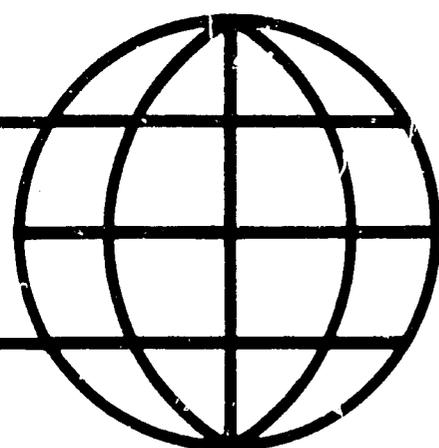


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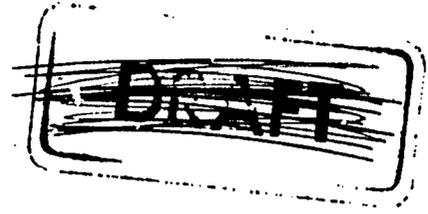
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REPORT ON THE COLLECTION
OF BASE-LINE SOCIO-ECONOMIC
AND NATURAL RESOURCE DATA
ON MEKLAN DIVISION, BALUCHISTAN

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December 1983

TABLE OF CONTENTS

	PAGE
I. INTRODUCTION	1
II. GETTING THE DATA AND WHERE IT COMES FROM	2
III. POPULATION CENSUS STATISTIC	7
IV. BRIEF STATISTICAL SUMMARY OF MEKRAN DIVISION	10
1. Population	10
2. Education	11
3. Health	11
4. Fisheries	12
5. Livestock	12
6. Transportation	12
7. Agriculture	12
APPENDIX - I	14
1. <u>List of Selected Socio-Economic Statistics for Mekran Division</u>	14
2. <u>List of Climate and Agriculture: Selected Statistics for Mekran Division, 1969-1982</u>	19
APPENDIX - II	
1. BADP Document Center, List of Holdings	26

I. INTRODUCTION

The collection of relevant socio-economic and natural resource data on Baluchistan and, more specifically, on Mekran Division would appear to be a fairly straight-forward task. Obvious difficulties exist but much of the essential material could be assembled by making visits to the various educational and administrative institutions within the region and around the country, obtaining copies of reports and surveys pertaining to the Division and the needs of the Baluchistan Area Development Project (BADP). In many areas of the world this necessary information could be collected quickly and easily. It was recognized, however, that the rugged, isolated Mekran has been far removed from the modernizing processes undertaken in other areas of Pakistan and this lack of prior development activity in the Division has precluded the generation of the type of information desired. It was known that data on Mekran is scarce, huge gaps in the base-line data issues exist, and no centralized collection, or even acknowledgement, of what information is actually available had ever been performed.

Mr. Noor Mohammad Mengal and I began a five week program to collect and list the important data sources and to compile the relevant information in tabular and chart form, demonstrating the trends through time for as many variables as possible. We encountered the predicted combination of ease and hardship with a few unexpected twists.

The problems involved in assembling the quantity and quality of information needed for proper design, implementation and eva-

luation of the Baluchistan Area Development Project in some ways overwhelmed the usefulness of the data we were able to obtain. We found a number of disconcerting, though not too surprising, facts. The reliability of the existing data is extremely questionable and the gaps in the data and areas where nothing at all is available are much larger than previously thought. However, copies of the documents we were able to find have been cataloged and placed in the Project Document Center, currently located at the USAID/ ARD office in Islamabad. Appendix II contains a list of the Document Center's holdings, We have also compiled two volumes of charts and tables containing statistics specifically relating to Mekran Division. These volumes, located in the Project Document Center, are titled; Selected Socio-Economic Statistics for Mekran Division and Climate and Agriculture: Selected Statistics for Mekran Division, 1969-1982. Appendix I is a list of all charts and tables contained in the two collections.

II. GETTING THE DATA AND WHERE IT COMES FROM

For many Pakistanis, Baluchistan, and especially Mekran, is a politically sensitive area and people are sometimes hesitant to divulge information which they have. We ran into this problem a couple of times. In particular, for a project of BADPs dimensions and intentions, it is necessary to have the best maps and aerial photographs available for construction planning and natural resource surveys. These design tools

exist at the Survey of Pakistan but we were unable to obtain their release for project use. The USAID Mission is still attempting to gain access to this data through proper channels.

Another data source which was previously mentioned and then followed up on was the 1982 Agricultural Survey of Baluchistan, a ten percent sample survey of critical agricultural issues administered and analyzed by the Agricultural Census Organization in Lahore. This report, to be published in mid-December 1983, summarizes the results of the survey at the district level. Our hope was to access the pre-publication material which was collected at the village level. With this information we could find exactly which villages had been included in the sample and what the results were at the lowest possible level. Unfortunately, the Agricultural Census Organization was unresponsive to our requests for pre-publication data. The only information from them will be the published report of district level conclusions.

The primary constraint to the collection of secondary source, base-line socio-economic parameters for Mekran originates in the fact that except for the Population Census Reports (with problems of their own discussed below), no systematic survey of any sort has ever been conducted in Southwest Baluchistan. The governmental departments such as the Soils Survey of Pakistan, the Forestry Department, the Livestock Department, the Arid Zone Research Institute, the Social Welfare Office, the Agricultural Research Institute and others have conducted

investigations in most of the other regions of Pakistan but have not yet undertaken any original surveys in Kharan District or Mekran Division. Most of the agencies profess to have future programs which include research in Mekran, but for the moment they cannot say when it would begin.

Similarly, independent research by professors and graduate students at Baluchistan and Quad-i-Azam Universities has yet to reach the regions of Mekran. Visits to the departments of Anthropology, Sociology, Economics, Geography and Statistics at each institution indicated a willingness to participate in Mekran investigations, but the educators universally complained about the severe lack of students from Mekran or others willing to go there for research.

Useful information dealing specifically with Mekran came from relatively few sources. WAPDA has carried out groundwater surveys of the major river valleys of Baluchistan but only one survey from Mekran has been published to date, Groundwaters of Rakhshan River Basin, Baluchistan (see Appendix II and the Document Center).

The annual reports of Baluchistan statistics compiled by the Government of Baluchistan's Directorate of Agriculture (Extension) and the Planning and Development Department have been the most specific and comprehensive information found. There is no doubt that the collections of tables on demographics, cropping patterns and production, economic status, prices, etc. are necessary and useful to the BADP, but an important primary

source for a great bulk of this data needs some further clarification.

Throughout most of Pakistan, including areas of Baluchistan other than Mekran, the bottom-line of agricultural data is the land ownership surveys recorded and held by the Land Revenue Offices. A program called 'land settlement' is undertaken by this office to measure the individual land area owned and under cultivation of various crops for tax revenue purposes. Taxes are collected bi-annually, after summer and winter harvests, at which time the lists are checked and any land transactions or changes in cropping patterns are recorded. Other governmental agencies and research institutions utilize the relatively precise information for systematic surveys and reports of area, production and yields for various crops.

In Mekran Division, 'land settlement' has not yet taken place. There are no accurate measurements of cultivated area, production volume or yields. In other areas of Pakistan, tax assessments are made by charging a specified sum of Rupees per hectare of land. Different categories of land (i.e. irrigated verses unirrigated) and different cropping patterns (i.e. vineyards verses sorghum fields) have differential, nationally prescribed tax rates. Without knowledge of exact land tenure, revenue collected in Mekran cannot be based on the same system.

A system of taxation originating during the Moghul period, extended to Mekran by the Khan of Kalat and upheld by the British is still the mechanism in operation. The districts of

Mekran obtain their revenue for the Government of Baluchistan through a tax based on production estimates rather than land area. The Potwari of each Tehsil is responsible for estimating the volume of agricultural produce harvested by each individual farmer. He assesses a tax rate depending on the crop produced and collects the revenue. The Potwari has lists which include the cultivators name, where the land is located, the type of land (perennially irrigated or banded fields), the crops grown and the estimates of previous harvests. The lists are checked and updated bi-annually, after the summer and winter harvests. In Turbat Tehsil, there is one individual as both assessor and collector for the entire Tehsil. Not only must his assessments be extremely superficial due to lack of time and manpower, but, even more significant, with one man holding this powerful position the system is ripe for and riddled with corruption. No one argues against the fact that the recorded volumes are grossly underestimated. Still, the lists which are kept at each Tehsil Land Revenue Office will be useful to the BADP because they extend back to the British period and they are the most comprehensive records available dealing with the lowest level variable, the individual farmer. The piles of ancient lists are written in Farsi before 1975 or so and in Urdu after that.

Each Tehsildar annually summarizes the data from his region in a revenue report to his district chief, the Deputy Commissioners. The Deputy Commissioner's office aggregates all of the data from the district into a district level report for the Division

headquarters. From here, division level summations are sent on for incorporation in provincial reports.

Lack of resources and manpower restrict the various departments of the Government of Baluchistan from conducting independent investigations of their own. In the case of the Directorate of Agriculture (Extension) and the Planning and Development Department, the statistics branches of the organizations review the district level summations in order to prepare their annual statistical reports. It was also suggested to me that some years the Revenue Office records are not even reviewed. Instead, the field representatives of the agencies develop a general sense of increase, decrease or equilibrium for different variables over the previous year. A percent change is then multiplied into the figures from the year before. It is clear that the tables of statistics we have assembled are often nothing more than estimates of guesses about estimates.

The preciseness of any statistics concerning Mekran are most certainly suspect, but they can be employed to get a general feeling for what is happening in the area. The people making the estimates are located in Mekran and, therefore, as able as anyone to guess. Besides, we have no choice but to make use of this data, it is all there is.

II. POPULATION CENSUS STATISTICS

One plan of our program was to attempt to clarify and explain the enormous increases in population which are regis-

tered in the decennial census reports between 1961 and 1981. For example, the 1972 District Census Report, Mekran shows a 101.8 percent increase between 1961 and 1972, an annual growth rate of more than 6 percent. The increase between 1972 and 1981 is even more astounding. The 1981 District Census Reports register the nine year increases for Gwadar, Turbat and Panjgur Districts at 23.7, 156.4 and 183.0 percents respectively. This translates to annual growth rates of; Gwadar-2.6 percent, Turbat-11.8 percent and Panjgur-13.1 percent. (See the list of population tables in Appendix I for the more detailed and lower level data in Selected Socio-Economic Statistics for Mekran Division, or go to the original sources at the Project Document Center.)

Growth rates of this magnitude are hard to visualize in an area such as Mekran (excluding Gwadar's more believable increase). The growth is even more surprising considering the migration out of Mekran during this period and the lack of significant amounts of new lands being brought under cultivation or production increases. (See Appendix I for a list of production statistics contained in Climate and Agriculture: Selected Statistics for Mekran Division, 1969-1982.)

We talked to the people at the Population Census Organization in Islamabad and they offered some valid explanations for the increases. The most important reason, but not the only one, was simply a greatly increased sophistication of

the census methods employed consecutively for the surveys of 1961, 1972, and 1981. Many more enumerators were used to conduct the census each time so that in 1981 the nomads and other extremely isolated groups were counted for the very first time. There was also a shift in the emphasis on what sort of people were hired as enumerators between 1972 and 1981. In 1972 the census workers were primarily people from outside of Baluchistan, brought to Mekran solely for the survey. In 1981 many Baluch and other Makrani residents (especially schoolteachers and other educated government employees in Mekran) were given the responsibility of collecting the census information. The political upheaval in Pakistan during the late 1960s and early 1970s had led the local population to be hesitant and wary of releasing personal information to strangers. By 1981 tensions had eased and the survey takers were not strangers, thus allowing a more complete collection of information.

The 1972 census was conducted during the months of December and January, a time of low agricultural activity in Baluchistan and seasonally migrating families were away working in other Provinces. The 1981 census was taken in late March and April, the season when Mekrani families prepare their own fields for the summer crops. All of these problems combined during the 1972 census so that the figures are too low by perhaps as much as 50 percent.

The absence of similar problems helped to make the 1981 census a much more accurate reflection of the demographic

situation in Mekran. It may even be too large by ten percent or so because of a desire to take advantage of the situation at the time. There was some food rationing in 1981 which could have prompted some families to claim more members than they actually had. Also, the first hints of some development funds slotted for Mekran were circulating in the early 1980s. District officers with large populations are more likely to obtain a piece of the pie than those in barren areas. The figures may have been slightly stretched.

IV. BRIEF STATISTICAL SUMMARY OF MEKRAN DIVISION

The following section contains a summary of selected macro-level statistics concerning Mekran. An attempt is made to demonstrate some time depth, emphasizing changes which have occurred over the past 20 years or so for each of the variables. This summary will be very brief, for more detailed data refer to Appendix I which lists the charts and tables contained in Selected Socio-Economic Statistics for Mekran Division and Climate and Agriculture: Selected Statistics for Mekran Division, 1969-1982. Both documents and the original source materials are located at the Project Document Center, currently in the USAID/ARD office in Islamabad.

1) POPULATION

	<u>1951</u>	<u>1961</u>	<u>1972</u>	<u>1981</u>
Gwadar District	31,210	49,661	90,820	112,385
Turbat District	90,610*	70,795*	147,978*	379,467
Panjgur District	29,870	27,228	56,820	160,750
Mekran Division (called Mekran District before 1977)	151,690	147,684	295,618	652,602

*Included part of the now defunct Kolwan Tehsil.

2) EDUCATION

i) Number of Schools, 1961 and 1981.

	Primary		Middle		High Sch.		Inter-College		Degree-Co	
	<u>61</u>	<u>81</u>	<u>61</u>	<u>81</u>	<u>61</u>	<u>81</u>	<u>61</u>	<u>81</u>	<u>61</u>	<u>81</u>
Gwadar Dist.-	55	-	7	-	6	-	-	-	-	-
Turbat Dist.-	153	-	24	-	9	-	-	-	-	1
Panjgur Dist-	37	-	12	-	6	-	1	-	-	-
Mekran Div. 74	245	18	43	5	21	-	1	-	-	1

ii) Enrollment of Schools, 1961 and 1981.

	Primary		Middle		High Sch.		Inter-College		Degree-Co	
	<u>61</u>	<u>81</u>	<u>61</u>	<u>81</u>	<u>61</u>	<u>81</u>	<u>61</u>	<u>81</u>	<u>61</u>	<u>81</u>
Gwadar	-	3308	-	429	-	131	-	-	-	-
Turbat	-	8662	-	1320	-	371	-	147	-	-
Panjgur	-	3982	-	633	-	139	-	77	-	-
Mekran	1236	15952	664	2382	41	641	14	224	1	-

(Sources: Population Census Report, 1961 and Development Statistics of Baluchistan 1981-1982)

3) HEALTH

i) Number of Hospitals, Dispensaries, Rural Health Centers, and T.B. Clinics, 1978 and 1981

	Hospitals		Dispensaries		Rural Health Centers		T.B.Clinics	
	<u>78</u>	<u>81</u>	<u>78</u>	<u>81</u>	<u>78</u>	<u>81</u>	<u>78</u>	<u>81</u>
Gwadar	-	-	7	7	2	1	-	-
Turbat	1	1	30	21	-	1	1	1
Panjgur	-	-	4	1	1	3	-	-
Mekran	1	1	41	29	3	5	1	1

ii) Number of Doctors, Nurses, L.H. Visitors and Midwives, 1981.

	Doctors	Nurses	L.H. Visitors	Midwives
Gwadar	3	-	1	15
Turbat	7	2	3	24
Panjgur	4	-	2	16
Mekran	14	2	6	55

(Source: Development Statistics of Baluchistan 81-82)

4) FISHERIES

i) Marine Fish Catch on Mekran Coast in Metric Tons.

	<u>1962</u>	<u>1967</u>	<u>1972</u>	<u>1977</u>	<u>1981</u>	<u>1982</u>
Volume	18,500	20,620	45,820	64,350	74,140	66,990

(Source: Development Statistics of Baluchistan 1981-1982)

5) LIVESTOCK

i) Livestock Census 1972 and 1976.

	<u>Sheep</u>	<u>Goats</u>	<u>Cattle</u>	<u>Buffaloes</u>	<u>Camels</u>	<u>Horses/Mules</u>
Mekran Dist. 1972	227,777	347,101	38,463	66	18,526	395
Mekran Dist. 1976	385,155	499,576	76,648	70	41,996	1132
	<u>Donkeys</u>	<u>Poultry</u>				
1972	14,346	101,437				
1976	33,331	206,975				

(Sources: Livestock Census Reports, 1972 and 1976)

6) TRANSPORTATION

In November 1983 the cost of transporting commodities over-land by truck or bus between Turbat and Karachi was 27 Rs. per 40 kgs. A per kilogram rate of .68 Rupees.

7) AGRICULTURE

The most important crops grown in Mekran at this time seem to be dates and fodder crops. Summary tables of these crops are listed below. For detailed agricultural statistics of all major crops grown in Mekran see Climate and Agriculture: Selected Statistics for Mekran Division, 1969-1982.

i) Area, Production and Yield of Dates, 1969-1982

	<u>1969</u>	<u>1975</u>	<u>1980</u>	<u>1982</u>
Area (hectares)				
Gwadar	--	--	648	648
Turbat	--	--	4286	4338
Panjgur	--	--	1649	1679
Mekran	6154	6418	6583	6665
Production (Metric tons)				
Gwadar	--	--	5740	5610
Turbat	--	--	37800	37850
Panjgur	--	--	15200	15340
Mekran	54700	61918	58740	58800
Yields (Kg/hect. of bearing trees)				
Gwadar	--	--	9210	9005
Turbat	--	--	9280	9282
Panjgur	--	--	9240	9252
Mekran	--	--	9260	9247

ii) Area, Production and Yield of Fodder crops, 1974-1982.

	<u>1974-75</u>	<u>1979-80</u>	<u>1980-81</u>	<u>1982</u>
Mekran Division				
Area				
(hectares)	660	5910	1800	2194
Production				
(Metric tons)	22460	200,000	80,460	115,390
Yield				
(Kg/hect.)	33820	33,860	44,720	52,693

(Sources: Agricultural Statistics of Baluchistan, reports from 1974, 1981, and 1982.)

SELECTED SOCIO-ECONOMIC STATISTICS FOR MEKRAK DIVISION*

I. Population, Housing and Economic Status

- 1) Population by Sex, Area, and Persons Per Square Mile - 1951-61
- 2) Population (Urban/Rural) by Sex, By Tehsil/Takula 1961 and 1972 Mekran District.
- 4) Population by Sex, Age and Urban/Rural Areas - 1972
- 5) Mekran District.
- 6) Population by Single Year Age and Sex - Gwadar District.
- 7) Population by Single Year Age and Sex - Gwadar Sub-division.
- 8) Population by Single Year Age and Sex - Pasni Sub-division.
- 9) Population by Single Year Age and Sex - Turbat District.
- 10) Population by Single Year Age and Sex - Dasht Sub-division.
- 11) Population by Single Year Age and Sex - Tump Sub-division.
- 12) Population by Single Year Age and Sex - Turbat Sub-division.
- 13) Population by Single Year Age and Sex - Panjgur District/
- 14) Sub-division.
- 15) Houses, Households, Persons in the Household by Sex and
- 16) Average Number of Persons Per Household and House - 1960.
- 17) Households by Number of Persons and Average Number of
- 18) Persons Per Household and by Tenure - 1960.
- 19) Households by Tenure of Premises Occupied Showing Number of
- 20) Rooms and Average Number of Rooms Per Household - 1960.
- 21) Households by Size and Urban and Rural Areas - 1972 Mekran District.
- 22) Housing Units by Number of Rooms and Household Size - Gwadar.
- 23) Housing Units by Number of Rooms and Household Size - Panjgur.
- 24) Housing Units by Number of Rooms and Household Size - Turbat.
- 25) Housing Units by Source of Drinking Water, Light and Cooking Fuel Used - Gwadar.
- 26) Housing Units by Source of Drinking Water, Light and Cooking Fuel Used - Panjgur.
- 27) Housing Units by Source of Drinking Water, Light and Cooking Fuel Used - Turbat.

*Sources: District Census Reports, 1961; 1972; 1981; and Development Statistics of Baluchistan 1981-1982

- 38) Population by Economic Status, Age Group and Sex - 1961.
- 39)
- 40) Pakistan Standard Classification of Occupations Major Group
- 41) of Professional, Technical and Related Workers.
- 42)
- 43) Population (10 years and above) Working and Looking for Work by Occupation, Sex and Broad Age Group. Gwadar District.
- 44) Population (10 years and above) Working and Looking for Work by Occupation, Sex and Broad Age Group. Turbat District.
- 45) Population (10 years and above) Working and Looking for Work by Occupation, Sex and Broad Age Group. Panjgur District.
- 46) Population (5 years and above) by Educational Institutions
- 47) Attendance Sex and Age Group. Gwadar District, - Rural, Urban.
- 48) Population (5 years and above) by Educational Institutions Attendance Sex and Age Group - Turbat District.
- 49) Population (5 years and above) by Educational Institutions Attendance Sex and Age Group - Turbat District (Urban).
- 50) Population (5 years and above) by Educational Institutions Attendance Sex and Age Group - Panjgur District.
- 51) Population (5 years and above) by Educational Institutions Attendance Sex and Age Group (Panjgur District (Urban)).
- 52) Population (10 years and above) by Sex, Age, Literacy, and Urban and Rural Areas 1972, Mekran District.
- 53) Population by Sex, Population Density, Household Size, Decennial Change and Annual Growth rate - Gwadar District. Urban Localities by Population and Their Population by Sex Gwadar District Number of Rural Localities by Population, Size and Their Population by Sex - Gwadar District.
- 54) Population by Sex, Population Density, Household Size, Decennial Change and Annual Growth Rate - Turbat District.
- 55) Population by Sex, Population Density, Household Size, Decennial Change and Annual Growth Rate.- Panjgur District. Urban and Number of Rural Localities by Population Size and Their Population by Sex - Panjgur District.
- 56) Number of Persons Gone Abroad During the Last 10 Years - Gwadar District.
- 57) Number of Persons Gone Abroad During the Last 10 Years - Turbat District.
- 58) Number of Persons Gone Abroad during the Last 10 Years - Panjgur District.

II. Education

- 59) Recognized Educational Institutions in 1961, Mekran District.
- 60) Students Attending Schools in 1961.
- 61)
- 62) Number of Teachers by District - Baluchistan. 1978-79 to 1980-81 (as on 15th October, 1981).
- 63) Number of Primary Schools by Sex and by District - Baluchistan 1978-79, 1979-80, 1980-81 (as on Oct. 15, 1981).
- 64) Enrollment of Primary Schools by Sex and by District - Baluchistan. 1978-79, 1979-80, 1980-81.
- 65) Number of Middle Schools by Sex and by District - Baluchistan, 1978-79 to 1981.
- 66) Enrollment of Middle Schools by Sex and by District - Baluchistan, 1978-79 to 1980-81 (as on 15th Oct. 1981).
- 67) Number of High Schools by Sex and by District Baluchistan 1978-79 to 1980-81 (as on 15th Oct. 1981).
- 68) Enrollment of High Schools by Sex and by District Baluchistan 1978-79 to 1980-81 (as on 15th Oct. 1981).
- 69) Inter Colleges by Sex and by District Baluchistan. 1979-80 to 1980-81. (As on 15th Oct. 1982).
- 70) Enrollment of Inter Colleges by Sex and by District Baluchistan. 1978-79 to 1980-81.
- 71) Number of Degree Colleges by Sex and by District Baluchistan 1978-79 to 1980-81.
- 72) Enrollment of Degree Colleges by Sex and by District Baluchistan 1978-79 to 1980-81.
- 73) Number of Teachers in Inter Colleges by Sex and by District in Baluchistan 1978-79 to 1980-81.
- 74) Number of teachers in Degree College by Sex and by District Baluchistan 1978-79 to 1980-81.
- 75) Number of Polytechnic, Commercial, Vocational and Teachers Training Schools Elementary Education College by District Baluchistan, 1978-79 to 1980-81.
- 76) Enrollment of Polytechnic, Commercial, Vocational and Teacher Training Schools/Elementary Education College by District Baluchistan 1979-80 to 1981-82.
- 77) Number of teachers in Polytechnic, Commercial, Vocational and Teachers training School/Elementary Education College by District Baluchistan 1979-80 to 1981-82.
- 78) Classwise Level/Grade Enrollment of Students by Sex and by District Baluchistan 1977-78 to 1979-80.

III. Health

- 79) Number of Government Hospitals With Their Beds by District Baluchistan.
- 80) Number of Government Dispensaries With Their Beds by District Baluchistan.
- 81) Number of Rural Health Centres and T.B. Clinics with Their Bed Strength by District Baluchistan 1978-79 to 1, 1, 1982.
- 82) Number of Doctors, Nurses, L.H. Visitors and Dais by District 1980-81.
- 83) Districtwise Number of Outdoor Patients Treated in Hospitals/Dispensaries, Rural Health Centres, etc., in Baluchistan Province during the year 1981.

IV. Prices

- 84) Average Wholesale Market Prices of Crops Quetta Market. 1974-75 to 1980-81.
- 85) Baluchistan Production Average Wholesale Market Prices and Value of Crops 1981-82.
- 86) Average Wholesale Market Prices of Fruits (Quetta Market) 1974-75 to 1980-81.
- 87) Baluchistan Production Average Wholesale Market Prices and Value of Fruits 1981-82.
- 88) Average Wholesale Market Prices of Vegetables (Quetta Market) 1974-75 to 1980-81.
- 89) Baluchistan Production Average Wholesale Market Prices and Value of Vegetables 1981/82.
- 90) Expenditure Index Taking Sibi as Base Station.
- 91) Average Price Level of Essential Commodities and Per Family Consumption-Turbat District.
- 92) Average Price Level of Essential Commodities and Per Family Consumption - Panjgur District.
- 93) Average Price Level of Essential Commodities and Per Family Consumption - Gwadar District.

V. Fisheries

- 94) Marine Fish Production in Baluchistan from 1977-1982 (in 000 Metric Tons).
- 95) Marine Fish Production on Mekran Coast Baluchistan 1962 to 1982.
- 96) Monthwise Production and Value at Marine Fish on Mekran Coast. Baluchistan 1980 to 1982.

- 97) Local Consumption and Exportable Surplus of Fish on Mekran Coast - Baluchistan 1972 to 1982.
- 98) Catch of Fish on Mekran Coast - Baluchistan 1978-1982.

VI. Miscellaneous

- 98) Number of Farms, Average Size of Farms and Cultivated Area by Districts 1960.
- 99) Livestock Slaughtered inside the Recognized Slaughterhouse by District - Baluchistan 1979-80 to 1980-81.

CLIMATE AND AGRICULTURE,
SELECTED STATISTICS FOR MEKRAN DIVISION 1969 - 1982*

<u>No.</u>	<u>Contents</u>
1)	Average Temp. F° at Panjgur and Jiwani 1969-73
2)	Average Temp. C° at Panjgur 74-81
3)	Average Temp. C° at Jiwani 74-81
4)	Average Temp. F° at Ormara 69-73
5)	Average Temp. C° at Ormara 74-81
6)	Average Temp. C° at Pasni 74-81
8)	Highest Max. Temp. C° for selected sites, Baluchistan 1982
9)	Lowest Max. Temp. C° for selected sites, Baluchistan 1982
10)	Rainfall in inches and Av. Humidity % at Turbat 69-73
11)	Rainfall in inches and Av. Humidity % at Jiwani and Ormara 69-73
12)	Rainfall in mm. and Av. Humidity % at Jiwani 74-81
13)	Rainfall in mm. and Av. Humidity % at Ormara 74-81
14)	Rainfall in inches and Av. Humidity % at Panjgur and Pasni 69-73
15)	Rainfall in mm. and Av. Humidity % at Panjgur 74-81
16)	Rainfall in mm. and Av. Humidity % at Pasni 74-81
17)	Rainfall in mm. for selected sites, Baluchistan 1982
18)	Average Humidity % for selected sites, Baluchistan 1982
19)	Land Utilization in Mekran District 70-74
20)	Land Utilization in Mekran Division 75-81
21)	Land Utilization in Turbat District 75-81
22)	Land Utilization in Panjgur District 75-81
23)	Land Utilization in Gwadar District 75-81
24)	Land Utilization in Baluchistan 81-82
25)	Area irrigated by different sources in Mekran District 70-74
26)	Area irrigated by different sources in Turbat and Panjgur Districts 75-81
27)	Area Irrigated by different sources in Gwadar District 75-81
28)	" " " " " " Baluchistan 81-82
29)	District-wise area reclaimed 81-82
30)	Number of Tube wells by type and ownership, Mekran District 70-7
31)	" " " " " Mekran Division 75-8
32)	" " " " " Panjgur and Turbat Districts 75-81
32a)	" " " " " Baluchistan 81-82

*Sources: Agricultural Statistics of Baluchistan, 1974; 1981; 1982; and Development Statistics of Baluchistan 1981-1982.

- 33) Area of sweet water and water table by Tehsil and Locality, Mekran District
- 34) Number of tractors by year and ownership, Mekran District 70-74
- 35) Number of tractors in Public Sector by District 75-81
- 36) Number of tractors in Private Sector and area reclaimed by District 75-81.
- 37) District-wise number of tractors and bulldozers in Baluchistan 81-82
- 38) Irr. and Unirr. area and prod. of wheat crop, Mekran District 70-74
- 39) Area, Prod. and Yield of Wheat crop, Mekran Division 75-81
- 40) " " of Wheat crop in Turbat and Panjgur Districts 75-81
- 41) " " of HYV Wheat in Mekran Division 75-81
- 42) " " of HYV Wheat in Turbat and Panjgur Districts 75-81
- 43) " " of Wheat, District-wise, Baluchistan 81-82
- 44) Area, Prod. and Yield of HYV Wheat, District-wise, Baluchistan 81-82
- 45) " " of Wheat (other Var.) District-wise, Baluchistan 81-82
- 46) Irr. and unirr. Area and Prod. of Rice, Mekran District 70-74
- 47) Area, Prod. and Yield of Rice crop, Mekran Div. and Turbat District 75-81
- 48) Area, Prod. and Yield of Rice crop in Panjgur District 75-81
- 49) " " of IRRI rice crop in Turbat District 75-81
- 50) " " of Rice, District-wise, Baluchistan 81-82
- 51) " " of IRRI rice, District-wise, Baluchistan 81-82
- 52) " " of Rice (other var.), District-wise, Baluchistan 81-82
- 53) Irr. and unirr. Area and Prod. of Jowar crop in Mekran District 70-74
- 54) Area, Prod. and Yield of Jowar crop in Mekran Division 75-81
- 55) " " " " in Turbat and Panjgur Districts 75-81
- 56) Area, Prod. and Yield of Jowar crop, District-wise, Baluchistan 81-82
- 57) Irr. and unirr. Area and Prod. of Barley crop in Mekran District 70-74
- 58) Area, Prod. and Yield of Barley crop in Mekran Division 75-81
- 59) " " " " in Turbat and Panjgur Districts 75-81
- 60) Area, Prod. and Yield of Barley crop, District-wise, Baluchistan 81-82
- 61) Irr. and unirr. Area and Prod. of Cotton crop in Mekran District 70-74

- 62) Area, Prod. and Yield of Cotton crop, District-wise, Baluchistan 81-82
- 63) Area, Prod. and Yield of Jowar (fodder crop) in Mekran Division 75-81
- 64) Area, Prod. and Yield of Jowar (fodder crop) in Turbat and Panjgur Districts 75-81
- 65) Area, Prod. and Yield of Jowar (fodder crop), District-wise Baluchistan 81-82
- 66) Area, Prod. and Yield of Lucern crops in Mekran Division 75-81
- 67) " " " in Turbat and Panjgur Districts 75-81
- 68) Area, Prod. and Yield of Lucern crops, District-wise, Baluchistan 81-82
- 69) Area, Prod. and Yield of Moth (fodder crop) in Turbat District 75
- 70) " " of Guar (fodder crop) in Turbat District 75
- 71) " " " " , District-wise Baluchistan 81-82
- 72) Irr. and unirr. Area and Prod. of Fodders (green) in Mekran District 70-74
- 73) Area, Prod. and Yield of Fodder crops in Mekran Division 75-81
- 74) " " " in Turbat and Panjgur Districts 75-81
- 75) Area, Prod. and Yield of Fodder crops, District-wise, Baluchistan 81-82
- 76) Irr. and unirr. Area and Prod. of Onions in Mekran District 70-74
- 77) Area, Prod. and Yield of Onions in Mekran Division 75-81
- 78) " " " in Turbat and Panjgur Districts 75-81
- 79) Area, Prod. and Yield of Onions, District-wise, Baluchistan 81-82
- 80) Irr. and unirr. Area and Prod. of Tomatoes in Mekran District 70-74
- 81) Area, Prod. and Yield of Tomatoes in Mekran Division 75-81
- 82) " " " in Turbat and Panjgur Districts 75-81
- 83) Area, Prod. and Yield of Tomatoes, District-wise, Baluchistan 81-82
- 84) Irr. and unirr. Area and Prod. of Chillies in Mekran District 70-74
- 86) Area, Prod. and Yield of Chillies in Turbat District 75-81
- 87) " " " in Panjgur District 75-81
- 88) " " " , District-wise, Baluchistan 81-82
- 89) Irr. and unirr. Area and Prod. of Melons in Mekran District 70-74
- 90) Area, Prod. and Yield of Melon crop in Mekran Division 75-81

- 91) Area, Prod. and Yield of Melon crop in Turbat and Panjgur Districts 75-81
- 92) Area, Prod. and Yield of Melon crop in Gwadar District 75-81
- 93) " " , District-wise, Baluchistan 81-82
- 94) Area, Prod. and Yield of Watermelon crop in Mekran Division 75-81
- 95) " " " " " " in Turbat and Panjgur Districts 75-81
- 96) Area, Prod. and Yield of Watermelon crop in Gwadar District 75-81
- 97) " " " " , District-wise Baluchistan 81-82
- 98) Area, Prod. and Yield of Muskmelon crop in Mekran Division 75-81
- 99) " " " " in Turbat and Panjgur Districts 75-81
- 100) Area, Prod. and Yield of Melon crop, District-wise, Baluchistan 81-82
- 101) Irr. and Unirr. Area and Prod. of Masoor crop in Mekran District 70-74
- 102) Area, Prod. and Yield of Masoor crop in Panjgur District 75-81
- 103) " " " " , District-wise, Baluchistan 81-82
- 104) Irr. and unirr. Area and Prod. of Mash crop in Mekran District 70-74
- 105) Area, Prod. and Yield of Mash crop in Mekran Division 75-81
- 106) " " " " in Turbat and Panjgur Districts 75-81
- 107) Area, Prod. and Yield of Mash crop, District-wise, Baluchistan 81-82
- 108) Area, Prod. and Yield of Pulses crop in Mekran Division 75-81
- 109) " " " " in Turbat and Panjgur Districts 75-81
- 110) Area, Prod. and Yield of Pulses crop, District-wise, Baluchistan 81-82
- 111) Area, Prod. and Yield of Garlic crop in Turbat and Panjgur Districts 75-81
- 112) Area, Prod. and Yield of Garlic crop, District-wise, Baluchistan 81-82
- 113) Irr. and unirr. Area and Prod. of all Vegetables in Mekran District 70-74
- 114) Area under Vegetables by Districts 75-81
- 115) Production of Vegetables by Districts 75-81
- 116) Area and Production of Vegetables, District-wise, Baluchistan 81-82
- 117) Area under Lady Finger (Okra) by Districts 75-81
- 118) Production of Lady Finger (Okra) by Districts 75-81

- 119) Area under Tinda by Districts 75-81
- 120) Production of Tinda by Districts 75-81
- 121) Area, Prod. and Yields of Lady Finger and Tinda, District-wise, Baluchistan 81-82
- 122) Area under Brinjal by Districts 75-81
- 123) Production of Brinjal by Districts 75-81
- 124) Area, Prod. and Yield of Brinjal, District-wise, Baluchistan 81-82
- 125) Area under Cabbage by Districts 75-81
- 126) Production of Cabbage by Districts 75-81
- 127) Area, Prod. and Yield of Cabbage, District-wise, Baluchistan 81-82
- 128) Area under Carrots by Districts 75-81
- 129) Production of Carrots by Districts 75-81
- 130) Area, Prod. and Yields of Carrots, District-wise, Baluchistan 81-82
- 131) Area under Peas by Districts 75-81
- 132) Production of Peas by Districts 75-81
- 133) Area, Prod. and Yields of Peas, District-wise, Baluchistan 81-82
- 134) Area under Bagla (Broad Beans) by Districts 75-81
- 135) Production of Bagla by Districts 75-81
- 136) Area, Prod. and Yields of Bagla, District-wise, Baluchistan 81-82
- 137) Area under Spinach by Districts 75-81
- 138) Production of Spinach by Districts 75-81
- 139) Area, Prod. and Yields of Spinach, District-wise, Baluchistan 81-82
- 140) Area under other Vegetables by Districts 75-81
- 141) Production of other Vegetables by Districts 75-81
- 142) Area, Prod. and Yields of other Vegetables, District-wise, Baluchistan 81-82
- 143) Area under All Fruits by Districts 70-74
- 144) " " " : 75-81
- 145) New Area brought under Fruits, District-wise, Baluchistan 81-82
- 146) Production of All Fruits by Districts 70-74
- 147) " " " 75-81
- 148) Area under Citrus by Districts 70-74
- 149) " " " 75-81
- 150) New Area brought under Citrus by Districts 75-81
- 151) Production of Citrus by Districts 70-74
- 152) Production of Citrus by Districts 75-81
- 153) Yields per Hectare of Citrus by Districts 75-81
- 154) Area, Prod. and Yields of Citrus, District-wise, Baluchistan 81-82
- 155) Area under Dates by Districts 70-74

- 156) Area under Dates by Districts 75-81
- 157) New Area brought under Dates by Districts 75-81
- 158) Production of Dates by Districts 70-74
- 159) " " " 75-81
- 160) Yields per Hectare of Dates by Districts 75-81
- 161) Area, Prod. and Yields of Dates, District-wise, Baluchistan 81-82
- 162) Area under Grapes by Districts 70-74
- 163) " " " 75-81
- 164) New Area brought under Grapes by Districts 75-81
- 165) Production of Grapes by Districts 70-74
- 166) " " " 75-81
- 167) Yields per Hectare of Grapes by Districts 75-81
- 168) Area, Prod. and Yields of Grapes, District-wise, Baluchistan 81-82
- 169) Area under Pomegranates by Districts 70-74
- 170) " " " 75-81
- 171) New Area brought under Pomegranates by Districts 75-81
- 172) Production of Pomegranates by Districts 70-74
- 173) " " " 75-81
- 174) Yields per Hectare of Pomegranates by Districts 75-81
- 175) Area, Prod. and Yields of Pomegranates, District-wise, Baluchistan 81-82
- 176a) Area under other Fruits by Districts 70-74
- 176) Area under other Fruits by Districts 75-81
- 177a) Production of other Fruits by Districts 70-74
- 177) Production of other Fruits by Districts 75-81
- 178) Area, Prod. and Yields of other Fruits, District-wise, Baluchistan 81-82
- 179) Area under Bananas by Districts 75-81
- 180) Production of Bananas by Districts 75-81
- 181) Yields per Hectare of Bananas by Districts 75-81
- 182) Area, Prod. and Yields of Bananas, District-wise, Baluchistan 81-82
- 183) Area under Guava by Districts 75-81
- 184) New Area brought under Guava by Districts 75-81
- 185) Production of Guava by Districts 75-81
- 186) Yields per Hectare of Guava by Districts 75-81
- 187) Area, Prod. and Yields of Guava, District-wise, Baluchistan 81-82
- 188) Area under Mangoes by Districts 75-81

- 189) New Area brought under Mangoes by Districts 75-81
- 190) Production of Mangoes by Districts 75-81
- 191) Yields per Hectare of Mangoes by Districts 75-81
- 192) Area, Prod. and Yields of Mangoes, District-wise,
Baluchistan 81-82
- 193) Consumption of Fertilizer (Tons) by Districts 75-81
- 194) " " (Nutrient tons) by Districts 75-81
- 195) Consumption of Nitrocensus Fertilizer by Districts 75-81
- 195a) Consumption of Nitro Phos Fertilizer " 75-81
- 196) " Phosphatic Fertilizer by Districts 75-81
- 197) Consumption of Potassic Fertilizer by Districts 75-81
- 198) Consumption of D.A.P. Fertilizer by Districts 75-81
- 199) Consumption of Urea Fertilizer by Districts 75-81
- 200) Consumption of T.S.P. Fertilizer by Districts 75-81
- 201) " of S.O.P. " " 75-81
- 202) " of Fertilizer in N.P.K. by Districts 81-82
- 203) " " Baluchistan 81-82
- 204) " " in relation to cropped area 81-82
- 205) List of Fertilizers Sold and Consumed in Turbat 1974 - Nov. 1983
- 206) Area, Prod. and Yields of All crops grown in Turbat District
81-82
- 207) Area, Prod. and Yields of All crops grown in Panjgur District 81-
- 208) Area, Prod. and Yields of All crops grown in Gwadar District 81-

BALUCHISTAN AREA DEVELOPMENT PROJECT

DOCUMENT CENTER

List of Holdings

TOPIC KEY

- A - Food Production
 - Ag - Agriculture
 - Al - Livestock
- D - Development Strategies/Policy
- E - Economics (Macro/Micro), Socio-Economic Data
- S - Sociology, Social Organization
- P - Regional Planning/Area Development
- H - Health and Nutrition
- K - Education
- F - Industry/Technology
- I - Infrastructure (Roads, Water Supply, Electrification, etc.)
- C - Environment/Climate
- B - Bibliography

BALUCHISTAN AREA DEVELOPMENT PROJECT

DOCUMENT CENTER

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