day;
- iv) the *karwa* or field watchman, in addition to his pay from the Government, would also receive two pounds of flour a day and would be allowed the forage for a pony from the cultivators;
- v) flour was usually advanced by a *bania* who would be paid at harvest from the common heap;
- vi) the *bharo*, or hire of the bullocks or camels used to carry the Government grain to the granary, was paid for from the common heap;
- vii) *kusabee*, or the artificers who made ploughs and wheels, as well as the carpenters, blacksmiths, and potters, were paid an amount which varied according to the method of cultivation, that is, either by water-wheel or by flooding (this tax continued to be levied by some zamindars even after the conquest by the British);
- viii) the *dando kaho*, or driver of the bullocks at the wheel, who was paid at a rate of six paisas a day out of the common heap;
- ix) the village mullah, the barber, and the water carrier each received a small contribution. In some villages, a small quantity was also set aside for charity, for the spiritual instructor, or for various other purposes beneficial to the community as a whole. (This practice still continues in some villages in the province.)

- x) if wheel cultivation was used, the owner of the bullocks received a share for each bullock;
- xi) finally, some crops, such as cotton, tobacco, and sugarcane, were never subject to *battai* by the Government; instead, cash assessments between Rs 1-8-0 and 2-8-0 per *bigah* were levied; rents were sometimes converted into cash payments by special agreement. Although different practices also existed in different Districts, this was the general custom.

Jagirs (Land Grants)

The oldest alienation recorded in Sindh is a *khairat* (charitable grant) made in the days of Emperor Allauddin Khilji (AD 1294-1316). The land revenues of *Deh Aliwahan* were given in their entirety to the children of Muhammad Makki of Rohri (deceased) as *Madad Muash* (maintenance and support).

Most of the land found in alienation at the time of the conquest (1843) was originally granted by the Talpur *amirs*, who succeeded the Kalhoras as the rulers of Sindh in the early 1780s. The total amount of land that was found in *jagir* and confirmed by Napier at the time of the British conquest was nineteen lakh *bigahs* (in excess of 950,000 acres). Land granted under *jagir* was exempted from the payment of land revenue under the Talpur regime.

Assessment of Land Revenue after the Conquest

After the introduction of British rule in AD 1843, the system of assessment and collection of land revenue as introduced by the Talpurs was not immediately changed. The bulk of the land revenue was assessed and realized in kind at rates not exceeding one-third of the gross produce, with small additions to meet charges for irrigation and collection;

lower rates were occasionally fixed with reference to greater expense of irrigation or other local circumstances. Many assessments existed; their terms were moderate considering the fertility of the soil. They were based on the standard *bigah*, somewhat exceeding half an acre, and the amount of cultivation was ascertained by annual measurement.

The revenue was collected by various methods under native rule. The settlement of each division or each large village or dependency differed and was strictly defined. The rates were established by ancient usage, and seem to have been recognized by both ruler and ruled. There were five methods: *Batai*, *Kasgi*, or fixed grain assessment; *Masuli*, or fixed cash assessment; *Danbandi*, or revenue determined by the state of the crops; and *Muta*.

Batai

This was fixed at $\frac{2}{5}$ to $\frac{1}{2}$ for ordinary tenants but, as it consisted in simply taking for the Government $\frac{2}{5}$ or $\frac{1}{2}$ of the actual produce, it follows that the Government took its chance equally with the cultivator on the outcome of the crop—whatever the cultivator had to pay was on the ground for him to pay with, and was more or less according to the produce.

Kasgi

This was a fixed revenue assessment per *jirab*. The term comes from the word *kasa*, meaning the number of *kasas* levied per *jirab*. There were two kinds: first, a levy on those who held *pattas*, or grants, according to which a certain *kasgi* was levied every season and which generally remained the same; second, it was possible, at the commencement of the season, to go to the *kardar*, or lessee, and get him to grant a note of hand stating that one would be assessed at a given rate at the approaching harvest.

Masuli

Masuli of cash rent were peculiar to certain crops, such as tobacco, sugarcane, cotton, every kind of vegetable, safflower, and *bhang*. They varied in amount according to the nature of the crop, the description of the land, and the pleasure of the proprietor, but, generally speaking, they were not liable to change.

In Hyderabad Collectorate, money rents were fixed at one standard throughout the Collectorate—Rs 1-6-0 per *bigah* of 2,500 square yards (or rather more than half an acre) in addition to a collecting fee of 6 per cent. In Shikarpur, the land measure for cash rents was the *bigah* of 2,500 square yards, the rent being variable: Rs 1-8-0 and 2-8-0 per *bigah* for autumn and spring crops. In Karachi, the rent was reported by the Collector in Lower Sindh at Rs 1-8-0 per *bigah* with a fee at the rate of 6 per cent on the amount of collections.

Danbandi

This was an assessment used in collecting the Government share of detached fields, over which it would be needless trouble and expense to place a *karwa* or watchman. It was also occasionally brought into use in bad seasons in other fields, where it was supposed that the crops would not bear the expenses of *karwas*.

Muta

Muta was a kind of grain contract, but of infrequent occurrence. In this case, a cultivator would go to a *jagirdar* and offer to cultivate a *charkha* of land, perhaps hitherto lying waste, if it could be granted to him on favourable terms. The latter would occasionally agree to take a nominal and fixed amount, say one *kharar*, of the *charka*; this was termed *muta*.

Besides the above methods, there was also another mode of converting the Government grain into cash. This was the *Ruckub Era* which was introduced in Chanduka. By this method, the tenant was both bound and entitled to commute his fixed corn rent, the amount of which had been ascertained at the time of harvest by the combined process of measuring the land under crop and allowance for *nuzzerdeed*, at a rate in cash calculated by taking the average prices current in certain large towns and grain marts for the six months following the harvest.

In 1846, Sir Charles Napier issued a Revenue Regulation substituting the ancient method by a system of money payment, i.e., one-eighth for autumn and two-eighths for spring crops per acre, but it met with little success.

It has been stated above that the produce share appropriated by the Talpur government apart from cesses as the contribution due from the occupiers of land to the revenue of the state, varied from one-half to two-fifths for land watered by labour. For what length of time this rate had been sanctioned by usage, it is impossible to say, but the Talpurs were conservative princes and as a rule respected local customs and hereditary rights.

Upon the establishment of British rule, the produce share taken by the Government was reduced to that which the Mughal emperors had considered fair, namely one-third, but this was the maximum demand, made only upon land irrigated with least expense; the lift rate, which applied to the greater portion of the country, was one-fourth.

In 1847, a seven-year settlement was introduced on the basis of measurement of crops and commuting of the Government share at assumed prices on *rayati* land, and by leasing out the *zamindari* estates at lump rents. Due to the failure of prices, the system did not work, and there was a pressing demand that the old native system of dividing the crops, taking revenue in kind, be adopted. The settlement having expired in 1853-4, the institution of Rough Survey and Settlement therefore become imperative.

The Rough Survey and Settlement

According to Rough Survey and Settlement, the preliminary work of demarcation of village boundaries and measurement of fields, filling of village maps, and classification of soil was put into gear. The work continued till 1862, and it was not until 1864-5 that the revenue settlement known as Original Settlement was introduced.

Original Settlement

Under this system, the land was divided into large survey areas known as numbers, an estimate was made as to what portion of each number could be cultivated annually, and the whole number was assessed on that basis only. This was what is known as the diffused rate system. It was fixed for ten years. On the expiry of the above system, it was found that it was detrimental to the Revenue, and it was abandoned in favour of what was called a Revision Settlement.

Revision Settlement

Under the above system, which was introduced in 1875, survey numbers of small size were formed and assessment was fixed on each according to the quality of the soil and the mode of irrigation. It was paid only when the number was cultivated, but the occupant could allow his fields to lie fallow according to a certain scale and yet retain his lien on them.

In 1879, the Bombay Land Revenue Code was framed. The chapters on Settlement Survey and Record of Rights were finally added to it.

The system still, however, involved minute classification of soil and water, and after some years' experience, it was

discovered that no new system could be introduced in any *taluka* immediately on completion of the measurement operations in it and all changes in assessment had to be deferred—to the detriment of Government revenue—until assessment rates could be worked out. This led to the introduction of what was first styled as a Temporary Settlement.

Temporary Settlement

Under the Temporary Settlement, which was first introduced in 1881 as an experiment (*vide* Government Resolution No. 3397 dated 13 June 1881), the classification of soil and water was abandoned, initial values were fixed for each class of irrigation, and new rates based on these values were introduced immediately on completion of the survey and settlement of a *taluka* (see, Table 5.1).

The experimental system commended itself so strongly to the sentiment and convenience of the zamindars, and so greatly stimulated the extension of cultivation, that the Government was moved to accord it permanent recognition as the more suitable settlement system for the province, and renamed it the Irrigation Settlement.

Irrigation Settlement

The leading features of the Irrigation Settlement were as follows:

- (i) Assessment was only payable when the land was cultivated, and subject to Fallow Rules.
- (ii) The rate of assessment generally depended on the source and the mode of irrigation in each season.
- (iii) Rebates were allowed on account of clearance of private water courses and *karias*.

TABLE 5.1
Irrigational settlement rates per acre for the
highest and lowest groups - District Sukkur

TALUKA	No. of Groups	KHARIF					R A B I					BARANI		RIVER KATCHA					OTHERS
		Gardens	Rice	Other Flow	Lift	Lift aided by Flow	Lift	Sailabi	Bosi	Sailabi aided by Lift	Bosi aided by Lift	Kharif	Rabi	Kharif and Pesh-rars	RABI				Bobul Groves
															Wheat and Barley	Other crops	Land shown but not ploughed	Simko Crops	(Hur-ries) (Huris)
																			Rs. A.
Ubauro	1	3.8	3.8	3.0	2.6	3.0	3.12	3.4	3.4	3.12	3.12	1.8	2.0	3.0	3.0	2.8	1.8	0.8	1.4
Mirpur Mathelo	3	3.8 3.0	3.8 3.0	3.0 2.8	2.8 2.0	3.0 2.8	3.12 3.4	3.4 2.12	3.4 2.12	3.12 3.4	3.12 3.4	1.8 —	2.0 —		No river katcha				12.0 10.0
Pano Akil (1904-5)	3	4.2 3.0	4.2 3.0	3.8 2.8	3.0 2.0	3.8 3.0	2.0 3.10	3.8 2.12	3.4 2.12	4.4 3.4	4.4 3.4	— —	— —		No river katcha				12.0 12.0
Ghotki	2	4.0 2.8	4.0 3.8	3.8 3.0	3.0 2.8	3.0 3.0	4.0 —	3.8 —	3.8 —	4.4 —	4.4 —	— —	— —	3.0 —	3.0 —	2.8 —	1.8 —	0.8 —	— —
Rohri	5	0.8 3.4	5.8 3.4	4.4 2.8	3.8 1.12	3.14 2.2	4.8 3.12	4.0 2.8	4.0 2.8	4.12 3.4	4.12 3.4	1.0 —	1.8 —	3.0 —	3.0 —	2.8 —	1.8 —	0.8 —	1.8 0.14
Sukkur	3	6.0 4.4	5.12 4.14	4.6 3.14	3.8 3.0	3.12 3.4	4.8 4.0	4.4 3.12	4.4 3.12	4.12 4.4	4.12 4.4	— —	— —	3.0 —	3.0 —	2.12 —	1.8 —	0.8 —	— —
Shikarpur	3	4.8 3.6	6.10 5.0	3.14 3.0	3.2 2.6	— —	4.14 3.12	3.14 3.0	3.14 3.0	4.4 3.12	4.4 3.12	1.8 —	1.8 —	3.0 —	3.0 —	3.0 —	1.12 —	0.8 —	1.0 1.12
Garhi Yasin	4	4.8 3.0	5.2 3.8	3.12 2.8	3.0 2.0	3.4 2.2	4.4 3.0	3.12 2.8	3.12 2.8	4.8 3.4	4.8 3.4	— —	— —	3.0 —	3.0 2.0	2.8 —	1.8 —	0.8 —	— —

Source:- The Gazetteer of the Province of Sindh, Volume III, Sukkur District-1928

- (iv) Remissions of land revenue were allowed in case of total or partial failure of crops.

It was further decided that the assessment be treated as a consolidated charge, nine-tenths representing the price of the water and credited to Irrigation, while the balance was treated as land revenue and credited to that head.

The Village Accounts Manual and *Taluka* Accounts Manual were framed in October 1887, under the authority of Major Goldsmith, ICS, the originator of the Bombay system of survey and settlement, to deal with land matters and levy of land revenue, and thus the land revenue system in the province was brought into the general framework.

The rules for the administration of the Irrigation Settlement were sanctioned under Government Resolution No. 2454 dated 3 May 1881, but they underwent considerable modifications which ultimately brought the Sliding Scale System of Assessment into existence.

The Sliding Scale System of Assessment

The land revenue system in Sindh is based on the theory that the state is entitled to a certain share of the zamindar's or occupant's net assessment of cultivation as land revenue for the combined use of the land, its soil and water. What fraction of the whole system that should be has long been subject to debate. Originally the state's share was a fraction of the gross produce, while at the beginning of the nineteenth century, the Government of India gave its approval to the standard of 50 per cent of the rental value. Whichever standard was approved, in practice it was a maximum that was never intentionally exceeded; the assessment was frequently substantially lower than the standard. The Government order which fixed land revenues in the Lloyd Barrage Area and in Upper Sindh was probably the first to make the standard one to be worked up to as well as one not to be exceeded. The standard in

this group of settlements was 33.3 per cent of the zamindar's net assets. The zamindar's net assets are the profits of cultivation on a survey number in a season in which the individual survey number is actually cultivated.

To meet the situation which might arise from violent fluctuations in the price of crops which the zamindar was accustomed to sell in addition to retaining some portion for his personal consumption, the Government prescribed the Sliding Scale System of Assessment for staple crops such as cotton, rice, and wheat from the year 1943-4.

By this method, the assessment actually levied each year is determined according to the average daily price of the concerned crop at the prescribed centre over a fixed period of the year, which is generally the time when the crop produced is sold by the zamindar.

As stated above, the land revenue and the irrigation revenue in Sindh were collected in the form of a combined assessment levied annually on cultivated land for account purposes, nine-tenths of the combined assessment being credited to irrigation and the remaining tenth to land revenue.

In 1959, the West Pakistan Determination of Land Revenue and Water Rate Ordinance 1959 (West Pakistan Ordinance No. LX of 1959) was promulgated under Notification No. LEG.3(55)/59 dated 6 November 1959, according to which land revenue was separated from water rate and provision was made for reassessment of land revenue and water rate. (The province of Sindh had been merged into West Pakistan on 14 October 1955.) Accordingly the Government of West Pakistan reassessed the rates of land revenue for crops grown in Hyderabad and Khairpur Divisions (the province of Sindh was divided into two Divisions, Hyderabad and Khairpur, after amalgamation into West Pakistan) under Notification No. LR-716-56-PI-II dated 23 November 1959, and water rates were chargeable for canal water supplied for the purpose of irrigation under Notification No. LR-5-6-56-PI-II dated 23 November 1959.

The above system of land revenue was replaced by the Sindh Land Revenue Flat Rate of Assessment from the beginning of the agriculture year 1972-3.

Flat Rate of Assessment in Sindh

The Sindh Land Revenue Flat Rate of Assessment Rules 1973 were introduced by the Government of Sindh Revenue Department under Notification No. 2/1/16/71-Rev(5)/207 on 13 April 1973. They came into force at the beginning of the agricultural year 1972-3, replacing the old irrigation system, i.e., the sliding scale mentioned earlier.

The salient features of the flat rate system were :

- i) The flat rate of land revenue was to be calculated on the basis of the average demand for land revenue in the five years from 1966-7 to 1970-71. The demand was to be divided by the average area of the relevant *deh* for the same years, expressed in terms of Produce Index Units (PIU);
- ii) the flat rate for water was to be calculated on the basis of the last three years' demands, i.e., from 1968-9 to 1970-71. This amount was to be divided by the average of the area of the respective *deh* for the same years expressed in terms of PIU;
- iii) the flat rate for land revenue and the water rate so fixed was to be applicable only for the five years subsequent to and commencing with 1972-3;
- iv) the unit of assessment in the *deh* and the basis of taxation was the PIU;
- v) the flat rate was to be leviable on the entire holding according to the classification of the soil and the mode of irrigation, irrespective of whether the area was brought under cultivation or not;
- vi) small *khatedars* (holders of not more than sixteen acres of irrigated or thirty-two of unirrigated land) were not to be assessed for water rate in excess of the average levy of the last five years;

- vii) the assessment was fixed for five years to the advantage of both the Government and the *khatedar*—the *khatedar* would be given an incentive to bring more land under the plough because intensive cultivation would not result in more taxation, while the Government would have an accurate idea of its revenue receipts and would therefore be in a position to plan its programme realistically;
- viii) the calculation of the assessment had been simplified and was thus within the comprehension of the common man. Any mis-classification could easily be detected and rectified;
- ix) the annual demand would be recoverable in two instalments: 75 per cent as the first instalment, payable by 31 January, and 25 per cent as the second instalment, payable by 30 June of every year;
- x) the misuse of power by the lower echelons of revenue collectors and their capability to do mischief were eliminated. The *khatedar* would no more be at the mercy of *tapedars* (village officers) and their faulty billing;
- xi) a major source of corruption, remission on assessments, had been eliminated. There would no longer be remissions in individual cases. Remissions would generally be admissible only in cases of natural calamities or widespread failure of crops;
- xii) finally, provision was made through the rules to safeguard the payment of assessment by the given dates. In case of default, the assessing authority was to recover, as penalty, a sum equal to 10 per cent of the amount unpaid, with the amount of the instalment falling in arrears. Any penalty so imposed was to supplement action as prescribed in the West Pakistan Land Revenue Act and Rules.

Barani (land dependent on rainfall) and *sailabi* (land flooded or kept permanently moist by a river) lands were excluded from the flat rate scheme. These lands continued to be levied according to the old method of fixed assessment.

The West Pakistan Land Revenue Act, 1967, was eventually amended through the West Pakistan Land Revenue Amendment Act, 1972. Separate rules for determining land revenue and water rate were framed under Section 70 of the Sindh Irrigation Act, 1879. The Sindh Land Revenue Flat Rate Assessment Rules 1973 were replaced, with immediate effect, in October 1982.*

Necessary amendments were made in the Sindh Land Revenue Act 1967 *vide* the Sindh Land Revenue (Amendment) Ordinance 1982.** According to this Ordinance, land revenue was to be levied against the actual cropped area with effect from 1 October 1982, i.e., *Rabi* 1982-3. These amendments were necessary because, during the first few years of the implementation of the Flat Rate System, some defects had come into notice. These included the following:

- i) the system was based on PIUs which were worked out in 1948 in the context of the resettlement of refugees and therefore could not constitute a sound basis for the calculation of land values either in 1972-3 or in subsequent years. A revision of PIUs was envisaged by the Sindh Government while introducing the flat rate system but was not undertaken;
- ii) the value of PIUs with which the flat rate system was linked worked out to be lower in more fertile estates than in less fertile areas. This was because the rate of assessment was calculated by dividing the average demand by the average number of PIUs for each category of land in an assessment circle, which meant that the less fertile areas were more highly rated than the more fertile ones;

* See, notification No. 1/921/80/Rev-Gazette Part-1 (11) dated 2 December of the Secretary, RDGS, published in the Sindh Government Gazette Part-1, 16 December 1982.

** Sindh Ordinance No. XIV of 1982 published in the Sindh Government Gazette, 6 October 1982.

- iii) as *banjar jadeed* and *banjar qadeem* lands (lands whose ownership was unknown for between eight and twelve, and over twelve, successive harvests) were exempt from land revenue under the flat rate system, wide discretion was given to the subordinate revenue officials when they categorized land. This led to many complaints of gross malpractice, which the flat rate system had been introduced to eliminate.

Zakat and Ushr Ordinance, 1980

In the Land Revenue (Amendment) Ordinance, 1982, published in the Sindh Government Gazette on 6 October 1982, the flat-rate Land Revenue Rules, 1973, were repealed with immediate effect, and *Ushr* was to be levied on cropped area as of *Rabi* 1982-3. The *Zakat and Ushr Ordinance, 1980* (XVIII of 1980) issued by the Provincial *Zakat Council* and duly approved by the Central *Zakat Council*, was promulgated with effect from 15 March 1983. The new rules decreed the following:

- i) That every landowner, grantee, allottee, lessee, leaseholder, or landholder (other than persons excluded from the definition of *Sahib-e-Nisab*) should pay *ushr* at the rate of 5 per cent of the produce of his land;
- ii) that the above-mentioned persons were to be exempted from payment of *ushr* if the produce of their land was less than five *wasqs* (948 Kgs.) of wheat;
- iii) that the currency equivalent to five *wasqs* was to be fixed and revenue in the case of Muslim *khatedars* who believed in *ushr* affected the assessment of local cess; and finally that the *ushr* liability was to be computed by self-assessment communicated to the *Ushr Committee*.

There is one District *Zakat and Ushr Committee* with a chairman and six members in District Sukkur, six *taluka Zakat and Ushr* chairmen with thirty-six members, and 524 local committees with 3,144 members.

The Assessment of Land Revenue at the Enhanced Rate

The Sindh Land Revenue Flat Rate Assessment Rules 1973 were replaced with immediate effect from October 1982 under the Sindh Land Revenue Assessment Ordinance 1982 (Sindh Ordinance No. XIV of 1982) which was issued under Notification No. S. Legis (14)/82 dated 6 October, 1982.

The above Ordinance was amended under the Sindh Land Revenue Second Amendment Ordinance 1982 (Sindh Ordinance No. VIII of 1983) under Notification No. S. Legis 1(8)/83 dated 25 July 1983, which came into effect from Rabi 1982-83 commencing from 1 October 1982, according to which the owner was liable to pay land revenue at the enhanced rates.

Water Rate (*Abiana*)

This is the first time that such an in-depth study has been conducted on this subject. After *The Gazetteer of the Province of Sindh* by E.H. Aitken (1907), no one seems to have taken pains to study this topic threadbare. I have purposely given the relevant notifications issued from time to time, in the hope that it will be useful to future researchers, scholars, historians, and departments seeking to know the historical background of water rate (*abiana*) in Sindh, as in the past different methods seem to have been adopted, and, furthermore, no accurate analysis has come to light. It was not an easy task to lay hands on all the notifications, and I had to delve deep into the archives.

Water rate or *abiana* has a long and chequered history. The irrigation system along the Indus seems to be as old as its civilization. It underwent numerous changes, from simple flood irrigation to the modern irrigation system. It was scientifically established a century ago when diversion hydraulic structures were built on the rivers and the canal

heads. Some of the most pioneering works on canal design were done in the Subcontinent.

The earliest water-lifting device in ancient Sindh was the *boka* (leather water-bucket) which was known in Harappan times. The pulley was not known in those days; the *boka* therefore was pulled up from the well by a long lever hinged over an inverted U-frame fixed in the ground, or over a tripod similarly fixed. The limitation to lift was the height of the U-frame on its tripod. Ordinarily, it could not be over ten feet. The multiple pulley was known in Mesopotamia around 900 BC; the simple pulley was a much earlier innovation. The *boka* operated by animal power was developed for irrigation during the Declining Indus Culture. The animal power used in Sindh may have been oxen to start with. Camels may have been used from around 1000 BC.

The *boka* seems to have been adopted from Central India. It has an advantage over the Persian wheel in that it does not spill water back into the well. It is shaped like a tea kettle, and in its modern form, is raised or lowered from the top by a rope over a pulley. When the bag passes over the level of a smaller pulley, lower than the first, the spout is pulled horizontally and the water rushes out from the spout into the outlet already built. This writer has very recently seen the *boka* being used by the desert people of District Tharparkar. In the local terminology, it is called *charhi*.

The Persian wheel is a much later development. Low-lift wheels may have been developed before high-lift wheels. The Persian wheel has a limitation in that it cannot work satisfactorily beyond a 30 foot depth without reducing the weight of the buckets. The *boka* is much more efficient than the Persian wheel.

The Persian wheel may have reached Sindh during the Sythian or Parthian eras, 84 BC to AD 67, most probably after the beginning of the Common Era. The low-lift Persian wheel is one of the most efficient of the ancient water lifting devices.

The use of the Persian wheel was common before the British period. It was essential in more than half of Sindh for raising and harvesting the crops successfully. Farmers used it to grow crops such as cotton, rice, vegetables, and fruit. The Persian wheel was operated by camels or one or two bullocks, depending on the lift and number of buckets on the endless belt. The medieval Arabs called the bucket wheel the Sindh wheel.

Diesel-operated pumps for irrigation were introduced in Sindh during World War I.

There was another type of irrigation system, using the River Indus, called *sailabi*. Here land was purposely flooded in summer and winter crops were raised on preserved moisture. Such areas were natural depressions or lake beds which were used for winter crops when the water from them had been drained out for other purposes or evaporated. The riverain areas naturally flooded in summer were also utilized for *sailabi* cultivation.

The winter crop called *dubari* (Second Crop) is another innovation in the rice areas. Here the ground is fully saturated with water by early August. After the harvest of the rice crop in October or November, the water table is still 12-18" deep and the surface is wet. A *dubari* crop of peas, beans, wheat, and barley is raised on it.

The above two methods go back to Moenjodaro times. Unlimited control over the labour of the subjects enabled the rulers of the Indus Valley to build spectacular cities, palaces, gardens, grain stores, and tombs. The 'Irrigation State' has despotic leadership and a despotic government and is invariably stronger than the society it rules (Hughes, *The Sindh Gazetteer*). Government collection of land revenue over a vast irrigated tract and the maintenance of canals requires efficient record-keeping. The need for such records gave rise to the invention of writing and counting. The Indus Civilization developed numerical, arithmetical, and weight systems in both binary and decimal. Once they had been forced to become record keepers, they became

great organizers, and in consequence, great builders of urban as well as irrigation projects.

It was probably during Amrian times (c. 3500 BC) that *gabarbands* were constructed in Kohistan. They were not water storage dams but water diversion dams. They acted as weirs, diverting storm water into adjoining lands which had been given proper embankments along the contour lines to hold and retain 12"-15" of water for four days, allowing the water to soak into the ground. On this preserved moisture a *kharif* crop of grain, oil seed, etc., was raised.

The men of Sindh also used spring water for raising crops. Some springs—Dam Buthi, Tang, and Kai—support irrigated agriculture even today.

It was under the Mauryan Dynasty (323-184 BC) that land revenue was first correctly assessed by measurement of land and properly collected. The driving force behind this task was Chanakya, the Chief Minister of Chandragupta and the author of *Arthasastra*. The Mauryas had a Superintendent of Agriculture who assessed land rates according to its quality and the method of irrigation. The normal government share was one-fourth of the produce. The water rate, which was one-fifth to one-third of the produce, had to be paid as extra.

In the eighth century, we find that the public revenue of Sindh under Arab rule was derived mostly from the land tax. The assessment upon Sindh and Multan was 1,150,000 dirhams (or about Rs 270,000) which comprised land tax, poll tax, customs duties, and other miscellaneous items. The Arab Governor of Sindh was in fact a kind of a farmer-general who bound himself to pay to his sovereign, the reigning Khalifa (Caliph), certain sums, as set down in the public register. The land tax was usually rated at two-fifths of the produce of the wheat and barley if the fields were watered by public canals, three-tenths if irrigated by wheels or other artificial means, and one-fourth if altogether unirrigated. Arable land left uncultivated seems to have

been assessed at one dirham per *jirab*, besides a tenth of the probable produce.

Under the Mughals, the *mansabdari* system was in use (AD 1525-77). The *mansabdar* was the Military Governor who collected land revenue and irrigation water charges.

The Kalhoras rose to power in Sindh from AD 1700. They were master builders. Their secret lay in the quick restoration of the canal system and the settlement of farmers on it. Oral tradition in Sindh today ascribes many of the older canals now existing to the energy of the Kalhoras. Lambrick thinks that they had achieved a figure of 3 million acres of irrigated, cultivable land. The bulk of land revenue was assessed and realized in kind at rates not exceeding one-third of the gross produce, with some small addition to meet charges of irrigation and collection. Lower rates were occasionally fixed with reference to the greater expenses of irrigation in local circumstances.

The Talpurs (AD 1783 to 1843) charged water tax for maintaining feeder canals built by them. This tax was known as *hakaba* or water rate. The rates of assessment (or land revenue tax) varied with the kind of irrigation, and various classes of tax included *Moke*, or irrigation by gravity flow, at Rs 2/-per *bigah* (in the last days of the Mirs), and *bosi*, in which case low-lying land was flooded and, when the water receded, a crop was raised on preserved moisture.

Mr Robert Keith Pringle, who took over as first Commissioner of Sindh on 1 October 1848 after the departure of Sir Charles Napier, undertook an indepth study of land revenue and irrigation systems in Sindh. According to him, the cultivation of land and consequently the source of revenue in the Province of Sindh depended almost entirely on artificial irrigation. He observed that different water rates were prevalent for different kinds of cultivation. In the case of Shikarpur District, he found that when the cultivator did not contribute labour to the canal, he was liable to pay a water rate of 3 to 8 annas per *bigah* to the capitalist who undertook to clear the canals. As

regards Karachi District, tax was levied at the following rates: on each *charkho*, or wheel worked by two bullocks or a camel, 3½ rupees per wheel, and on each *hoorla*, or wheel with one bullock, the rate was 2/-; on *sailabi* or flood land, three *kassas* of grain per *kharar* on gross produce or cash at the rate of one rupee per *kharar* or *shalee* on rice on the husk and 2/- per *kharar* on all other grains; *hakaba* or water tax at the rate of 3 *kassas* of grain per *kharar* on the gross produce of all land watered from Government canals. In Hyderabad District, the position was somewhat different. The alienated lands generally paid water tax at the rate of Rs 3-8 per large wheel, Rs 2/- per small wheel, Rs 1. ¼ per *kharar* on rice, and Rs 2 ½ per *kharar* on *bajri* and *juvavi* grown on flooded land.

On the establishment of British rule, the produce share taken by the Government was reduced to that which the Mughal emperors had considered fair, namely one-third, but this was the maximum demand, made only upon land irrigated with the least expense. The lift rate, which applied to the greater portion of the country, was one-fourth. This was the basis of the assessment then. On the introduction of cash assessment in 1849, i.e., six years after the conquest, the one-fourth share was commuted into one empirical rate of Rs 24-8 per wheel, which was approximately equivalent to Rs 2-8 per acre. The crop tests undertaken between 1894-5 and 1902-3 demonstrated that the assessment was about one-tenth of the gross produce.

According to the report of the Indian Commission 1901-3, the land revenue in Sindh fluctuated as it was levied only on land actually cultivated during the year. Nine-tenths of the assessment of irrigated lands were regarded as due to canals and were credited to them in the accounts as irrigation revenue. It was therefore practically a water rate, varying with the area actually irrigated and the kind of crop grown, although taken in the form of land revenue. This Sindh system somewhat resembled that which was in force in Egypt, where it is impossible to

cultivate without irrigation and where the land tax was levied only on land which was irrigated during the Nile flood.

This system of composite charge continued until 1959, when the West Pakistan Determination of Land Revenue and Water Rate Ordinance 1959 (West Pakistan Ordinance No. LX of 1959, Notification No. Leg3(51)59 dated 6 September 1959) was promulgated, whereby land revenue was separated from the water rate and both were reassessed. This was done under notification No.L.R.7/6.56-Pt-II dated 23 November 1959 and No. 7/6-56.Pt.II dated 23 November 1959 of the Revenue and Rehabilitation, Government of West Pakistan.

For the purpose of fixing the water rates in 1959, all the canals of West Pakistan were broadly categorized as either barrage—perennial or non-perennial canals—or as non-barrage canals. The water rates were determined according to the source of supply of each canal system.

While fixing the water rates for irrigation from various canals, the following criteria were kept in mind:

- (a) Interest on the capital cost of a canal and its working expenses;
- (b) the cultivators' capacity to pay;
- (c) the amount of water required for maturing a particular crop;
- (b) availability of water supplied in different seasons, i.e., for the whole year, for *kharif* only, or intermittent supply through inundation canal;
- (e) value of produce;
- (f) incentive or disincentive for certain crops.

The notification dated 22 November 1959, was amended under notification No. 2/19-50 (Rev) Southern/63 dated 10 December 1963 of the Irrigation and Power Department, Government of West Pakistan, whereby the water rates were revised. Subsequently these rates were revised under notifications dated 15 November 1965, 29 August 1968 and 1 November 1968 respectively.

The rates for sanctioned gardens and orchards, and unsanctioned gardens and orchards, were fixed under notification No. 2/12-.5 (Rev)/63.VIII dated 4 April 1968 of the Government of West Pakistan, Irrigation and Power Department, Notification No. 2(12-(III) SOP.12 dated 24 January 1968, and in partial Notification 2/9-50 (Rev) 165 (Northern) dated 21 August 1968, with effect from *kharif* 1968.

Hitherto, the assessment of land revenue and water rate had been the responsibility of the Revenue Department, but during 1969 it was directed by the Board of Revenue, West Pakistan, Lahore, under their Memorandum No. 4001-69/1119-(s) dated 12 August 1969, that Governor-cum-Martial Law Administrator Zone A approved the proposal of the Board of Revenue that the assessment of one canal, to be selected by it, be transferred on experimental basis to the Irrigation and Power Department for one year. The Board of Revenue in consultation with the Irrigation and Power Department decided that the assessment of Rohri Canal should be transferred (on the former Punjab Pattern) to the Irrigation Department with effect from *kharif* 1970 commencing from June 1970. If the results were hopeful, the question of continuing the experiment on the above canal and extending it to other canals would be considered. The assessment for *Rabi* 1970 would be the responsibility of the Revenue Department, and the Irrigation Department would take over assessment of *Kharif* 1970.

In 1972 the Board of Revenue, Sindh, in their Memo No. 30-06-1971/Rev-I(S.I) of March 1972, announced that the Governor of Sindh and Martial Law Administrator Zone D had decided that the assessment work of land revenue and *abiana* be re-transferred to the Revenue Department from the Irrigation Department from *Rabi* 1971-2.

The rates for water supply to the Forest Department were sanctioned under West Pakistan Government

Notification No. 2/19-60 (Rev) Southern/63 Vol. III dated 15 November 1965 at the rate of Rs 8.40 per acre per half year.

The water rates were again revised under notification dated 29 September 1969 of the Irrigation and Power Department, Government of West Pakistan. The above rates were revised under notification No. 2 (4.50(R&S)/70 dated 21 October 1969 of the Sindh Irrigation and Power Department up to the commencement of agriculture year 1972-3.

The Government of Sindh Irrigation and Power Department issued notification No.2/4.SO (DS-/70-RWR-Part-II) dated 22 March 1980, according to which the rates in respect of water supplied from the canal for the purpose of irrigation as per actual cropped area were prescribed as mentioned in the schedule.

The following further clarifications were, however, issued under letter No. S/4-50(R&S)-10 RWP/IV dated 19 May 1981:

- (i) Areas that are irrigated by flow supply from government lift channels will be assessed at twice the rate of *abiana* fixed for water supplied from gravity flow canals.
- (ii) Areas irrigated by private lift pump/Persian wheels installed on government lift channels will be assessed at the same rate prescribed for gravity flow canals.
- (iii) Areas irrigated by private lift pumps/Persian wheels installed on gravity flow canals will be assessed at half the rate prescribed for gravity flow canals.
- (iv) Areas irrigated partly by canal water supply and partly by private tube-wells will be allowed rebate of 25 per cent in the rate prescribed for the said canal, up to the maximum of 100 acres.
- (v) The non-perennial canals also supplying irrigation by giving required doses of water for *rabi* season will have to be assessed for *abiana* as already prescribed in the Schedule.

(vi) In riverain areas, where canal water is not supplied and the area is cultivated purely by means of private tube-wells/lift pumps, no *abiana* is to be charged.

The water rates for the Pandhi Wahi Canal system of Kotri Barrage were fixed as per actual cropped area under notification No.2/4-50 (A&S)/70 PWR Pak: IV dated 30 June 1981 of the Government of Sindh, Irrigation and Power Department, subsequently revised on 7 July 1982 and 26 March 1985.

The water rates for non-irrigation purpose were fixed with effect from 1 July 1980 under notification No. S/40/4030(R&S)/71 dated 10 July 1980.

The water rates prescribed under notification dated 26 March 1982 were increased by 25 per cent with effect from *Kharif* 1993 *vide* notification dated 8 August 1993. The rates prescribed under notification dated 26 August 1994 were increased by 15 per cent with effect from *Kharif* 1994 under notification dated 6 November 1994, and by a further 25 per cent with effect from *Kharif* 1995-6 under notification dated 28 November 1995. These rates were again revised from *Kharif* 1996-7 under notification dated 15 April 1996 of the Government of Sindh, Irrigation and Power Department.

A copy of the schedule of water rates prevalent is appended at Table 5.4.

Cesses

Education Cess

The Talpur government subsidized major *madrassahs* through monthly payments. Furthermore, a sort of education cess was also collected for these *madrassahs* from the land produce and older *waqf* properties. (*waqf* is a system by which property is bequeathed in trust to a religious school, enabling students to receive free education, board and lodging, pocket money, clothing, etc.)

In 1863, a local fund was established and one-third of the cess on land was allocated to rural education, with the result that the next decade showed a great increase in the number of primary schools. It was further decided as a policy that Government should encourage private enterprise in education, with which object pecuniary assistance called 'grant-in-aid' was given to all such schools if they conformed to the prescribed course of study. The grants-in-aid were assessed according to the number of pupils found proficient in the various standards at an examination conducted periodically by the Educational Inspector with his deputies.

In 1914, all 'Mullah Schools' were taken over by the Government and were registered grant-in-aid institutions. In addition, Mullah Schools also received grants for other purposes such as capitation, accommodation, equipment, and *lungis*, and other awards for good attendance, books, writing materials, and prize books.

In 1946, the Sindh Muslim Education Cess Act 1946 (Sindh Act No.V of 1946) was passed. According to Section 3(2) of this Act, a cess was to be levied in the case of unalienated lands at the rate of one anna on every rupee of every sum which became due to the provincial government as land revenue for the revenue year 1946-7, and also upon all lands in the province which were alienated to, or occupied by, a Muslim or a Muslim institution, while according to Section 3 (b), in the case of alienated lands a cess was to be levied at the rate of one anna on every rupee of *hakaba* (a partial and localized water rate) which became due to the provincial government for the same revenue year.

As laid down in Section 5 of the Act, the proceeds of the cess levied were to be transferred to the Sindh *Madrassa-tul-Islam* Board, registered under the Societies Registration Act 1860, for the construction of buildings required for the Sindh Muslim College maintained by the Board.

Again in 1950, the Sindh Muslim Education Cess (Amended) Act 1950 (Sindh Act No. XIV of 1950) was passed, according to which the cess levied and collected by the provincial government for the revenue year 1946-7 was to be applied for the construction of buildings required for educational and medical institutions for Muslims in the province.

Levy of Historical Mosque Fund Cess

The Mosque Fund Cess was levied under the West Pakistan Historical Mosque Fund Cess Ordinance 1960, at the rate of 2 paisas per rupee of land revenue, or of the urban immovable property tax payable by all Muslims, for the upkeep of historical mosques and shrines. The proceeds of the cess were administered and utilized by the *Auqaf* Department in collaboration with the Finance Department. Initially, the Ordinance was valid for five years, beginning in *Rabi* 1960 in the case of agricultural land revenue and from 1 October 1959 in the case of urban immovable property tax, but its validity was extended from time to time through various amendments. Recovery of the cess was the responsibility of the Revenue Department in relation to land revenue and of the Excise and Taxation Department in relation to the urban immovable property tax.

The Sindh Historical Mosque and Shrines Fund Cess (Amendment) Ordinance 1979, under which the life of the original Ordinance was extended up to 30 September 1982, authorized the Government to extend the Ordinance for a period not exceeding two years at a time. As of *Rabi* 1982-3, the Muslim landholder was to pay *ushr* (tax on agricultural produce) and was not to be charged land revenue. Only the few Muslim landholders who claimed exemption from payment of *ushr* on the basis of *Fiqah* (Islamic jurisprudence) were to pay land revenue. Hence there were to be only nominal receipts from mosque fund



11. The Civil Airport of Sukkur at Arain Road.



12. The Municipal Corporation of Sukkur, first constituted in 1856.



13. The Islamia College built in 1955.



14. The Sukkur Civil Hospital.



15. Mehran Markaz, one of the busiest business centres in the city.



16. A scene from a fruit market.

cesses so far as they related to land revenue, although, there was no effect on the immovable property tax. The Ordinance was not extended further.

Local Cess

Local cess in Sindh was first levied under the orders of Mr S. Mansfield, the Commissioner in Sindh, in 1865. It was to be levied at a rate of one anna on every rupee of land revenue, although on application by the District Local Board, it could be increased at a rate not exceeding two annas on every rupee of land revenue.* It was recoverable under section 136(1) of the Bombay Land Revenue Code, 1839, Chapter XI. In Sindh, land revenue and the local fund cess were not consolidated but were recovered independently of each other.**

Before partition, when land revenue and *abiana* were not bifurcated and land revenue was still a composite charge, the local cess was charged at a rate of two annas per rupee on the sum of land revenue. This rate continued till 1959, when the Basic Democracies Order, 1959, was issued, under article 59 of which a provision for assessment of local cess was made whereby all lands in the District assessable for land revenue were subject to payment of local cess at the rate provided by the Government. In November 1959 the Government of West Pakistan constituted a Local Rate Committee, to propose the rates at which local cess would be levied in various Districts of West Pakistan.*** This would comply with the terms of Article 59(2) of the Basic Democracies Order, 1959, notified by the Administrator-General of *Zakat*.

* Under Section 93 of the Bombay Local Board Act 1923 (Bombay Act No. VI of 1923).

** *Vide* Government resolution Revenue Department, No. 7282 of 1915.

*** *Vide* their Notification No. SOXVII-1/C7-59 dated 25 November 1959.

The Government of Sindh therefore considered the revision of the rate of local cess by another formula. It was decided that the rate of local cess for the *katcha* and *pucca* areas be fixed for each District. (*Katcha* lands are those lying between protective bunds and the river, whether surveyed or not). The rates were announced for each District, rates of local cess being fixed for each District on the basis of the amount of cultivated area.* The rates for Sukkur District were fixed at Rs 1.70 per acre of perennial cultivation, Rs 1.00 per acre of non-perennial, and Rs 0.05 per acre of unirrigated land. A new committee would be set up to determine guidelines for the method by which the proceeds of the local cess were to be distributed amongst the District Council and the Union Councils in the various Districts. It would also propose rules for regulating the collection and administration of the local rate.

In accordance with existing practice, the local cess collected each month is distributed by the concerned treasury officer as follows: 10 per cent to the Union Councils; 30 per cent to the Education Department on account of primary education; the remainder to the District Councils (through a personal ledger account) to be used as required in accordance with the Sindh Local Government Ordinance 1979.

In 1961 the Secretary to the Government of West Pakistan Basic Democracies Social Welfare and Local Government Department advised all Commissioners of Divisions in West Pakistan that the local rate of cess would be five annas per rupee of land revenue.**

In 1969, the Social Welfare and Local Government Department issued a notification*** raising the rate of local

* Under notification number GI-24-deptt:183-2724/84 dated 8 November 1984 of the Government of Sindh, Housing, Town Planning, Local Government and Rural Development Department.

** Under number SOI(BD)1-2/60 dated 15 June 1961

*** Number BDI/22-13/65 dated 02 April 1969 in partial modification of number SO(BD)1-2/60 dated 30 June 1961

cess from thirty to fifty paisas of the land revenue in the former Khairpur Division, which consisted of District Khairpur, Sukkur, Jacobabad, Larkana, and Nawabshah. Subsequently, the local cess was fixed at 50 per cent of the land revenue throughout the entire province.* The local cess was being recovered along with land revenue in two instalments, i.e., 75 per cent of the total demand by 31 January and the remaining 25 per cent, along with the balance which remained to be recovered from the first instalment, by 30 June. This rate continued until land revenue was replaced by *Ushr* in 1979-80. .

TABLE 5.2

The schedule of land revenue rate assessed under the West Pakistan Determination of Land Revenue and Water Rates Ordinance 1959 (these land revenue rates shall take effect from *Kharif*, 1959)

<i>Talukas</i>	Sliding Scale Crops	Revised Land Revenue Rate		
WHEAT (BARRAGE)				
(Worked out on the basis of ceiling price of Rs 10 per maund)				
		Rs	A.	P.
1	Kandiaro, Naushahro Feroze, Moro, Sakrand, Nawabshah, Tando Allahyar, Hyderabad, Dero Mohabat, Tando Bago, Hala, Rohri, Sanghar, Khipro, Shahdadpur, Sinjhor, Samaro, Umerkot, Mirpurkhas, Digri, Jamesabad and areas of Tando Sub-Division not mentioned above in the command of Ghulam Muhammad Barrage.	8	8	0

* Under Notification Number SOIII-6(59)174 dated 1 March 1976 of the Housing, Town Planning and Local Government Department, Government of Sindh.

2	Mithi, Diplo, Sukkur, Shikarpur, Garhi Yasin, Garhi Khairo, Jacobabad, Ratodero, Mirokhan, Shahdadt, Kambar, Warah, Larkana, Dokri, Mehar, Kakar, Dadu, Johi and Sehwan.	6	2	0
3	All <i>talukas</i> of Khairpur District.	7	8	0
4	All <i>talukas</i> of Thatta District and areas of Dadu District not mentioned at 2 above, receiving irrigation from Ghulam Muhammad Barrage.	6	2	0

PADDY (BARRAGE)

(Worked out on the basis of ceiling price of Rs. 7-8-0 per maund)

1	Kandiari, Naushahro Feroze, Moro, Sakrand, Nawabshah, Hala, Tando Allahyar, Tando Bago, Badin, Hyderabad, Tando Muhammad Khan, Dero Mohabat, Rohri, Sanghar, Khipro, Sinjhor, Umerkot, Samaro, Mirpurkhas, Digri, Jamesabad, Diplo and Mithi.	4	9	0
2	Johi and Sehwan.	5	9	0
3	Perennial areas of Ratodero, Larkana, Kambar and whole of Sukkur, Shikarpur, Garhi Yasin, Mirokhan, Warah, Mehar, Kakar, Dadu, Shahdadt, Garhi Khairo, Shahdadt and Dokri.	7	13	0
4	Non-perennial areas of Ratodero, Larkana and Kambar.	5	14	0
5	All <i>talukas</i> of Khairpur District	7	8	0
6	All <i>Talukas</i> of Thatta District and areas of Dadu District not mentioned above, receiving irrigation from Ghulam Muhammad Barrage.			

COTTON (BARRAGE)

(Worked out on the basis of ceiling price of
Rs 27 per maund)

DESI COTTON

1	Hala, Shahdadpur, Nawabshah, Sakrand, Sanghar, Sinjhor and Moro.	13	13	0
2	Naushahro Feroze and Kandiaro.	12	6	0

AMERICAN COTTON

3	Hyderabad, Tando Allahyar, all <i>talukas</i> of Tando Sub-Division except Tando Bago.	13	13	0
4	Mirpurkhas, Jamesabad, Digri, Samaro, Umerkot and Khipro.	11	6	0
5	Rohri and Tando Bago.	8	7	0
6	Diplo and Mithi.	12	6	0
7	Sukkur, Shikarpur, Garhi Yasin, Garhi Khairo, Jacobabad, Ratodero, Miro Khan, Johi, Shahdadkot, Kambar, Warah, Dokri, Larkana, Mehar, Kakar, Dadu, Sehwan, all <i>talukas</i> of Thatta District and remaining <i>talukas</i> of Dadu District irrigated by Ghulam Muhammad Barrage.	7	3	0
8	All <i>talukas</i> of Khairpur District.	13	13	0

WHEAT (NON-BARRAGE)

1	Sukkur and Jacobabad Districts.	3	3	0
2	Hyderabad and Hala.	3	2	0
3	Tando sub-division of Hyderabad District and all <i>talukas</i> of Thatta District (not irrigated by Ghulam Muhammad Barrage).	3	3	0

PADDY (NON-BARRAGE)

1	Sukkur, Rohri, Shikarpur, Garhi Yasin, Jacobabad, Thul and Kandhkot.	5	4	0
2	Garhi Khairo and Shahdadpur.	4	12	0
3	Kashmore.	3	12	0
4	Pano Akil, Mirpur Mathelo, Kori, Sehwan, Ubauro and Ghotki.	3	9	0
5	All <i>talukas</i> of Hyderabad District.	3	11	0
6	Mirpur Sakro and whole of Shah Bunder subdivision of Thatta District (Areas not irrigated by Ghulam Muhammad Barrage).	3	7	0
7	Thatta and Ghorabari (Areas not irrigated by Ghulam Muhammad Barrage).	1	14	0

COTTON (NON-BARRAGE) COTTON

1	Hyderabad and Hala.	6	8	0
2	All other <i>talukas</i> in Hyderabad and Khairpur Division except those of Thatta District.	6	8	0
3	All <i>talukas</i> of Thatta District (Not irrigated by Ghulam Muhammad Barrage).	2	1	0

NON-SLIDING SCALE CROPS

1	Sugarcane (All <i>talukas</i> in Hyderabad and Khairpur Divisions).	5	0	0
2	Gardens, Orchards and Vegetables (All <i>talukas</i> in Hyderabad and Khairpur Division).	5	0	0
3	Tobacco (All <i>talukas</i> in Hyderabad and Khairpur Divisions).	5	0	0

4	Oilseeds (All <i>talukas</i> in Hyderabad and Khairpur Divisions).	5	0	0
5	Fodder and <i>Juar</i> (All <i>talukas</i> in Hyderabad and Khairpur Divisions).	2	0	0
6	Maize (All <i>talukas</i> in Hyderabad and Khairpur Divisions).	2	0	0
7	<i>Bajra</i> , Gram and Pulses (All <i>talukas</i> in Hyderabad and Khairpur Divisions).	2	0	0
8	Spices, Chillies, Melons, Dyes, Fibres other than cotton (All <i>talukas</i> in Hyderabad and Khairpur Divisions).	2	0	0
9	Other crops not specified above (All <i>talukas</i> in Hyderabad and Khairpur Divisions).	2	0	0

Source: Notification No. LR-7/6-56-Pt-II dated 23 November 1959 of the Revenue and Rehabilitation Department, Government of West Pakistan.

TABLE 5.3
Land revenue payable from *Rabi* 1982-3
at the enhanced rat

a) a landowner owning:

(i) irrigated land exceeding two and a half acres but not exceeding twelve and a half acres.

One hundred and fifty per cent of the land revenue assessed immediately before the 18th day of July 1972 until the rate of assessment is revised in accordance with the provisions of this Act.

(ii) unirrigated land exceeding twenty-five acres.

(iii) irrigated and unirrigated land, the aggregate area of which does not exceed twelve and a half acres of irrigated land.

b) a landowner owning:

(i) irrigated land exceeding twelve and a half acres but not exceeding twenty-five acres.

(ii) unirrigated land exceeding twenty-five acres but not exceeding fifty acres.

(iii) irrigated and unirrigated land, the aggregate area of which does not exceed twenty-five acres of irrigated land.

Two hundred per cent of the land revenue assessed immediately before the 18th day of July 1972 until the rate of assessment is revised in accordance with the provisions of this Act.

c) a landowner owning:

(i) irrigated land exceeding twenty-five acres but not exceeding fifty acres.

(ii) unirrigated land exceeding twenty-five acres but not exceeding one hundred acres.

(iii) irrigated and unirrigated land, the aggregate area of which does not exceed fifty acres of irrigated land.

Three hundred per cent of the land revenue assessed immediately before the 18th day of July 1972 until the rate of assessment is revised in accordance with the provisions of this Act.

d) a landowner owning:

(i) irrigated land exceeding fifty acres.

(ii) unirrigated land exceeding one hundred acres.

Four hundred per cent of the land revenue assessed immediately before the 18th day of July 1972 until the rate of assessment is revised in accor-

(iii) irrigated and unirrigated land, the aggregate area of which exceeds fifty acres of irrigated land.

dance with the provisions of this Act.

Explanation: For the purpose of this section.

(a) One acre of irrigated land shall be reckoned as equivalent to two acres of unirrigated land.

(b) 'land' means land other than that mentioned in clauses (b), (c) and (d) section 56 within or outside the province.

(c) 'landowner' shall include:

(i) an allottee or a grantee of any land under any scheme of Government or grant is to mature into ownership.

(ii) a lessee of Government land;

(iii) a person who has mortgaged with possession, his land or any portion thereof, or

(iv) a person having permanent right or interest in land.

Source: The Sindh Land Revenue (Second) Amendment Ordinance, 1983; Sindh Ordinance No. VIII of 1983.

TABLE 5.4
Schedule of water rate (*abiana*) 1996

Rate per acre in rupees

Name of Crops Main Classification	Sub-Classification	Per	All Perennial Canals of Sukkur Barrage	Rice Canal	Ghotki Canal of Guddu Barrage	Right Bank Canal of Guddu Barrage	Perennial Canals of Kotri Barrage, i.e. Akramwah K.B. Feeder (Perennial)	Non Perennial Canals of Kotri Barrage, New Fuleli, Old Fuleli, K.B. Feeder	Lift Canals of Nara, Wadhuwah, Fasadi, Wah, & Sadabahar Pumping Scheme	Pumping Scheme of Makhdoom Sahar Shah Awais, Chachar, & Lakhishah Saddar	Garang Canal of Guddu Barrage	Escapes	Tube-well Life Scheme of Khairpur, Nathan Shah, Dauatpur & Khairpur	Pandhi Wah Canal System of Kotri Barrage
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
I. Rice	Rice, Waternuts, and Lotus products, Tobacco, Jute.	Acre	77.20	77.20	77.20	77.20	77.20	77.20	154.45	154.45	54.40	54.40	154.45	77.20
II. Cotton	Cotton	Acre	80.95	69.85	80.95	73.50	69.85	69.85	162.0	162.0	36.45	36.45	162.0	69.85
III. Sugar- cane	Sugarcane	Acre for full year	158.15	19.90	158.15	115.50	154.45	119.90	316.25	231.65	104.40	104.40	316.25	200.75
IV. Wheat	Wheat, Barley, and Oats	Acre	46.35	38.35	46.35	34.65	38.30	38.30	92.65	53.75	27.10	27.10	92.65	77.20
V. Garden	Garden, Orchards, Banana, Vegetables	Acre for half year	123.60	80.95	123.60	73.50	123.60	123.60	247.10	147.80	58.10	58.10	247.10	123.60 157.95
VI. Misce- llaneous	I. Misc. <i>Kharif</i> crops, (i) Pulse, <i>Jowar</i> , <i>Bajra</i> , Maize and fodder	Acre	34.65	34.65	34.65	34.65	34.65	34.65	69.20	69.20	30.90	30.90	69.20	64.65
	(ii) Poppy drugs, Dyes, Melons, Soyabeans, Chillies and summer oil seeds etc.	Acre	65.50	65.50	65.50	65.50	65.50	65.50	131.00	131.00	61.75	61.75	131.00	65.50

(Continued)

Rate per Acre in Rupees.

Name of Crops Main Classification	Sub-Classification	Per	All Perennial Canals of Sukkur Barrage	Rice Canal	Ghotki Canal of Guddu Barrage	Right Bank Canal of Guddu Barrage	Perennial Canals of Kotri Barrage, i.e. Akramwah K.B. Feeder (Perennial)	Non Perennial Canals of Kotri Barrage, New Fuleli, Old Fuleli, K.B. Feeder	Lift Canals of Nara, Wadhuwah, Fasadi, Wah, & Sadabahar Pumping Scheme	Pumping Scheme of Makhdoom Sahar Shah Awais, Chachar, & Lakhishah Saddar	Garang Canal of Guddu Barrage	Escapes	Tube-well Life Scheme of Khairpur, Nathan Shah, Daulatpur & Khairpur	Pandhi Wah Canal System of Kotri Barrage
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	2. Miscellaneous <i>Rabi</i> crops such as oil seed, winter fodder. (i) On perennial canal	Acre	46.35	—	46.35	—	46.35	—	92.70	61.72	—	—	92.70	100.90
	(ii) On non-perennial canals with one or more waterings.	Acre	—	35.90	—	35.90	—	35.90	—	—	35.90	35.90	—	—
	3. Area for which extra supply is sanctioned for reclamation purposes	On the whole area during <i>Kharif</i> season irre- spective of whether it be irrigated: in part or whole or not at all.	80.95	—	80.95	—	77.20	—	—	—	—	—	—	77.20
	4. Forest plantation (old as well as new)	Acre for half year	53.75	53.75	53.75	53.75	53.75	53.75	—	—	53.75	53.75	—	53.75 <i>Kharif</i> 108.15 <i>Rabi</i>
	5. Villages and District Council plantations and <i>Hurries</i> .													
	(i) <i>Kharif</i>	Acre for half year	23.50	23.50	23.50	23.50	23.50	23.50	46.95	46.95	23.50	23.50	46.95	23.50
	(ii) <i>Rabi</i>	Acre for half year	23.50	11.75	23.50	11.5	23.50	23.50	46.95	23.50	11.75	11.75	46.95	46.95

Note:- 1. In case of private lift irrigation supply, the *abiana* rates shall be 50% of the basic rates of flow irrigation under all classifications.

2. The above schedule of water rates on the basis of actual cropped acres-cropwise will come into force from the commencement of *Kharif* Season 1996-7.

Source: Memo No. S.O.(R&S)/2-4/84/RER-VI/4157 dated 15 September 1996 of Secretary to Government of Sindh, Irrigation and Power Department, Karachi.

COMMUNICATIONS

When the British came to Sindh, it soon became apparent to them that the Indus was little used for commercial purposes other than local grain traffic. They noted that earlier regimes had taxed river traffic, thereby discouraging it, so on 13 March 1843 the Governor-General announced by proclamation that all transit duties were to be abolished in any part of Sindh which was, or might be, occupied by the British Army, thereby opening the Indus to free movement. This did not, however, achieve the required result. There was no rush of boats on the river. Navigation was uncertain — in the summer the river flooded, and in the winter it was liable to go down so rapidly that steamers could be grounded.

Even after the conquest of the Punjab, the hope that, through private enterprise, river steamers would ply the Indus even more abundantly than boats on the Ganges, was disappointed. The Government endeavoured by its own flotilla to establish regular communication by steamer between the sea and the rivers of the Punjab, but even that made little difference. It was therefore ultimately concluded that rapid and efficient communication could only be achieved with the completion of a railway line in the region.

Sir Bartle Frere started various schemes for the improvement of communications in Sindh, building roads, *serais* (inns), and bridges, improving the harbour of Karachi, and putting steamboats on the Indus. During 1851, some 126 miles of road were laid at a cost of Rs 18,525, and by 1852, 207 miles had been completed at

a cost of Rs 28,298. In Upper Sindh, between 1847 and 1859-60, 2,589 miles of road were made and 786 masonry bridges built. (Most of the roads were not metalled, merely levelled and cleared of trees and bushes.) In 1883, the Karachi Harbour Works, commenced in 1850, were at last completed.

By the early 1850s it was becoming clear that the Indus route to the Punjab was not proving as successful as expected. In 1862 it was still possible to say that, although steamers had been running between Karachi and Mithan Kot for the last twenty years, by far the greater amount of goods arriving in Shikarpur were doing so by camel. The difficulties of delta navigation were enormous, the river above Multan being shallow, tortuous, and almost impossible to navigate. It had become apparent that an alternative method of transport would have to be found to avoid the delta. Two proposals were considered, one to build canals, and the other to build a railway connecting the harbour with the river.

The Railway

Among the first promoters of railways in Sindh was Hardy Wells, a civil engineer who had toured the country and made a survey of possible routes for the railway. Largely due to his efforts, the Sindh Railway Company was formed in 1855, under the chairmanship of W.P. Andrews. This company was to build not only the Sindh railway, but also the Punjab line from Multan to Lahore and Amritsar. It was also in charge of a flotilla of steamboats on the river between Kotri and Multan which would complete the system of communication between the Punjab and Karachi.

Work was begun on the Sindh section of the railway in 1858. After some delay and difficulty in construction, the Karachi-Kotri line was opened for traffic on 11 May 1861. Opinion regarding its route was still very mixed, but the line carried goods from the harbour to the river station

efficiently and quickly, helping to improve trade.

Today there are seven main stations in Sukkur (at Sukkur, Rohri, Pano Akil, Ghotki, Dharki, Shahbunder, and Arain Road), and two main junctions, at Rohri and Sukkur. Sukkur is connected with the Karachi-Peshawar line *via* Rohri junction and with Sibi *via* the Habibkot junction.

Road Development

Three important highways run across Sukkur District: the Lahore-Karachi National Highway (81.5 miles), the Rohri-Quetta highway (27 miles), and the road linking Sukkur-Kotri-Kashmore *via* Lakhi (54.5 miles). There is also a new road which connects Sukkur District with Larkana directly, and which has shortened the distance between the two from 70 to 50 miles. Sukkur District is fortunate in having the National Highway going through it diagonally; however, lack of secondary roads in far-off areas to connect with main roads is a major problem.

Road building and maintenance is the responsibility of two separate bodies, the Provincial Highway Department and the District Council. The table below shows which body is responsible for how many miles of road:

	Black top	Brick level	<i>Katcha</i> (not made up)
The Provincial Highway Dept.	218.25	—	82.20
The District Council	22.50	30.00	904.80
Total	240.75	30.00	987.00

The overall condition of the roads in the District requires improvement and reconditioning. There is a pressing demand from the public for roads in the rural areas.

Civil Aviation

There is one civil airport in Sukkur, at Arain Road. The first air service to be licensed for short-haul operations was Crescent Air Transport, which started its service from Karachi to Jacobabad *via* Hyderabad, Nawabshah, and Sukkur in 1953. In 1955, the Pakistan International Airlines Corporation (PIA) came into existence and soon had a country-wide monopoly on air services. PIA has regular flights between Karachi and Sukkur, and there is a daily service from Sukkur to Quetta.

Postal Administration

The postal system in India is attributed to the Persian monarchs. Cyrus the Great established one in his empire in the fifth century BC and it was brought to India by rulers impressed with the Persian way of life.

Historians tell us that Sher Shah Suri (ruled 1540-45) developed and improved the postal system in northern India. He developed the Grand Trunk Road (or *Sarrak-e-Azam*), connecting what is now Pakistan to India, perhaps the most famous highway in the world. He constructed 1,700 travellers' inns (*sarais*), stables for horses, and wells at regular intervals of one kilometer all along the road. A milestone, which may be called Zero Point or the commencement of the Grand Trunk Road, was discovered by a British journalist reporting on the site of the old *Dak* Bungalow in Peshawar. Sher Shah Suri employed regular *qasids* (postal runners) to carry mail, and planted trees all along the road, thus making travelling and the postal service easier, safer, and within the reach of the common man.

During the Mughal period the service was extended further south, and private couriers were allowed to carry mail monitored by the *mansabdars*, (lit. office holder). Regular use of mounted couriers also started in the Mughal

period. Ordinary mail was sent on camels and bullock-carts.

The East India Company (EIC) arrived in India in 1600, and by 1688 had established trade centres in Madras, Bombay, and Calcutta. In the beginning, the EIC availed itself of the services of the existing postal runners for their dispatches, but increased trade forced the authorities to make their own arrangements, and the Bombay office was advised to build its own post office. The first Indian *bishopmark*, a postmark of the dispatch office, was introduced in 1661, named after its inventor, Henry Bishop, who had been appointed Postmaster-General in the previous year. Warren Hastings, the Governor-General, appointed a Postmaster-General to enforce the law and create an efficient postal system. The Postmaster-General soon allowed the general public to make use of the mailing services operated by the Government, and for the first time postal rates were regulated.

The appointment of Sir Bartle Frere as Commissioner of Sindh in 1851 brought a revolutionary change in the postal history of India. The first postage stamps of the region were issued on 1 July 1852. These three imperforates, known as the 'Scinde Dawk', (*dawk* or *dak* meaning mail) changed the mode of paying postage to the mailing office. Previously the mailing charges were borne by the addressee, which led to many disputes. According to the new rules, the sender had to pay the postage in advance by purchasing stamps and affixing them to the mailing item as proof of payment.

Nowadays there is a network of post offices, sub post offices and branch post offices in Sukkur District. Sukkur town has the central office and thirty-three sub and branch offices; a further sixty-seven are shared between *talukas* Rohri, Pano Akil, Ghotki, Mirpur Mathelo, and Ubauro.

TABLE 6.1
Road kilometres in District Sukkur,
1990-91 to 1992-3

Total			Superior Quality			LOW QUALITY		
1990-91	1991-2	1992-3	1990-91	1991-2	1992-3	1990-91	1991-2	1992-3
1366	1477	1505	909	983	1047	457	494	458

Source: *Development of Statistics of Sindh, 1994*, Bureau of Statistics, Planning and Development Department, Government of Sindh.

TABLE 6.2
Motor vehicles on road in District Sukkur 1991-2

Motor Cars Jeeps Station Wagon	Motor Cycles	Taxis	Rickshaws	Buses	Trucks	Tractors	Pickups/ Delivery Vans	Others	Total
3209	35693	302	1217	743	311	6022	1409	—	48906

Source: *Development Statistics of Sindh, 1994*, Bureau of Statistics, Planning and Development Department, Government of Sindh.

TABLE 6.3
Motor vehicles registered in District Sukkur 1991-2

Motor Cars Jeeps Station Wagon	Motro Cycles	Taxis	Rickshaws	Buses	Trucks	Tractors	Pickups/ Delivery Vans	Others	Total
3799	12965	341	319	1143	319	7056	1667	14	27623

Source: *Ibid.*, p. 278.

COMMERCE AND LABOUR

The trade of pre-conquest Sindh had run along two distinct lines: the local trade in cloth, grain, and other manufactured goods between the *siro* (north) and the *lar* (south); and the transit trade, with caravans of fruit from the north, spices from Bombay, cloth, etc., coming from Kalat to Shikarpur and from there to Karachi, from Kutch to Hyderabad and Karachi, and also to the Punjab and Bahawalpur.

There is ample evidence that Sindh enjoyed considerable commercial and industrial prosperity in the seventeenth and eighteenth centuries. The important cotton manufacturing towns, all within easy reach of the Indus, were Bukkur, Rohri, Darbelo, Gambat, Kandiaro, Sehwan, Sann, and Nasarpur. The political disorders of the eighteenth century, with Nadir Shah's invasion in AD 1739, and later the Kalhora-Talpur civil wars, led to a general decline in the country's industry and prosperity. This 'time of troubles', as Shah Abdul Latif of Bhit called it, left Sindh exhausted and poor; under the Talpurs, however, it enjoyed a short period of recovery. Sukkur also gained in importance at this time, though its growth was slower than that of Karachi, Shikarpur, and Hyderabad.

Trade conditions in Sukkur District were good. It had a good port, the main source of contact with the world being the river. Cultivation of the land brought some prosperity, and communications by road and river were satisfactory. The early merchants of the town were local inhabitants, both Hindus and Muslims, who were involved in both trade and manufacture. Sukkur had, over a considerable period,

developed into a centre of commerce, with goods being brought to Sukkur from neighbouring villages and also from many parts of Upper Sindh. By the time of the British Raj, trade was being carried out not only with the important cities of the subcontinent, but with foreign countries as far afield as Europe as well. It flourished as one of the greatest food markets, especially grain, and foreign traders from many parts of the East, and even from Russia, came to buy wheat from this market. Sukkur was known for producing the best quality of wheat, dates, oil, fish, and sugarcane. Sukkur was also rich in cattle, and therefore ghee was also exported. The entire eastern side of Wallis Ganj, from what is now the fire brigade station, to Chipri Bunder, was the centre of the ghee trade, and the area is still known as *Ghee Gudam* (godown).

Traditional and Non-Traditional Trade

Sukkur was well-known for its cottage industries from early times. Boat-building, leather work, and textiles were the important industries of the town. These cottage industries were discouraged during the rule of the Talpurs, as the *jagirdari* system, thanks in large part to a rapacious taxation system, thwarted capitalist enterprise. However, the Talpurs made lavish use of imported goods, thereby stimulating foreign trade.

In the early years of the twentieth century, as modern technology became available, the people of Sukkur started applying their commercial skills and industriousness to the establishment of small-scale factories. The main products were textiles, biscuits, confectionery, kitchen utensils, medicines, cigarettes, tiles, and hosiery, as well as the more traditional items such as oil, locks, iron safes, trunks, leather bags, soap-powder, ink, boot polish, *durries*, and carpets.

After partition, and particularly after the construction of the Guddu Barrage, agricultural production in Sukkur

increased rapidly, and agro-based industries started flourishing, including the export of timber.

Industries

Presently there are more than two hundred registered and unregistered industries of all kinds in Sukkur District; however, statistics on trade in the District do not exist. Sukkur is situated on the Indus and at the junction of railways arriving from four directions. It absorbs trade to a degree unparalleled by any other town in Sindh except Karachi. There is also heavy road-borne traffic because Sukkur is the natural market for Upper Sindh.

The Sukkur Chamber of Commerce and Industry came into existence in 1962. It is affiliated with the Federation of Pakistan Chambers of Commerce and Industry, Karachi, and represents the interests of six Districts of Upper Sindh, namely Larkana, Jacobabad, Shikarpur, Sukkur, Khairpur, and Nawabshah.

The Government of Sindh has established two industrial estates, one of which is looked after by the Sindh Industrial Trading Estate (SITE) and the other by the Sindh Small Industries Corporation. The main industrial units are :

Cement factories	1
Fertilizer factories	2
Vegetable oil and ghee mills	3
Beverage industries	2
Cotton ginning and pressing factories	25
Oil mills	25
Flour mills	13
Biscuit confectionery units	2
Date processing units	2
Ice factories	15
Iron re-rolling factories	1

The main industries in Sukkur District are described below:

The Yakoob Biscuit Factory, Sukkur

The Yakoob Biscuit Factory, situated on Shikarpur Road, is the oldest and biggest biscuit factory in Sukkur Division. It was established in 1937 by a Hindu, when it functioned under the name of J.B. Mangharam Biscuit Factory. After partition, the factory was declared evacuee property and was allotted to Muhammad Yakoob; he later acquired ownership and changed the name. Fine biscuits continued to be produced for many years, but the factory has now turned its production over entirely to bread.

The factory employs about eighty workers, skilled, semi-skilled, and unskilled, who have a registered workers' union known as Collective Bargaining Agent (CBA).

Associated Cement, Rohri Cement Works, Rohri

This factory was established in 1938 by Associated Cement Companies, Bombay, with a capacity of 200 tons per day, thanks to an abundance in this region of the raw material required for the manufacture of cement—good quality limestone, sweet clay, and sand are all available in quantity in the vicinity of the factory, and red ochre and gypsum are to be found not far away. The plant was supplied by Messrs F.L. Smith of Denmark. During 1965 the Government of West Pakistan took over the factory, having declared it evacuee property. Then in 1972, under Zulfikar Ali Bhutto's reforms, it was given to the newly-formed State Cement Corporation.

Initially the factory was able to meet the region's cement requirements, but due to the increase in demand for cement in the country, it was decided to put up another kiln of 600 tons in 1972, thus bringing its capacity to 800 tons.

The new plant was installed by Messrs Hitachi Engineering and Shipbuilding Company Limited, Japan.

The factory manufactures the following types of cement: ordinary Portland, sulphate-resistant, super sulphate-resistant, oil-well, and rapid-hardening. It employs over 800 workers, 40 per cent of whom live in free accommodation in a small purpose-built community with facilities including a market, a post office, a bank, mosque, school, hospital, club, and playground.

Exxon Fertilizer Factory, Dharki

Situated sixty-five miles from Sukkur and fifty-five miles from Rahimyar Khan, the production capacity of this Exxon factory is 288,000 metric tons of urea annually. The capital investment in the project is a total of more than US\$ 43 million. At its inception in 1968, it absorbed the largest foreign private investment ever made in Pakistan up to that time. Urea was first produced at Dharki on 4 December 1968. It exceeded its projected capacity in 1971 and continues to expand production. Exxon (Esso) sold its shares in 1991, to the employees and private companies. The Employee's colony houses a boys' and a girls' school; there are between 600 and 700 employees in total.

Pak-Saudi Fertilizer Ltd., Mirpur Mathelo

Pak-Saudi Fertilizer Ltd. (PSFL) is a large ammonia/urea complex with a daily capacity of 1000 metric tons of ammonia and 1740 metric tons of urea. The complex is situated 2.5 km north-east of Mirpur Mathelo, 104 km from Sukkur. The plants cover an area of 433 acres, while the housing colony for employees is spread over an area of 39 acres. There are 235 officers and 650 workers employed on the project.

The project was financed by the Saudi Arabian Government and the Asian Development Bank as under:

Saudi Arabian Government Loan	US\$ 50 million
Saudi Funds for Development	Rs 97 million
Asian Development Bank	Rs 50 million

Work on the complex commenced on 18 April 1975 and was completed on 30 September 1980; commercial production of urea started in October 1980. The basic raw material is natural gas, available at the nearby Mari gas field, about 8 kilometers from the plant. The gas is brought to the plant site through a 16-inch diameter pipeline and is used as fuel as well as feed stock.

The company had paid off all of its long-term foreign loans by the end of December 1990.

The Sindh Small Industries and Handicrafts Development Corporation

This Corporation was established in July 1972 under Sindh, Act XXVI of 1972. At the time of its inception, the Corporation inherited from the West Pakistan Small Industries Corporation the Small Industries Estate, Sukkur, and the regional office. It has since set up a woodworking training unit and the Pakistan Handicrafts shop in Sukkur, a small-industries estate in Rohri, a carpet training centre for boys in Pano Akil, a carpet training centre for girls and a technical training centre in Ghotki, and a carpet training centre and a woodwork training centre in Mirpur Mathelo. Some of these are being transferred to the Labour Department.

The Utility Stores Corporation of Pakistan

The Utility Stores Corporation of Pakistan Ltd. was designed to meet the needs of the urban low-waged. It

operates throughout the country under the Ministry of Industries and Natural Resources, selling items of daily use like *atta* (flour), ghee, rice, pulses, soap, and tea at controlled rates below the market price. The Corporation works on a no-loss, no-profit basis. There are sixteen Utility Stores in various towns in Sukkur District, each staffed by a supervisor and two salesmen.

Labour

There are forty-two factories employing a total of about 8,000 workers, and 1,200 small industrial and commercial units which together employ about 400 people, in Sukkur District. Among the factories are included the workshops of government organizations such as the railways, agricultural, engineering, irrigation, road transport, mechanical engineering, and construction works, and a thermal power station. The factories in the private sector are involved in cement, fertilizers, foundry work, and beverages production. The industrial and commercial establishment consists of banks, hotels, theatres, repair shops, etc.

The workers in some of these establishments have formed unions. There are a total of thirty-one unions in Pakistan, of which the majority are affiliated with the Sindh *Mazdoor* (Labour) Federation, Sukkur. The Rohri Cement Works Union is affiliated with the Pakistan Federation of Cement Workers; the remaining unions are mostly independent. All the unions joined the *Mazdoor Rabita* Committee, Sukkur, when it was formed in the early 1980s. It and the various federations are heavily subscribed to within their respective organizations, and there is no problem with the non-unionized factories and establishments of Sukkur.

The four main pieces of legislation regarding labour are: the Workman's Compensation Act, 1923; the Weights and

Measures Act, 1932; the Factories Act, 1934; and the Payment of Wages Act, 1936. Offences under these Acts are tried by the Additional District Magistrate. In one year the Sukkur Labour Court heard five cases under the Workman's Compensation Act, imposing fines of over Rs 240,000, and sixteen under the Wages Act, where fines of over Rs 200,000 were levied; in another year, various shops were fined Rs 69,000 under the Weights and Measures Act.

LOCAL GOVERNMENT

The Development of Local Self-Government during the past 125 Years

The history of local self-government in the subcontinent can be divided into three distinct periods. The first period was characterized by a marked absence of local participation. Though municipalities had already been established by the British in Calcutta, Madras, Bombay, and certain other cities, the public had no control over them; the central government ran the affairs of the municipalities, and in the rural areas there were committees to manage local affairs such as sanitation, construction of roads, etc. The provincial government was given funds by the central government for specific purposes, and any amount unspent had to be returned to the central government. Lord Mayo, the Viceroy of India between 1869 and 1872, brought a radical change to this system by removing restrictions on the initiatives towards local self-government—a fixed grant was to be made to the provincial governments from the imperial treasury, and the provincial governments were made responsible for their own finances within certain limits.

The second period dawned with Lord Ripon's Resolution of 1882, which called for local bodies to be elective and independent of outside control. It was a crucial landmark as it laid the foundation of the local self-government system.

Lord Ripon, Viceroy 1880-89, wanted the people of the subcontinent to learn to manage their own affairs, and was a strong supporter of the principle of free elections. His Resolution of 1882 led to the Bombay Act No.1 of 1884, which decreed that the municipalities were to be divided into three classes, that the District Councils were to be replaced by District Local Boards, and that *taluka* Local Boards were to be created. The chairmen of these institutions were not to be central government administrators, and wherever possible they were to be elected. All the representative institutions were given certain financial powers, but the central government retained the power to inspect local government activities and to suspend officials of local government in case of gross default of their duty.

District Local Boards had between twenty and thirty members, of whom half were elected by the people and half, including the President, were officials nominated by the Commissioners in Sindh. The *taluka* Local Boards consisted of about fifteen members, of whom half were nominated and half elected. The assistant or deputy collector in charge of the *taluka* was invariably an appointed member, as was the president of the *taluka* Board.

The Montagu-Chelmsford reforms of 1919 marked the commencement of the third period of local self-government. Lord Montagu, Secretary of State for India, and Lord Chelmsford, the Governor-General, drafted a scheme of reforms which became the basis for the Government of India Act, 1919. Under this Act, the provinces became responsible for local government, public health, sanitation, education, public works, irrigation, and agriculture, while the centre retained responsibility for defence, foreign affairs, customs, post and telegraph, and currency. The provinces were given the power to accelerate the pace of progress by means of industrialization, which meant big returns for the central government. This led to the idea that local self government was not just the starting point for the long march to freedom, but was the very basis of it.

The activities of the District Local Boards in Sindh were regularly reviewed by the Government of Sindh. Some salient features of the resultant reports are noted below:

- (i) A report on the administration of the Local Boards in Sindh for the year 1936-7 revealed that all the *taluka* Local Boards had been abolished. It further mentioned that no village *panchayat* (council of elders) was constituted under the Village Panchayat Act, 1933, in any village in Sindh, while the number of sanitary committees did not increase during the year under report.
- (ii) A later report noted with satisfaction the good work done by the District Local Board of Sukkur in the matter of compulsory education.
- (iii) In the review of 1939-40 it was noted that the introduction of compulsory education in some *talukas*—those of Dadu, Sukkur, Larkana, and Tharparkar Districts—was commendable.

The next stage in the development of local self-government came in 1953, when the Government of Sindh created a Local Self-Government Committee* with Kazi Fazalullah as Chairman and seven other members, all of whom were notable personalities of the time. There was one major concern for the Committee: to study the Sindh Municipal Boroughs Act, 1925, the Sindh District Municipal Act, 1901, and the Sindh Local Board Act, 1923, and to suggest methods for improving the Local Bodies in the province.

At the time of the constitution of the Local Self-Government Committee, the following forms of local government institutions were operating in Sindh:

- (i) the village *panchayat*
- (ii) the Sanitary Committee
- (iii) the Notified Areas (places not large or important enough to have municipalities)

* Resolution No. 650-A/B Education, Health, and Local Self Government, dated 14 December 1953.

- (iv) the *taluka* Local Boards
- (v) the District Local Boards
- (vi) the Municipalities
- (vii) the Provincial Board

The Committee held thirty-seven meetings, concluded its deliberations, and submitted its report on 17 August 1954.

Local Audit System

The system of audit was first introduced in Sindh in 1894 to deal with municipal accounts. Initially the Local Bodies were required to meet the costs of the audit themselves, but after 1907 the Government of India provided funds to the provincial government for audit purposes. This continued till local funds audits became a provincial matter when the old system was restored in 1919, and the Government of Bombay again started charging Local Bodies for their audit. However, in 1923 Local Boards were exempted from payment of audit fees under the Sindh Local Board Act, 1923. In 1926, municipalities were also exempted from paying fees. Currently, the Resident Audit Scheme is in operation, under which all municipal corporations, municipal committees, and District Councils are audited on a day-to-day basis, the expenses of the audit staff being recovered from the audit fee.

Basic Democracy

In 1959 the Basic Democracies Order, 1959, (President's Order No.18 of 1959), (BDO) was promulgated by the President, Field Marshal Muhammad Ayub Khan. This Order provided for the introduction of basic democratic institutions throughout Pakistan, and consolidated and amended certain laws relating to local government. Articles

1 and 3 of the Order came into force on 27 October 1959 in the whole of Pakistan, and the rest with effect from 10 November 1959. Under article 4 of the Order, the Sindh Local Boards Act (Sindh Act VI of 1923) was repealed.

The new Order introduced a five-tier structure of representative bodies. The five tiers were :

- (i) Union Councils
- (ii) Town and Union Committees
- (iii) *Thana* or *Taluka* Councils
- (iv) District Councils
- (v) Divisional Councils

The Union Council, the lowest tier, was to be directly elected by the people. Each member of the Union Council was to represent 1000 people.

The first elections for Basic Democrats' were held in January 1960. 40,000 Basic Democrats in each province were elected and given some training before beginning their duties. These Basic Democrats were later turned into an electoral college for the election of the President and the members of the provincial and central legislatures. According to article 79(1), Part V-General, Chapter II of the BDO, the Government was authorized to set up schools, colleges, and other institutions to research subjects concerning local government. Today the Sindh Local Government and Rural Development Academy at Tandojam, District Hyderabad, trains the members and staff of the Sindh Local Government and Rural Development Department.

The Sindh Local Government Ordinance, 1972

This was promulgated by the Governor of Sindh and Martial Law Administrator, Zone D, on 18 February 1972. According to this Ordinance, no elections were to be held, but the following tiers of local councils were constituted:

- (i) The Karachi Metropolitan Corporation
- (ii) Municipal Committees
- (iii) District Councils
- (iv) Town Committees
- (v) Local Councils.

The new Ordinance nullified both the Basic Democracies Order, 1959, and the Municipal Administration Ordinance, 1960 (Ordinance X of 1960).

The Sindh Local Government Ordinance, 1979 (Sindh Ordinance No. XII of 1979)

This Ordinance was introduced to consolidate and amend the law relating to local government and to provide for the constitution of councils in the Province of Sindh (*vide* Law Department notification No. S. Legis 1(12)/79, dated 25 July 1973). It came into force on 25 July 1979 and repealed the Sindh Local Government Ordinance, 1972 (*see above*). The Ordinance of 1979 called for the composition of councils as follows:

- (a) Urban areas
 - (i) A Corporation for each city
 - (ii) A Municipal Committee for each municipality
 - (iii) A Town Committee for each town.
- (b) Rural areas
 - (i) A Union Council for each union
 - (ii) A *Taluka* Council for each *taluka*
 - (iii) A District Council for each District.

Local Council elections were held in 1979, 1983, and 1987 under the Ordinance of 1979; this system is the one currently in use.

The Municipal Corporation in Sukkur

The Municipal Corporation was constituted for the first time in 1856, when the population of Sukkur town was



17. The Bar Room High Court.



18. High Court Circuit Bench.



19. Circuit House Annexe.



20. The Session Court, Sukkur.



21. The District Jail.



22. The Central Prison.



23. The Office of the Deputy Commissioner.



24. The Office of the Commissioner, Sukkur Division.

only 12,000. The work of the town was carried out by a committee consisting of sixteen non-elected officials who were residents of the town, with an unelected Collector as its president. In 1885 the citizens got the right to elect their representatives, but the Collector remained the president, the citizens were however, given the right to elect their own vice-president. In 1911 the Municipal Committee got the right to elect its president. Diwan Bhoj Singh, who in 1937 became the first Speaker of the Sindh Assembly, was the first president. In 1948 the Sukkur Municipal Committee was superseded by the Government on grounds of maladministration and financial collapse. The administration was handed over to an administrator appointed by the central government with a view to putting the affairs of the local civil body in order.

In 1961 the Sukkur Municipal Committee was recognized as a first-class Municipal Committee. The boundaries of the municipal jurisdiction enclosed three and a half square miles, and the total population, according to the 1961 census, was 103,154. The Municipal Committee was divided into ten Union Committees headed by an elected chairman under notification No. 5011-20/VO issued on 25 March 1980 by the Government of Sindh, Housing, Town Planning, Local Government, and Rural Development Department. The chairman of the Municipal Committee was the executive head and also the controlling authority for the Union Committees. The Commissioner of Khairpur Division was the controlling authority for municipal affairs.

During 1980 the Sukkur Municipal Committee was raised to the status of a Municipal Corporation. By then the municipality had spread over an area of seven and a half square miles. There are thirty-four elected representatives, of which four were reserved seats—two for ladies and two for labour classes. Mr Islamuddin Shaikh was the first elected mayor of Sukkur Municipal Corporation.

Since 1992, no elections have been held by any Government, and the Corporation is currently run by an Administrator and a Municipal Commissioner, both appointed by the Provincial Government.

The Municipal Corporation manages seven hospitals—one with thirty beds—a maternity home, a women's hospital, an X-ray clinic, and a physiotherapy centre. It also runs four waterworks which supply six million gallons per day to the citizens.

Water Supply

The supply of drinking water to the citizens has always been a major task for the municipality. The first arrangement for water supply was established in 1896; it was expanded in 1936. This waterworks was meant to cater to the requirements of only 50,000 people. Since the population has increased at least fivefold, the daily requirement of drinking water has also increased—about 8 million gallons per day (MGD) of water has been estimated as the present daily requirement, whereas only 4 MGD of filtered water is being supplied.

A follow-up water supply scheme, Phase II, (Adam Shah Waterworks) was planned and designed by the Public Health Engineering Department in 1967, based on tube-wells. This, however, failed due to the presence of brackish water. In 1984-5 a new waterworks with a capacity of 3 MGD was brought into service, and in 1992 both Phase III, with a capacity of 2.5 MGD, and Phase IV (2 MGD) came into operation. The first phase of the water supply scheme operates on the right bank of the River Indus, the second phase on the left bank of the North-Western Canal, and the third phase in Old Sukkur near the industrial estate.

To date, 19,619 water connections for domestic and industrial purposes have been sanctioned. In addition, the municipality has provided four hundred public stand-pipes

from the first water supply scheme and ninety public stand-pipes from the second phase in order to provide drinking water to those people who cannot afford to pay for a regular water connection. The municipality has also provided over 200 hand pumps throughout the District, but only seventy-two are in working order as the rest have gone brackish.

The *Panchayat* System

The ancient system of *panchayats* was revived in 1981 under the Sindh Local Government Ordinance, 1979. There are now thirty-five *Panchayat* Committees in Sukkur Municipal Corporation, one for each electoral unit of a council other than the Metropolitan Corporation or a District Council. They consist of the member of the council elected from that electoral unit, who is the chairman, and two other members nominated by the council from amongst the residents of that unit. Their responsibilities are regulated under the Sindh *Panchayats* (Function and Conduct of Business) Rules 1980, and include functions such as supervision of mosques, promotion of welfare schemes for widows and orphans, maintenance of records of births, marriages, and deaths, among others.

During the year 1990-91, the Municipal Corporation allotted the following budget for the *Panchayat* Committee:

Salaries of staff	Rs 1,065,000/-
Rent for <i>panchayat</i> office	Rs 200,000/-
Furniture, etc.	Rs 5,000/-
Total	Rs 1,270,000/-

The District Council

The District Council (formerly the District Local Board) came into existence in 1884 to provide services and facilities

to people in rural areas. Since that date, its administrative set-up has gone through many changes.

Sukkur District comprises four subdivisions and six revenue *talukas*, having one municipal corporation, two municipal committees, four town committees, 140 Union Councils, and one District Council. The District Council Sukkur covers an area of 4,525 sq. miles and provides basic services to about 800,000 people out of a total population of about 1.1 million in the entire District (1981 Census). The Council is empowered under Section 59 of the Sindh Local Government Ordinance, 1979, to levy a cess on various classes of land; this 'local cess' provides the major part of the Council's income.

On the revival of local councils in 1979, the District Council assumed office on 14 November with seats allocated as follows:

General	48
Minority	2
Peasants and farmers	3
Workers	1
Women	3
Total	<u>57</u>

In addition to the above, sixteen representatives of various departments were also nominated by the Government as members of the Council. Since then the profile has changed a little; at present, seat allocation is as follows:

General	58
Minority	2
Peasants	2
Farmers	2
Women	6
Total	<u>70</u>

The District Council maintains 405 miles of *pucca* road, 848.5 miles of *katcha* roads, 23 miles of paved brick, 33.5 miles of metalled road, seventeen medical dispensaries, six veterinary dispensaries, three maternity homes, and thirty-three cattle ponds to provide for the basic needs of people in the rural areas.

Between 1979 and 1983, the District Council constructed seventy-three primary schools at a cost of Rs 4.74 million, and repaired a further forty-four; it also built four medical dispensaries.

The District Council also undertook some schemes under the Arid Zone Development Programme (AZDP) during 1979-80 and 1980-81. The priorities of the AZDP are to provide basic requirements in the fields of health, education, water supply, and communications, and to encourage the integrated development of livestock, development of cottage industries, and exploitation of mineral and underground water resources. The District Council has built several wells and tanks and a medical dispensary under the AZDP.

In 1984 Sukkur District Council revised the existing (1979) export tax on farm produce.* Subsequently, the Government of Sindh promulgated the Sindh Local Government Amendment (Ordinance), 1988, (Sindh Ordinance No. 1 of 1988),** under which *rawangi mahsool* (export tax) was to be leviable on firewood, timber for use in construction of buildings, wheat, barley, rice, cotton (ginned, unginned, or waste), and sugar or sugar products such as *misri*, *rewri*, and other sweetmeats, whether such produce or resources were exported from the urban limits or rural limits of the revenue District.

The Municipal Corporation is authorized under part II of Schedule V of the 1979 Ordinance to levy certain taxes. These include a tax on the import into the area of goods

* Under notification No. GB/HC/83/663 part 1-A dated 22 April 1984.

** Under notification No. GHEGISI (I) 88 dated 30 May 1988 of the Law Department.

for consumption, use, or sale (octroi), road-bridge and ferry tolls, a tax on the transfer of immovable property, and a rate for the provision of waterworks, among others.

EDUCATION

Pre-British Education in Sindh

Mullah/Mosque Schools

Prior to the arrival of Islam in Sindh, education was imparted in the home. The Arab settlers and the converted Sindhi tribes, however, followed the practice of establishing a mosque as the focus of each community, and the mosques almost invariably had a *maktab*, or religious school, attached, which children attended from the age of seven. Schooling continued for five years; subjects included Arabic, and were taught with the help of a wooden tablet, or *farahi*, covered with Fuller's earth (*mait*) on which the alphabet was written. The *maktab* was run by a mullah, an *akhund* (teacher), or a *pesh-imam* (prayer leader) of the *mohalla* (community). He was not required to possess any academic or professional qualifications, only the respect of the community. He was not paid a regular salary, but received presents on the occasion of the successful completion of a course, e.g., the completion of *nazirah*, (reading the Arabic text only of the Holy Koran without translation) or a reading of an *ameen*, i.e., the special prayer offered at the 'first' completion of *nazirah* Koran. He was also fed by the community, for whom he led prayers in the mosque.

This system of primary education grew spontaneously from the institution of the mosque in Muslim society; it was further developed during the rule of successive Muslim

dynasties in Sindh and continued in use well beyond the advent of British rule and the introduction of the British education system.

The Madrassah

Although complementary, the two institutions, the *maktab* and the *madrassah*, were wholly self-contained. The institution of the *madrassah* neither grew spontaneously alongside the mosque, nor did it grow out of the *maktab* system. It was a system of higher learning imported from the Middle East and the great Central Asian seats of learning. There were no hard and fast rules for admission. However, age was important; generally, adolescent boys—no girls—were admitted after an admission test which ensured basic knowledge of the subjects to be covered in depth in the *madrassah*. The prospective student was expected to come from a family of high moral repute. *Maktab* education was a good preparation for the *madrassah*.

The *madrassah* developed in Sindh as a residential school, where education lasted from dawn to dusk; the behaviour of the students was watched round the clock. Moral training was coupled with spiritual induction to produce a class of religious scholars who were to become influential in society. A network of *madrassahs*, both government-sponsored and those patronized by well-to-do philanthropists, gradually spread all over Sindh. These *madrassahs* produced *maulvis* (Muslim theologians), and *maulvis* in turn opened and manned more *madrassahs* extending to the remotest rural areas.

Under the Talpurs there was a well-organized indigenous Islamic educational system functioning in Sindh, which continued for a century after the British education system was introduced. Not until 1936 were revisions in the curriculum suggested, by Dr U.M. Daudpota. Sindh was

separated from the Bombay Presidency in that year, and the Governor of the province immediately set up a department of education. The first Director of Public Instructions was K.B. Ghulam Nabi Kazi; he retired in 1939 and was succeeded by Dr U.M. Daudpota, who held the post for eleven years, during which time he was able to implement many of his ideas. These included: a six-month adult literacy course, from which just under 30,000 men and women benefited and which was followed up by the distribution of a free magazine containing news and hygiene information; mobile libraries; and a restructuring of primary education.

Language

The Sindhi language is not only rich in literature but it has also been the medium of education in the *maktabs* and *madrassahs* of Sindh. The Sindhi language first became compulsory in the *maktabs* and *madrassahs* of Sindh during the Kalhora period. This broke the monopoly of the *maulvi*, *mullah*, and *akhund* over the education of the children and made education more widely accessible.

Sir Richard Burton, who visited Sindh, has written about the Sindhi curriculum in the *maktabs*. He mentions that the students received an education in their mother-tongue until the age of twelve or thirteen, after which they were taught Persian. (See, Richard F. Burton, *Sindh*, London, 1851, reprint Karachi, 1988.)

When the British annexed Sindh to their empire, they allowed and even encouraged Sindhi to be used as the medium of instruction in the *maktabs* and *madrassahs*. The first Sindhi-medium school was established by the British in Shikarpur on 21 March 1857. Four days later, on 25 March 1857, they made Sindhi the official language of the Province, alongside English.

In 1936 the British ordered that English-medium schools for local people be closed; henceforth Sindhi was to be used as the medium of education up to the matric examination. In 1940 Sindhi became one of the languages used in the BA examinations at the Bombay University of Sindh (now Sindh University); it was allowed for the MA examinations in 1950; and in 1954 it was made the medium of expression for oral and written course work towards Ph.D. degrees.

Educational Facilities in Sukkur District

Male

Colleges: 5 degree, 3 technical/polytechnic, 1 commercial training, and 6 vocational institutes; high schools: 24 government and 6 private (the one on Minaret Road is believed to have been in use since 1759); middle schools: 29 government and 2 private; primary schools: 679 government, 1 private, and 28 *masjid*. Some of these are described below.

Female

There are seven government girls' high schools in the District, though none in *talukas* Mirpur Mathelo and Ubauro. There are ten middle schools in the District, though none in *talukas* Rohri or Ghotki. There are also 135 primary schools in the District. Twenty-four *mohalla* schools have been opened in the District since 1979-80, out of which ten have subsequently closed down.

The Sukkur *Madrassahs*

The Sukkur *madrassahs* owe their origin to a desire on the part of the Muslims of Sukkur to promote education amongst their co-religionists. A Board was formed in 1906, with the local Collector as president, with the object of establishing a *madrassah*. That same year the foundation

stone was laid for the first *madrassah* to be established in the District in modern times. The inscription on the stone reads:

Madrassah-tul-Islam, Sukkur

This foundation laid by H.E. the Rt. Hon. Lord Lamington Ocmeccle R. Coxon, J.P., Governor of Bombay on 3rd January 1906.

In 1911, a project to build a boarding house was launched. One storey was constructed that year at a cost of Rs 17,236; an upper storey was added in 1941 at a cost of Rs 6,750. The building stands on Minaret Road, opposite the High School. It remained in the possession of the District Madrassah Board until 1960, when it was given by the Board to the Government High School and used as an annex until May 1962. It was then handed over to a management board, with a view to setting up a girls' college in it. In October 1968, Agha Nizamuddin Girls' College started functioning in the building. The District Madrassah Board Girls' High School, run by the same management board, was nearby. After nationalization in 1972 both establishments were taken over by the Government and are still under its control.

Colleges

The Government Islamic Science College and Government Islamic Arts/Commerce College, Sukkur

During 1948, some philanthropic citizens of Sukkur formed a Muslim Education Society to attend to the needs of the city for Muslim Education. Prior to the nationalization of educational institutions in 1972, the Society had been running eighteen institutions ranging from primary to postgraduate schools in the twin cities of Sukkur and Rohri.

The Islamic College, Sukkur, was established in the year 1955. Before the establishment of this college, the residents of Sukkur had to go to Shikarpur, Hyderabad, and Karachi for higher education because there were no other colleges in Sindh. Initially the college was located in a school building and classes were held in the evenings. It was first attended by students in their first year of arts or commerce classes, but in the next year, degree classes in commerce and first-year science classes were also offered. The Islamic College Board then acquired a big plot of land on a hill near the Sessions Court for use as its college campus, and prepared an ambitious plan to provide the various elements of an ideal educational institution. In 1965 postgraduate classes in Urdu, Sindhi, and Muslim History were started, and in 1967 postgraduate classes in English and Economics and degree courses in Science were also introduced.

In 1973 the College was reorganized and redesignated. Now two independent institutions, the Government Islamic Science College (3,000 students) and the Government Islamic Arts/Commerce College (2,000), each with its own separate administration, operate from the same premises, alternating between morning and evening shifts. Postgraduate courses are offered in English, Sindhi, Urdu, History, and Economics.

The Government College of Education, Sukkur

This is the only institution in Sukkur Division which shoulders the task of training teachers for Upper Sindh (Sukkur, Shikarpur, Larkana, Jacobabad, Khairpur, and Nawabshah) at the B.Ed. (Bachelor of Education) level. This college, which was established in 1962, has been discharging this function effectively and has produced thousands of fully trained teachers for the Education Department. In 1972 it started offering M.Ed. classes as well.

The Government Degree College in Ghotki

The Degree College in Ghotki was opened during the school year 1971-2 with the status of Intermediate Science and Arts College. It has proven beneficial to *talukas* Ubauro, Mirpur Mathelo, Ghotki, and Pano Akil. The institution was upgraded to the level of a Degree College in 1976, because it had a sufficient number of students on the roll in classes XI to XII, pre-medical/pre-engineering, in the general group of classes, and in BA and B.Sc. parts one and two. It has a hostel facility which, like the college itself, is in need of further expansion.

The Government Girls' College, Sukkur

This was established on 21 July 1958 with Miss A.B. Omar as the first Principal. It was because of her service and devoted efforts that twenty years later the college had become the second largest in the Hyderabad region. In 1958, when the college was started, only twenty-nine students were enrolled. Now there are over 1,600 students in both the science and the arts faculties. The students' union is very active; its societies include drama, debating, *Bazm-e-Urdu* (Urdu Literary Club), etc. In 1978 the Institute of Sports and Culture was established to promote indigenous sports, games, and cultural activities. The Social Welfare Association holds regular fund-raising events to help poor and needy students, and on one occasion to pay for the construction of the college canteen.

The Agha Badar-e-Alam Durani Government Law College

This law college was originally started by the District Local Board of Sukkur when the late Agha Badar-e-Alam Durani was its president. It was on account of his initiative that the Law College was established. The college started operating in District Local Board premises in July 1954.

Senior advocates of Sukkur volunteered to serve as honorary professors at the college, which was named Justice Hassan Ali Agha Law College. Syed Mazhar Ali Shah was appointed as its first Principal. The college was inaugurated by Mr A.K. Brohi, who was at that time Minister for Law in the Government of Pakistan.

The District Local Board of Sukkur continued the Law College for two years; thereafter, the college was ordered closed. Agha Badar-e-Alam, the honorary professors, the Principal, and other responsible citizens decided, however, that the college should be continued; they therefore formed a society named the Sukkur Law College Governing Body, which was registered on 9 July 1956 with the assistant registrar of the Joint Stock Company, Khairpur Region. Syed Mazhar Ali Shah was elected the first chairman of the society.

The law college, under its new name of Sukkur Law College, started functioning from 20 July 1956 in District Local Board premises with permission granted by the late Agha Badar-e-Alam Durani, president of the District Local Board. Syed Mazhar Ali Shah continued as Principal of the college, while his associates continued to work as honorary professors. Since then the Law College has twice been renamed, once after its first principal, Mazhar Ali Shah, and again after Agha Badar-e-Alam Durani. The Sukkur Law College Governing Body continues to function under the chairmanship of the Vice-Chancellor of Shah Abdul Latif University, Khairpur, with which the College is affiliated. The College now has its own building, paid for out of the tuition fees since it receives no government assistance. There are some 350 students.

Technical Education in Sukkur

With the rapid expansion in industrial, commercial, and technical enterprises in the country, the demand for the

services of trained technicians has increased manifold over the past few years. To meet this demand, the Government has set up a number of technical training institutions throughout the country. The Directorate of Technical Education in Karachi is the controlling authority of these institutions in Sindh.

The Government Commercial Training Institute, Sukkur

It was established in 1960-61. This institute offers one or two years of post-matric courses in typing, stenography, accounting, book-keeping, secretarial practices, commerce, economics, and languages. Those who successfully complete a one-year programme are awarded certificates and those who complete a two-year programme are awarded diplomas in commercial education. The graduates of this institution are suitable for appointment as typists, stenographers, office secretaries, accountants, etc. The diploma holders are eligible for admission to B.Com. courses.

The Government Vocational Institute for Women, Sukkur

This Institute has a long and chequered history. During 1894, the Victoria Jubilee Technical Institute of Sukkur was established for the purpose of promoting technical education in Sindh in general and Upper Sindh in particular. Its governing body was called the General Board. In the previous fifty years, a number of similar institutions had been started but failed. This institution was more tenacious. It was conducted on a sound basis, served a real purpose, and satisfied a real need. The cause of its failure to attain even the status of a technical high school was that it depended for a substantial proportion of its income on the Local Bodies, whose contributions were uncertain and irregular, which meant that it was impossible to budget for any innovations or expansions. The school had a big area

(70,000 sq.ft.) with sufficient accommodation for classes, a workshop, a boarding house, and outbuildings, but it was not financially stable. Accordingly Mr E.H. Holt, the Collector, Sukkur, who was also President of the Institute's governing body, wrote to the Government, (see, Holt's letter No. VJT/257 dated 28 January 1944 to the Director of Industries Sindh, Karachi) inviting it to take over control of the Institute. This it did by virtue of resolution No. S-Ctf/39 dated 31 October 1945.

The Government Vocational Institute for Women at Sukkur currently offers one- and two-year certificate and diploma courses in tailoring, dressmaking, knitting, drawing, painting, leather work, typing, and shorthand.

Government Vocational Institutes for women have also been established at Rohri, Ghotki, and Pano Akil. Over 300 women are enrolled in them.

The Government Vocational/Polytechnic Institute for Boys, Golimar, Sukkur

This institute was established in 1968-9 in a rented building on Queens Road; its own building was constructed during 1970 at a cost of ten lakhs of rupees. It consists of some eight workshops or halls and one administrative block in the satellite town of Sukkur called Golimar.

A two-year vocational courses scheme was introduced in three trades (auto, electrical, and mechanical) during the year 1970-71. In 1973 this scheme was redirected towards the achievement of a Technical School Certificate (Class X to XII, science) in the same trades. In 1980-81 an additional scheme in TV electronics was introduced, leading to the Diploma of Associate Engineers. During the school year 1981-2 the Government of Sindh provided about Rs 11 lakhs for the construction of two workshops and a boundary wall. After successful completion of the curriculum, students are awarded the Technical School Certificate. Graduates from this Institute are suitable for

appointment as mechanics, electricians, carpenters, wiremen, draftsmen, and supervisors. They are also eligible for admission to Polytechnic Institutes.

The Public School in Sukkur

Sukkur is the biggest and commercially most flourishing city in Upper Sindh. It is also of historical interest. Located on the bank of the River Indus, Sukkur is a unique and beautiful sight, particularly after sunset. In this culturally and historically rich area of Pakistan, there had long been a great need for good quality educational institutions. In Lower Sindh, there was already a public school and a cadet college. It was therefore in accordance with the wishes and aspirations of the people of Upper Sindh that, in 1975, a beginning was made towards establishing a public school. With faith in Divine mercy and His patient guidance, teething problems, although innumerable, were gradually surmounted.

The Sindh Education Department co-operated by making available a building on Military Road. This building had been under-utilized, therefore its conversion to a public school was fully justified. The Federal Government initially made available a grant of over two million rupees. The citizens of Sukkur also extended a helping hand—encroachments onto the school premises were halted, additional land was acquired, and more than 5,000 trees were planted. Later, lawns and playgrounds were created. Suitably qualified staff were recruited and the search began for a good Principal. Initially a Dutch gentleman from a Grammar School in Quetta was appointed. A Board of Governors, chaired by a Commissioner, was appointed by the Sindh Government to guide the school towards its future.

With the passage of time, more facilities have been added, for instance, another hostel, a mosque, and a squash court, and the school has been expanded and now goes up

to classes XI and XII. There are between 2,000 and 3,000 students, from a catchment area comprising Sukkur, Jacobabad, Khairpur, Larkana, and Nawabshah.

The Rehabilitation Centre for Physically Handicapped Children (RCPHC)

In 1978 a survey of handicapped children was carried out by Dr Khalid Masood, the Director of Community Service for the Rotary Club in Sukkur. The survey revealed that more than 3 per cent of the entire population consisted of handicapped children and adults from all four major categories of handicap, namely, physically handicapped, mentally retarded, blind, and deaf-mute. The Rotary Club committee decided to start a school for deaf-mutes. The Rotary High School for the Deaf opened in January 1979, in a building on Eidgah Road which was constructed with the help of donations from members of the Rotary Club and other philanthropists. It ceased functioning from 1996-97 when the Rehabilitation Centre for Physically Handicapped Children (RCPHC) started functioning in the same year as the aims and objectives of both the Centres were the same. The Rehabilitation Centre was established by the Government and as such it was thought prudent by the Rotary Club members to let their school be merged with the Government sponsored institution in the interest for the betterment of the handicapped children. It now has ninety students, both boys and girls, who are given a general education plus training in carpentry, tailoring, typing, etc.

The Board of Intermediate and Secondary Education, Sukkur

This came into existence as the successor to the Sindh Board of Intermediate Education, Sukkur by virtue of

ordinance No. VI of 1972, with amendment acts Nos. 20 of 1973, 10 of 1974, and No. of 1978. It started to function on 25 October 1979, soon after the new chairman took charge. It is composed of one chairman and ten members. All the schools and colleges teaching up to class XII in Sukkur Division are affiliated with the Board, a total of over 300 colleges, high schools, and Oriental colleges (government funded but privately managed, offering Arabic, Persian, Sindhi, English, and Quranic and associated studies).

In 1982 the Board acquired over thirteen acres of land on which to construct a complex comprising an administration block, the chairman's bungalow, an auditorium, a post office, a bank, a library, a mosque, a youth hostel, and a playground. Work is still in progress on this complex, which is adjacent to the College of Education, Shikarpur Road, Sukkur.

TABLE 9.1
Literacy in District Sukkur, 1972 & 1981

Total Population (10-years & above) 1972	Literate Population (10 years & above) 1972	Literacy Ratio 1972	Total 1981	Literate Population (10 years & above) 1981	Literacy Ratio 1981
929939	241922	26.01	724590	190869	26.34

- Note:**
- (i) Literacy is defined as the ability to read with understanding a short statement of everyday life in any language.
 - (ii) Shikarpur District is included in Sukkur District in 1972.

Source: *Development Statistics of Sindh, 1994*, Bureau of Statistics, Planning and Development Department, Government of Sindh.

HOUSING, HEALTHCARE, AND SOCIAL WELFARE

Housing

It is not easy to migrate. It means going into exile, leaving your home village, leaving the supportive network of extended family, leaving the complex culture of status and ceremony in which you hoped one day to play your part. It is a last resort, when all else has failed.

Pan Harrison.

Mr Tasneem Ahmed Siddiqui, an authority on *katchi abadis* who was awarded the International Award for Architecture by the Agha Khan in 1993 writes:

Hyper urbanization in developing countries has no parallel in history. It is a mass exodus of epic proportions. The rapid transformation from a rural way of life to the heavily urbanized world of today, and the consequent development of new lifestyles, have been far more dramatic and spectacular than the population explosion itself.

Katchi Abadis

What is a *katchi abadi*, strictly speaking? The coffee-party concept of it would be a slum, an unbearable form of dwelling. 'A slum is at least a formal housing effort, however low-cost,' (*Dawn*, 6 December 1996). *Katchi abadis* are squatter settlements. People live there no matter

how appalling the conditions may be. Papers, land, or the use to which amenities are put are not in order. The houses could even be *pucca* or semi-*pucca* encroachments. And then there are completely unauthorized peripheral settlements: true squatters. Even if they have built their little shanties or lived in them for years, the world of illegal sub-divisions and *katchi abadis* is a world without security until they get their *kaghzat* (papers).

The regularization and development of *katchi abadis* in Sindh first became state policy when Martial Law Order (MLO) 67 was issued on 10 July 1978 by the Martial Law Administrator, Zone C. It established a Directorate of *Katchi Abadi* under the Housing and Town Planning Department.

The above Martial Law order was reconstituted by Martial Law Order No. 110 dated 8 December 1979 which, *inter alia*, declared that any part of any urban area owned by the Provincial Government or a local authority which had been partially or totally occupied unauthorisedly since before January 1978 for residential purposes, and continued to be so occupied, would, for the purpose of the Order, be known as a *katchi abadi*. It further opened Directorates of *Katchi Abadi* in the Karachi Metropolitan Corporation, Hyderabad Municipal Corporation, and Sukkur Municipal Committee.

Martial Law Order No. 183 dated 4 December 1982 reconstituted Martial Law Orders No. 67 and 110. It expanded the scope of *katchi abadis* to Municipal Committees and Town Committees in addition to Karachi Metropolitan Corporation and the Municipal Corporations.

The Sindh *katchi abadis* (Regularization and Development) Rule 1982 were also issued under Notification No. SO.VIII/KA-(30)/811 dated 4 November 1982 of the Housing and Town Planning Department.

The Government of Sindh finally enacted the Sindh *Katchi Abadis* Act 1987, (Act II of 1987) which took effect from 7 April 1986, due to which the Sindh *Katchi Abadi* Authority was established.

In Sukkur *katchi abadis* came into being in the late 1960s. During the seventies, they grew dramatically. There are about forty *katchi abadis* covering an area of about 898 acres, with 16,000 housing units covering a population of 85,000. Most of them share similar physical and social conditions, which include the lack of proper infrastructure, social amenities, and income generation opportunities. Their population is drawn from different ethnic backgrounds, including those with origins in other parts of Sindh and the Punjab.

The houses built in the initial years were made of mud, and during the rains, water would seep in and destroy them. Later, houses were built with bricks. Public amenities were introduced much later. During the early seventies, the basic problem was the lack of drinking water. To overcome the shortage, the government arranged a water supply and installed community taps. Around the same time, in 1974, electricity was brought to this area. The Municipal Corporation Sukkur looks after these *katchi abadis*.

The Amrote Colony

In 1969 a scheme known as the Amrote Colony was initiated by the District Administration to rehabilitate 360 families who were found to be squatting near the Railway General Store and Reti Lines in Sukkur. Part of *deh* Old Sukkur admeasuring 46-05 acres was proposed for this Colony. An initial payment of Rs 200 was collected from each family, and some ground was levelled, but nothing further developed.

During 1979, with the increase in the number of encroachments, the problem of resettlement of unauthorized persons in Sukkur City once again drew the attention of the District Administration, and the Amrote Colony scheme was revived. Sixteen acres of land were levelled, at a cost of Rs 18,260, and made fit for

rehabilitation. A layout plan was prepared with provision for 280 residential plots of 120 sq. yds. each and plots for a mosque, dispensary, school, and shopping centres. The allottees had to pay Rs 2 per sq. ft. as the cost of the land and Rs 3 per sq. ft. as development charges. Seventy-eight persons were issued provisional allotment orders in order to encourage people to move to the colony, which is gradually becoming a reality.

Gulshan-e-Iqbal Scheme

This is a more conventional housing scheme, comprising 2,702 plots on ninety-seven acres. A substantial amount of money (in excess of eight million rupees) was spent on developing it, but then funds ran out and the scheme has had to be shelved for the time being.

The Co-operative Movement

Early History

The earliest attempt to improve rural credit on modern lines was made in 1892 by Sir William Wedderburn and Justice Ranade, who prepared a scheme for starting agricultural banks in India. This scheme was approved by Lord Ripon's government but the Secretary of State for India, for unaccountable reasons, did not approve it. The matter had to be dropped and nothing was done for fifteen years, when the Government of Madras deputed Sir Frederick Nicholson to go into the question of starting agricultural banks in Madras for financing agriculture. His detailed report suggested the formation of co-operative societies for reducing rural indebtedness, but met the same fate.

Immediately thereafter, the whole country suffered from two very serious famines. Lord Curzon therefore appointed a commission in 1901 to suggest measures whereby the

recurrence of famines might be stopped and the people protected from their ruinous effects. The commission suggested the introduction of co-operation in rural areas to cope with the situation. Lord Curzon's government thereupon appointed a committee under Sir Edward Law to go into the question of starting co-operative societies once again. This committee recommended the introduction of co-operatives, so a bill was moved in the Imperial Legislative Council which later became the Co-operative Credit Societies Act of 1904.

With the lapse of time and with the gaining of experience, certain defects and deficiencies were noticed in the Act of 1904. In order to meet the situation, the Co-operative Societies Act of 1912 was passed, replacing the earlier Act.

After the initial stage of the movement had passed, the question of financing these societies arose. In Bombay, a central Co-operative Bank was founded in 1911 with the object of financing co-operative societies throughout the province. There was initially a general impression that co-operative credit was only a need of agriculturists and not of much urgency to urban people. As a matter of fact, the movement became of no less importance to town-dwellers, especially petty traders, artisans, and employees of small means.

Under the reforms of 1919, co-operatives became a provincial subject, and some of the provinces proceeded to enact their own laws relating to co-operative societies. The Government of Bombay passed the Bombay Co-operative Societies Act of 1925 to replace the Central Act of 1912.

The co-operative movement came into existence in Sindh in 1918, when the province of Sindh was part of the Bombay Presidency, and became independent only in 1936, when Sindh province was separated from Bombay.

After 1959, the Government set up an Enquiry Committee to look into the problems of the movement and recommend improvements in its set-up. After a good deal of consideration, it was decided that the Co-operative

Societies Act 1925 should be extended to the whole of West Pakistan in May 1965. Since then, further enactments passed in respect of the co-operative movement include the Co-operative Societies/Bank Re-payment Loans Ordinance, 1966, the Co-operative Societies Reform Ordinance 1972, the Co-operative Loans Act 1974, The Co-operative Farming Act 1976, and the Federal Bank for Co-operatives Act 1977.

There are ninety-four co-operative societies working in Sukkur. Of these, eighteen are Agricultural Credit Societies, nine are 'better living' co-operative farming societies, seventeen multipurpose co-operative societies, two urban co-operative societies, five co-operative consumer stores, three Union Council agricultural co-operative societies, eight agricultural marketing societies, six handicraft co-operative societies, five social welfare co-operative societies, one co-operative farm, one dairy co-operative farm, and nineteen Small Farmer Agricultural Co-operative Societies.

Housing Co-operative Societies

The Co-operative Housing Society has a long history behind it. Before 1913, very little was done in the matter of building houses on a co-operative basis, and it was only after the passing of the second Co-operatives Act of 1912 that people began to think of forming Co-operative Housing Societies. The first practical step was taken in Bombay, where the Bombay Co-operative Housing Association was formed in 1913. It created favourable public opinion by intensive propaganda and framed model by-laws for forming co-operative housing societies.

There are sixteen co-operative housing societies in Sukkur, all affiliated with the Sukkur Co-operative Housing Societies Union Ltd. They were allotted about 800 acres of land through the land acquisition process at a cost of Rs 500/- to 6000/- per acre. The land was allotted to the Union, and subsequently distributed amongst the Societies

according to the strength of the membership. Six out of the sixteen Societies have so far done their building and development work.

Healthcare and Social Welfare

Healthcare

In common with the rest of Pakistan, the people of Sukkur District subscribe to three different medical systems: Ayurvedic, the indigenous, traditional system; *Unani*, the ancient system of the Middle and Far East, attributed to the Greeks; and Homeopathic. The Federal Government has on several occasions attempted to regulate the practice of medicine of all kinds; one of its contributions was to call an All-Pakistan *Tibb* Conference (*tibb*: non-Western medicine) on 2 January 1987, in the course of which it was decided that *hakims* (traditional medical practitioners) should, after suitable training, be included in the Government Basic Health Programme. The Government of Sindh has, over the years, actively supported the development of healthcare facilities, earmarking substantial funds for training and for the construction of medical centres. Thus, in addition to numerous hospitals (*see below*), there are now Basic Health Units at Dodanko, Salehpat, Patni, Kandi, and Ghotki; Sub Health Centres at Qasimpur, Dadloi, Sultanpur, Ghulam Hyder Leghari, Sui Sharif, and Jam Sahib Samejo; Government Dispensaries at Arain Road, Dara Wahan, Ali Wahan, Muhammad Pur, Moula Ali, Dapar Jatoi, and Bhurchundi Sharif; Rural Health Centres at Kandhra (2) and Dharki; and *Taluka* Hospitals at Rohri, Pano Akil, Ghotki, and Mirpur Mathelo.

There are also several other agencies which maintain medical facilities in the District. The Railway Department runs two hospitals, as does the Jail Department, while the Police and the Irrigation Departments run one each. Sukkur

Municipal Corporation runs eight dispensaries; a further fourteen are run by the District Council. The Red Crescent Society manages three hospitals in the District—a General Hospital in Sukkur and one Maternity Dispensary each in Hingora and Ghotki—and there are sixteen private hospitals, fourteen in Sukkur and one each in Rohri and Pano Akil.

The Government Anwar Piracha Hospital, Sukkur

On 12 June 1979 a meeting was convened by the Secretary, Housing and Town Planning, of the Local Government Department, which was attended, among others, by the Secretary Health, Government of Sindh, a representative of the Martial Law Administration, an administrator from the Sukkur Municipal Committee, and Dr Anwar Piracha. The last named had offered to supervise and finance the construction of a hospital. At the meeting it was agreed that municipal land would be made available; that the provincial Health Department would organize and run the hospital; and that the Federal Government would provide financing for equipment. The hospital, named in honour of Dr Piracha, started functioning on 1 October 1980 with two in-patient wards, and during its first year of operations treated 35,292 out-patients and 117 in-patients. It has since expanded to include X-ray, ENT, Eye, and Dental departments.

Sukkur Civil Hospital

This hospital opened in 1980. It consists of a series of single-storey buildings on a hill to the north of the town. It has twenty-one wards containing 171 beds, and there is an active District Patients' Welfare Association which, among other activities, provides medicines for needy patients.

Social Welfare

Idara-e-Fawaid-e-Ama (Mustafa Eye Hospital, Sukkur)

This was established in 1963. It is located near the Civil Hospital, Sukkur. It is at present running an Eye Hospital and a General Hospital. The annual average beneficiaries are: Eye Section—OPD 3,000 persons, Operation 8,000; Delivery Section—OPD 3,000, Operation 450.

The organization gets financial aid in the form of rent assistances, donations from members, and *zakat*.

TB Welfare Organization, Sukkur

The District TB Association was registered with the Social Welfare Department in 1963 and worked from the Civil Hospital, Sukkur, with the Deputy Commissioner, Sukkur, as president. At present, the association is not active. There is, however, the Anti-TB Welfare Association (unregistered), with Jalil Ahmed Khowaja as president. The office is located in Atif Tradar Shaheed Ganj, Sukkur. It provides medicines to 250 to 300 TB patients yearly at the Civil Hospital, Sukkur. The Association is affiliated with the Provincial TB Welfare Association which has its headquarters at Hyderabad.

District Patients Welfare Society Sukkur

The above society was registered with the Government of Sindh, Directorate of Social Welfare under No.W/S/112 dated 3 April 1975. The aims and objectives of the society are to provide needed amenities and assistance to patients, particularly the *mustahiq* (deserving) patients; to undertake projects like a blood bank, drug bank, etc.; to start a health education programme; to undertake health rehabilitation services for patients; and to take whatever steps are necessary to supply those services which are essential for the welfare of the patients.

The Society has established a recreation hall in the Civil Hospital, Sukkur, for the entertainment of the in-patients; in addition, newspapers, a TV set, and indoor games have been provided for the in-patients. Medical aid is also being provided to deserving out-patients on the prescription of qualified medical practitioners.

The main sources of income of the Society are membership drives, donations, and grants-in-aid.

Anjuman Al-Falah, Mirpur Mathelo

The Association was established in November 1979 and registered under No. VA/DSM)/5.313 dated 16 June 1980. The office is located in Mirani Mohallah, Mirpur Mathelo, with one Ghulam Muhammad Pitaffi as President. The *Anjuman* remained inactive from its very inception.

Friends Welfare Society, Dharki

The Society was established in January 1976 and was registered under No. DSW/(S)/207 in November 1976 with Sayed Amin Shah as President. The Society runs a typewriting centre, a computer centre which has two computers, and an industrial centre where there are eight sewing machines and four knitting machines. It is working satisfactorily.

All Pakistan Women Welfare Association (APWA), Sukkur

APWA Sukkur was established during 1970 under registration No. DSW/453 (Sukkur-117/70) dated 20 April 1970 with Mrs Shahana Jawaid Hanif and Mrs Sadia Sajjid as President and General Secretary respectively.

APWA runs an Industrial Home and a Montessori School in Sukkur. It has also undertaken the construction of an APWA Complex with shopping centre and flats. After completion of the project, the monthly income will be

Rs 34,000 per month. 80 per cent of the work has been completed. The annual average beneficiaries from the Industrial Home are about one hundred women; from the Montessori School; one hundred students; and from the Social Health Education Programme, two hundred women.

Sukkur Memon Jama'at

The Jama'at was formed during 1948 by the members of the Memon community. It is a Non-Governmental Organization (NGO) whose aim is to serve the cause of humanity. It established a primary school, founded a secondary school, and started a library and a free reading room in 1951. It also started classes of sewing and embroidery for girls and a free dispensary during 1953. It upgraded the Middle School to a High School in 1957.

All the above institutions continue to function under the management of the Memon Jama'at.

Halar Memon Anjuman, Sukkur

The *Anjuman* has a long and chequered history. Its first constitution was passed in 1931. After migration, the Jama'at passed a new constitution during 1949 under which its social and welfare activities were set up. The organization helps with marriage ceremonies, and, in case of deaths, it provides financial help to poor families. It also provides reasonable financial aid to needy persons in order to enable such people to stand on their own feet.

The Jama'at and the *Anjuman* work in close collaboration with each other for the welfare of the Memon community.

Anjuman Shaukat-ul-Islam, Sukkur

At the time of partition, one Sadiq Hussain migrated from Amritsar and settled at Sukkur. He observed that some

orphans were roaming in Sukkur city and that there was no one to look after them. He therefore decided to rehabilitate the boys on humanitarian grounds, and accordingly established an orphanage centre in a small house on Miani Road, Sukkur, on 15 January 1949. The number of orphans went on increasing day by day, and the centre was therefore shifted to an evacuee building on Jinnah Chowk, Sukkur.

Some prominent persons, namely, Malik Ghulam Muhammad, Haji Ghulam Muhayuddin, Sardar Muhammad Sherwani, and Saeed Ahmed Awan, under the chairmanship of Mr Tasneem Ahmed Siddiqui, former Deputy Commissioner, Sukkur, took an active part in establishing the orphanage centre. A membership drive was launched and a General Body was formed, which elected five office bearers and sixteen members of the Executive Committee. The by-laws of the *Anjuman* were framed. During 1955, the centre was registered under the Societies Act in the name of *Anjuman Shaukat-ul-Islam*. It was subsequently registered with the Social Welfare Department under No. DSW-206 dated 26 October 1963.

The *Anjuman* has undertaken the following projects since its inception:

- i. During 1956, a primary school was opened which was upgraded to the level of middle school when it was nationalized.
- ii. A tailoring section was opened in 1958.
- iii. The library was established during 1958.
- iv. The dispensary was opened in 1958.
- v. In 1973, a new building was constructed for the *Anjuman* to replace the old one.
- vi. A plot was purchased on Miani Road during 1983 where a building for a primary school was constructed. The school has since been upgraded to the level of High School.

The recurring expenses of the *Anjuman* are met from, grants-in-aid from the National Social Welfare Council, Sindh, the Social Welfare Council, donations, *zakat*, etc. At present forty-five orphans are on the roll of the *Anjuman*.

The Mehran Cultural Centre, Sukkur

This is situated on Eidgah Road. It was constructed in 1894 by one Narsamal, a contractor and philanthropist of Old Sukkur, as a club where people of all walks of life could meet. Narsamal died in 1941, and in 1947 the club was abandoned due to the migration of the Hindu population. About a year later, Humayun Khan, a well-known landlord of the town, donated a considerable sum for the renovation of the building and provision of equipment and furniture. Renamed the Humayun Gymkhana, it has continued to serve as the meeting place of choice for the elite of the town. Since 1980, it has been the property of the District Cultural Association.

General Library, Sukkur

The General Library was founded in 1837 under the name of the Station Library. This name was attributed to the Indus Float Company, which was based at Signal Station in Sukkur. The company itself had been established in Sukkur in 1835, by Sir Henry Pottinger. In 1869, after the construction of the Kotri-Multan railway line, the company was wound up. The library was then renamed the General Library, refurbished, and reopened in 1871. In 1893, it was registered in Bombay.

The General Library, Sukkur, has played a very important role in the social activities of Sukkur. Diwan Bhoj Singh, the first Speaker of the Sindh Legislative Assembly, remained its Secretary for some thirty-five years. Thereafter it was managed by Mr. L. Ajwani, a renowned scholar of English and a distinguished professor at the D.J. Science College in Karachi. Nowadays the library is working under a registered board of trustees. The library possesses some very valuable original manuscripts as well as some 2,000 books on a wide range of subjects. It is situated on premises belonging to the Municipal Corporation, Sukkur.

LAW, ORDER, AND JUSTICE

The administration of criminal justice under the former Government, as in most partially civilized states, was arbitrary and unscrupulous and therefore probably prompt and vigorous, but unequal, and better adapted to ensure the punishment of the guilty than the protection of the innocent. Its process and punishment were often of a kind which would be revolting to our nations, and its object was rather private compensation than public example. In all of these respects it was perhaps no worse than that of other states in the same stage of civilization but there can be little doubt that it has much improved under us and has more than gained in the equitableness and regularity what it may have lost in vigour.

Selections from the Records of the Commissioner in Sindh, 1847.

The Mirs, though avaricious, bigoted, and narrow-minded, weren't cruel. Their rule exhibited a striking contrast to that of their predecessors: there were no political assassinations, and in the administration of justice, they had an aversion to capital punishment. Mutilation was the penalty of the worst crimes, and this was commuted to prolonged imprisonment in the case of the privileged classes. Other punishments were fines, shaving of the beard, blackening the face, flogging, and confinement in stocks. There were no proper jails, and no provision was made for the sustenance of prisoners; that was the concern of their relatives or the charitable public. Trial by ordeal was allowed, and the unwritten law of the Baloch, which allows a husband to kill his wife for infidelity, generally prevailed.

The police department consisted of just a few poor officers in the chief towns; but where every man carried arms, was accompanied by a coterie, and also avenged himself, policemen were superfluous.

Capital offences were decided by the Mirs. They also heard appeals and assisted in the decision of their *kardars* (revenue officers). Both plaintiff and defendant had to pay highly for a hearing with the Mir, and still more for a verdict. Mir Ghulam Ali was an exception however, as he was noted for his love of justice. Lawlessness and raiding were checked under his regime, and life and property were secure to a degree which had probably been unknown for centuries.*

Dispensation of Justice

Judicial Functions of *Jagirdars* under the Talpurs

The *jagirdar* (feoffee) exercised some civil and criminal administrative powers in his own *jagirs*. The pettiest civil cases were settled by him or by his agent, and if he was a *sardar* of position, the case was generally submitted to his decision by the parties themselves. Criminal justice was executed by him or his *khidmatgar* (agent) or *kardar* (revenue officer), but only 'when the case was not of a nature to make it in the interest of the government authorities to interfere.' (*History of Alienations in the Province of Sindh*, Vol. 1, 1886, p. 9.) All cases in which questions of Mohammedan Law arose were settled by the *kazis* (judges), and the *panchayats* under the *mukhis* (headmen) disposed of all other important cases, the Mirs getting involved only if appealed to. Nearly all the considerable *sardars* were non-resident *jagirdars*, and sometimes selected their *kamdars* (controller of works) from among their *khidmatgars*, slaves, and coolies.

* E.H. Aitken, *The Gazetteer of Sindh*, 1907, p. 136.

The *kardars* had, in fact, long exercised an irregular and unrecognized sort of judicial authority when, in August 1851, Sir Bartle Frere, the then Commissioner in Sindh, authorized them to determine and interpret civil and criminal law. Frere hoped thereby to make justice more accessible to the poor and disenfranchised, and also to relieve the European officers of many of the petty duties of administration. Authority was also given to the *kardar's* head *munshis* (clerks) to exercise jurisdiction during the absence of their superior.

Civil and Criminal Justice in the Early Period of British Rule

The Code of Civil Procedure (AD VIII of 1859) and the Code of Criminal Procedure (Act XXV of 1861) were both introduced in Sindh in 1862.

Civil Law

Civil law was sometimes administered by the Collectors and their deputies, but mostly by the *panchayats* under their charge. Appeals were not universally granted a hearing; they had to be obtained by means of petitions against a decree made to the Governor.

The institutions established for the administration of civil and criminal justice consisted of the following :

- (i) An officer or civilian designated 'Judge Advocate General,' with two deputies stationed at 'Kurrachee' and the deputies of Shikarpur and Hyderabad. The deputies' functions were to direct and revise judicial proceedings; the Judge Advocate was to act generally as a judicial adviser to the Governor.
- (ii) A Captain and three Lieutenants of Police were given control of the executive police and were also to serve the Magistrate, the Captain having general authority

and the Lieutenants being in charge of the three territorial divisions.

- (iii) Finally, Military Commissions, each consisting of three officers, would be made available by the nearest commanding officer on request of the magistrates.

Criminal Justice

Criminal justice was administered primarily by the Collectors and their deputies acting as delegates of the Magistrate, or by the Captain and Lieutenants of Police in the same capacity. Both classes of officers had authority within their jurisdiction and were independent of each other. Common offences were tried either by the magistrates and their deputies or by the Captain of Police and his Lieutenants. Sentences in these cases were carried out at once under the orders of the trying officer. In cases of a more serious nature, the proceedings of the subordinate officers were forwarded to their superior, who submitted them, with his opinion, to the Judge Advocate for his confirmation. The most common crimes were cattle- and camel-stealing, and murder arising out of cases of adultery; the latter were less frequent than the former. Punishments ranged from fines, imprisonment with or without hard labour, flogging, or transportation, to death. The Collectors held extensive powers of revenue and magisterial superintendence, and were also the highest judicial authority in the District.

On the introduction of Criminal and Civil Procedure Codes in January 1862, the power to decide over life and death became a prerogative of the Commissioner in Sindh. He was not obliged to contact Bombay before passing judgement. With the passing of the Sindh Court Act, 1866, however, the Commissioner was relieved of this judicial function thanks to the creation of the post of Judicial Commissioner.

After passing the Bombay Act XII of 1866, the law regulating the procedure of Criminal Courts was consolidated and amended by Act X of 1872 which substituted for the designations of magistrates introduced by the earlier code those of the First, Second, and Third Class Magistrate respectively. Subsequently, an important change was introduced in the principal court by Bombay Act I of 1906 which came into force on 25 June 1906. In place of the Saddar Court and the District Court or Court of Session of Karachi, there was a Court called the Court of the Judicial Commissioner which was the highest Court of Appeal in civil and criminal matters in the Province and also the district Court and Sessions Court of Karachi. It consisted of three (or more, with the sanction of the Government of India) Judges, of whom one was the Judicial Commissioner and the others were Additional Judicial Commissioners. Of the latter, one had to be a barrister of not less than five years standing. Subordinate to the Court of Judicial Commissioner, there were Session Judges, Additional Session Judges, Assistant Session Judges, First Class Magistrates, Second Class Magistrates and Third Class Magistrates, the powers of whom were all strictly defined.

After the Province of Sindh became a separate Province, it was felt that the immediate need of the Province could be satisfied by bringing the Sindh Courts Act, Act VII of 1926, into operation thereby raising the status of the Court of the Judicial Commissioner of Sindh to that of Chief Court of Sindh. On 15 April 1940, therefore, the Sindh Courts Act 1926, was brought into operation and the Court of the Judicial Commissioner of Sindh became on that date the Chief Court of Sindh.

Civil and Criminal Justice after Independence

The Circuit Court of Sukkur

The Circuit Court was established at Sukkur with a view to providing relief to the litigant public who had to travel long distances to attend the High Court at Karachi which was quite inconvenient and expensive for the poor people at large. By setting up the Circuit Court at Sukkur, justice has been made available to the people at their door steps. The same cases which are being tried by the High Court at Karachi are triable by the Circuit Court at Sukkur. The Circuit Court at Sukkur was set up by the Chief Justice of the High Court of Sindh, Karachi, under Article 2, Clause (c), of the Balochistan and Sindh (High Court) Order 1976 read with Clause 27 of the letters patent under notification No. GAZ/-IV-B-14(A) dated 7 December 1978. According to the notification establishing the court, cases pertaining to the Districts of Sukkur, Shikarpur, Jacobabad, Larkana, and Khairpur were to be instituted at the Circuit Court Registry at Sukkur from 9 January 1979 onward. The Circuit Court was initially established in the Gymkhana Building in Sukkur, with sittings of the Court being notified by the High Court from time to time. In order to provide early justice to the people of Sukkur Division, a plot of 24,000 sq. yards was subsequently acquired for the construction of a building for the High Court Bench of Sukkur.

The Central Prison, Sukkur

The Central Prison was constructed during the year 1938 on six acres of land on the left bank of the River Indus. The jail has very high standards of cleanliness and prisoner reformation. It is meant for the confinement of convicted as well as under-trial prisoners. Most convicts sentenced to fourteen years or more are transferred here from other jails

of the province, under the Government policy of inter-range transfers. It has a capacity for 1,498 prisoners. The jail has good facilities, set up with the object of reforming the prisoners and enabling them to earn a livelihood after their release so that they can become good citizens. The jail products, particularly the carpets, durries, and pottery, have gained a very good reputation all over the country and the jail administration is doing its best to cope with the heavy demand for them.

Primary classes are held in Sindhi and Urdu, and are taught by qualified paid teachers, with the help of literate convicts. There is also teaching of the Holy Koran with translations in Urdu and Sindhi.

The prisoners are taught technical skills in several handicrafts, for which paid technical staff are provided by the Government. These include machine-made carpets and durries, textiles, *niwar* (cotton mattresses), carpentry and caning, smithying, cobblery, laundry, pottery, and dyeing.

In pre-partition days there was a library in the prison, but it no longer exists. Political prisoners are supplied suitable magazines and newspapers as per the rules.

Indoor games have been provided in the jail for the recreation of prisoners, to keep them happy and busy in their leisure hours. The games introduced include ludo, snakes and ladders, chess, and karom. The jail contested the inter-range West Pakistan Jail Competition in 1965 and secured first position amongst all the jails of West Pakistan.

There is a dispensary in the jail which is under the charge of a Medical Officer appointed by the Health Department of the Government of Sindh. It provides all medical facilities to the inmates; serious cases are transferred to the Civil Hospital, Sukkur.

The District Jail

In the days of the Shikarpur Collectorate there were two principal jails, one at Shikarpur, the other in the island fort

of Bukkur—this was known as the district jail but was subsidiary to that at Shikarpur. Bukkur jail was established in 1865 and had an area of about 5,613 square yards. It consisted of two barracks, formerly tenanted by European soldiers, which could accommodate three hundred and twenty prisoners. Many of the prisoners were put to manufacturing articles for sale, such as cloth for trousers, table cloths, towels, napkins, reed chairs, sofas, carpets, baskets, bricks, shoes, etc. No juvenile offender was received in this jail, nor was there any school for the instruction of the prisoners. The establishment employed in the Bukkur jail was not an imperial charge; its cost was debited to the jail Local Fund.

Bukkur was closed on 1 January 1876; a subordinate jail was established in Sukkur in 1906 at an estimated cost of Rs 274,843. Almost 550 prisoners can be accommodated in this jail. The District Jail is located on the southern side of the Deputy Commissioner's office and on the northern side of the Sessions Court, Sukkur. Convicted and trial prisoners are confined there. It is under the control of the District Superintendent, assisted by the subordinate staff.

Judicial and Police Lock-ups

In each *taluka* there is a judicial lock-up, where under-trial prisoners are kept. It is under the control of the *taluka mukhtiarkar* who is designated the superintendent of the judicial lock-up. He is assisted by the second *munshi* of his office, who is designated the jailor. The *mukhtiarkar* is under the control of the District Magistrate of each District. Each *taluka* also has a police lock-up which is in the charge of the Station House Officer of the police station; he is directly responsible to the Superintendent of Police of the District.

Suppression of Terrorist Activities (Special Courts) Act 1975

The Suppression of Terrorist Activities (Special Courts) Act of 1975 came originally in the form of an ordinance in 1974 and was designed to deal with offences under the Pakistan Penal Code (XLV of 1860) as mentioned in the Schedule, all offences punishable under the Explosive Substance Act, 1908 (XI of 1908), some offences as mentioned in the schedule under the Railways Act, 1890 (IX of 1890), Telegraph Act 1885 (XIII of 1885), the Aircraft Rules, 1937, the Defence of Pakistan Rules, and the Prevention of Anti-National Activities Act 1974 (VII of 1974).

The Special Courts were given powers to try offences listed in the Schedule. The Special Courts consist of a person who has been or is qualified for appointment as a judge of a High Court or has exercised the powers of Sessions (or Additional) Judge. Special Courts have the power of a Sessions Court under the Criminal Procedure Code and the power of the High Court to punish for its contempt. Appeals against a Special Court lie to the High Court. A notable feature of the Act is that the accused carries the burden of proof. He is presumed to be guilty unless he can prove otherwise.

Special Courts in Sindh were established during 1975 and onwards.

The District Administration continues to be alive to the law and order situation in the District. Preventive measures such as extensive night patrolling on highways, hauling up of notorious criminals, and raids on gangs of criminals are arranged and intensified from time to time. Dacoits have sanctuaries in the forests. During 1992, when an operation was launched in the interior of Sindh against dacoits, several dozen dacoits were either eliminated or fled to adjoining provinces; some of them even left the country.

POWER GENERATION

Sukkur Thermal Power Station

The Sukkur Thermal Power Plant is situated on the right bank of the mighty River Indus and at the eastern corner of Sukkur city. Tracing back the chain of circumstances leading to the Sukkur Thermal Power Project, we see that in 1951 the Sindh Government began to consider a central generating station of 15,000 KW in Sukkur to cater to energy needs within a radius of seventy miles. Since funds were not easily arrangeable, it was left to the West Pakistan Industrial Development Corporation (WPIDC) to grapple with the issue. They would cover the load demand for the tube-wells which were to be sunk in the area to counteract the growing menaces of salinity and waterlogging, as well as for the lift pumps for the canals which took their birth from the Lloyd Barrage and were unlined. WPIDC proposed the setting up of a 30 MW station, while works relating to transmission and distribution were to be carried out by the West Pakistan Electricity Department. Later, in 1959, with the creation of the Water and Power Development Authority (WAPDA), the whole project was handed over to this semi-governmental organization for implementation.

At the time, all the existing power available in the area was generated by out-dated diesel engines. This extremely expensive power was a drain on the foreign exchange resources of the country, because spare parts and fuel were imported, the power supply was not regular as the sets

were old and needed major repairs, and the units were small and expansion was limited. Power was therefore urgently needed to meet the growing demands of industry. Also, the effects of the 'White Menace'—waterlogging and salinity—had increased and huge tracts of land were being lost to the plough. To counteract these harmful effects power was needed to operate tube-wells which would bring down the rising water-table. Lift irrigation pumps along the Nara canal needed power to reclaim the land and help the farmers grow more food to meet the needs of a growing population. Thus there was an urgent need for a central power generating station of medium capacity and for transmission and distribution systems.

The Canadian government was approached for assistance. A feasibility report was submitted in 1960, the Canadians agreed to finance the project under the Colombo Plan, and site works were started at the end of 1961. Initially, two machines each with a 12,500 KW capacity were to be constructed. In 1963, the Canadian Government agreed to finance the installation of two additional and identical machines, bringing the total installed energy capacity to 50 MW. A network of lines was to be spread to carry electric power over an area with a radius of seventy miles around Sukkur. Thus power for domestic, industrial, and agricultural use was to be made available to the people in both urban and rural areas. The first phase of this project was commissioned in March 1965 and the second in April 1967. No expansion has been undertaken since, but the power supply remains adequate.

Grid stations in Sukkur District Megavolt-amperes (MVA)

Sukkur City	13+13 (for future loads)
Sukkur SITE	10
Sukkur Arain Road	13+13 (for future loads)
Rohri	13
Rohri Cement Factory	2

Pano Akil	13
Ghotki	13
Mirpur Mathelo	13
Khanpur Mahar	13
Dharki	13
Ubauro	13
	129+26 MVA = 155 MVA
	=124 MW
	(2% of Pakistan Load)

Village Electrification

The District Village Electrification Committee, under the chairmanship of the Deputy Commissioner, meets regularly to consider proposals from WAPDA and others for the electrification of villages. Criteria include size of population, proximity to HT lines, and availability of funds. Thus, in one year eleven villages were electrified, ten in another, while another hundred were in various stages of consideration. However, the frequent failures of the electricity supply mean that many people still sleep on the roof to take advantage of any breezes. On the other hand, in the cooler weather the old custom of gathering around a fire still prevails:

Sometimes we made our camps under natural rock arches or in the mouths of caves. But whether I had my tent pitched or not, it was our custom to gather for a *katchery* after dark, sitting round the men's fire and passing the huqqa, recited poems or sang songs.

Lambrick, *Sindh*

RECREATION

Sports Management

The Government of Sindh has run a Divisional Sports Cell at Sukkur since 1979 and has posted a permanent Assistant Director at Sukkur to arrange all-round sports activities in the Division. The budget of each association is separately sanctioned by the Sindh Sports Board. In addition to the above grants-in-aid, funds are also given to Associations from other sources such as the Commissioner, who is the chairman of the Divisional Sports Committee; the Deputy Commissioner, who is the chairman of the District Sports Committee; the Chairman/Administrator of the District Council, where one per cent of the budget is allocated for sports; the Municipal Corporation/Municipal Committee/Town Committee/Local Council. The Associations also collect funds from private organizations such as factories, businessmen, cigarette companies, etc.

The following sports associations are functioning in the District:

- | | |
|----------------------|---------------------|
| 1. Cricket | 2. Hockey |
| 3. Football | 4. Volleyball |
| 5. Shooting Ball | 6. <i>Kodi Kodi</i> |
| 7. <i>Malakhro</i> | 8. Athletics |
| 9. Judo | 10. Karate |
| 11. Cycling | 12. <i>Belharo</i> |
| 13. <i>Wanjhwati</i> | 14. Weightlifting |
| 15. Boxing | 16. Wrestling |
| 17. Swimming | 18. Table Tennis |

- | | |
|-------------------|---------------|
| 19. Squash | 20. Badminton |
| 21. Basketball | 22. Tennis |
| 23. Body-building | 24. Handball |

In addition to the above men's associations, women's events like Throw ball, Volleyball, Handball, Badminton, Table Tennis, Athletics, and Squash are also co-ordinated and organized under the auspices of the Directorate of Colleges, Schools, and Associations.

The girls of Sukkur have won Gold Medals in Badminton, Hockey, Athletics, Table Tennis, and Squash many times while the boys have won Gold Medals in *Kodi Kodi*, Athletics, Weightlifting, and Volleyball.

The popular games of Sukkur are *Kodi Kodi*, Judo, Karate, Hockey, *Malakhro*, Shooting Ball, Squash, Table Tennis, Badminton, Football, Cricket, and Athletics. Sukkur has very strong teams in all these games.

Sukkur has also had the honour of hosting the following sports events:

One-day International cricket match between the West Indies and the Sindh Governor's Eleven in November 1980 at the Jinnah Municipal Stadium;

29th National Hockey Championship in 1979;

15th Divisional Athletic Championship at the Pakistan Railway Ground, Sukkur, 1980;

31st National Hockey Championship, 1981;

All Sindh Badminton Championship in 1985;

All Sindh Governor's Gold Cup Football Tournament, a regular feature since 1963;

The National Hockey Championship in 1987;

The Sindh Games in 1993.

The following further activities are also continued throughout the year:

Inter Schools Tournament at District level;

Inter District Tournament (schools), Divisional level;

Intercollegiate Tournaments of Sukkur Board;

Intercollegiate Shah Latif University rounds;

Inter Club and Inter District Tournaments by various District and Divisional sports associations;

Inter *taluka*, District, and Divisional Tournaments by the Sindh Sports Board through the Assistant Director, Sports, Sukkur Division;

Coaching and training programmes by the Sindh Sports Board through the Assistant Director, Sports, Sukkur Division;

Exhibition matches of indigenous games like *Belharo*, *Kodi Kodi*, *Wanjhwati*, *Malakhro*, and other popular games from time to time both in and outside Sukkur.

Sindh Sports Board Players' Hostel at Sukkur

A players' hostel has been completed in front of the State Bank of Pakistan building. More than seventy players can be accommodated in the hostel at a time. It has been fully furnished.

Development of Playgrounds

The following playgrounds have been developed in Sukkur by the Sindh Sports Board:

Masjid Manzil Gah Ground; Nimaish Ground, Sukkur; Gangatti Ground, Rohri; Bin Qasim Sports Complex, Rohri; and the Badminton Hall, Rohri.

Physical Fitness School at Sukkur

This will be opened at the Jinnah Municipal Stadium shortly. All the equipment, exercise machines, etc., have been received from the Sindh Sports Board. This school will be very beneficial for the sportsmen. This will be the second such school in Sindh after Karachi.

Selection of Talent

The Sindh Sports Board is talent-spotting among the under-14-16 age group at District and Divisional level throughout the year in collaboration with District and Divisional associations. These talents are then reviewed at the Provincial level and form teams of the Sindh Sports Board. These teams are then entered for national-level competitions. In this way, the cream of talent is identified for further training.

Sports and Games

The favourite sport of the adult Muslim population of Sukkur is *malakhro* (wrestling). *Malakhro* matches are held on holidays and Fridays and are a feature of all fairs. Rich feudal lords and influentials maintain famous *malhs* (wrestlers) and organize matches for them.

The next place among the region's most favourite forms of amusement may be given to cock, partridge, and quail-fighting. Grand cocks are bred in Sindh and they are the most obstinate fighters among the fighting birds. Grey partridge are caught young and become wonderfully tame. If they turn out to be prize fighters, they are worth much money. An added attraction of bird-fights is the (illegal) gambling which is keenly followed.

Other popular pastimes include *bilharo*, a game similar to prisoner's base, and *itidakar*. At the appropriate season, young and old yield to the seductive pleasures of kite-flying. Horse-racing is very popular. The annual races at the horse shows of Jacobabad and Shikarpur are attended by excited crowds. They also arrange sweep-stakes and other gambling among themselves. So also with camel-racing, which has recently become a favourite game, especially at the time of annual fairs. Some people enjoy donkey races also.

Other games which are common among the young generation are *kodi kodi*, *wanjhwati*, *khenhooro*, chess, *dharo*, *chowpar*, card-playing, *chalhar*, tug of war, musical chairs, marble and spoon, three-legged sack race, blind man's buff, high jump, long jump, running races, pillow-fighting, picking a pie, *julebi*-picking, thread and needle, quick dress, and break the jar. A brief description of some of the less familiar of these follows:

Bilharo

The playing-field is 60 ft. long and 30 wide. At the end, two circles of 5 ft. are marked. Two players play at one time, standing in the circle. In all, ten players take part in the game. One player will attack the player who is standing in the circle and will try to catch him. The other player will defend himself. If he is caught the other player is declared successful. At the end, the first player (attacker) will occupy the second circle and the other player will occupy the first circle. The referee will be standing by all along to watch that no irregularity takes place.

Itidakar

For two teams of four to eight players. Equipment required: an *iti*, a piece of wood pointed at both ends, half an inch wide and up to one inch long; a *dakar*, a wooden board two to two-and-a-half feet wide. The winner of the toss to determine who starts may take his turn first or later. The *iti* is thrown at the *dakar*; if the thrower misses, or if the *iti* is caught by a member of the opposite team, his turn is forfeit. In another version, a player from each team throws the *iti*, the distances are measured, and the side with the longest throws wins.

Wanjhwati

The playing-field is 67 ft. long and 24 ft. wide and is marked with six *daris* or *baris*, each 24 ft. long and 2 ft. wide and set 11 ft. apart. In the middle of each *dari* is the *wanjh*, 2 ft. wide. The tournament lasts one hour. There are six players, each of whom in turn tries to run the length of the field without being touched by any of the others while on the *daris*; two referees supervise proceedings.

Wanjhwati is a traditional sport and cultural heritage of rural Sindh. The life of villagers is very simple and they derive a great deal of enjoyment from playing *Wanjhwati*, particularly because there are no expenses involved.

Khenhooro

A kind of handball. The *kheno* (ball) is made of cotton twisted round a betel nut and covered with leather; there are seven players on each side. The game starts with a toss. At a distance of fifty yards, the place is marked which is considered the winning point. Even the ladies do not disdain to display their grace and agility when using the *kheno*, hence it has merited frequent mention in the love poetry of the country.

Kodi Kodi

This game is played in villages. Two posts (known as *palas*) are made with pieces of red cloth in the middle of the playing field at a distance of 25-30 yards on each side of the *palas*. A player of one team attacks players of the other team by passing through the *palas*. During the attack, he utters the word *Kodi-Kodi* continuously while holding his breath. The condition is that the attacker has to touch any one of the players of the opposing team and come back during his one prolonged breath. Thus he scores one point

for his team. If he is caught or takes a breath, the other team scores a point. The team which scores the higher number of points is the winner.

Dhara or Dice

These are four-sided pieces of ivory, about two inches long and one-third of an inch in diameter. These sides are marked with an ace (*pan*), a deuce (*duo*), a cinque (*panjo*), and a sice (*chakko*). A set of three dice is generally used, and when not combined with any other game, playing with these is called *jua*. No skill is required. When the bets are arranged, both parties throw the dice and the highest number wins. Hindus are fond of this kind of play, but good Muslims avoid it as in their religion, it is considered the worst species of gambling.

Chalhar

A board game. The board is divided into twenty-one squares and each player has four men (*saryuan* or *gitiyun*) and the same number of cowrie shells. The latter are used like dice at backgammon to decide the number of squares to be moved—the cowries are thrown, and the numbers that land slit-side uppermost determine the number of moves.

The game may be played by either two or four people; the winner is the first to reach the centre square. Whenever a piece is in a crossed *ghar* (square), it cannot be taken by the opponent.

Tug of War

‘Everything is fair in love and war’ is an old dictum. There are twenty-two players in the game, in two teams. The rope is twelve inches thick, and at the centre of the rope

there is a red cloth which is considered the boundary line.

All sports have the same objectives—recreation and harmonious development of the individual. Different sports were introduced at different times, and all have their own peculiarity and individuality. The tug of war develops strong physique, determination, and a sense of responsibility. It does not require any costly costumes or equipment. Each team pulls the rope with full force. The team which succeeds in pulling the red cloth to its side is declared the winner. It is quite a thrilling game, and is famous throughout the world. Very recently, there was a tug in Taipei where the arm of one player was detached from his body after the rope unexpectedly broke. Some eight hundred people took part in the game, including the mayor of Taipei.

Pillow Fighting

Two players sit on a thick wooden stick which is fixed on wooden pillars erected for the purpose. The players hold pillows in one hand and fight each other with the other hand. When one player loses his balance and falls, he loses the game.

Julebi Picking

In this game, the players stand in a line with their arms tied behind their backs. *Julebis*—a kind of sweetmeat—are hung from a pole above their heads. The winner is the first person to catch a *julebi* in his mouth.

Thread and Needle

A needle and thread are provided to each participant. The first player to successfully thread the needle is the winner.

Hunting

In the past, all Balochis were passionately devoted to field sports, and in the days of the Mirs the *shikargahs*, or game preserves, which occupied the banks of the Indus from Sehwan to Thatta, were places of inviolable sanctity. The hunter was seated in his shooting box opposite a gap in a hedge. Through this gap a close-packed herd of hog-deer (*Axis porcinus*) was driven to be slaughtered at close quarters amid acclamations of victory. Duck and water fowl were shot in the same way.

Nowadays hunting is still popular, although the stock is decreasing.

The Indus and its tributaries constitute the 'Green Route' for migratory birds coming from the cold regions of Russia in winter to the more hospitable land of Sindh. Exceptionally rich wetlands are found in Sindh, and several hundreds of thousands of ducks and coots spend their winter on these lakes. The migratory waterfowl visiting Sindh follow Flyway No. 4. The hunters are able to shoot because the wetlands are not protected under the Sindh Wildlife Protection Amendment Act, 1993.

The Houbara Bustard (*Chlamydotis undulata*) migrates in winter to the arid zone of Pakistan. It has become a favourite quarry of hunting expeditions from Arab countries. For the Arab nobility, falconry has been a favourite sport for many hundreds of years, and the traditional quarry is the houbara. In former times, it was a relatively common bird in the Arabian deserts, and about as big a target as their Saker falcons (*Falco cherrug*) were prepared to tackle. Although the houbara rarely escapes death, the battle between the two birds is considered a great spectacle, and houbara flesh is thought to be quite savoury. In the past, falconry was practised as a leisurely art, the *shikaris* (hunters) tracking the bustard by horse or camel, and only two or three hawks were flown. However, with the advent of oil wealth these

traditional methods quickly gave way to highly mechanized expeditions, and much of the endemic game of the Gulf was rapidly exhausted. Since 1968, the number of houbara to be found in Pakistan has declined noticeably, 'by no coincidence the year when large scale hunting by Arab visitors to Pakistan was started...' (T.J. Roberts, 1991, p. 275.)

EMINENT PEOPLE

Short biographies of some of the eminent personalities who played an important role in the making of Sukkur are given below.

Mian Mahmood Abdul Rehman

Born in Anjar city of Kutch state in 1811, Mian Mahmood Abdul Rehman was a Kutchi Memon whose relatives were in military service in Sindh during the rule of the Talpurs. He came to Sindh and settled in Sukkur in 1839. He was appointed as a clerk in the Revenue Department under British rule and rose to the post of Assistant Settlement Officer, Sindh. He was a poet and a Persian scholar. His collection of Sindhi *kaifies* (poetry) was published by his eldest son, Khan Bahadur Pir Bux, in 1898. Mian Mahmood died in 1875.

Shaikh Muhammad Suleman

Shaikh Muhammad Suleman was born in Karachi, probably around 1860, to a recent convert to Islam named Shaikh Jan Muhammad. He was educated in Karachi and joined the Postal Department for a while. He then went to Iran, where he worked as a Persian-English translator. After a few years of working in Iran, he returned to Karachi and joined the railways as a clerk, but was then transferred to

Sukkur as a store-keeper. He left the service and purchased a printing press. With the help and advice of Sardar Muhammad Yakoob Khan, then a colonization officer, he started publishing the newspaper *Al-Haq* from Sukkur, and another newspaper, *Balochistan Gazette*, from his branch office at Quetta, in 1890. He did valuable service to the people of Sukkur during the great plague of 1895, arranging coffins and burials for the victims and supporting the distressed survivors. He became the secretary of the Anjuman-e-Islam, Sukkur. He was one of the founders of the District boarding house, the vernacular school, and the Sukkur Eid Gah. He died in 1908.

Khan Bahadur Khudadad Khan

Born in 1838 at Old Sukkur, he was a Tareen Afghan whose family had been settled in Old Sukkur for many generations. He received his primary education at the *maktab* of Shah Khairuddin's Mosque in Old Sukkur. At the age of fifteen he entered government service as a junior *munshi*, and by dint of hard labour and intelligence he rose to the high position of *Mir Munshi* (head clerk) of the Commissioner in Sindh and was put in charge of the administration of the Political and Jagir Department. The British government, in recognition of his meritorious service, conferred the title of Khan Bahadur on him and granted him 300 acres of land as a third-class *jagir* for two generations. After his retirement, he served the town as a member of the Municipal Board and as an honorary special magistrate. He compiled several monographs in Sindhi: *Makran Nameh* (1862); *Khalij Nameh* (1866); *Makli Namah* (1866); *Waq'a'i Sair-e-Jesalmir* (1867); *An Account of Historical Places* (1869); *Pul Nameh* (1886); *Sahayet Nameh* (1892); *Khairpur Nameh* (1894). He also had a good command of Arabic, Balochi, Pashto, Urdu, and Persian—his *Lub-e-Tarikh-e-Sindh*, written in Persian, gives an

account of events during the first fifty years of British rule in Sindh, and a brief account of Sindh since the days of the conquest of Sindh by the Arabs until the advent of British rule was published by the Sindh Adabi Board in 1959. He died in 1902.

Pir Ghous Ali Shah

Pir Ghous Ali Shah was born in 1824. His ancestors belonged to a branch of Jilani Syeds who had come from Baghdad, settled in the Punjab, migrated to Sindh, and finally settled in Sukkur. Pir Ghous Ali Shah was an important public worker. He was the president of Anjuman-e-Islam, the only Muslim organization in Sukkur. He was a municipal councillor for thirty-three years, and was much loved by all the citizens irrespective of their caste and creed. He erected a *serai* for travellers near his residence which is remembered as Pir Ghous Ali Shah's *musafirkhana* (traveller's lodge). In recognition of his services as a public man, the municipality named its hospital the Pir Ghous Ali Shah Dispensary. He died in 1905.

Khan Bahadur Pir Bux

Born in 1854, Pir Bux started his career as a clerk. Through hard and honest labour he rose to the coveted post of Deputy Collector, from which he retired in 1906. He was nominated as a member of the Legislative Council of Bombay for two terms, from 1914 to 1918. He was elected president of the Sukkur Municipality and of the Sukkur Local Board in 1914. He served in both these positions simultaneously for nine years. He was president of the Anjuman-e-Islam, and was one of the founders of the District *madrassah* and of the Eid Gah. The British government, recognizing his honest, sincere, and meritorious services, conferred on him the titles of Khan

Bahadur and Companion of the Indian Empire and also granted him agricultural land which is still being maintained by his sons. He was a poet, and a Persian scholar like his father, Mahmood Mian Munshi. He died in 1935, respected by Hindus and Muslims alike.

Master Habibullah, son of Mullah Abdullah Shaikh of Bakhar

Born in 1862, Habibullah was a fourth-generation descendant of a Hindu convert to Islam from Bukkur who had held a petty position under the Kalhora government. Habibullah received elementary education in Persian and Arabic in the *maktab* of Shah Khairuddin's Mosque, then joined the government primary school at New Sukkur. He later became a pupil of Maulvi Abdul Rehman, a saint and great scholar of his time. He served the town as teacher and headmaster of the principal government school, performed meritorious services at the time of the great plague of 1895, assisting Shaikh Muhammad Suleman, and worked closely with the latter in organizing the *Al-Haq* paper, the Sukkur *madrassah* scheme, and the Eid Gah, notably as a fundraiser—he remained its *mutawali* (manager of the *madrassah* and promoter of learning) from the very beginning till his death in 1937. He was also a member of the Madrasah Board, succeeding Khan Bahadur Pir Bux as member of the Managing Committee on the latter's death in 1935 and serving as an honorary auditor of the Board. He also served as a member of the local Municipality for twelve years, and remained the chairman of the primary school Board for a considerable time. He led the delegation from Sukkur District to the All-India Education Conference held at Khairpur in 1919. He visited almost all the shrines of the great saints and Sufis of India and finally, not long before his death, he performed a pilgrimage to Mecca. He was greatly respected for his scholarship and simple life.

Mian Abdul Rehman Pirzada

Born in 1860 at Old Sukkur, Pirzada belonged to an old family which traced its descent from Mian Jamaluddin, a companion and follower of Shah Khairuddin (see, Chap. 15). Mian Abdul Rehman had his elementary education in the *maktab* attached to Khanqah mosque, went on to the primary school of Old Sukkur, then attended the illustrious *madrassah* of Maulvi Abdul Rehman in Sukkur. He was a social worker who served the town in many capacities. He was a long-serving member of the Anjuman-e-Islam and a founding member of both the Madrassah Board and the Eid Gah, serving as secretary of the Madrassah Board for several years. He was a member of the Local Municipality and was its vice-president for two terms from 1922. As an elderly man he was highly respected by both the Hindus and Muslims of Old Sukkur. He was a man of great courage, and it was due to his presence of mind that he was able to pacify the Hindus and Muslims of Old Sukkur and its surroundings in the time of the two great communal riots of 1892 and 1930. He died in 1942.

Mian Rasul Bux

Mian Bux was born in 1883, the eldest son of Khan Bahadur Pir Bux (see above). He joined the revenue administration in 1904 as a clerk, rising to the post of Deputy Collector. He became a municipal councillor and was elected leader of the Muslim bloc. A staunch Muslim Leaguer, he was president of the city's Muslim League for several years. He vehemently opposed the Government decision in favour of joint electorates for the Local Bodies in 1941, and convinced most of the Muslim candidates to withdraw their candidature—due to the non-cooperation of the majority of Muslims, the Government had to fill eight out of the twelve vacant Muslim seats by nomination.

He remained a member of the Municipal Committee but was always opposed by a Hindu majority, which once engineered his disqualification. He died in 1947.

Abdul Hamid Khan

Abdul Hamid Khan was the last of the old band of Muslim workers who played an important role in the life of the town, dedicating himself to the Muslim cause. He was the younger son of Khan Bahadur Khudadad Khan (*see above*). He received his early education in the historic Hasht Gumbat School in Old Sukkur, and started his secondary education in the Mission School of Karachi. In 1903 he went to England, to St. Paul's School, and later to Downing College. Thereafter he sought membership in the Middle Temple, but could not complete his education in Law because of some personal affairs in Sukkur which compelled him to return in 1912. He started his public life as a member of the Municipal Committee of Sukkur and held various offices at different times under the municipal administration, serving as vice-president or chairman of several committees—during his tenure as chairman of the Sanitation and Health Committee, he opened three dispensaries. He also held the office of vice-president of the District Local Board for several years. He played a significant part in every development project of the town. In 1924 he became a member of the Central Legislative Assembly, representing the entire Sindh region. He was a founding member of the Red Cross Society and the Boy Scout Association, was one of the promoters of the Co-operative Society, and became the first chairman of Provincial Co-operative Bank, Sukkur, in 1936. He also served as chairman of the magistrates' bench for twelve years. He was respected by all the people of Sukkur and was famous throughout Sindh for his hospitality. He died on 11 December 1960.

Bachal Shah Miani

The shrine of Bachal Shah Miani is located on the western side of Sukkur Barrage. Syed Bachal Shah was born in village Munjhu, Unarpur, District Dadu, in 1807. He was a great saint, a Sufi and a *selani* (travelling) *fakir*, who, in the course of his travels, came to Sukkur and decided to settle. He died at the age of a hundred in 1906 and was buried in Bachal Shah Miani, which is named after him. Every year a *mela* (fair) is organized on his death anniversary.

Pir Hafiz Muhammad Siddique

The shrine of Bharchundi Sharif is situated some three km. north-west of Dharki, *taluka* Ubauro. During the Jihad Movement (1828), two famous religious leaders, Syed Ahmed Shah Brelvi and Shah Ismail Shahid, visited the shrine to seek guidance from the Pir while *en route* for Balakot, north of Abbotabad, to wage *jihad* against the Sikhs, and it also figured prominently in the Freedom Movement (1916 onwards), when Pir Hafiz Muhammad Siddique, a noted scholar and saint, made it a great seat of learning. Maulana Ubaidullah Sindhi (*see below*) embraced Islam there under the guidance of Pir Hafiz.

The disciples of *Dargah* Bharchundi Sharif are spread throughout the Districts of Sukkur, Jacobabad, Rahimyar Khan, and some areas of Balochistan. Pir Hafiz Muhammad Siddique never married, choosing to remain a bachelor. After his death in 1925 he was succeeded as *sajjadah nashin* (leader) of the *Dargah* by Pir Abdul Rahim who died in 1960.

Maulana Taj Muhammad Amroti

Hazrat Maulana Taj Muhammad Amroti was born in village Diawani, *taluka* Rohri, District Sukkur (now District Khairpur). According to one authority, the Maulana was born on 28 Ziq'a'd, AH 1260 (22 March 1841), while others say that he was born in AH 1276 (AD 1859). His father, Syed Abdul Kadir Shah, was a great and pious man. The Maulana gave his *bait* (oath of allegiance) to Hazrat Maulana Muhammad Siddique of Bharchundi Sharif (*see above*) and remained with him for about forty days. He was then directed to proceed to Amrote Sharif, *taluka* Garhiyasin, to make a positive contribution towards the spread of Islam. While staying at Bharchundi Sharif, he met Maulana Ubaidullah Sindhi (*see below*). He took an active part in the Home Rule Movement of 1916, the Khilafat Movement, the Hijrat Movement, the disobedience campaign, and the *Reshmi Roomal* (Silk Handkerchief) Movement, between 1916 and 1920.

Hazrat Amroti was a great poet. He also translated the Holy Koran into Sindhi; this was first published in three volumes by the Al-Haq Press in AH 1312 (AD 1890), and subsequently reprinted many times. When Sukkur Barrage was being constructed, many mosques were demolished, but thanks to the untiring efforts of Maulana Amroti, some mosques were saved from demolition and still stand today. He opened a *Darul Uloom* (seat of learning) in his village for Islamic education. Maulana Ubaidullah Sindhi taught there for seven years, and Maulana Hamadullah of Haleji Sharif and Maulana Ahmed Ali Lahori also worked there. Maulana Amroti at one time went to Deoband, where he met *Shaikh-ul-Hind* Maulana Mahmoodul Hassan, rector of *Darul Uloom*, Deoband, who later came to Amrote Sharif. Maulana Amroti also established the Mahmood-ul-Tabai Press in Amrote Sharif under the supervision of Maulana Ubaidullah Sindhi, and published a monthly magazine, *Hidayatul Akhwan*. There is an Amrote Colony named after him, situated on the

northern side of Sukkur near the railway line (*see above*, p.139). The Maulana died on 3 Jamad-ul-Sani, AH 1348 (5 November 1929), may God rest his soul in peace and eternity.

Maulana Ubaidullah Sindhi

Maulana Ubaidullah Sindhi was born on 10 March 1872 in village Chianwali, District Sialkot, to a Sikh family. His father's name was Ramsingh. Maulana Sindhi embraced Islam in 1887 with the help of Hafiz Muhammad Siddique of Bharchundi Sharif (*see above*). Afterwards he went to the *Darul Uloom* in Deoband, where he passed the *Fazil-i-Deoband* (graduation) examination. In 1899, Maulana Sindhi presented himself before Haji Imdadullah Shah Muhajir Makki in Mecca to acquire *faiz* (spiritual guidance) from him. Maulana Sindhi also performed Haj in that year. Later on the Maulana became a disciple of Maulana Taj Muhammad Amroti (*see above*). During the *Reshmi Roomal* Movement, the British government arrested him along with *Shaikh-ul-Hind* Maulana Mahmoodul Hassan, Rector of *Darul Uloom*, Deoband. In 1925 Maulana Sindhi went to Kabul, where he stayed until December 1937. In January 1938 he met Allama Dr Muhammad Iqbal in Lahore. He delivered his famous speech against the British on 17 April 1944, in the Pucca Fort of Hyderabad. Maulana Sindhi died on 22 August 1944 and was laid to rest in village Deenpur. May God rest his soul in peace and eternity. Amen.

Qazi Qadan (Qazan)

Qazi Qadan was a Sindhi poet and a scholar of Persian and Arabic. His ancestors were residents of Thatta and Sehwan, but his grandfather settled in Bukkur. He was born in AH 870 (AD 1463) according to Dr Nabi Bux Baloch's *Sindhi*



25. Stadium and Player's Hostel at Sukkur.



26. The favourite sport of the adult: *Malakhro*.



27. The Minaret of Mir Masoom.



28. The Masjid Manzilgah, built by Mir Masoom as a rest house and place of prayer.



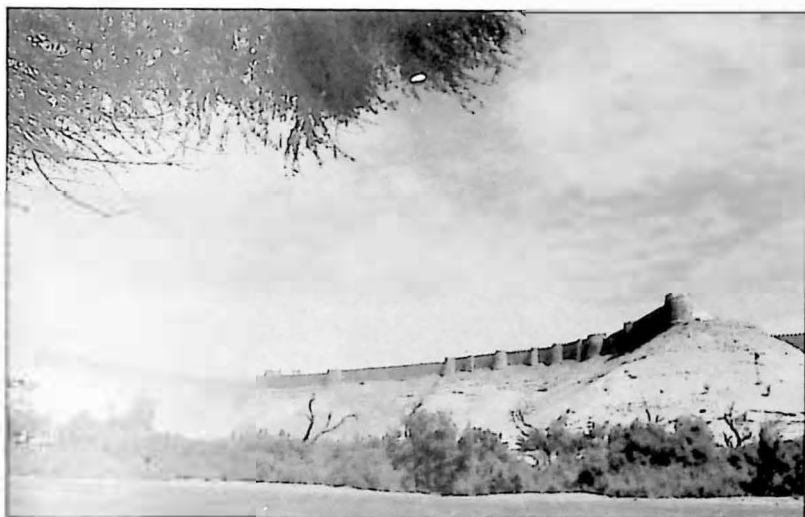
29. Jamia Mosque, Bunder Road.



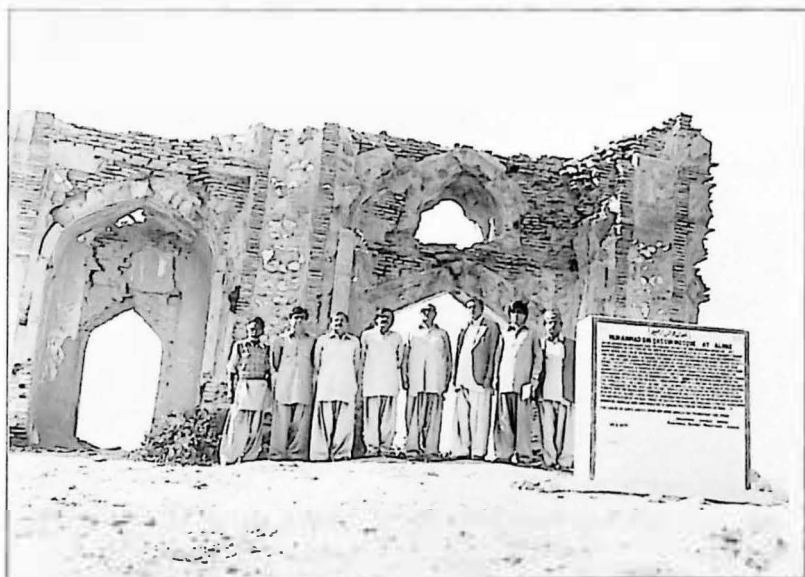
30. Gulshan Eidgah, Sukkur.



31. The shrine of Satyan-jo-Asthan; the seat of the seven virgins.



32. The Sukkur Fort Wall.



33. Muhammad Bin Qasim Mosque at Alore.



34. The island of Sat with its two inlets, Sadh Bela and Din Bela.

A



35. A, B, C, & D
A closer look at the
beautiful designs and
architectural works
in Sadh Bela.



B

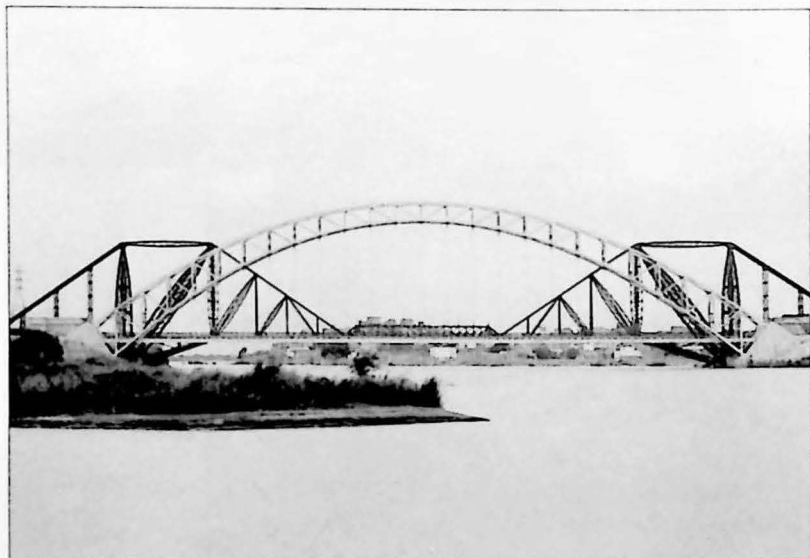
C



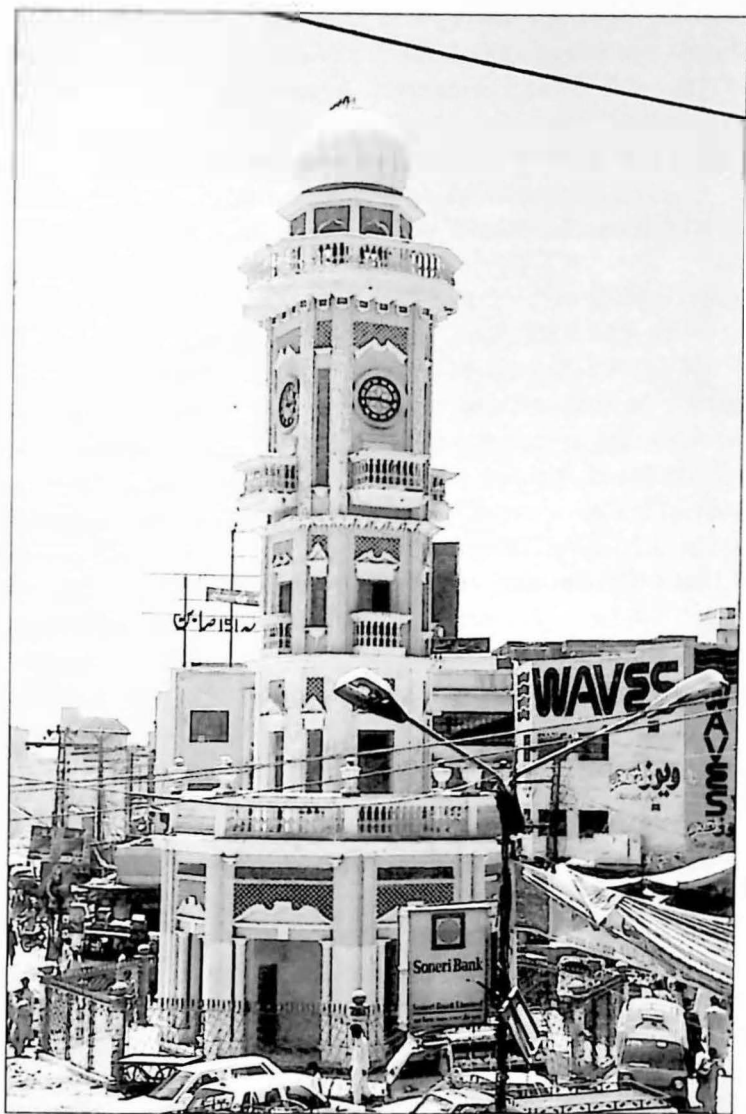
D



36. The outer main gate of Mathelo Fort in *taluka* Ghotki.



37. The old Landsdowne bridge, now known as the Ayub Bridge with its newly constructed artifices.



38. The Ghanta Ghar of Sukkur.

Boli-ji-Mukhtasar Tarikh ('A Short History of Sindhi Language'); he died, according to Mir Mosum, in AH 985 (AD 1551). He was well-educated, knew the Holy Koran by heart, and was versed in the *Hadith* (sayings of the Prophet [PBUH]). He had visited Harmain Sharif (Mecca) and was celebrated for *riyat* (penance and mortification) and *tasawwaf* (Sufi knowledge). He lived through the reigns of four Sama and Arghun rulers:

Jam Nizamuddin (a.k.a. Jam Nida) AH 846-914 (AD 1461-1508/9)

Jam Feroze AH 914-27 (AD 1508/9-19)

Shah Beg Arghun AH 927-8 (AD 1520-1)

Shah Hussain Arghun AH 928-62 (AD 1522-55)

He was Chief Judge of Bukkur in the days of all these rulers. In the last days of his life, he resigned from the post and delegated his responsibilities to his brother, Qazi Nasrullah. According to *Tarikh Masoomi* and *Tuhfa-tul-Karam*, Qazi Sahib became a follower of Syed Muhammad Mahadi, son of Mir Abdullah Khan Jonpuri, who laid the foundation of the Mahadevi Movement.

Again according to *Tuhfa-tul-Karam*, Qazi Sahib had one daughter, Bibi Fatima. She was the mother of Shaikh Mir Muhammad (Mian Mir), the celebrated saint, who was a *murshid* of Emperor Dara Shikoh. She had performed Haj and was *Hafiza-i-Koran*. She was able to recite the entire Holy Koran in a single day. She lived in Thatta and was buried in the great graveyard at Makli. She was known as Rabia during her lifetime.

Qazi Qadan is a major poet who laid the foundation of Sindhi poetry. He was followed by Shah Abdul Karim Bulri, the great-grandfather of our celebrated poet, Shah Abdul Latif Bhittai, the 'King of Melody'. When Qazi Qadan died, Shah Karim was about fourteen years of age and used to recite his poems frequently. Allama Umar Bin Muhammad Daudpota was the first person to try to collect the poems of Qazi Qadan; after great labour, he collected seven. All seven are published in *Bayan-ul-Arfin*, and have been reproduced

in *Qazi Qadan-jo-Kalam* by Hiro Jethalal Tharkar (Puja Publications, Lawrence Road, Delhi, August 1978).

Diwan Bhoj Singh Pahlajani

He was born in 1872. He started his career as a teacher, but after some time he took to the legal profession. He was elected as a member of the Legislative Council of Bombay and became its Deputy Speaker. He became the first elected president of Sukkur Municipality in 1891 and, after the separation of Sindh from the Bombay Presidency, Diwan Bhoj Singh was elected the first Speaker of the Sindh Legislative Assembly in 1937. He remained as Honorary Secretary of the General Public Library Sukkur for thirty-three years. A primary school named after him was opened in Barrage Colony, Sukkur, in 1928. He died in 1938.

Mukhi Dewandas

1858-1922. He was a member of the Municipality for thirty years. His honesty and service to the community were acknowledged by the Municipality and a primary school in Old Sukkur was named after him.

Master Harisingh Dengomal

Born 1857. He was headmaster of a primary school but left the service and became president of the Arya Samaj Movement, which was founded in Sukkur in 1888 to safeguard the interests of the Hindu community. He established a publishing house in Sukkur which was the first of its kind in the Sindh region. His bookstall, situated in Shah Bazaar, Sukkur, was of considerable fame and continued functioning even after his death in 1917.

Bhagat Verumal Begraj

Born 1874. He started his career as the proprietor of a printing press. He published a paper named *Sindh* and also published books. He underwent imprisonment for three years under the Press Act. He became one of the important figures of the Congress Movement in Sindh, and in 1922 was again imprisoned for two years due to his political activities. He left the Congress Party in 1927 and joined the Hindu Maha Sabha, soon becoming President of the Sindh Hindu Maha Sabha. He remained a member of Sukkur Municipality for seventeen years. He died in 1957.

Rai Sahib Pesumal Zounkiram

Initially a teacher, he later switched to the legal profession. He became a member of Sukkur Municipality at the age of twenty-two, and was its vice-president from 1888 until his death in 1911. It was due to his efforts that the Municipality was given the right to elect its own president. His work with Shri Gomaldas in social welfare was acknowledged when the Municipality constructed a park named after him on Bunder Road. The title of Rai Sahib was conferred on him by the Government in recognition of his services.

Mukhi Naroomal

Born in 1860, he originally came from Khairpur Mirs. He was a timber merchant who became *Mukhi* of Gharibabad. He was a member of Sukkur Municipality for several years. The Municipality named the main primary school after him. He died in 1917.

ANTIQUITIES

The first Archaeological Department in Sindh was set up in 1870, and was entrusted to Sir Alexander Cunningham, author of many books about the geography of India, who was appointed by Lord Curzon as Director-General of all historical monuments before the Ancient Monuments Preservation Act was passed in 1904.

The present author tried to visit all the historical monuments of Sukkur District during his tenure as Additional Deputy Commissioner, Sukkur, and has set up commemorative stones at many of them. Each monument and historical place is listed below; descriptions follow.

<i>Taluka</i>	<i>Site</i>
Sukkur	The minaret of Mir Masoom
	The tomb of Mir Abdul Baqi Purani
	The Masjid Manzilgah and the Hasht Pahlū building
	The tomb of Syed Khairuddin Shah
	The tomb of Adam Shah
Rohri	The <i>War Mubarak</i> (The Hair of the Holy Prophet [PBUH])
	Historical mosques at Rohri
	<i>Satyan-jo-Asthan</i>
	Sadh Bela
	Bukkur
	Khawaja Khizr Zinda (Jind) Pir
	Alore
	Mohammad Bin Qasim Mosque at Alore

Aurangzeb Alamgir's Mosque at Alore
 An inscribed stone of Mir Muhammad Masoom
 Hakra: a description of the ancient site
 The Lost River of the Indian Desert
 Palaeolithic sites in the Rohri Hills
 Qadir Bakhsh-jo-Quba
 Landsdowne Bridge

Ghotki Mathelo
 Ubauro The ruined site of Vinjrot

The Minaret of Mir Masoom

The most conspicuous object of antiquarian interest in Sukkur is the minaret of Syed Nizamuddin Muhammad Masoom, the celebrated author of *Tarikh-i-Masoomi*. He was born on Monday, 7 Ramzan, AD 1538. His father, Syed Safai bin Syed Murtaza, belonged to a family of Syeds of Tirmiz who had settled in Kandhar. Mir Muhammad Masoom was appointed Nawab of Sukkur by Emperor Akbar and was given large *jagirs* in the surrounding countryside. The minaret is said to have been commenced by Mir Masoom in AH 1003 (AD 1594) and completed by his son, Mir Buzurg Munawar, in AH 1027 (AD 1618). It is 84 feet in circumference at the base and about 100 feet high. Between Mir Masoom's grave and the base of the minaret is a domed, octagonal building called Faiz Mahal—apparently intended as a rest-house—built in AH 1004. It is 17 feet wide and 50 feet high. Near the minaret, the tombs of the holy man, his father, family, and disciples lie under canopies, resting on fantastic stone pillars covered with Persian writings.

There are several other buildings associated with the name of Mir Masoom. There is a mosque, the Masjid Manzilgah (see *below*), and a rest-house (AH 1006-7) on the bank of the river below the new reservoir. The Jahaz Nima Mosque was constructed in AH 1007, and traces of

it may be found just opposite Sukkur Municipal Water Works near the Sukkur-Rohri railway line. A minaret called Sitasar, or Satyasar, was built in AH 1007 but is no longer visible. It is said that it was constructed in the river-bed and so, with the passage of time, was eroded away. The Hasht Pahlū, an eight-domed structure, surrounded by seven wells, is to be found near the District Jail. An Eidgah was built on the hill to the south-west of Rohri in AH 1002 which is still in good condition, and an inscription stone was set up in the bed of the River Indus at Arore in AH 1008 (*see below*).

The Tomb of Mir Abdul Baqi Purani, Ex-Governor of Bukkur

Amir Mirak Shah Ba Yazid Hussain, a native of Purani in Hirat, came to Sindh in AH 928 (AD 1521) with Mirza Shah Hussain Babar. He was appointed Governor of Bukkur, but after some time he left the post to his son and went to Kandhar, where he died. His son was the Saiyid Abdul Baqi Purani whose tomb is located on the plain south-west of the Collector's bungalow. An inscription upon it runs as follows:

میر عبدالباقي پوراني آن قطبي که بود
 قدوه آل رسول و زیده خاص الہ
 سال فوتش شيخ قاضي شاه محمد زد رقم
 داد جان را مير عبدالباقي پوراني آ.

Mir Abdul Baqi Purani, the Qutb, who was the Chief of the descendants of the Prophet, the cream of the chosen people of God. Shaikh Qazi Shah Muhammad composed the chronogram of his death. Alas, Mir Abdul Baqi Purani gave his life on the 3rd of the month of Ramzan, night of Saturday AH 1019 (AD 1610).

To quote Henry Cousens, close beside the tomb to the west, the intervening space being crowded with graves, are the walls of two ruined buildings, probably both mosques, upon which still remain large areas of coloured tilework in designs and combinations of tints very different in their treatment to what is found in other parts of Sindh. What makes this difference is the free use of plain, unglazed brick or terracotta surfaces, alternating with the coloured tile work, and this produces a soft, subdued tone to the whole which is distinctly pleasing. The tilework around the door of the shrine of Khawaja Khizr (*see below*) was of the same style, so was probably of about the same date, namely AH 1019 (AD 1610).

To the south of the tomb is the *dargah* (shrine) of Syed Amir Muhammad Maki, who came to Sindh in the year AD 1260 and settled first at Bukkur and then later moved to Rohri. The Razvi Syeds trace their descent from him. Syed Muhammad Maki gave Bukkur its name ('Dawn') some years after its foundation.

Masjid Manzilgah and Hasht Pahlu

This is situated on the bank of the River Indus, below the new reservoir and just opposite Sadh Bela (*see below*). There are two buildings, one an octagonal domed structure, and the other a mosque. These were built by Mir Masoom as a rest house and a place of prayer. Lest the rest house be appropriated by anyone as a convenient mausoleum, he invokes, in an inscription dated AH 1007 (AD 1598), the curse of God's wrath upon him who should bury a body within it:

۱ - در زمان خلافت بادشاه امیر شهنشاه معظم جلال الدین محمد

اکبر بادشاه غازی خلد الله ملک

۲ - بنا نمود، ابن عمارت خیر امیر معصوم نامی بکری بن سید

صفائی ترمذی از برای نفع

۳ - عامه مسلمانان. هر که درین بنا مقبره سازد لعنت خدا و پیغمبران

و ملائکه و مومنان برویاد

۱۰۰۷هـ

The *masjid* has an inscription dated AH 1006 which refers to a pleasure house and the Garden of Iram:

- ۱ - خوشا منزلي باغ رضوان رقم
 که جان را دهد فیض باغ ارم
 ۲ - بتاریخ ابن جاي عشرت سرشت زهي جاي عشرت - رقم زد قلم
 في شهر ۱۰۰۶هـ

It is possible that these two building were erected within a garden set aside for pleasure and recreation—Henry Cousens says in *The Antiquities of Sindh* that there was a garden associated with the buildings. Furthermore, Pir Ali Muhammad Rashdi, while conducting research, came across a sale deed which was in the possession of the descendants of Mir Masoom. From the deed it appears that the garden was purchased by Syed Mir Masoom and his son Mir Buzurg on 9 Jamadi-us-Sani AH 1005 from the heirs of one Fakharuddin Kazi for one hundred *Tinka*. According to the deed, the boundaries of the garden were as under:

- East: Garden and *Sarai Isharat* of Mir Masoom
 West: Land belonging to Saadat Sultan Begum d/o
 Mir Yar Hussain Jalyar.
 North: Road
 South: River

The deed bore the seal and signature of Kazi Ali bin Ismail.

After the conquest, the British Government opened an embassy in the building. In the late 1920s, the Muslim community expressed an interest in renewing the use of the old mosque, but this was opposed by the Hindu community because of its proximity to one of their temples; the resultant tensions ultimately led to communal riots in 1939, culminating in the murder of a leading Hindu citizen and the forcible occupation of the mosque by the Government.

According to resolution No.207/36-(H(S)/41 dated 22 February 1947 of the Home Department, Government of Sindh, the Manzilgah building and small enclosed space were to be managed by a Board of Management consisting of seven members. In 1962, the management and maintenance were taken over by the Chief Administrator of Auqaf, West Pakistan*. The mosque and octagonal structure are located in C.S. Number 535/2 admeasuring 630.06 sq. yards and the ground is located in C.S. Number 535/1 admeasuring 17,723.01 sq. yards in ward 'C' of Sukkur city.

Manzilgah ground was allotted to the Municipal Corporation, Sukkur, for use as a hockey field under the provision of paragraph 3 of MLO 122.** Masjid Manzilgah has since been transferred to the Municipal Corporation, Sukkur.***

The Tomb of Syed Khairuddin Shah

The green dome in Old Sukkur marks the tomb of Syed Khairuddin Shah alias Syed Ahmed Shah, who was a fifth-generation descendant of Pir Shaikh Abdul Qadir Jilani of the family of Piran. He was also called Jiay Shah. He was born in AD 1492 and spent his youth studying religion in Baghdad. He lived for some time in Bulri in Lower Sindh, but finally settled in Sukkur where he remained until his death in AD 1617. He became the founder of a spiritual dynasty; one of his successors, Mian Ghulam Mohammad, built this mausoleum in 1670. Houses of his descendants, or *pirzadas*, surround the mausoleum.

* Under notification No. 3 (568) Auqaf/61 dated 24 February 1962.

** Vide notification No. SO-KDDA 14-165/90 PTL dated 10 March 1981 of the Housing, Town Planning, Local Government and Rural Development Department, Government of Sindh.

*** Under S.O. No. Auqaf/81/327 dated 13 May 1981 of the Government of Sindh, Auqaf Department.

The Tomb of Adam Shah

The conspicuous white tomb of Adam Shah crowns a small hill to the west of Sukkur. Adam Shah, the first of the Kalhoras, later rose to notoriety. He had contrived to get a *zamindari* (land allocation) in the *parganah* (District) of Chandka (Larkana) but afterwards went to Multan, where he gathered a great host of disciples and gained much power. For four generations his descendants lived about Larkana, multiplying his disciples, acquiring land, increasing their influence, and fighting. His grandson, Mian Shahal Muhammad Kalhoro, was a great agriculturist and dug the original Larkana canal. Adam Shah was killed in a fight near Fatehpur, about six miles from Larkana. It is said that his head chose his burial place by flying there in advance of his body, and that the latter was brought along by his followers. He is now numbered among the Saints or Pirs.

War Mubarak

A building about twenty-five feet square was erected in about AH 952 (AD 1545) by Mir Muhammad, the then reigning Kalhora Prince, for the special reception of a Holy Hair from the beard of the Prophet Muhammad (Peace Be Upon Him). The Holy Hair was brought to Rohri from Istanbul by Makhdoom Abdul Baki, a son-in-law of Khawaja Nizamuddin Siddiqi of Istanbul, a descendant of Hazrat Abu Bakar. It had been concealed for some time, but its presence was revealed in a dream to Syed Haider Shah of Rohri and Makhdoom Abdul Malik of Dahho. In AH 952 the Holy Hair was exhibited and the people were afforded an opportunity to see it. Since then it has been exhibited annually on 9 Zil Haj, but visitors may see it at other times also.

Historical Mosques of Rohri

Jamia Masjid

This is near the *War Mubarak*. Erected in AD 1583 by Fateh Khan, an officer of the Emperor Akbar, the Jamia Masjid is a heavy three-domed structure of red brick, ornamented with well-glazed tiles. It is in urgent need of repair.

Din Panah Masjid

Built in AH 1096, during the reign of Alamgir, by Khawaja Muhammad Hassan.

Qazian Masjid

This is near the end of the Landsdowne Bridge (*see below*). It was built by Aminuddin Hussain in AH 1062 (AD 1653), during Alamgir's time.

Sheikh Muhammad Mosque

Built by Sheikh Muhammad in AH 1110 (AD 1710), during Aurangzeb's time.

Khawaja Saleh Mosque

Built in AH 1122 (AD 1713), by Khawaja Saleh.

Eidgah

Situated on the hill to the south-east of Rohri town, the Eidgah was built by Mir Masoom, son of Syed Sufai, in AH 1002 (AD 1593).

Tomb of Syed Sultan Zakir

It is to be found near Rohri Railway station. It was built in AH 1116 (AD 1704).

Masjid of Mir Yakoob Ali Shah

Situated about a quarter of a mile from Rohri town, the Mir Yakoob Ali Shah Masjid stands in a fort-like enclosure. It is almost in ruins but still has a quantity of glazed tiles adhering to it. It was built in AH 1083 (AD 1672).

Satyan-jo-Asthan

The shrine of Satyan-jo-Asthan ('the seat of the celibate women') is very well-known. It is situated on the Indus just below Bukkur Island. Formerly on an island itself, it is now attached to the mainland owing to reclamations by the Railway Department. It is extremely picturesque and has been much admired by all visitors to Sukkur. On top of the hill are many carved gravestones, most of which are dated between AH 1018 and 1070 (AD 1609 to 1659). The principal grave, that of Mir Kassim, one of the Subzwari Syeds, is dated AH 1018. The complex is officially named Than Kassim Shah, but it is more commonly known as the Hill of the Seven Virgins, because the building on the south side is called the '*Sathbhan*' (seven sisters) or Satyan-jo-Asthan. This building, now a shrine, is a row of shallow rooms connected by a long passage cut partly out of the rock and decorated with ornate coloured tiles. These cells are said to have been occupied by seven virgins who had taken a vow never to look upon the face of a man.

Satyan-jo-Asthan is an ancient monument protected under the Ancient Monument Preservation Act 1904. (Government notification No. 1236 dated 4 March 1909.) It is situated in Street Numbers 24, 25, 26, and 27 admeasuring one acre and twenty *ghutas* of *deh* Rohri, *taluka* Rohri.

Sadh Bela

Downstream of the island of Bukkur, and separated from it by a short stretch of river, is the pretty little island of Sat, or Sadh, Bela. On it is a Hindu religious establishment founded in AD 1823 by Swami Bakhandi Maharaj Udasi; the gaily-painted buildings are, however, more or less modern. The place is held in high esteem by Hindus throughout Sindh and even in India.

The island, with its two inlets, Sadh Bela and Din Bela, is shown on the official map of 1893-4; in 1912 it was accurately surveyed on the orders of the Collector, Sukkur (see, his letter No. 4402 of 13 February 1912) and shown to cover 629 acres.

Bukkur

Named *Bakar* (Dawn) by the pious Sayed Muhammad Maki in the seventh century of Hijri, this island is a limestone rock, oval in shape, 800 yards long by 300 wide, and about twenty-five feet in height. According to the Superintendent of Land Records and Registration, Sindh, in 1912, the area covering Bukkur island was 255,292 sq. yards, or forty-nine acres.

Bukkur must have been fortified and garrisoned at a very early date, because Sheikh Abu Taurab, the Arab whose tomb near Gajo in *taluka* Mirpur Sakro bears the date AH 171 (AD 787), is reported to have distinguished himself by taking it. Later it fell to Abdul Razak, the Wazir of Sultan Ghazni, when he invaded Sindh in AD 1026. One of the most noted governors of Bukkur was Sultan Mahmood Kokaltash, who was appointed by Shah Beg Arghun in AH 928 (AD 1522).

Bricks from the ancient fort of Alore, the old capital of Sindh (see *below*), and materials from buildings of the Sama (AD 1333-1522) and 'Turk' or Turkhan (AD 1507-

43) periods were utilized in repairing the fort walls when Shah Beg Arghun decided to make Bukkur his capital in AH 928 (AD 1522). At the time of the arrival of Emperor Humayun in AH 947 (AD 1541), Sultan Mahmood Khan added an outer wall to the fort, increasing its circuit to 1,875 yards, adding four gates opposite those of the inner wall. There were then two gardens called the 'Nizurgah' and the 'Goozargah'. The fortifications were rebuilt and restored for the last time by Governor Ghulam Sadik Khan between 1780-90, during the reign of Taimur Shah.

The fort has figured prominently in the history of Sindh. It has been held by Mughal emperors, Kalhoras, Afghans, and Talpurs; in 1839, the Amirs of Khairpur handed it over to the British.

The once flourishing city of Bukkur now contains only a few houses, and exhibits a deplorable picture of desolation. The British converted the governor's palace on the east wall into a powder magazine, and the entire area is covered with mounds, fifteen to twenty feet high, of bricks, debris from buildings, and rubbish that has accumulated over the ages.

Khawaja Khizr / Zinda (Jind) Pir

Opposite Rohri is a small island of which about half an acre remains above water at the height of the inundation. It contains a shrine to which Muslims and Hindus used to come in their thousands from all parts of Sindh in March and April — the Muslims to honour Khwaja Khizr and the Hindus, Jind Pir, (*Jind* is a corruption of *Zinda*; *Zinda Pir* means the Living Saint). Eventually the possession of the shrine became a bone of contention between Hindus and Muslims, but the matter was settled when the Hindus abandoned their claim and set up a shrine of their own to Jind Pir on the Sukkur bank of the river. The Public Works Department, under resolution No. 55-W-1 650 of 10 April

1894, sanctioned a piece of land admeasuring 16.50 *ghuntas* approximately to the *Panchayat* (Council) of Sukkur for the use of the Jind Pir Fakirs on trust, i.e., after executing a trust deed in favour of Bhai Balo, the leader of the Fakirs at that time. According to the trust, he and his successors would receive Rs 1,000 for discharging certain duties in connection with the shrine and monuments.

The shrine of Khwaja Khizr had two doors, one on the south side overlaid with silver plate embossed with figures, the other on the east. On the west wall, opposite the east door in a niche behind some draperies, was the *gaddi*, or seat, of Khwaja Khizr. There used to be a slab set in the wall above the niche which bore a Persian inscription saying:

When this court was raised, be it known
That the waters of Khizr surrounded it.
Khizr wrote this in pleasing verse
Its date is found from the Court of God.*

Internal evidence dates the inscription to AH 341 (AD 952). Unfortunately there is at present no trace of either the silver door, the *gaddi*, or the slab of stone.

At a little distance to the south-west of the shrine is a ruined brick *masjid* decorated with enamelled tiles and containing an inscribed slab which gives the name of the builder as Khan Syed Ali Khan and the year of completion as AH 1011 (AD 1602), when Mir Masoom was building in Sukkur.

Most of the other buildings on the island are poor, modern structures of no interest; but the great south-facing gateway of brickwork, decorated with tiles, is rather impressive. The tilework is, however, mostly poor and of recent work, with the exception of a patch immediately around the doorway on the outside. This work is of the

* (See, E.B. Eastwick, *Dry Leaves from Young Egypt*, 1849, reprint Karachi, 1989, p. 39.)

around the doorway on the outside. This work is of the same style as that on the old ruined *masjid* near the tomb of Mir Abdul Baqi Purani of Sukkur (*see above*) and probably of about the same date as that tomb, namely AH 1019 the laterlooking tilework is very similar to that on the Alamgir Mosque in Alore, built about a hundred years later (*see below*).

The Muslim legend is that a Delhi merchant by the name of Shah Hussain (Saiful Muluk) was travelling down the Indus by boat with his daughter, Badu-i-Jamal, on their way to Mecca. On their arrival in the city of Alore, Dalurai, the Hindu King, who had heard of the great beauty of Shah Hussain's daughter, demanded her in marriage. He was refused, being told as a reason that it was impossible for the daughter of a follower of the Prophet (PBUH) to wed a Hindu. Not content with the reply, the king determined to carry her off by force; but as the girl was offering prayers to Khwaja Khizr, the saint directed her father to cut loose the boat. As soon as this was done, the course of the Indus changed and the stream began to flow towards Rohri, carrying to safety the boat and its passengers. In gratitude for this miraculous deliverance, Shah Husain resolved to erect a shrine in honour of the saint who had thus befriended them. In answer to his prayer he was directed to carry out his purpose on a small island a little to the north of Bukkur, and here he built a mosque and a mausoleum, in honour of the saint, which in later years was enlarged by wealthy votaries who were said to have covered the door of the original tomb with sheets of silver. Unfortunately there is no trace of either of these buildings.

The *mujawars* (guardians) of Satyan-jo-Asthan and of Khwaja Khizr's shrine were holding lands as *khairat* (charitable grant) before the British conquest, discharging certain holy duties around the monuments and shrines in their charge. Sir Charles Napier continued the practice. The oldest alienation in Sindh is the *khairat* of the land revenue of Ali Wahan, some two miles from Bukkur, made

revenue of Ali Wahan, some two miles from Bukkur, made by the Emperor Alauddin (AD 1296-1316) and confirmed by the Emperor Shah Jahan and his successors.

Alore

About five miles south-east of Rohri and close to the Eastern Nara supply canal is the small village of Alore or Arore, comprising a few hundred inhabitants. It stands upon part of what was the capital of Sindh more than a thousand years ago. In the description of ancient Alore given in the *Chach Namah*, we are told that it was

a town adorned with various kinds of royal buildings, villas, gardens, fountains, streams, meadows, and trees and was situated on the bank of the River Mehran. In this beautiful and splendid city, there lived a king whose name was Sahiras, son of Sahasi Rai. This king had innumerable riches and immense buried treasures. His reputation for justice and free thinking was well-known in the world. The limits of his dominions extended east to the boundary of Kashmir, west to Makran, to the south to the sea-coast and Debal, and to the north to the mountains of Kurdan and Kikanan. He had appointed four governors (*Maliks*) in his kingdom.

In the reign of Jam Fateh Khan (AD 1412/13-28) (predecessor of Jam Tughlaq Shah, son of Sikander), Alore was a *parganah* given to one Syed Abdul Ghias. At the time of the conquest of Sindh by the Arabs under Muhammad Bin Qasim in AD 711, Alore was the capital of Sindh and the residence of King Dahir. The Arabs made their capital at Mansurah, and Alore existed for more than two centuries as a Hindu town. It then disappeared. The legend of King Dalurai of Brahmanabad gives an account of its fate (*see above*, p. 181). The bricks of the ancient fort of Alore were utilized in repairing the fort walls of Bukkur when Shah Beg Arghun decided to make Bukkur his capital.

At a short distance below the hill to the south-west of the village a Persian inscription of Mir Muhammad Masoom dated AH 1008 (AD 1599) was set up in the dried-up bed of the river to mark its ancient course (*see below*). This stone has been removed and lodged in Moenjodaro Museum for safe-keeping (a similar stone has been set up by this writer at the same place). There are also the tombs of two Syeds, Shaker Ganj Shah and Khatal ud Din (or Qutb Shah); the former is said to have been a contemporary and friend of Lal Shahbaz Qalandar, whose tomb is at Sehwan. There is an annual fair in his honour. There is also a fair held annually in September in honour of Kalka Mata which is attended by Hindus. Nothing is known of the origin of the fair and, save for the insignificant little village, the site is now a wilderness.

Muhammad Bin Qasim Mosque at Alore

Having appointed governors in all the principal districts of Sindh, Muhammad Bin Qasim left Brahmanabad on 3 Muharram AH 94 (AD 712) and proceeded towards Alore where Fofi, son of Raja Dahir, had fortified his position. Muhammad Bin Qasim called his forces to a halt opposite the fort, where he also built a mosque. Fofi, being at length convinced of Dahir's death, secretly left the fort and joined his brother Jaisiah at Jitor. Upon Fofi's departure, the people of the town opened the gates to Muhammad Bin Qasim and submitted to him. Within the town was a Buddhist temple called *Nobhar* or *Nowhar*, with an equestrian statue in it. The statue has the following inscription on it. 'At last he reached Al Rur [Alore] one of the cities of Sindh. It is situated on a hill (Biladuri).' The wordings must have been inscribed after the fall of Brahmanabad, and refers to his march northwards. (Cousens)

Muhammad Bin Qasim seems not to have interfered with the temples. 'The temples,' he said, 'shall be unto us like as the churches of the Christians, the synagogues of

the Jews, and the fire temples of the Magians.' However, he imposed a tribute on the inhabitants and built a mosque in the city. After he had settled the affairs of Alore, he left Rawah, son of Asad, as governor and marched to the fortified town of Rabiah on the southern bank of the Beas, from where he crossed the river and proceeded to the fort of Gholkandah, which he reduced, then continued on to Sikkah-Multan on the banks of the Ravi.

The mosque still stands; the author had the eastern wall repaired, and set up a commemorative stone.

Aurangzeb Alamgir's Mosque in Alore

This old brick *masjid*, still bearing fragments of tilework—mostly of a coarse star pattern in blue and white, similar to that on the Satyan-jo-Asthan in Rohri—is attributed to Aurangzeb Alamgir. It is situated on the north side of the village, upon a knoll and near the old bridge. The great brick gateway facing south is decorated with tiles in the same style as found near Bukkur at Jind Pir, and at the ruined *masjid* near the tomb of Mir Abdul Baqi Purani which was probably built at about the same time as the tomb, i.e., AH 1019.

Another mosque which was built during Alamgir's reign is the Din Panah Masjid in Rohri, built by Khawaja Muhammad Hussain. The Qazian Masjid, near the end of the Landsdowne bridge, is yet another mosque of this period, built by Aminuddin Hussain in AH 1062 in Rohri. Finally, there is the *masjid* built by Sheikh Muhammad in AH 1110, also in Rohri. All these mosques are decorated in more or less the same fashion, with coloured tiles, although, with the passage of time, Much of the tilework has decayed.

An Inscribed Stone of Mir Muhammad Masoom

۱ - بردار قدم چو ره نوردان

دریادی پای نه چو مردان

۲ - بفرموده سیادت پناه امیر محمد معصوم مرقوم شد

سنه ۱۰۰۸ هـ

This has been translated by Dr Yazdani as

March like (experienced) travellers, place thy foot in the wilderness (i.e. the world) like (courageous) men. Written by order of the refuge of Sayyid Mir Muhammad Masoom AH 1008 (AD 1599).

The inscription is on the dressed portion of a large block of yellow sandstone. The inscription measures thirty-one and a half inches by nine and a quarter inches; the stone itself measures roughly fifty by thirty inches. The first person to notice it was Lt. E.B. Eastwick, who wrote of it, '(I discovered) two stones in the bed of the river bearing an inscription to the effect that they were set up by Muhammad Masoom to mark the ancient course of the stream.' One of the stones bore the date AH 1002 and the other, dated AH 1008, is referred to by Major Raverty in *The Mehran of Sind and its Tributaries*. It was also mentioned by the late Professor Muhammad Shafi in his article, 'Some inscription of Sind', *Oriental College Magazine*, August 1937. Professor Shafi saw the stone under the shade of a tree in the dried-up bed of the River Indus. Thirty years later, in 1967, the renowned scholar, the late Hamid Ali, found it in the same place in which it was found by Eastwick, Raverty, writers of various *Gazetteers of Sindh*, Henry Cousens, and Professor Shafi. It was also noticed by Dr Nabi Bux Balouch in 1944—he mentions it in the preface to the Urdu translation of *Tarikh-i-Masoomi*. In 1957, Sayyid Husamuddin Rashidi, a reputed scholar, also noticed it at the same place. The spot-enquiry conducted

by this writer established that this is the same place where the original stone was set up by Mir Masoom. The stone dated AH 1002 was, according to Eastwick, lying at a short distance from the stone dated. AH 1008. The first stone has been lost to stone-crushers, breaking boulders for a nearby cement factory. There was apprehension that the second stone might also be broken into pieces by the illiterate stone-crushers. It was, therefore, removed from its site and lodged in Moenjodaro Museum on the orders of the Superintendent of Archaeology, West Pakistan Circle (Mr Fazal Qader), pending the stone's final disposal in the museum to be built in Sukkur Division.

Hakra: A Description of the Ancient Site

Situated some two and half miles south-east of Rohri, Hakra lies east of the Indus and must once have been a place of some importance. It would appear to have been a Harappan settlement. Captain Kirby, who visited the spot in 1855, claimed that, while excavating the Nara Canal, the workers occasionally came upon detached masses of brick-work, and at a depth of about ten feet, the burnt-brick foundations of a very large number of houses were exposed over a distance of some five hundred yards. These resembled the ruins of the city of Arore. One large well, over four feet in breadth, was excavated to a depth of twelve feet. A stone-lined wall was found, as well as a number of articles made of brick-clay, e.g. drinking cups, a *khuja* (flagon), some water pots, a large number of children's toys, and some stone weights. It appears that the town was built on the extremity of a rocky hill, and that it had gradually been covered by mud held in suspension by the flood-waters of the Indus, which even now flow over the spot. Indeed its burial ground, which, according to common practice in this part of Sindh, was higher up on the rocky hill, is still covered. Hakra was the name of the

Lost River (*see below*) and it is interesting to find it attached to a town which was perhaps lost at about the same time. Traces of the Hakra River are still visible towards the south-east. There is a village nearby which still retains the name Hakra. The site deserves further examination.

The Lost River of the Indian Desert

The Hakra is a great flood channel or ancient riverbed which is independent of the Indus, although it has frequently received spill-water from the Indus. Half of its course passes through Sindh, where different sections of the channel are known as the Ghaggar, the Raini, the Wahinda, the Nara, and the Hakra. It has long been a vital relief-channel for floods from other rivers. In the nineteenth century a feeder from the Indus above Rohri was canalized, using about 200 miles of the Hakra. This section is known as the Nara and seems like a natural river. The Hakra bed can be traced from here through Bahawalpur and Bikaner states. It probably ultimately derives from the union of several petty rivers, notably the Ghaggar, the Markanda, the Sarsuti, and the Chitang, rising in the Siwalik hills between the outfall of the Sutlej to the west and the Jumna to the east. The great width of the Hakra bed in Bikaner and Bahawalpur territory—not less than two miles wide for a distance of more than 150 miles—must be due to flooding from one or another of the great snow-fed rivers of the Himalayas. The various river beds and channels which make up the 'Lost River' are described in Appendix 1 to H.T. Lambrick's *Sind, a General Introduction*. There are several Harappan sites along its course. This writer has traced a section of the Hakra some two miles east of Alore, the ancient capital of Sindh, and set up a commemorative stone there.

The Paleolithic Sites in the Rohri Hills

In 1975-6, the Cambridge Archaeological Expedition made a preliminary survey of the paleolithic sites in the Rohri Hills. According to their findings, the Rohri Hills were a source of chert for the manufacture of the parallel-sided blades used by the Harappan culture of 2300-1750 BC.

The most clearly differentiated paleolithic site in the Rohri Hills was at their southern end, near the village of Chancha Baloch and only four kilometers from the pre-Harappan settlement of Kot Diji. Spread over an area of about 5,000 square meters, on a largely sand-free area between the dunes, are found Middle and Upper Paleolithic artefacts and factory debris. An extensive series of working floors were also found close to a hamlet known as Nawab Punjabi. The discovery of factory sites representing all phases of the Stone Age in the lower Indus Valley has added more depth to our understanding of civilization in prehistoric Sindh.

Qadir Bakhsh-jo-Quba

Qadir Bakhsh-jo-Quba is situated some sixteen miles south of Rohri in *deh* Akbarpur Jagir. It covers an area of thirty-five acres and contains many ancient graves. The principal grave belongs to His Highness Mir Suhrab Khan of the Khairpur Mirs. He died on 27 Rajab AH 1280 (AD 1863) at the age of ninety. Next to it lies the grave of His Highness Mir Rustam Khan of the Khairpur Mirs. He died in AH 1287 (AD 1870) in Poona (Pune) and his body was brought here for burial. Nearby are the graves of Mir Dost Muhammad, the second son of Mir Khan Muhammad Talpur (d. AH 1262 [AD 1846]), and of the mother of Mir Ahmed Ali Khan Talpur. To the east of the graveyard is a mosque constructed by the Talpurs.

There is another mosque some two hundred feet away, constructed by the British government. Attached to this mosque is the government *musafirkhana*. (travellers' lodge). Today, both the mosque and the *musafirkhana* are in ruins.

The tomb of Fakir Qadir Bakhsh, after whom this site is named, lies to the west of the village of the same name. Inside the tomb there are two graves, one obviously being that of Fakir Qadir Bakhsh, of whom little is known, but nothing is known about the other; it is presumed to be that of a disciple, the Fakir never having married. The tomb of Golo Shahani, the commander-in-chief of the army of Mir Suhrab Khan, is also situated here, as well as a number of other graves of the Shahanis. Golo Shahani died in battle at Shikarpur in AH 1249 (AD1833). On the eastern side of the tomb of Fakir Qadir is the tomb of Syed Saleh Shah, of whom nothing is known, and to the west of it, a mosque which is said to have been constructed by Fakir Qadir Bakhsh himself. The village has a population of approximately 500 individuals, who live in fifty houses.

Landsdowne Bridge

An ingeniously designed railway bridge spanning the River Indus connects Rohri with Sukkur. Completed on 27 March 1889, it is considered a great feat of engineering. It is a suspension bridge, i.e. one with no pillars, weighing 30,300 tons. The bridge spans 200 feet in the centre, and extends 310 feet on each bank, a total length of 820 feet. The proposal to construct the bridge was drafted between 1872 and 1874, and the material began reaching the site in 1879. Expenditure on the bridge was estimated at about Rs 3,375,000. The contract for building the bridge was awarded to the Westwood and Bailey Company of England, and Mr. F.A. Robertson was the chief engineer. The opening ceremony was performed by Lord Ray of the

Government of Bombay and was attended by dignitaries from all over Sindh. The bridge was named after Lord Landsdowne, the Governor-General.

An interesting incident took place at the time of the opening ceremonies: as the bridge was without pillars, no driver could muster up enough courage to take a train across. A Habshi driver (Habshis are the descendants of African slaves imported into Sindh via Muscat) who was in jail offered his services and he opened the route with a pilot train. He received many awards.

After the construction of the Ayub Bridge, train traffic was diverted from the Landsdowne, which has subsequently been converted into a road bridge.

Mathelo

At Nagar Mathelo, or Mathila, some six or seven miles south-east of Ghotki railway station, are the ruins of an ancient fort. Its history is told in a verse still repeated by the people of the area:

بهرين سرڪوٽ ۾ هنئي ڄام پڙهيان
 ٿورا ورهي تهيم آيا وارو وڙهيار
 ڪوٽ اسري تيار ٿيو نو نو سو ويه ورهي
 تهاڻ پڄاڻان ٿي بادشاهي راءِ نند جي.

The fort first appears in the historical record in AH 440 (AD 1047), when it was captured by Abul Hassan, the general of Sultan Muiddin. It was one of the six mud-built strongholds of Rai Sahasi II. Repairs were made in AH 495 by Rai Gharano. It subsequently changed hands several times; Raja Nind held it in the early fifteenth century, and on his death it passed into the hands of the Mahars as part of a marriage settlement between a Mahar and a Dhareja woman; the Mahars, however, never lived there. It

continued to be a place of importance for some considerable time (tradition says 900 years)—it had its own governor under the Emperor Akbar.

The bricks, beads and other ornaments, and fragments of stone carving found here are similar to those found at Vinjrot (*see below*). In addition, pottery balls the size of a man's head have been found here, as at Brahmanabad. These were the missiles discharged by the ancient war engines known as *manjaniks*, or *balistas*, such as were used by the Arabs under Muhammad Bin Qasim during his conquest of Sindh.

All that remains today of the fort is a deserted mound and a commemorative stone set up by the author.

The Ruined Site of Vinjrot

Vinjrot is situated in a flat barren plain about five miles south of Reti railway station in *taluka* Ubauro, about sixty-three miles north-west of Rohri. The area is covered with heaps of brick debris. Little is known of its history, but enough has been found in the ruins to show that it was once an important town. The artefacts, including coins, beads, and pottery, are similar to those found among the ruins of Brahmanabad. H.G. Raverty, in *The Mehran of Sindh*, says that it flourished in the days before the Hakra or Wahinda (*see above*) ceased to flow, that it was once part of Multan province, and that it was later in the fief of a slave of Sultan Altamash of Delhi. Henry Cousens, in *The Antiquities of Sindh*, states that the site was systematically investigated in 1873 by two officers of the Indus Valley State Railway who published their findings in *The Indian Antiquary* of January 1882.

Vinjrot is now totally deserted. It is situated in unsurveyed area 106, covering 122 acres of *deh* Vinjrot in *taluka* Ubauro.

GLOSSARY

<i>Abadgar</i>	Cultivator.
<i>Abiana</i>	Water rate.
<i>Auqaf Dept.</i>	The Department which controls the <i>waqfs</i> .
<i>Bania</i>	A Hindu.
<i>Banjar jadeed</i>	Land which has remained unsown for eight or more successive harvests, but less than 12 successive harvests.
<i>Banjar Qadeem</i>	Land which has remained unsown for twelve or more successive harvests.
<i>Barani</i>	Land dependent on rainfall.
<i>Barseem</i>	A kind of grass.
<i>Battai</i>	Share of crops, usually one-third of the gross out-turn. This used to be the Government Share when the revenue was collected in kind.
<i>Battaidar</i>	One who measures the Government Share of grain.
<i>Begar</i>	Forced Labour.
<i>Bharo</i>	The hire of the bullocks or camels for carrying the government grain to a granary is calculated and paid for out of the common heap.
<i>Bigah</i>	A land measure nearly half an acre in extent and containing 22,500 square feet.
<i>Boka</i>	Leather water bucket.
<i>Bosi</i>	Land flooded in autumn for cultivation in spring; also the crop so raised.
<i>Charkha</i>	A large water wheel worked by a camel or two bullocks.
<i>Dand kaho</i>	The driver of the bullocks at the wheel is paid for at the rate of 6 paisas a day out of the common heap.

<i>Darogha</i>	An under supervisor of Canals, an overseer.
<i>Deh</i>	A village with lands belonging to it.
<i>Dubari</i>	Second crop.
<i>Durwari</i>	Grain measurer.
<i>Feujdars</i>	Revenue and judicial officers over a large town.
<i>Ghunta</i>	A land measure, the fortieth part of an acre.
<i>Hari</i>	A ploughman, a cultivator.
<i>Huri</i>	A tree plantation or reserve.
<i>Jagir</i>	A grant of land on a service tenure, an estate.
<i>Jagirdar</i>	A holder of free land on service tenure.
<i>Jirab</i>	A land measure equal to about half an acre.
<i>Kamdar</i>	Servant of zamindar: an agent.
<i>Kardar</i>	A native revenue and judicial officer.
<i>Karia</i>	Narrow water-course.
<i>Karwa</i>	Field watchman.
<i>Kasgi</i>	Fixed grain assessment.
<i>Katcha</i>	Unpaved.
<i>Kazi</i>	A Muhammadan Law Officer.
<i>Khara</i>	A measure of grain, varying between 1680 to 1840 lbs.
<i>Kharif</i>	Autumn crops.
<i>Khasra</i>	Account of <i>batai</i> .
<i>Khatedar</i>	A person having a separate heading to himself in the <i>tapedar's</i> ledger, the owner of a separate estate or field.
<i>Khbara</i>	Threshing floor.
<i>Khidmatgar</i>	Personal attendant.
<i>Khuja</i>	Jug.
<i>Kotwals</i>	Revenue and judicial officers over a small town.
<i>Kussabee</i>	The artificers who make ploughs, wheels (carpenters, blacksmiths, etc.) are paid an amount which varies as the cultivation is by wheels or on flooded (<i>sailabi</i>) land.
<i>Labe</i>	Reaping.

<i>Labor</i>	Harvest.
<i>Lakaba</i>	Water rate/tax under the Talpurs.
<i>Lakh</i>	One hundred thousand.
<i>Lungi</i>	A turban presented as a reward; also a fish-catching device.
<i>Mahal</i>	Sub-tehsil.
<i>Mahsool</i>	<i>Bataidar's</i> tax, custom: rent; also export tax.
<i>Maldars</i>	Cattle owner.
<i>Mansabdar</i>	Military governor during the period of Akbar, the Mughal Emperor.
<i>Masjid</i>	Mosque.
<i>Mati</i>	Large earthen vessel for catching fish.
<i>Mohanas</i>	A class of fishermen.
<i>Moke</i>	Water tax on irrigation by gravity flow.
<i>Muhurrer</i>	Writer of records.
<i>Mukhi</i>	Head of the Hindu community in a village.
<i>Mukhtiarkar</i>	The revenue, judicial, and treasury officer of a <i>taluka</i> .
<i>Munshi</i>	A vernacular clerk.
<i>Murshid</i>	Muslim spiritual guide.
<i>Muta</i>	Kind of grain contract.
<i>Nuzer-deed</i>	An 'Ameen' or Supervisor' of 'Nuzardeed' Inspection, the word speaks for itself, was appointed to estimate the crop.
<i>Panchayat</i>	Arbitration, a popular jury, a committee of arbitrators.
<i>Parganas</i>	Province.
<i>Pattas</i>	Grants.
<i>Pattoes</i>	This is a kind of measure of Shahdadpuree <i>Kharar</i> where four <i>pattoes</i> are equal to one <i>toya</i> .
<i>Pesharas</i>	A late spring crop.
<i>Pucca</i>	Paved.
<i>Qasid</i>	A runner, a messenger.
<i>Rabi</i>	Winter or spring crop as distinguished from <i>Kharif</i> .
<i>Rahdari</i>	Transit pass.

<i>Rayati</i>	Applied to land subject to Government assessment.
<i>Ruckub Era</i>	The mode of converting grain into cash.
<i>Sahib-e-Nisab</i>	One eligible to pay <i>zaka'at</i> under Muslim Law.
<i>Sailabi</i>	Wet, soaked or thoroughly moist as applied to land.
<i>Sanad</i>	Deed of grant, lease.
<i>Sazwalkar</i>	Head Collector of Revenue (over a <i>pargana</i>).
<i>Shikargah</i>	A game preserve.
<i>Simko</i>	<i>Simko</i> is the crop which is grown in river Kachas.
<i>Taluka</i>	Subdivision of a District in the revenue charge of a <i>Mukhtiarkar</i> .
<i>Tapa</i>	Subdivision of a <i>taluka</i> containing one or more <i>dehs</i> .
<i>Tapedar</i>	Village officer.
<i>Thana</i>	A police station.
<i>Ushr</i>	Tax under Muslim Law, one-tenth portion of agricultural produce, fruit crops etc.
<i>Wasq</i>	948 kgs of wheat.
<i>Zakat</i>	A certain fiscal proportion of Muslim property to be paid for the benefit of the needy in the Muslim community.
<i>Zamindar</i>	A landed proprietor, a land owner.

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SUKKUR

Muhammad Siddique G. Memon

A.W. Hughes compiled the first-ever Gazetteer of Sindh in 1874. Since then, with the exception of a few amended editions, nothing resembling the scope and accuracy of the Gazetteer has been published. Muhammad Siddique G. Memon, during his tenure as Additional Deputy Commissioner of Sukkur and Nawabshah, started conducting research in this area. This book presents a detailed account of the transformation of old Sukkur into the present-day new Sukkur—filling a void in the history of the region, for the first time since the 1930s.

Sukkur district has undergone many changes: economic, political, social, administrative, and territorial. It has experienced the creation of a new district, Shikarpur, in 1977. The author has collected valuable information about various aspects of land revenue system in Sindh, which he has presented in a systematic and a chronological fashion. A host of topics ranging from history, administration, to education, communication systems, social welfare, eminent personalities, and antiquities are also dealt with in this book. The text is accompanied by forty-one black and white illustrations.

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