

District Development P R O F I L E 2 0 1 1

Gwadar - District Development Profile 2011

Gwadar



Planning & Development Department
Government of Balochistan, Quetta



United Nations Children's Fund
Provincial Office Balochistan, Quetta



Planning & Development
Department, Government of Balochistan
in Collaboration with UNICEF



District Development

P R O F I L E

2 0 1 1

Gwadar

Prepared by



Planning & Development
Department, Government
of Balochistan, Quetta

in Collaboration with



United Nations
Children's Fund
Provincial Office
Balochistan, Quetta

July 18, 2011

Message

In this age of knowledge economy, reliance on every possible tool available for decision making is crucial for improving public resource management, bringing parity in resource distribution and maximizing impact of development interventions. These District Development Profiles are vivid views of Balochistan in key development areas. The Planning and Development Department, Government of Balochistan is highly thankful to UNICEF Balochistan for the technical and financial support for this maiden initiative. Untiring hard work has gone into shaping the development profiles. Appreciate our efforts by using the profiles profusely.

Ali Zaheer Hazara
Additional Chief Secretary (Development)
June, 2011

Foreword

The Balochistan District Development Profile 2010 is a landmark exercise of Planning and Development Department, Government of Balochistan, to update the district profile data that was first compiled in 1998. The profiles have been updated to provide a concise landmark intended for development planning, monitoring and management purposes. These districts profiles would be serving as a tool for experts, development practitioners and decision-makers/specialists by giving them vast information wrapping more than 18 dimensions from Balochistan's advancement extent. These profiles have been transformed into useful documents by extracting and summarizing up-to-date, vast and comprehensive information on socio-economic status and resources of each district.

Development planning in Balochistan has always been challenging for planners due to its difficult and rugged terrain, remote and sparsely populated regions. This generally inhibits an informed planning process due to limited knowledge of the areas targeted for development. An effort has been made to collate and present information regarding socio-cultural, economic and demographic status, status of productive & social sectors and district resources. This effort can be considered unique for the Balochistan Province when seen in connection with GIS-based mapping in the form of detailed datasets. Contents of the profiles show linkages among populated areas and social sector amenities. Maps have been prepared to facilitate departments/agencies involved in development works in timely and effective decision making regarding provision of health, education and infrastructural facilities etc. to public at large. The atlas provides geographical view at the precincts of district and the level of detail goes up to Union Councils. The details involve spatial spread of population, health facilities and their coverage, status of education and literacy and overview of other social and productive sectors. The overall information encompasses essential graphical and alpha-numeric facets of geo-spatial content that can be deemed imperative for any kind of development activity.

The format of the profiles makes information easily understandable and readily accessible to a broad group of users, including decision makers, planners, amenity providers, researchers and relevant stakeholders. The data selected for the purpose is considered vital for policy development, local area (district level) planning and for monitoring and evaluation of social sector services. It is also of major significance for suggesting improvements in resource allocation at the macro level, i.e., physical areas, services and population groups. Data has been collected from the line departments of each district, provincial reports, departmental MIS and major household surveys such as MICS and PSLM.

Presently, in the absence of any other single comprehensive information resource, the district profile will serve as a ready reference for decision-makers assisting them to carry out more informed decision making and subsequent planning for the provisioning of amenities to the people of Balochistan and ultimately for the benefit of our country as whole.

Shahid Pervez
Chief Economist

Acknowledgement

We are highly indebted to a number of individuals and institutions that extended invaluable support and cooperation without which successful completion of this assignment would not have been possible.

Planning and Development Department of Government of Balochistan provided the overall leadership to this assignment. Mr. Arif Hussain Shah, Chief of Section (Federal Projects / Programming/ MICS), lead the conceptual design, reviewed and commented on outputs, and helped in obtaining spatial data from other departments; besides, providing technical guidance in preparing the District Development Profiles. Mr. Zamran Marri, Research Officer also reviewed and edited outputs.

Relevant government line departments at the district and provincial levels including: Education, Health, Livestock, C&W, PHE and Mines & Mineral that extended their full cooperation and provided necessary data. We are also thankful to the Commissioners and Deputy Commissioners for their invaluable support and guidance to the process.

Contractual oversight as well as technical and financial support was provided by UNICEF, Balochistan. Mr. Zulfiqar Durrani, Social Policy, Planning, Monitoring and Evaluation (SPME) Officer, UNICEF, remained involved in each step of the process and provided valuable technical comments that helped refining. We are also thankful to AusAid for its generous support (through UNICEF) that enabled us to complete the task timely and smoothly. We are extremely grateful to the staff members of Computer Section and Library of Planning and Development Department for enabling the team to have access to books and other valuable resources.

It fails to do justice to many things if the efforts of M/S Eycon (Pvt.) Ltd. and Innovative Development Organization (IDO) are not mentioned here. They performed conscientiously under tight deadlines and difficult circumstances to deliver quality outputs.

Aslam Shakir Baloch
Joint Chief Economist

TABLE OF CONTENTS

MESSAGE	ii
FOREWORD	iii
ACKNOWLEDGEMENT	iv
ACRONYMS AND ABBREVIATIONS	vi
DISTRICT AT A GLANCE	viii
DISTRICT MAP	xi
SECTION I	1
1 Introduction and Background	3
2 Social Organization	6
3 Demography and Housing	10
4 District Government	13
5 Municipal Services	17
6 Law and Order	19
SECTION II: Productive sector	21
7 Agriculture and Horticulture	23
8 Livestock	32
9 Fisheries	39
10 Forestry	44
11 Mining	50
12 Industry and Manufacturing	52
13 Economic Infrastructure and Communications	53
SECTION III: Social infrastructure	61
14 Water Supply and Sanitation	63
15 Health and Nutrition	67
16 Education	74
SECTION IV	85
17 Sports	87
18 Community Development and Social Welfare	88
19 Women/Girl Child Development	92
20 Disaster Risk Reduction	95
21 District Accounts and Development Funds	99
ANNEXURES	103
Annexure A: District Government	105
Annexure B: Law and Order	106
Annexure C: Agriculture and Horticulture	108
Annexure D: Livestock	110
Annexure E: Forestry	111
Annexure F: Economic Infrastructure and Communication	112
Annexure G: Water Supply and Sanitation	113
Annexure H: Health and Nutrition	114
Annexure I: Education	116
Annexure J: Community Development and Social Welfare	119
Annexure K: District Accounts and Development Funds	120
Annexure L: List of Villages (Rural)	121
Annexure M: Balochistan Map by Divisions	122
Some Websites	123
Bibliography	124

ACRONYMS AND ABBREVIATIONS

A. I.	Artificial Insemination
AD	(Anno Domini) after the traditional date of Christ's birth
ADBP	Agriculture Development Bank of Pakistan
ADP	Association for the Development of Pakistan
AIDS	Acquired Immune Deficiency Syndrome
ALCs	Adult Literary Centers
ANC	Antenatal Care
API	Annual Parasite Incidence
ASI	Assistant Sub-Inspector
ASPL	Agriculture Sector Program Loan
BC	Before Christ
BCDA	Balochistan Coastal Development Authority
BEF	Balochistan Education Foundation
BEMIS	Balochistan Education Management Information System
BHUs	Basic Health Units
BLGA	Balochistan Local Government Act
BLGO	Balochistan Local Government Ordinance
BOS	Bureau of Statistics
BPS	Basic Pay Scale
C&W	Communication and Works
CBO	Community Based Organization
CCB	Citizen Community Board
Cds	Civil Dispensaries
CDWA	Clean Drinking Water for All
CIPs	Community Implementation Partners
DDMA	District Disaster Management Authority
DDRRP	District Disaster Risk Reduction Plan
DEWS	Diseases Early Warning System
DFI	Development Financing Institutions
DFO	Divisional Forest Officer
DHIS	District Health Information System
DHQ	District Headquarter
DOH	District Officer Health
DRM	Disaster Risk Management
DRR	Disaster Risk Reduction
DRRMP	Disaster Risk Reduction Management Plan
DSP	Deputy Superintendent of Police
DSV	District Superintendent of Vaccination
EC	Election Commission
ECCE	Early Childhood Care Education
EDO	Executive District Officer
EFA	Education for All
EmONC	Emergency Obstetric Natal Care
EPI	Expanded Program on Immunization
FBS	Federal Bureau of Statistics
FLCFs	First Level Care Facilities
FP	Family Planning
GDA	Gwadar Development Authority
GEF	Global Environment Facility
GER	Gross Enrollment Rate
GO	Government Organization
GoB	Government of Balochistan
GPA	Gwadar Port Authority

GRAP	Gender Reforms Action Plan
ha	Hectares
HIV/AIDS	Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome
HIV/STIs	Human Immunodeficiency Virus/Sexually Transmitted Infections
IT	Information Technology
IUCN	International Union for Conservation of Nature
JICA/SCC	Japan International Cooperation Agency/State Customs Committee
JVT	Junior Vernacular Teacher
K.M	Kilo Meter
KESC	Karachi Electric Supply Corporation
KPIs	Key Performance Indicators
LG	Local Government
LHWMIS	Lady Health Worker - Management Information System
LIEDA	Lasbela Industrial Estates Development Authority
M.C.C.	Metallurgical Corp of China Ltd
MCB	Muslim Commercial Bank
MCHCs	Maternal & Child Health Centers
MDGs	Millennium Development Goals
MHI	Muslim Hands International
MICS	Multiple Indicator Cluster Survey
MNA	Member National Assembly
MPA	Member Provincial Assembly
MS	Medical Superintendent
MSA	Maritime Security Agency
MSL	Mean Sea Level
NADRA	National Database and Registration Authority
NAR	Net Attendance Ratio
NCHD	National Commission for Human Rights
NDMA	National Disaster Management Authority
NEP	National Education Policy
NGOs	Non-Governmental Organizations
NHA	National Highway Authority
NOC	National Occupational Classification
OPD	Outpatient Department
PCD	Passive Case Detection
PDMA	Provincial Disaster Management Authority
PEC	Pakistan Engineering Council
PEMRA	Pakistan Electronic Media Regulatory Authority
PHED	Public Health Engineering Department
PRCS	Pakistan Red Crescent Society
PSDP	Public Sector Development Program
PSML	Pakistan Social and Living Standards Measurement Survey
PTA	Pakistan Telecom Authority
PTC	Pakistan Telecommunication Corporation
PTCL	Pakistan Telecommunication Company Limited
PVC	Polyvinyl Chloride
QESCO	Quetta Electric Supply Company
RHC	Rural Health Center
SHO	Station House Officer
SI	Sub-Inspector
SME	Small and Medium Enterprises
SP	Superintendent of Police
SSP	Senior Superintendent of Police
TB	Tuberculosis
TB DOTS	Tuberculosis Directly Observed Treatment, Short-course
TMA	Tehsil Municipal Administration
U/C, Ucs	Union Councils
UBL	United Bank Limited
UNDP	United Nations Development Program
UNHCR	United Nations High Commissioner for Refugees
UNICEF	United Nations International Children's Emergency Fund
WWF	World Wildlife Fund

DISTRICT AT A GLANCE

Major Facts

District Status	1st July, 1977
Geographical Area	15,216 square kilometer (Census 1998)
Geographical Points	61°36'38"-65°14'19" East longitudes and 25°01'58"-25°49'3" North latitudes
Administrative Units	There are total 4 Tehsils and 13 Union Councils (LG Balochistan)
Archaeological Sites	Kalimat, Forts in Gwadar
Major Ethnic Groups	Baloch tribes (Hoots, Gihckis, Kauhadas, Meers, Kalmati, Dashti and Rind)
Languages	Balochi
Climate	The climate of Gwadar is hot and humid. The highest rainfall of 227 millimeters (8.9 in) in 24 hours was recorded on 6 June 2010.

Demography

District Population in 1998	185,498 Total, 99,436 Male, 86,062 Female (Census 1998)
Projected Population in 2010	264,168 Total
Population Annual Growth Rate	2.99% (Census 1998)
Household Size	5.5 (Census 1998)
Housing Units	33680 (Census 1998)

Law & Order	4 Police Stations, 1 Qazi Courts, No Jail (District Police Officer)
-------------	---

Productive Sector

Agriculture Ecological Zone	Tropical
Land Area Used for Agriculture	Current Fallow 15,062 ha., Net Sown 2,880 ha., Arable Land 17,942 ha., Culturable Waste 32,277 ha., Potential Area 50,219 ha., (Agriculture Statistics, 2008-09)
Major Crops	Rabi Crops: Lentil (Masoor) , Vegetables, Fodder. Kharif Crops: Fruits, Vegetables, Melons and Coriander.
Major Fruits	Dates, Mangoes, Citrus, Banana, Guava, Loquat, Papaya, Coconut, Chickoo.

Total Livestock Population	125,173 (Livestock Census, 2006) and 140,326 (Projected 2010)
Veterinary Institutions	3 Veterinary Hospitals, 9 Veterinary Dispensaries, 1 Slaughter House, 1 Government Dairy Farm, 2 Government Poultry Farms
Major Diseases in Animals	Lung-Worm-Infestation, Wire-Worm-Infestation, Liver Fluke, Mange/Mites, Ticks, Systematic, Metabolic, Contagious, Non-Contagious

Fisherman Population	49,971
Number of Fishing Craft	6,378
Annual Fish Catch	120,216 Metric Tons
Annual Revenue	97.4 Million
Annual Local Consumption	Data not found.

Total Forest Area	7,511 ha
Wild Life	Mammals: Caracal (Felis caracal), Honey Badger (Melivoracapensis), Chinkara (Gazellagazella), Ibex (Capra aegagrus), Urial (Ovisvigneicycloceos), Stripped Hyena (Hyaenahyaena), Wolf (Canis lupus), Bengal Fox (Vulpesbengalensis), Asiatic Jackal (Canisaureus), Cape Hare (Lepuscapensis), Porcupine (Hystrixindica), Hedgehog etc.
Birds:	The typical terrestrial bird groups found in the district are Wheatears, Common Babbler, Larks, Sand Grouses, Partridges, the Houbara Bustard, Shrikes, Buntings, Bee-eaters, Hoopoes, as Pigeons and Doves, Brown-headed Raven, Owls and birds of prey (Eagles, Vultures, Hawks, Buzzards, Falcons) etc. The major birds found along coast line, lagoons and estuaries are Seagulls, Terns, Pelicans, Flamingos, Herons, Egrets, Plovers, Lapwings, Stints, Sandpipers, Godwits, Shanks, Coots, Curlews, King Fishers, Osprey, etc.
Reptiles:	The coastal areas are refuge of Green and Olive Ridley Turtles. Previously Marsh Crocodiles were found in the rivers but now a days they are rare. Spiny-tail Lizard, Black Rock Agama and Monitor Lizard are common Lizards found in the district. Among Snakes the Common Krait, two Cobras (the Common Cobra and the Brown or Oxus Cobra) and Vipers like Saw-scaled Sand Viper (Echinatuscarinatussochurecki) and Horned Viper (Pseudocerastuspersicus) commonly found in the district.

Major Mineral Deposits	Lime Stone, Bajri Sand, Ordinary Stone, Rock Salt and Sulphur
Major Mineral Production	Data is not available

Major Roads	Metalled/ Black Topped 279 Km, Shingle 934 Km
Tele-density	3759 Telephone Line Connections (2009)
Courier Services	10 Post Offices, 30 Post Boxes
Banks	19 Public Banks

Social Sector

Drinking Water Sources	73% Improved, 27% Un-improved (MICS 2010)
Sanitation Facilities	81% Improved, 19% Un-improved (MICS 2010)

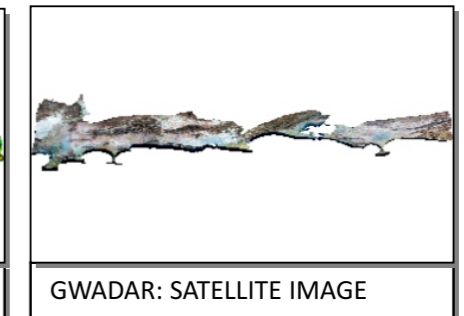
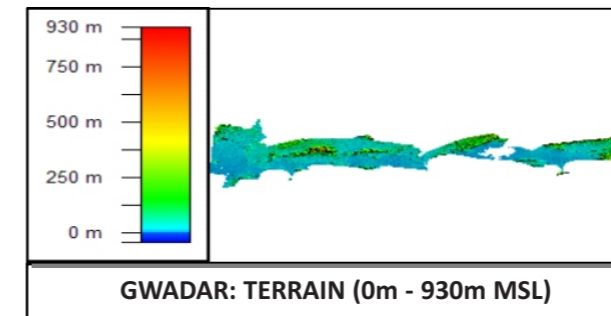
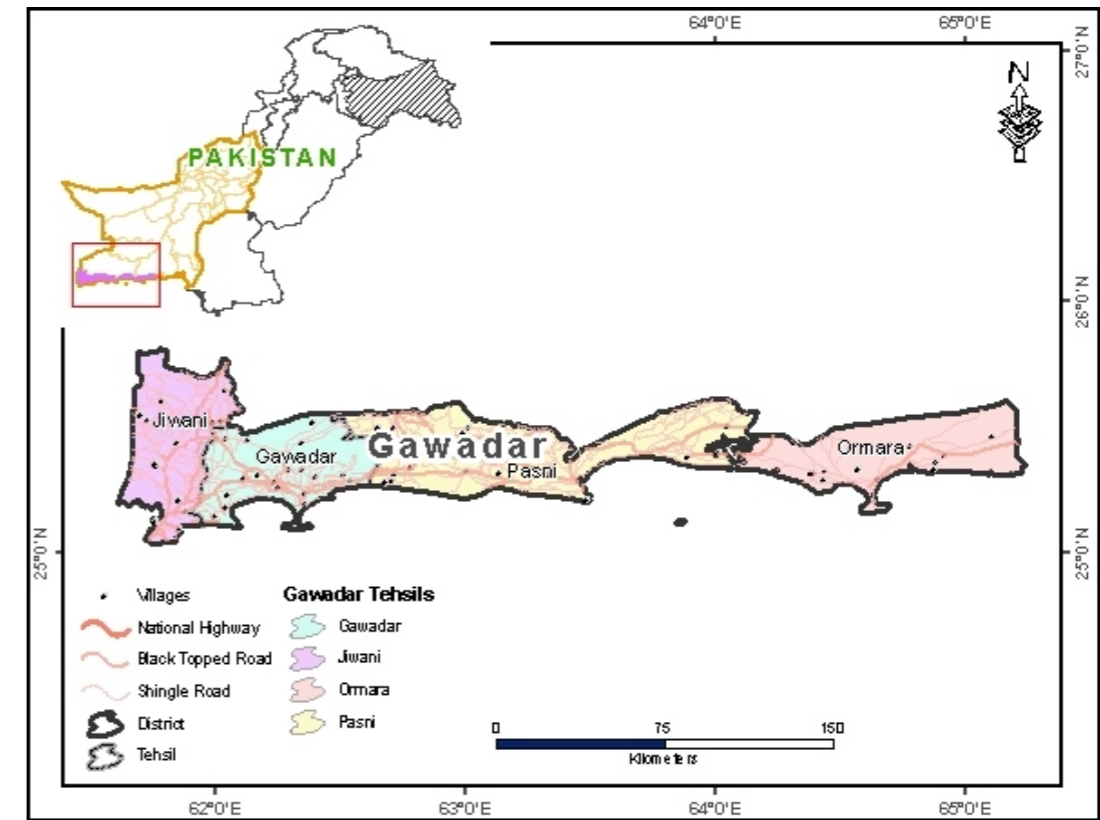
Health Facilities	1 Hospital (Public Sector), 3 RHCs, 23 BHUs, 15 CDs, 3 MCH Centers, 1 TB Clinic,
Health Facilities Staff	21 Doctors , 131 Para-medical Staff
Antenatal Care (ANC)	44% (MICS 2010)
Skilled Birth Attendant (SBA)	17% (MICS 2010)
Deliveries at Home	80% (PSLM 2008-09)
Major Priority Diseases	Respiratory, Gastro Intestinal, Malaria, Meningitis, Fever
Special Health Programs / Initiatives	Expanded Program on Immunization (EPI), TB Control Program, Malaria Control Program, Hepatitis Prevention and Control Program, AIDS Control Program, National Program for Family Planning & Primary Health Care, MNCH Program
Reporting and Surveillance Systems	HMIS and DHIS, LHW-MIS, Disease Early Warning System (DEWS)

DISTRICT MAP

Area-wise district Gwadar is the 9th largest district in Balochistan and has an area of 15,216 square kilometers, Gwadar lies between 61°36'38"-65°14'19" East longitudes and 25°01'58"-25°49'3" North latitudes consisting of 4 *Tehsils* and 13 Union Councils. Gwadar located at 1,400km (aerial distance) south-west (230 degrees bearing) of Pakistan's Capital City Islamabad.

Education	Literacy (10+): 61%, Literacy (15+): 54%, Primary GER: 99%, Middle GER: 53%, Metric GER: 41%, Population Ever Attended School: 61%, Completed Primary or Higher Level: 49% (PSLM 2008-09) Primary NAR: 55%, Secondary NAR: 36% (MICS 2010)
Number of Schools	Primary: 213, Middle: 17, High: 16 (BEMIS 2009-10)
Disasters	Tropical cyclone of June / July 2007: Human deaths: 24, Houses damaged: 3,750, Agriculture loses: 4,520 acres, Livestock lost: 10,484 heads, Poultry birds perished: 7,829, Schools Buildings Damaged: 28, National Highway affected: 40Km, Link Roads Damaged: 75 km, Tube wells affected: 350 (PDMA)
District Accounts	PSDP Budget Allocation (2009-10) 277.4 million, Budget Release 277.4 million, Total Expenditures 28.0 million, *Percentage Utilization 10.09%

*when data was being collected





SECTION I

- 1 Introduction and Background
- 2 Social Organization
- 3 Demography and Housing
- 4 District Government
- 5 Municipal Services
- 6 Law and Order

1

INTRODUCTION AND BACKGROUND

Gwadar was notified as a separate district on 1st July, 1977. The name originates from *Gwat* which means air and *Dar*, the door. The district headquarter is in "Gwadar" town. The district is located in the south-west of the Quetta City, the provincial capital of Balochistan, sharing its boundaries in the west with Iran. District Lasbela is in the east and Kech and Awaran Districts are in the north.

Due to the deep sea port, Gwadar District has been developing fast. It has a scenic coastal highway that originates from district Lasbela and passes through the Gwadar district. The district has a 620 Kms coastline along Arabian Sea. The most significant feature of the Gwadar District is Gwadar Port, a deep sea warm water port. It is located on the eastern bay of a natural hammer-head protrusion of land, from the coast, distended into the apex of Arabian Sea. By virtue of its geographic location and developmental projects, Gwadar is going to be an advanced and developed coastal city at par with other famous coastal cities of the world, in the coming years. The terrain of the district is mountainous and consists of coastal plains and valleys having an elevation ranging from 0 to 930 meters above Mean Sea Level. (MSL)

Table 1.1: Tehsils and Union Councils of District Gwadar

Tehsil	Union Council
Gwadar	Central Gwadar, Gwadar Southern, Gwadar Northern, Pishukan, Surbandar
Jiwani	Jiwani, Suntsar
Ormara	Hud, Ormara
Pasni	Kallag, Nalaint, Pasni Northern, Pasni Southern

There are total 4 Tehsils and 13 Union Councils in the district

(Local Government, Balochistan, 2005)

1.1. Historical Background

The Makran Region surrounding Gwadar was occupied by the ancient Bronze Age people who were settled in the few oases. Later, it became the Gedrosia region of the Achaemenid Persian Empire which is believed to have been conquered by the founder of the Persian Empire, Cyrus the Great. During the homeward march of Alexander the Great, his admiral, Nearchus, led a fleet along the modern-day Makran coast and recorded that the area was dry, mountainous and inhabited by the "Ichthyophagoi" (or "fish eaters"), a Greek rendering of the ancient Persian phrase "Mahikhoran" (then it became "Makran"). After the collapse of Alexander's empire, the area was ruled by Seleucus Nicator, one of Alexander's generals. In 303 BC, Gwadar witnessed the advent of Alexander the Great, followed by the rule of Chandra Gupta Moria. A detailed history of the later period is missing.

The inhabitants of Gwadar were Baloch and their chief was Malik Jeleddin, son of Malik Dinar. In 1783, the Khan of Gwadar granted authority over *Gwadar* to Taimur Sultan, the defeated ruler of Muscat. When Taimur Sultan reclaimed Muscat, he continued his rule in Gwadar by appointing a governor there.

Gwadar officially became a district on July 1, 1977, when Makran Division was created having three districts. Gwadar town is the headquarter of Gwadar District. Previously, it was one of the 3 *Tehsils* of the then Makran District - before Makran was upgraded to a Division. For administrative purposes, the district is further divided into two sub-divisions, namely Gwadar and Pasni.

Gwadar became a part of Pakistan in September 1958. Keeping in view the needs of the Central Asian States, Afghanistan and China, the Government of General Pervez Musharraf decided to construct a deep sea port at Gwadar (third port of

Pakistan) and China assisted in building the port and the coastal highway. It is being planned to link Gwadar to other major cities of the country as well as with Central Asia through the railway and road networks.

The strategic location of Gwadar is very important, because it is 72 kms from Iran and 400 Kms from the Strait of Hormuz. Gwadar deep sea mega project had commenced in *March 2002*.

Annual rainfall recorded in Gwadar is 100 mm (3 inches) on average, but, in June 2010 the city was battered by a Cyclone 'Phet' followed with record breaking heavy rainfall of 372 mm and winds up to 75 mph.

1.2. Tribes Ethnic Groups and Languages

The principal tribe of District Gwadar is Baloch, which is further divided into sub-tribes that are: Kauhda, Hoath, Gichki, Kalmati, Dashti and Rind. The language spoken in the district is *Balochi*.

1.3. Climate

The climate of District Gwadar is hot and humid in summer and mild in winter. The uniformity of temperature is a unique characteristic of the coastal region in Balochistan. Occasionally, winds in Balochistan plateau bring cold spells, otherwise the winter is pleasant. Winter is shorter than summer. The weather of district is identical to that of the Middle-East as rain occurs mainly during the months of December and January. However, the highest rainfall of 227 millimetres (8.9 in) in 24 hours was recorded on 6 June 2010.

Table 1.2: Rainfall (mm) and Temperature (°C)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean	Total
Rainfall	19.5	3.8	0	0	0	1	0	20	0	0	0	27	5.9	71.3
Maximum Temp.	24	26	31	33	34	35	33	32	33	34	31	27	31	-
Minimum Temp.	11	10	16	21	25	27	26	25	24	21	15	12	19	-

(RMC, Karachi, 2008)

1.4. Topography

Geographically, Gwadar District is a vast mountainous region consisting of ridges and hills. Between the ridges, the plains' soil is generally fertile and suitable for growing wheat, cotton, fruit and vegetable. The coastline extends in the east-west direction and is almost deserted. The Makran coast lies in the seismic zone. The coastline is deeply indented with bays but its most characteristic feature is the repeated occurrence of promontories of white clay cliffs capped with coarse limestone or shelly breccias, which all approach the table topped form. The terrain comprises of ground elevation of Makran coast range up to 1,000 meters above sea level. Pasni is about 0-200 meters above sea level.

The important rivers and streams in the district include Shadi Kaur, Sawad and Dasht Rivers with its tributaries Nilag and Daddeh.

Gwadar District touches the Hingol hills at its eastern end, which bound the western side of the Lasbela plain. It continues west-ward in one mass, of which little is known about 64th east parallel, where it commences to bifurcate. The main mass continues south-west and develops into the *Talar-e-band* ridge, which ends abruptly at Suntsar above Dasht River. The other part continues westward from Tal-e-sar, south of Hoshap in a well defined ridge, which forms the southern boundary of Kech valley also called the famous Gokprosh hills. Gokprosh hills continue west-ward into Iran.

At Pasni the main mass runs down southward to the sea after which it again retreats to enclose the Kulanch valley; on the western side, it once again stretches down an offshoot south-ward in the shape of *Koh-e-Dadamb*. Throughout its length,

the ridges of *Koh-e-Dramb* composed increase gradually in height towards north, the watershed being formed in the extreme north. As the slopes, approach the sea, and the height of the hills gradually decreases and at many places seems to be a little more than a mass of hillocks.



2.1. Introduction

The social organization of the district, in the past was, no doubt, predominantly tribal and patriarchal but with passage of time the inhabitants of the district had exposure to the middle east and gulf which made the society more liberal as compared to other places in Balochistan. The females are highly respected and their voice is considered in decision making, to a great extent, but still there is a long way to go to ensure gender equality in the district.

There are mainly two classes in the district including Baloch and Golams (also called darzadas). Baloch are predominant and further divided into various tribes as mentioned in the previous paragraphs. All these tribes have got their lands and property; however, Golams were imported from the African countries by the feudals, in the past, and worked as servants in their houses and lands. With the passage of time this concept gradually faded and Golams have got their property, status, business and employed in various government and other jobs.

The people are mostly dependent on fisheries, agriculture, livestock, business and overseas jobs in Oman and United Arab Emirate. However, some people are engaged in industries, public services, petty trades and the informal sector.

2.2. The Family

In town areas, the single family system is preferred to a joint family system where people are residing for professional reasons. Having limited income they prefer to live independently, whereas in rural areas, the majority of the people live in joint families. The eldest male member takes care of all the family members. His decision is normally considered as final in family affairs. In rural areas the people live in joint families, however, the trend for single family is rising in urban areas. The family institution is very important as it provides social security during un-employment and financial crisis. It also plays an important role in social interaction and conflicts.

2.3. Marriage

The father of the boy usually accompanied by a few relatives and elder members of the family pays a visit to the girl's family and proposes girl's marriage to his son from her father. If their proposal is accepted, prayers are said for welfare of the new couple. The boy's parents are congratulated and then the betrothal ceremony takes place. It is considered binding for both parties. The marriage date is fixed with the consent of girl's parents. Certain ceremonies, which are more social than religious in nature, are performed. On the marriage day, the bridegroom with his relatives and friends proceeds to the bride's house. They are entertained there at the expense of the bridegroom's parents and the Nikah performed.

The amount of the bride price (Haqmehr) is usually settled between the parents of bride and bridegroom before Nikah, which is paid before or after the marriage. Unlike other areas the Labb (bride price) or Haqmehr (dower), received in marriage contract, is owned by the bride herself instead of parents and she enjoys full right how to spend it. Haqmehr can be paid in the form of primary food articles, gold, property and sheep or goats for the arrangement of feast. *Haqmehr* is more prevalent in Gwadar as it is considered for social & economic security and prestige of the girl. Polygamy is usually not practiced in Gwadar. Majority of girls have limited say in their marriages. The bride has full autonomy in using, spending, or selling the items received as *Haqmehr*. The *Haqmehr* is partially paid at the time of marriage and the remaining is given in a written form. If the husband divorces his wife, he would pay full amount of dower. Conversely, if wife demands divorce, she would withdraw her rights of *Haqmehr*. After the death of the wife, the amount of *dower* is divided among her children according to Muslim inheritance laws. The custom of exchange marriages is generally not practiced in the district.

2.4. Social Organization

As the society is predominantly patriarchal, decision-making is in the hands of men and the decisions are usually followed by the women. Women have limited say in the decision making process, however, in some urban families they are allowed to give their opinion to a great extent. Society is structured on kinship bases and each group is attached to a particular tradition, founded on different rules of social organization. Most of these rules and traditions have undergone a considerable transformation over the time.

The political organization is built purely on political party basis and the parties with nationalistic approaches and manifestos are normally elected. In Gwadar district the people with better political background, affiliated with a strong nationalist political party and having a charismatic personality normally gets elected in the Provincial Assembly, National Assembly and the local bodies. However, occasionally the independent candidates have won the elections but only with the support of nationalist parties

2.5. Customs of Co-operation

The people of Gwadar cooperate and assist each other at the time of marriage in the shape of Bijjar, by giving gifts and cash to the groom. People also assist the family of the deceased by providing them food for three days till Soyem (third day) and pay money or goat at the time of Fatiha (Condolence). People cooperate in case of any emergency in the area, or at the time of harvesting and sowing. People cooperate in case of any emergency in the area, or at the time of harvesting and sowing. Such forms of cooperation are called 'Hashari' and 'Beejar'.

Another form of co-operation is the management of water supply schemes by the community. These schemes were completed by the Public Health Engineering Department and handed over to the Water Management Associations and Committees at the community level. These associations fix tariff for water consumers, operate and manage the schemes and repair at their own.

2.6. Religious Beliefs

The majority of the people of the area are *Sunni* Muslims. They offer their prayers and observe fast in the month of *Ramazan*. Zikri sect is in minority and they go to Turbat city (in Kech) to practice their religious rituals called 'Ziarat'. There is also a small number of Agha Khanis called 'Khojas' living in the major towns of Gwadar, Pasni and Ormara. The people are generally liberal in their religious beliefs and practices. The main festivals are *Eid-ul-Fitar* and *Eid-ul-Azha*, which Muslims celebrate with a lot of joy. A large population from Gwadar district lives in Karachi, Iran, Oman and UAE and during the Eid occasion they usually join their families and relatives and celebrate at Gwadar.

2.7. Conflict Resolution

There are two main methods of conflict resolution in the district; one is official and the other is traditional. The official system involves government and the unofficial systems are based on the traditional Jirga and Biradri system.

The government system functions through civil and Qazi courts. The people file suit in courts to resolve their disputes but majority of people are poor and it is hard for them to hire a counsel/advocate and bear the court fee. People prefer Jirgas to settle their issues as it is considered reliable, consumes less time and does not involve any cost. The disputes are resolved under Jirga through imposition of penalties in the form of cash, land, kind or females given in marriage from the family which gets convicted to the family of the affected.

People prefer the Biradri (brotherhood) system, where they take their issues to a senior and influential person of the community, after a lengthy discussion they settle their disputes. In Gwadar, as in most of other areas of the province, the tribal retaliation is common and such disputes are eventually settled by compensation according to the tradition/Riwaj. Murder in retaliation is common and usually, in such cases compromises are made between the parties on customary practices and the murderer pays blood money in cash or in the form of property. Even due to imposing heavy penalties to the convicted party, the decrease in the offences and tribal retaliation could not be observed in the district.

Another system is official *Aman* (peace) Committee was constituted after Zikri-Muslim conflicts in 1987 for peace-keeping and conflict resolution. However, this Committee is, presently, non functional.

2.8. Arms

Those who are involved in tribal enmities, posses and carry arms. It is also considered as part of the culture. The influential and drug barons, in particular, move with several bodyguards carrying weapons such as rifles, Kalashnikovs and Kalakos which testifies their tribal power and position in the tribe and the society. As urbanization is increasing and people are getting involved in economic activities, arms are seen less.

2.9. Role, Position and Status of Women

Situation of women of Gwadar is not much different from women of other districts of Balochistan. They shoulder responsibilities pertaining to household affairs mostly. Young and elderly women have different status at home. Elderly women have high respect and they have substantial say in maintaining the house and managing affairs relating to children. In case of marriage of children women have greater say in decision making. Outside employment trend is not common. At household level, women may involve in stitching and embroidery work, which may also be sold in markets if so desired. Women have relatively limited chances of recreation. In Gwadar many women are found on picnic spots like Koh-e-Batil and Akra Kaur Dam along with their male family members. Indoor games are arranged for girls in their schools.

2.10. Apprenticeship and Child Labor

The economic status of families is comparatively better in the district; therefore a limited number of children are seen working as laborers. The people get a good income due to business at Karachi, Iran and Oman, a huge number of people is employed in the Gulf and Middle Eastern countries and significant number involved in fish business. Gwadar has the highest fish produce in Pakistan.

A majority of working children in the area find themselves working in deep-sea fishing, and boat making. Many children also take part in the daily operational activities of the newly developed port. In these workplaces, children are exposed to health hazards due to extreme climate conditions, overwork and exposure to chemicals and other dangers. No laws have been passed to protect the children working in the fishing industry.

District ranking for child well being index¹ is given below for comparison.

¹ Child well-being is quantified by deploying a measurement of deprivations in five domains - child survival, child education, water and sanitation, child protection, and shelter and information - which are weighed and combined into a single indicative number - a Child Well-being Index - for each district. Situation Analysis of Children and Women in Pakistan, Balochistan Province (2011)

Most and least developed districts in Balochistan by Child Well-being Index

12 most developed districts		19 least developed districts	
District / Area	CWI Ranking	District / Area	CWI Ranking
Kech	1	Ziarat	16
Quetta – Zarghoon	2	Kharan	17
Panjgur	3	Zhob	18
Quetta – Chiltan	4	Kohlu	19
Qilla Abdullah	5	Khuzdar	20
Gwadar	6	Mastung	21
Pishin	7	Kalat	22
Sibi	8	Bolan	23
Nushki	9	Dera Bugti	24
Lasbela	10	Washuk	25
Chaghai	11	Harnai	26
Jafarabad	12	Sherani	27
Barkhan	13	Jhal Magsi	28
Qilla Saifullah	14	Awaran	29
Loralai	15	Naseerabad	30
		Musakhel	31

Note: Quetta Zarghoon and Quetta Chiltan have separate ranking

2.11. Some Key Findings

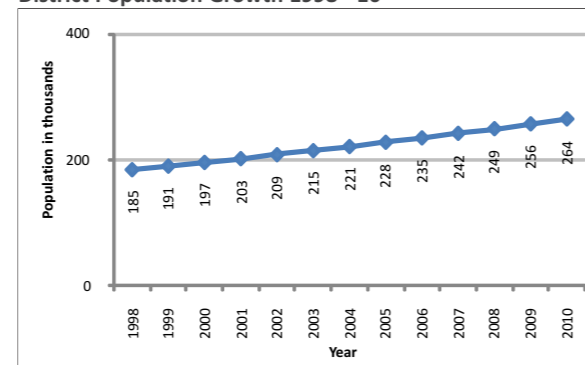
Gwadar is one of the districts of Balochistan which has its own characteristics of tribal society. However, tribalism in the true sense as prevalent in many other districts cannot be observed in the district. The people are mainly affiliated with the immediate relatives, small biradarries and joint families who cooperate with each other during any emergency, marriage or conflict. Due to Gwadar's emerging importance during the recent years the urbanization trends have also increased. The people have got a better exposure. Because of having dual nationalities, they very frequently visit Oman and UAE and a huge population is doing business in Karachi. Therefore, this can be a reason that why tribalism is losing ground in the district.

Inter-marriages among various ethnic groups or tribes often improve cooperation, understanding and socialization in the society. The development activities in the district have enhanced the government's as well as civil society's role in the management of people's affairs. Therefore, reliance on government's institutions for resolving the community's issues has increased.

Among the major problems, the availability of clean drinking water, proper sanitation, road networks and employment are worth mentioning from the perspective of the issues of the citizens. Although, during the last decade the mega projects like Gwadar sea port and coastal highway got completed but that still don't have visible effective impact to the lives of the common people. Hopefully, with passage of time and more development activities take place, prosperity will find its way in Gwadar's society.

Demography Details 2010 (Projected)	
Total Population (in thousands)	264
-Male	142 (54%)
-Female	123 (46%)
-Urban	143 (54%)
-Rural	122 (46%)
Sex Ratio (males/ 100 females)	116
Dependency Ratio	94
Population Density (person per sq. km)	21
Area Square Kilometer	12,637
Census 1998	
Total Population (in thousands)	185
Population Density (person per sq. km)	15
Average Household Size	6
Housing Units & Rooms	
Housing Units in thousands	34
Rooms per Housing Unit	1.3
Housing Tenure	
Owned	95%
Rented	2%
Rent Free	3%
Marital Status	
Never Married	29%
Married	65%
Widowed/ Divorced	5%
Other	
N.I. Card Obtained	56%
Muslim	99%
Non-Muslim	1%

District Population Growth 1998 - 10



(Census, 1998)

3.1. Population

Since independence, five population Censuses have been conducted in the years 1951, 1961, 1972, 1981 and 1998. The population reported in last four Censuses is presented in table 3.1 below while list of villages (rural area) with population and number of households is given in annexure L:

Table 3.1: Census Wise Population

	Population (in '000')				
	1961	1972	1981	1998	2010 (Projected)
Total Population	50	91	112	185	265
Male Population	n/f	n/f	n/f	99 (54%)	142 (54%)
Female Population	n/f	n/f	n/f	86 (46%)	123 (46%)
Urban Population	18 (37%)	37 (41%)	43 (38%)	100 (54%)	143 (54%)
Rural Population	32 (63%)	54 (59%)	69 (62%)	85 (46%)	122 (46%)
Sex Ratio (Males per 100 females)	n/f	n/f	112	115	115
Number of Households (in '000')	n/f	n/f	18	18	n/f

(Population Census Organization) n/f: Data not found

3.2. Population Growth Pattern

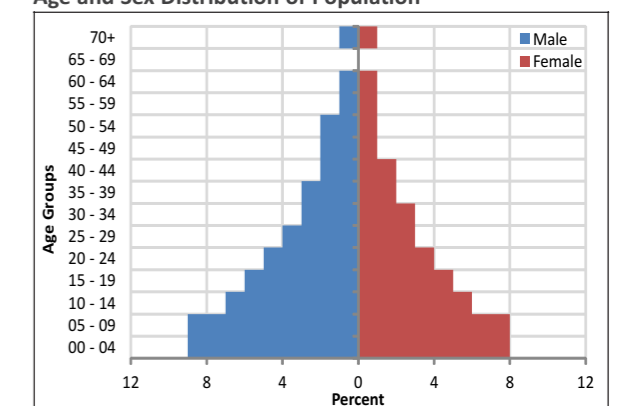
According to the Census of 1998, the reported population of District Gwadar was 185000 and the designated annual growth rate was calculated to 3%. The population growth rate, in the past, has always been on higher side in the district in contrast to other districts of Balochistan. Between the Censuses of 1961 and 1972 the population increased by 82%, between 1972 and 1981 it increased by 23 % and between 1981 and 1998 it increased immensely by 65.2 %. By applying the annual growth rate (3%) of Census 1998 the projected population in 2010 is estimated to be 265000 which shows an increase of 42.4%.

3.2.1. Population Distribution by Gender and Age

The population is characterized by high growth rate of 3% per annum with 46% population under 15 years old, almost 52% was working age from 15-64 years old and percentage of the senior citizens, more than 65 years old, was the lowest at only 2%. This indicates that District Gwadar is having a high proportion of young people and a low proportion of old people. About 65% of the women of reproductive age, 15-49 years old, were married and of which 89% had children.

The gender breakup in population shows that the male population was slightly higher than that of females, and for every 100 females, there were 115 males.

Age and Sex Distribution of Population

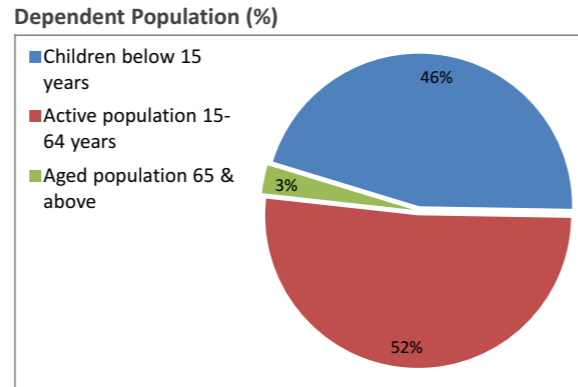


(Census, 1998)

3.3. Dependent Population

The economically dependent population is, usually, considered to be less than 15 years of age and 65 years olds and above. In addition, the widows or divorced women are also considered dependent. According to the Census 1998, nearly half(49%) of the population in the district was dependent including higher share of youth, under 15 years, dependency of 46%, old age dependency of 32%, and 5% dependent population of widows or divorced women. The dependent

population seems to be very high being an enormous burden to the district's economy which can affect the upbringing of the youth and to the development, in general.



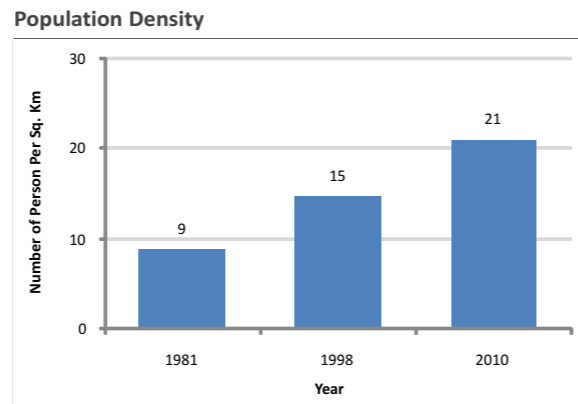
(Census, 1998)

3.4. Population Share by Urban and Rural

The urban population, in 1998 census was reported at 54 %, which significantly increased after 1981 when it was only 38.5 %. Urban population was mostly settled in the major towns of Gwadar, Pasni and Ormara. The remaining almost 46 % of the population is still in rural areas. The male-female ratio in urban areas was 115:100, and in rural area it was 116:100.

3.5. Population Density

Balochistan is a sparsely populated province which is almost half of the country, area wise and comprises almost 5.6% population of the whole country. Population density is generally very low and it varies from district to district and Gwadar district is also not densely populated. According to 1998 census population per square kilometer was 15 individuals and the projected population of 2010 is almost 21 individuals with an increase of 6 people over the past 12 years period.



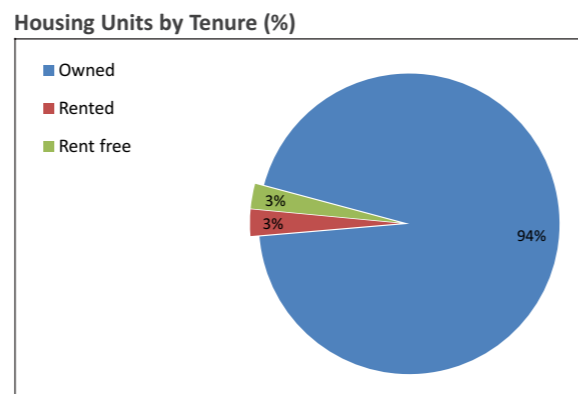
(Census, 1998)

3.6. Average Household Size

The average household size was 5.5 persons per household according to the Census reports of 1998, which was less than that of the country and the province. The employment of the adult male family members in Gulf States might have resulted in a relatively smaller household size.

3.7. House Tenure

According to 1998 Census, 94 % of the houses were owned by the residents however, the rest of the houses were either on rent or without rent but were not owned by the residents. House renting trend is only in urban areas with 5% and primarily due to establishment of various government offices in the district, which do not have their own buildings. Besides, most of the immigrant labors also live in rented places, which has further increased the trend.



(Census, 1998)

4 DISTRICT GOVERNMENT

4.1. Administrative Division

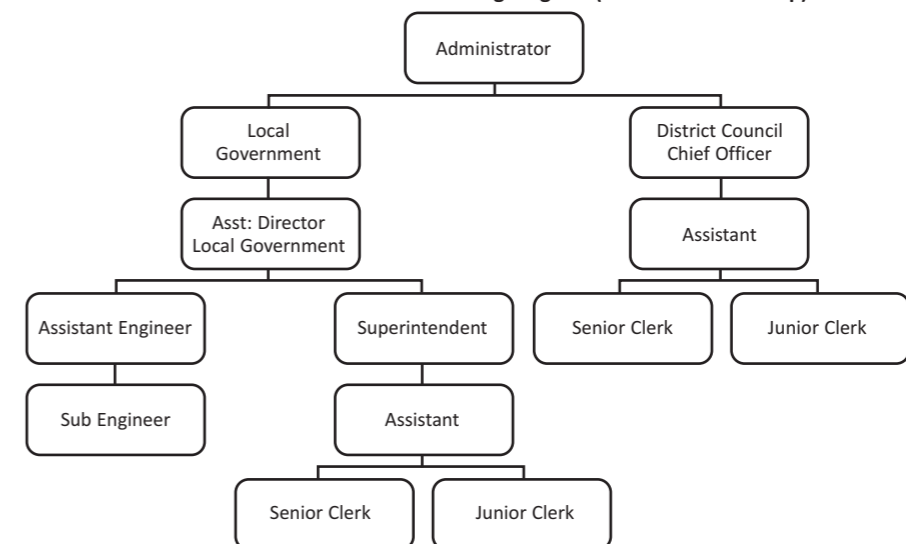
Gwadar was notified as district on July 1, 1977 when Makran District was given the status of a division and was divided into 03 districts. Previously it was one of 03 *Tehsils* of Makran District. For administrative purposes, the district was divided into 02 sub-divisions, Gwadar and Pasni. These sub-divisions were further sub-divided into *Tehsils* and sub-*Tehsils*. Gwadar sub-division comprises 2 *Tehsils*, Gwadar and Jiwani and 1 sub-*Tehsil* called Suntsar. Pasni sub-division was also divided into Pasni and Ormara *Tehsils*.

4.2. A Brief History of Local Government Institutions

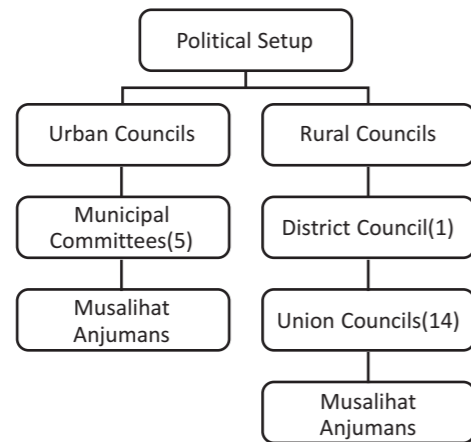
The first ever Local Government System introduced in the year 1957, in Gwadar, was Village Aid program, even before it was declared a district. Under this program, 26 Village Councils were formed having the strength of 312 Councilors. Later, in 1959 this system was replaced by the Basic Democracies Order. As per the new system 19 Union Councils and 3 Town Committees were established in the whole Makran District (Comprising the present Gwadar, Kech and Panjgur districts). However, in 1969, all these Local Government institutions were suspended and were completely abolished subsequently on 22nd January, 1972. In the year 1975 another Local Government system was introduced in the light of Balochistan Local Government Act 1975 but elections were never held. Similarly, in the 1979 Local Government system, in the light of BLGO 1980, one district council, two municipal committees, two town committees and thirteen union councils were established and made functional.

The BLGO 1980 was replaced by BLGO 2001 with the concept of District Government which was Gwadar administrated through a single line of administration encompassing both the rural as well as the urban areas. The system continued for two tenures and later with approval of BLGA 2010 it was modified and brought in conformity with BLGO 1980. Since elections have not been held under BLGA 2010, the district is in a transition phase to change the administrative structures from the BLGO 2001 to BLGA 2010 provisions.

Local Government Administration Organogram (Administrative Setup)



Local Government Organogram (Political Setup)



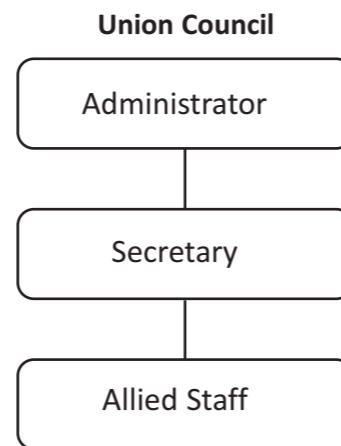
4.3. Local Government Administration

The Local Government Institution, in urban areas of District Gwadar, comprised of the Municipal Committees (MC) headed by respective chairmen and ward members. The size of these MCs depends on population of the area. The government is represented by one Chief Officer, who assists the chairman and members in routine office work. There is a special allocation for representation of women, peasants/workers and minorities in the local bodies. Similarly at the District Council all the union councils are represented by one member each, besides, 33% of females and 5% of peasants and workers representation.

4.4. Functions of Local Government

4.4.1. Union Council

After BLGA 2010, there are 13 Union Councils in the district where each Union Council serves a population ranging from 1,000 to 1,500 persons. Women representation, in each Union Council, is 33% and that of peasant/worker is 5%. The Union Councils are supposed to undertake the development works related to public health, education, agricultural development and economic welfare, articles of food and drink, issuance of birth and death certificates. At present, they are not functioning as Local Government elections have not been held under BLGA 2010. Every Union Council is allowed to generate its own sources of revenue by duty taxes and fee as specified in the second schedule of the BLGA 2010. They also resolve conflicts among the villagers through *Musalihat Anjumans* and are independent to make decisions within their jurisdiction. However, some of the decisions pertaining to finances have to be formally approved by the District Council. The administrative structure of Union Council is in diagram:

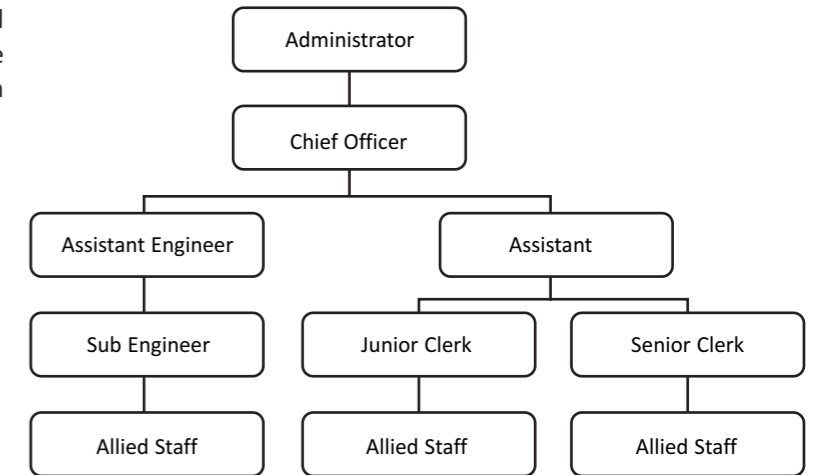


4.4.2. Municipal Committee

There are 4 Municipal Committees working established in the urban areas of Gwadar comprising Gwadar, Jiwani, Ormara and Municipal Committee Pasni. According to the rules of BLGA, Municipal Committees are constituted for those areas where population ranges from 20000-25000. Women and workers/peasants have representation in this regard. The minorities' representation is determined through government's notification, based on the population of minorities living in the area. The Municipal Committees are responsible to provide public health, water supply, drains, articles of food and drink, animals and cattle, education, public safety, town planning, building control, streets and arboriculture. The

Municipal Committees pay taxes and rates as determined under part III of the second schedule of BLGA 2010. The administrative setup of Municipal Committee is given ahead in the organogram.

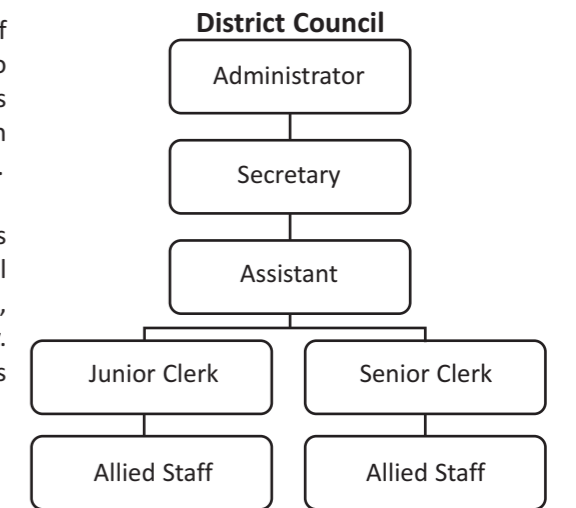
Municipal Committee



4.4.3. District Council

There are 13 Union Councils' representatives in District Council of Gwadar, one from each Union Council. Special seats are allocated to the representatives of workers/peasants, women and minorities as discussed in detail in the above paragraphs. All the elected chairmen of the Municipal Committees are also members of the District Council.

The District Council is concerned with rural development activities and functions related to health, public health, education, agricultural development and economic welfare, articles of food and drink, drainage, livestock and dairy development, culture and public safety. The District Council can generate revenue by levying fees and various taxes as given in part II of second schedule of BLGA 2010.



4.5. Local Government in Gwadar

The Balochistan Local Government Act 2010 provides the constitution of Local Government institutions for rural and urban areas and is mainly responsible for local level development and provision of municipal services to people. The institutions will be in place following the announcement of the Local Government elections by the Provincial Government.

4.6. Electoral System

4.6.1. Elections

The total number of registered voters as per Local Government elections 2005 list was 88,346. The number of male registered voters was 46,338, whereas the female registered voters were 42,008. The figure reflects a slight gender gap in the number of registered voters at the district level.

4.6.2. Provincial and National Assembly Seats

The district has got one constituency of Provincial Assembly and one representative jointly with Kech district for National Assembly NA-272.

4.6.3. Number of Polling Booths during Last LG Elections

A total of 154 polling stations were set up at the district level to provide facilitation to the voters for casting their votes in their nearest vicinity during the last Local Government elections. The number of polling booths for male and female was same because one each polling booth for male voters and female voters was established in each polling station.

4.7. Federal and Provincial Government Services

The data regarding Federal and Provincial Government services at the district level could not be collected.

4.8. Complaints and Accountability Mechanism

There is no complaint and accountability mechanism available in the district. The office of Ombudsman has not been devolved at the district level to facilitate the people in addressing their complaints and grievances. Similarly, District Public Safety and Police Complaints Commission provided under Police Order have also not been notified.

5 MUNICIPAL SERVICES

Municipal services reported in the district include public health, water supply, sanitation, provision of quality food & drink items, public safety, town planning, building control, maintenance of streets, car parking, bus stands, health and education. Because of the frequent amendments in the Local Government system proper data could not be either maintained or properly updated.

5.1. Administration of Municipal Services and Assets

5.1.1. Assets

The Municipal administration of District Gwadar owns a significant number of properties, which help in generating some revenue for the Local Government but the revenue record is not being properly maintained at the district. The Municipal Committees possess 08 shopping centers and 01 residential quarter.

5.1.2. Public Health

The most important duty of Municipal Committee is to provide service relating to public health, proper sanitation system, drinking water supply, control of infectious diseases and building control facilities. Due to elimination of district based Local Government system, no such information on hygiene is recorded in the district. Only the outlet facility of sanitation was reported in the district.

5.1.3. Water Supply

Clean drinking water supply is an important mandate of the municipal services, working under the Water Regulatory Authority.

5.1.4. Public Safety

Fire fighting facility is available in Gwadar District which has got only one vehicle and 4 staff members. The community has been imparted training on disaster risk management and a cell has also been established in this regard, with the assistance of United Nations Development Program, which is fully equipped and functional.

5.2. Town Planning

Gwadar Development Authority (GDA) has made an international standard master plan for the city and some phases of the plan have also been implemented. Besides, the demarcation of various important sites and main highways has also been carried out. However, the MC doesn't have any established mechanism for town planning.

5.3. Building Control

The GDA has got a well established department and architectural experts which give approval to the housing schemes and other constructions within the city according to the master plan.

5.4. Streets

One of the major responsibilities of Municipal administration is to look after the affairs relating to streets such as streets'

provision and maintenance, measures for preventing encroachments, proper street lighting, and regulation of traffic. However, only street light maintenance issue is being properly dealt with only in the major towns of the district.

5.5. Other Municipal Services

The display and hoarding, car parking, bus stands, graveyard maintenance, fumigation, control over dangerous animals as well as development and maintenance of community parks are also among prime responsibilities of municipality services. Only one park was reported in the district.

5.6. Revenue Generation

The revenue generated by Municipal office through property transfer fee, licensing fee, birth and death certificates, parking fee, slaughter house and various other taxes, is yet to be reported.

6 LAW AND ORDER

The following paragraphs will discuss the law enforcement agencies' resources, major cognizable crimes, judicial services, prison and jail facilities and development schemes from the perspective of district Gwadar.

6.1. Geographical Coverage

In District Gwadar, there are two main law enforcement agencies police and levies for controlling law and order situation. Levies force comprises the local tribesmen which performs the police functions mostly in the rural areas very effectively. There are four police stations, which mostly cover the urban/town area, however, the rest of the district is patrolled by levies force having 6 levies thanas. For further details, please see table B1 Annexure B.

6.2. Human Resource

There are 633 police personnel comprising a Senior Superintendent (SP), 1 Superintendent, 4 Deputy Superintendents (DSPs), 4 Station House Officers (SHOs), 33 Sub-Inspectors (SIs), 44 Assistant Sub-Inspectors (ASI) and 177 Constables. The Provincial Levies force has strength of 223 personnel, including 37 Hawaldars, 6 Risaldars/Naib Risaldars, and 180 Sipahis. For further details, please see table B2 Annexure B. Levies force is controlling the major area of the district but as compared to the police the levies' human resource is very low which needs a significant increase.

6.3. Resources

The police force in the district is equipped with 97 vehicles and levies force has got only 14 vehicles. For further details please see table B3 Annexure B.

6.4. Major Cognizable Crimes

During the last five years, the reported cases of explosion were 78, rioting 16 and 1 kidnapping case. For further details, please see table B4 Annexure B.

6.5. Judicial Services

The judicial services available in the district comprise: 01 District and Sessions court, 02 Judicial Magistrates, 01 Qazi court. High Court bench, Anti-terrorist court, Juvenile and Banking courts are not available. For cases beyond jurisdiction of the judicial setup in the district, people normally refer to Provincial Headquarter Quetta. There is a Bar Association too, in the district. For further details, please see table B5 Annexure B.

6.6. Jails and Prisons

No prisons and jails are there in the district.

6.7. Development Projects

The Department of Community Development has been implementing a UNDP assisted "Gender Justice through *Muslihat Anjuman* Project (GJTMAP)" in collaboration with Judiciary and Police at the district level. In 2007, this project was started with the objective to provide an alternate system of dispute resolution particularly to the women in domestic violence and gender-related issues. For this purpose, various *Muslihat Anjumans* were formed at each Union Council.



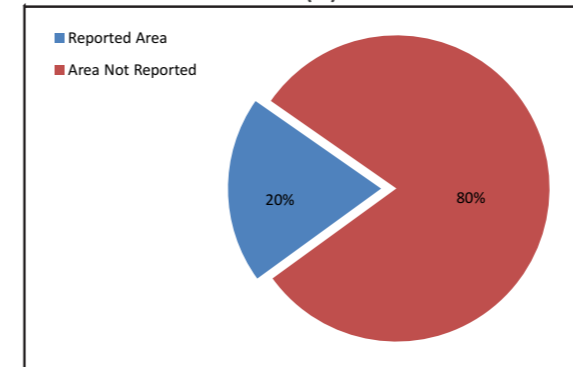
SECTION II Productive Sectors

- 7 Agriculture and Horticulture
- 8 Livestock
- 9 Fisheries
- 10 Forestry
- 11 Mining
- 12 Industry and Manufacturing
- 13 Economic Infrastructure and Communications

7

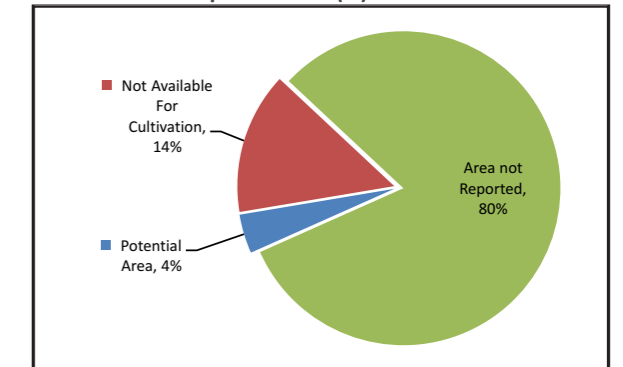
AGRICULTURE AND HORTICULTURE

Distribution of District Area (%)



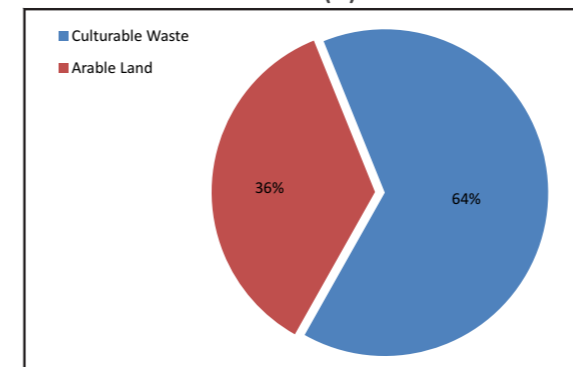
(Agricultural Statistics Balochistan, 2008-09)
Total reported area of the district is 20%

Distribution of Reported Area (%)



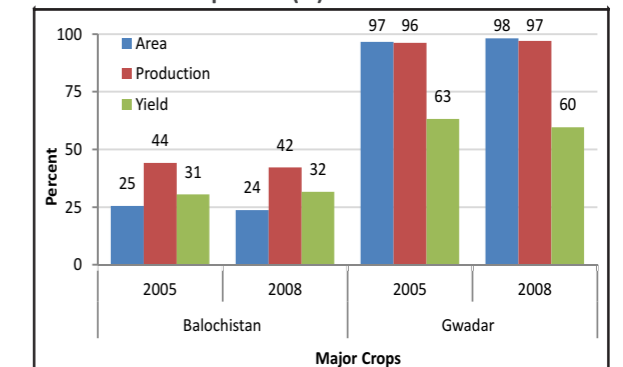
(Agricultural Statistics Balochistan, 2008-09)
Total Potential Area of the district is 4%

Distribution of Potential Area (%)



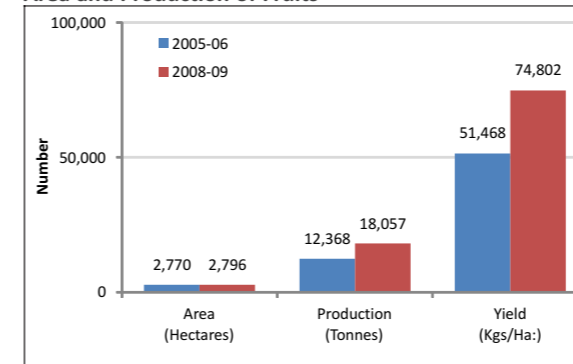
(Agricultural Statistics Balochistan, 2008-09)
Total Arable Land of the district is 36%

Growth Rate Comparison (%)



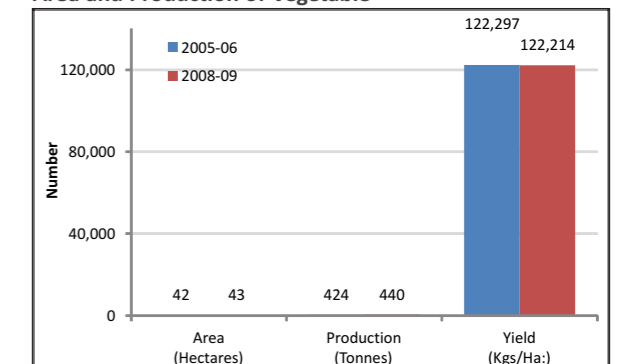
(Agricultural Statistics Balochistan, 2008-09)

Area and Production of Fruits

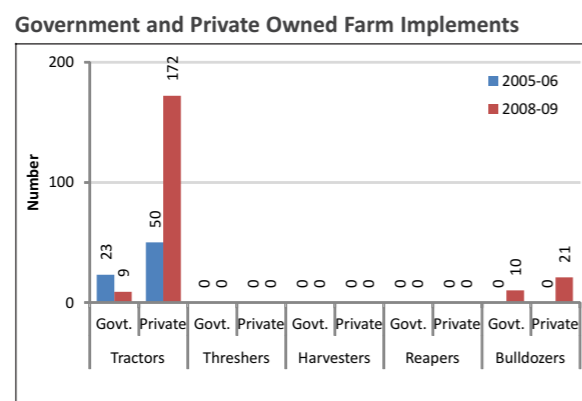


(Agricultural Statistics Balochistan, 2005-06 & 2008-09)
The fruits production immensely increased in 2008-09

Area and Production of Vegetable



(Agricultural Statistics Balochistan, 2005-06 & 2008-09)
The vegetables production slightly increased in 2008-09.



(Agricultural Statistics Balochistan, 2008-09)

Sector Highlights

- Potential Area available, as reported, for cultivation was 50,219 hectares of the total geographical area (Agricultural Statistics, 2009).
- The Current Fallow Land was increased from 82.6% to 83.9% between 2005 and 2009, which means more area was made available for cultivation and Net Sown Area was reduced from 17.4% to 16.1% between 2005 and 2009.
- Major *Rabi* crop was vegetable followed by Lentil sharing 45.1% and 31.4% of the total *Rabi* crop area respectively.
- Major *Kharif* crop was fruit followed by vegetable sharing 98.7.4% and 0.7% of the total *Kharif* crop area respectively.
- The Fodder production of 442 tons remained the highest for the year 2008-09 followed by vegetable at 326 tons
- Among the fruit, Banana produce was the highest with 11,455 yield kg per hectare.
- Other major fruit produce was Dates, Mangoes, Citrus, Banana, Guava, Loquat, Papaya, Chickoo and Coconut.
- Major irrigation sources included tube wells (33%), wells (4%) and dug karezes / spring (63%).
- There are 26 tube wells installed by government and 109 installed privately.

7.1. Introduction

7.1.1. Agro-Ecological Zone

Gwadar falls in the tropical agro-ecological zone bearing a total potential agricultural area of 50,219 hectares (Agriculture Statistics, 2008-09), which is approximately 4% of the total geographical area of District Gwadar. The recommended crops for the district according to its ecological zone are given in the table below:

Table 7.1: Agro-Ecological Zone and Recommended Crops

Ecological Zones	Name of District	Altitude (Feet)	Recommended Crops
Tropical	Gwadar, Kech, Sibi, Lasbela, Bolan, Jhal Magsi, Dera Bugti, Nasirabad, Jaffarabad and Harnai.	0-1500	Wheat, Barley, Rapeseed & Mustard, Canola, Castor Seed, Gram, Mutter Pulse, Masoor, Vegetables, Fodders, Sunflower, Safflower, Rice, Jowar, Maize, Sesame, Pulses, Onion, Potato, Melons, Chilies, Coriander, Garlic, Guar Seed, Sugarcane, Cotton, Pear, Dates, Mangoes, Citrus, Banana, Guava, Loquat, Papaya, Chickoo and Fig.

(Agricultural Statistics Balochistan, 2008-09)

7.2. Land Utilization

The share of land used for agriculture in the district is gradually increasing every year. The overall land utilization of District Gwadar is depicted in the table below:

Table 7.2: Land Utilization by Year

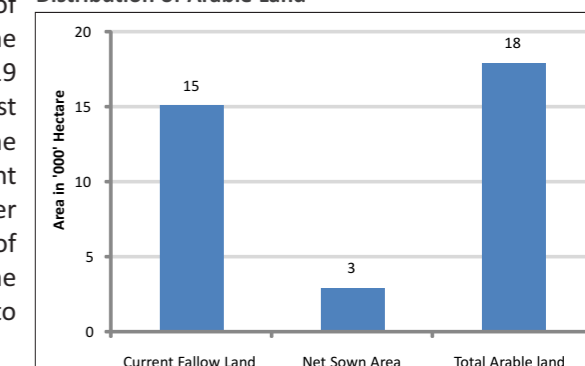
Land Utilization For Agriculture	2005-06	2006-07	2007-08	2008-09	Mean
Total Geographical Area	1,264	1,264	1,264	1,264	
Total Arable Land	16 (33%)	16 (33%)	17 (34%)	18 (36%)	34
Total Potential Area for Cultivation	50 (4%)	50 (4%)	50 (4%)	50 (4%)	4
Net Sown Area	3 (18%)	3 (18%)	3 (17%)	3 (16%)	17
Current Fallow Land	14 (82%)	14 (82%)	14 (83%)	15 (84%)	83
Culturable Waste	34 (67%)	34 (67%)	33 (66%)	32 (64%)	66
Forest	17 (1%)	17 (1%)	17 (1%)	17 (1%)	1
Area Unavailable for Cultivation	182 (14%)	182 (14%)	182 (14%)	182 (14%)	14

(Agricultural Statistics Balochistan, 2008-09)

7.2.1. Land Classification

The geographical area of Gwadar is 1,264 thousand hectares out of which 14% (182,105 hectares) is unavailable for cultivation. The Potential Area available for agricultural crop cultivation is 50,219 hectares, i.e. 4% of the total geographic area. The district has vast potential for agricultural development but water scarcity is the major constrained. However, this could be overcome by efficient conservation of flood water and the recharge of existing water resources. This would increase the cropping area of Gwadar. Out of total 135 tube wells (81%) were installed privately (109) while the remaining 19% (26) by the government. The government needs to install more tube wells.

Distribution of Arable Land



(Agricultural Statistics Balochistan, 2008-09)

Out of the total Potential Area for cultivation (50,219 hectares.), Arable Land increased from 16,404 hectares (32.7%) in the year 2004 to 17,942 hectares (35.7%) by 2009. The share of Current Fallow Land in total Arable Land increased from 83% to 84%

during the last five years. However, for a good crop raising and earning, focus on the practices of horizontal crop yield increase were made possible from within the framework of available farm resources. A high yield will not only improve the farm and farmers' income but will also have a positive impact on the overall economy of the province. Therefore, each year both in *Rabi* and *Kharif* cropping seasons, the cultivation area needs to be increased.

The mean Culturable Waste Land area has been recorded at 66.5% which has remained constant over the previous five years period. This could be an indication to the scarcity of irrigation water. The ratio of cropping intensity decreased during the *Rabi* as well as *Kharif* seasons. Culturable Waste Land reduced from 33,815 hectares in 2004-05 to 32,277 hectares in 2008-09.

Crops

Gwadar valley has two cropping seasons:

- 1. Rabi Crops:** *Rabi* crops include; Lentil (*Masoor*), vegetable and Fodder. These crops are sown in the winter or during early summer and harvested in late summer. For further details, please see table C1 Annexure C.
- 2. Kharif Crops:** *Kharif* crops include; fruit, vegetable, Melon and Coriander. All these crops fall in the category of cash crops and they are sown in summer and harvested in late summer or early winter. For further details, please see table C2 Annexure C.

7.2.2. Major Crops, Area and Production

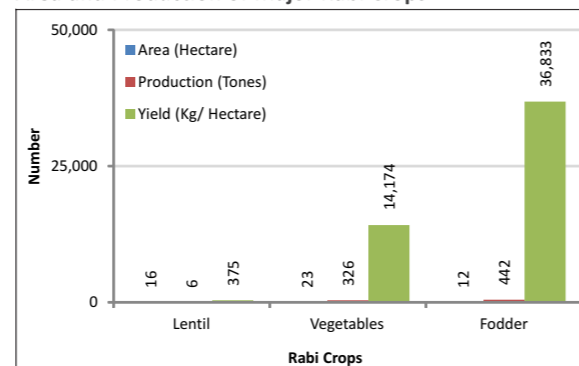
In major *Rabi* crops, vegetables cover the largest area, (23 hectares), which is 45% of the total area. This is followed by Fodder which covers 23.5% of the area. More than 65% of the area under vegetables' cultivation is being irrigated. The area under Lentil (*Masoor*) cultivation was 16 hectares, 31.4% of the total *Rabi* cropping area.

The production of Fodder was 442 tons during the year 2008-09 reported as the highest, followed by 326 tons of vegetable and 6 tons of Lentil (*Masoor*). The data shows that *Masoor's* average yields of 375 kg/hectares in Gwadar is very high when compared to the average yield of high yielding *Masoor* genotypes in the un-irrigated areas of Balochistan.

Of the major *Kharif* crops, fruits occupied the largest area of 2,796 hectares which is 99% of the total area (2,832 hectares) followed by vegetable (20 hectares) comprising 0.7% of the area. The area under Melon was 13 hectares while Coriander occupied 3 hectares: cultivation for melon and coriander was 0.5% and 0.1% of the total *Kharif* area, respectively. Fruit with production, of 18,057 tons, was v dominant in the district with a yield of 6,458 kg/hectares followed by vegetable with a production of 130 tons and yield of 10,000 Kg/hectares.

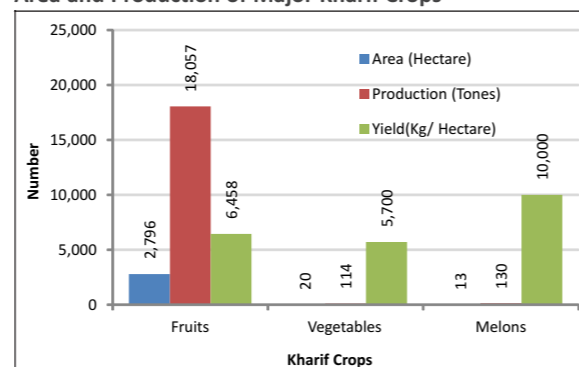
Dates, Mangoes, Citrus, Guava, Chickoo and Coconut are the leading fruits. The production level of *Kharif* vegetable was 5,700 tons followed by Coriander (333 tons) at a yield of 333 Kg/hectares. The data shows that the average yield of Coriander (333 Kg/hectares), obtained under irrigated conditions is about 62% less than the average yield in

Area and Production of Major Rabi Crops



(Agricultural Statistics Balochistan, 2008-09)

Area and Production of Major Kharif Crops



(Agricultural Statistics Balochistan, 2008-09)

Balochistan (541 Kg/hectares).

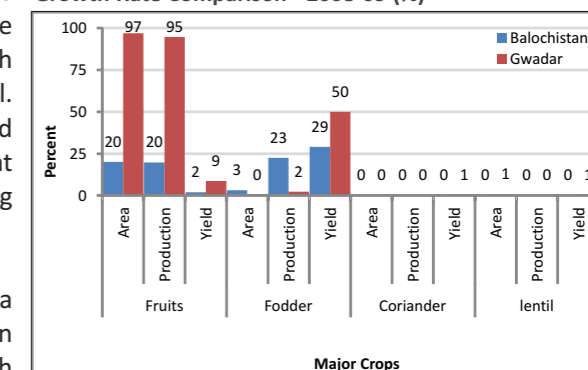
It seems that the Coriander varieties being grown are either not certified or the appropriate agronomic practices are not performed efficiently like sowing time, balanced fertilizer application plus type of fertilizer to be applied, seed bed preparation, irrigation intervals, hoeing and weeding operations and proper insect and disease control measures. In order to improve the existing low yield, newly developed high yielding varieties of seeds shall be introduced. For further details, please see table C2 Annexure C.

The Provincial Seed Certification Department should survey the area for monitoring and identification of varieties of crop sown which would help curb the prevailing trend of sowing mixed and uncertified seeds. Moreover, both Agriculture Research and Extension Wings should participate in the field days and provide updated information to farmers in the area that how to follow the crop husbandry. Effective dissemination of written guidelines, pamphlets and newsletters about proper management and handling of various crops be ensured and activated for the best interest and economic prosperity of the farmers.

7.2.3. Discussion on Production Trends

a) *Fodder:* At the district level, Fodder contributed to 23.5% of the area under *Rabi* crop cultivation. Fodder contributed 0.4% to the total Fodder area in Balochistan at 3.1%. The production growth rate was 2.3% in Gwadar whereas 22.5% at the provincial level. Yield growth rates were 49.9% and 29.1% at the district and provincial levels respectively. Hence, it is quite possible that wheat cultivation would be continued at the same level in the existing cropping system.

Growth Rate Comparison - 2008-09 (%)



(Agricultural Statistics Balochistan, 2008-09)

b) *Fruit:* At the district level, fruit contributed to 99% of the area under *Kharif* crop cultivation. The area growth rate was higher than that of Fodder (97% > 20.1%) and so was the production growth rate (94.7% > 19.7%) at the district level. The yield growth rate was 8.7% compared to 2% at the provincial level

c) *Coriander:* At the district level, Coriander contributed to 0.1% of the area under *Kharif* crop cultivation. The area growth rate was lower than Fodder and fruits (0.1% < 0.2%) and so was the production growth rate (0.01% < 0.03%) at the district level. The yield growth rate was 0.5% compared to 0.2% at the provincial level. Therefore, Coriander cultivation is not as economical as Fodder and fruit; however, it should be continued provided the cropping area is increased at the district level.

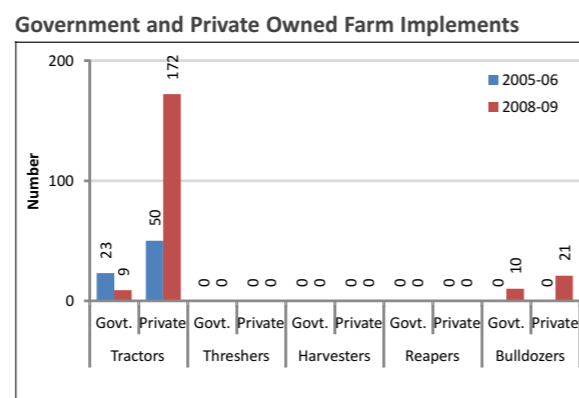
c) *Lentil:* At the district level, Lentils (*Masoor*) contributed to 31% of the area under *Rabi* crop cultivation. The area growth rate (0.6% > 0.3%) and production growth rate (0.03% < 0.04%) for Lentils remained higher than coriander at the district level. The yield growth rate was 0.5% compared to the 0.3% at the provincial level. For further details, please see table C3 Annexure C.

7.2.4. Discussion of Cropping Patterns

Single cropping pattern is practiced to cultivate Lentil (*Masoor*), vegetable, Fodder, fruit, Melon and Coriander, whereas inter cropping, mixed cropping and crop rotation are not practiced. Some fields/plots remain uncultivated as fallow land to maintain the soil's fertility which might otherwise have been exhausted in the past under crop husbandry.

7.3. Farm Implements and Inputs

According to the statistics, most of the farm implements were owned by the private sector. Provision of farm implements by the government to the small landholder may only boost the agriculture production in the district but will also alleviate poverty. For further details, please see table C4 Annexure C.

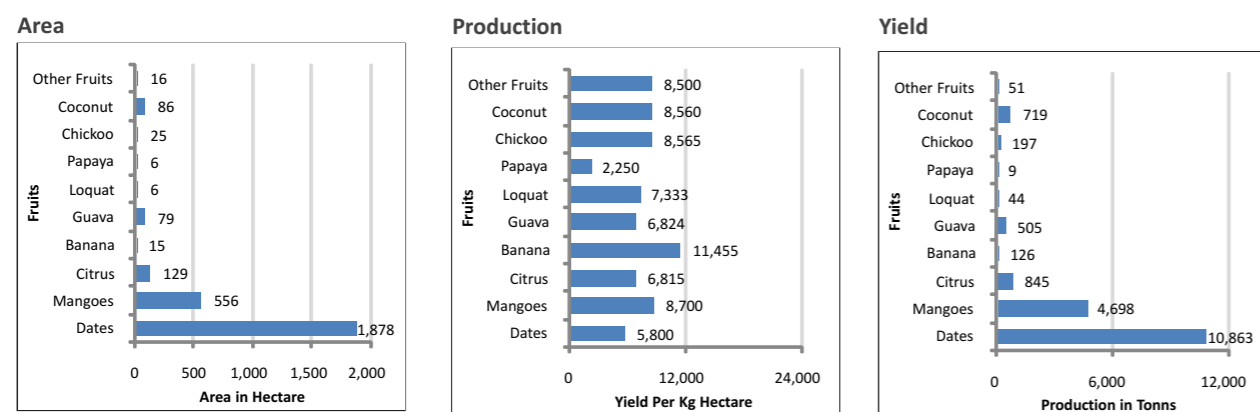


(Agricultural Statistics Balochistan, 2008-09)

7.4. Horticulture Inputs

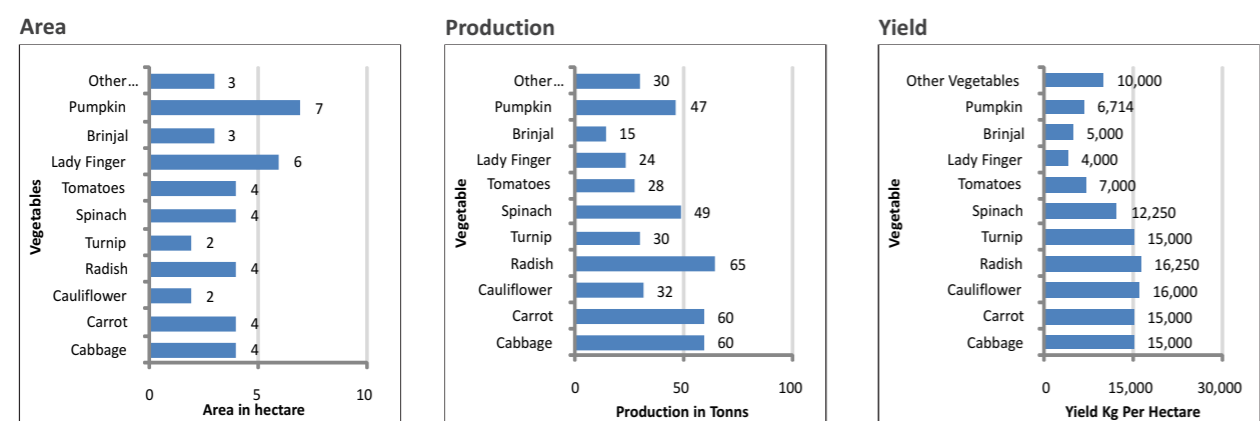
7.4.1. Area and Production of Fruits and Vegetables

The district has great potential for fruit farming. Presently, Dates, Mangoes, Citrus, Banana, Guava, Loquat, Papaya, Chickoo and Coconut are the major fruits produced in the area. For further details, please see table C5 Annexure C.



(Agricultural Statistics Balochistan, 2008-09)

Pumpkin occupied 7 hectares, Lady Finger 6 hectares and Tomatoes, Spinach, Radish and Cabbage each occupied 4 hectares. Brinjals covered 3 hectares, whereas, Cauliflower and Turnips covered the lowest area of 2 hectares each. For further details, please see table C6 Annexure C.



(Agricultural Statistics Balochistan, 2008-09)

7.5. Land Ownership and Tenure System

The total Arable Land (35.7%) recorded was 17,942 hectares. The Culturable Waste Land area was 64.3% (32,277 hectares) during the year 2008-09. In Gwadar, individual ownership is predominant in un-irrigated areas for economic reasons. Un-irrigated areas are rain-fed, therefore, financial inputs for irrigation are minimal and it is possible for individuals to have own and to cultivate it. Tenancy is not very common since agriculture is not a very important economic activity in the district. Most of the farmers work on their own fields. Some large land and orchard owners employ tenants. Tenancy contracts are not formal and an oral understanding is considered enough. Sometimes, tenants make deals simultaneously with more than one land owner, mainly due to the scarcity of agricultural labor. In the case of irrigated lands, a tenant is entitled to one third of the total yield while for un-irrigated land a tenant gets 25% share of the yield. In both the cases all the inputs are provided by the land owner. Another form of tenancy also practiced is locally called *Lath bandi*. In this type of tenancy the tenant provides all the inputs and he retains 75% of the total yield. If he provides half of the inputs then he gets half of the total yield.

7.5.1. Discussion on Land Patterns in Land Ownership and Tenure System

Shared Tenancy

Under this system the expenditure on land preparation, expenditure on seeds, fertilizers and pesticides, irrigation expenses, harvesting and threshing charges are to be met by the land owner. However, the crop produce is then divided between the owner and the tenant based on an agreed formula.

Cash Tenancy

This type of tenancy does not exist.

Crop Sharing System

The land owner gives his land to the cultivator and all the cost of production incurred has to be met by the cultivator. Normally, 20% of the production is given to the owner of the land.

7.6. Agriculture Marketing

Most of the produce is consumed locally, except dates, which are exported to other parts of the country like Karachi, Quetta and Sukkur. Agricultural produce is sold on the farm where a middle man buys the produce and sells it in the market. The prices fixed by the government, for different agricultural produce do not seem effective, usually, throughout the province. This is one of the basic reasons for the daily increase in prices. The majority of the farm produce is directly sold into the hands of brokers (other terms used for broker are *dalal*, *beopari*, contractors or intermediaries), who are all middlemen with different nomenclatures at different locations. Normally the following options are available to the growers for selling their produce:

- Sale of produce at farm gate: this kind of sale, however, does not bring much income to growers.
- Sale of produce to the nearest market, if available, at the district level: This kind of sale incurs certain transportation charges that have to be met by the growers. In the market, there is a strong hold of intermediaries. They buy the farm produce on the spot and resell to wholesalers at their own prices. The wholesalers' resale to merchandisers, dealers, brokers or retailers. Then it comes to shopkeepers from where people purchase these commodities as end users/consumers. But every entity involved inside these sales gets its profit margins fixed accordingly. There is no check on these price fixers.
- Sale of produce across the boundaries of district or province: The same intermediaries are to be faced by the producers/growers again.
- There is another way to earn higher profits. The salesmen keep the produce purchased from the growers in ware houses to sell it at high prices during the off season.

7.6.1. Share of Population Employed in Major Agricultural Activities

The labor force in the agriculture sector consists of both men and women. Most of the tilling is done by men. Wheat, for example, is cultivated by men but at the time of harvesting the whole family helps in the field. The small landowners are involved in the cultivation and harvesting of their land. Most of the farming is performed by primitive methods but some people, especially big landlords, use tractors, threshers and mechanical ploughs.

7.6.2. Role of Women in Agricultural Activities

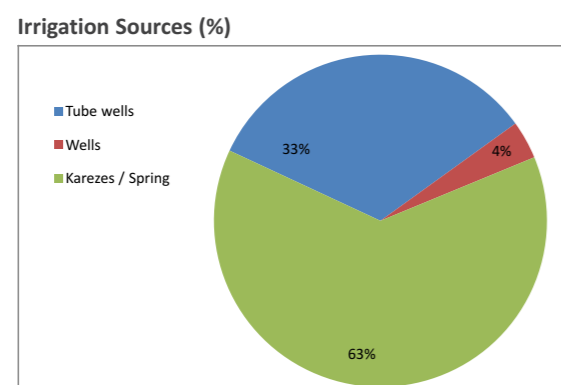
The laborers also involve their families, women and children, at the time of harvesting and sowing. Women are involved in planting, harvesting and threshing the crops and cleaning and packing of fruits and vegetables. However, they are not paid for their labor. Women also participate in cleaning the food grains.

7.7. Irrigation

7.7.1. Irrigation System and Sources

The main sources of irrigation include Karezat/ springs, tube wells and dug wells which are commonly used in the district. Privately owned tube-wells are maintained by the owners themselves, whereas, the government owned tube-wells are maintained by the Irrigation Department.

The majority of the crop cultivation area, 2,600 hectares, is irrigated by the Karezat, which form 63% of the total irrigation sources followed by tube wells which cover 1,350 hectares and 33% of the total irrigation sources. There are no canals, however, a limited numbers of wells are found, which cover 150 hectares contributing to 3.7% of the irrigation sources. For further details, please see table C7 Annexure C.



(Agricultural Statistics Balochistan, 2008-09)

7.8. Structure and Functions of the Agriculture Department

Table 7.3: Structure and Functions of Department

Structure	Number of Agriculture Extension Departments
Number of Sub Offices	4
Sanctioned Strength in various Categories (Total)	29
Actual Filled Posts	33
Vacant Posts	n/f

(Agriculture Department)

7.9. Some Development Projects

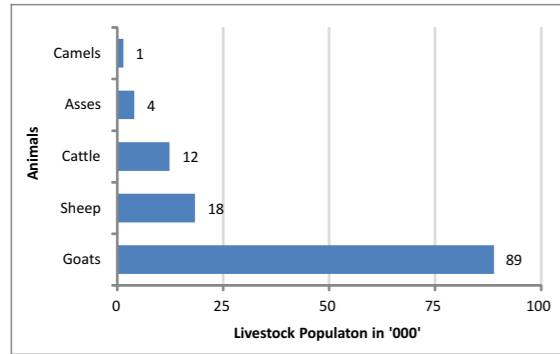
Some Development Projects in PSDP 2009:

- Sawad Kaur Dam (revised).
- Surbandar shore protection Scheme District Gwadar and preparation of PC-II of Scheme (Rs.242.330 + 1.995 = 244.352 Million).

7.10. Some Key Findings

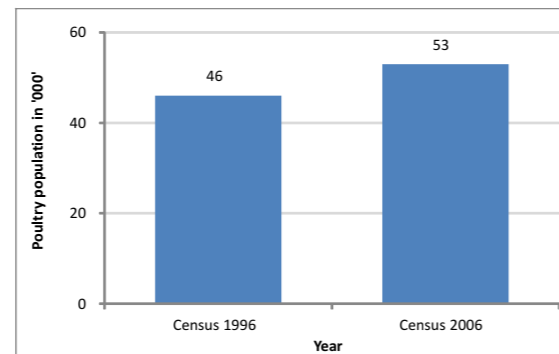
- Wherever possible, more water resources should be developed to support agriculture activities.
- Cops suitable for coastal areas be introduced to the farmers (extensive research work can surely help)
- Supply of certified seeds of all major crops at subsidized rates to the farmers, especially having small land holding may work as incentive to increase agriculture produce.
- Arrangement for field days, seminars, lectures on pest management and demonstration of improved packages of technology plots by the concerned department will have positive impact.

Livestock Population



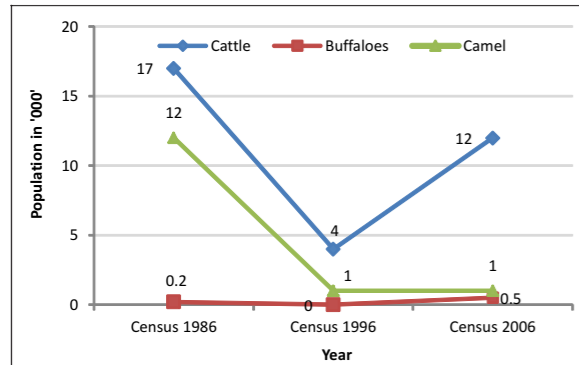
(Livestock Census, 2006)
Livestock Census comparison indicates that the population of livestock in the district has increased by a large percentage.

Poultry Population



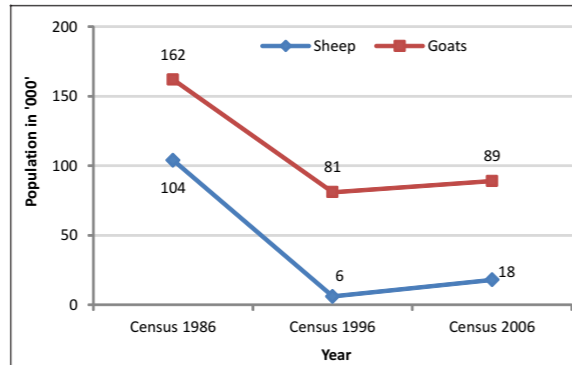
(Livestock Census, 1996 & 2006)
No major increase in Poultry Population

Large Ruminants Population



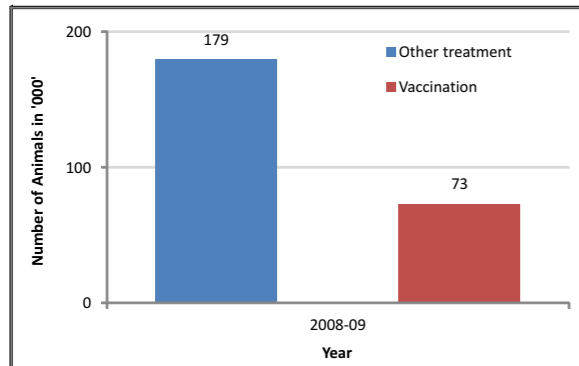
(Livestock Census, 1986, 1996 & 2006)
Quite a few numbers of Buffaloes and camels are also present

Small Ruminants Population



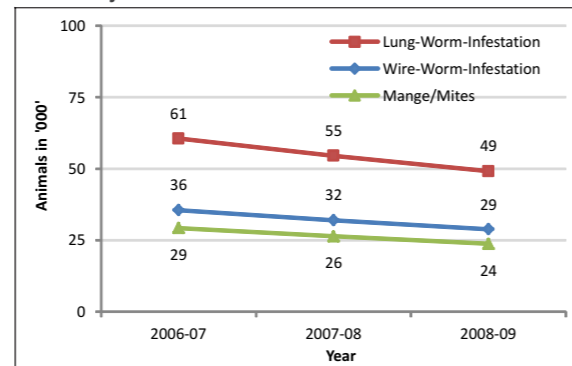
(Livestock Census, 1986, 1996 & 2006)
Goats and sheep constitute the major share of livestock population in the district

Animals Treated and Vaccinated in 2008-09



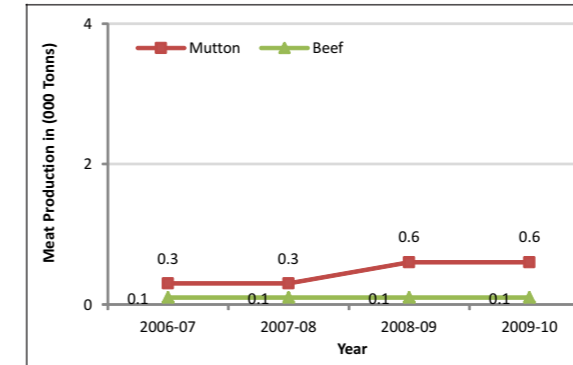
(District Statistics, 2008-09)

Three Major Animal Diseases in the District



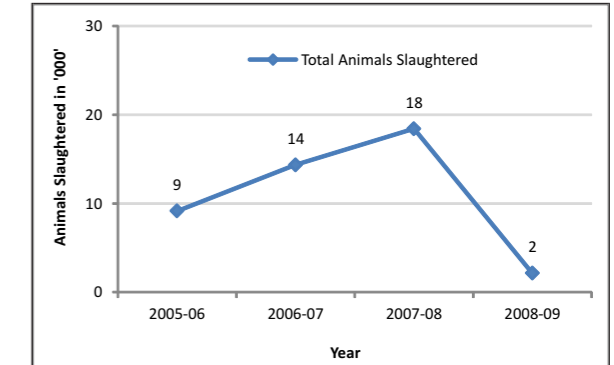
(District Statistics, 2008-09)
The incidence of major diseases is on decline.

Meat Production in the District



(District Statistics, 2008-09)
Government share in meat and dairy production is almost negligible.

Animals Slaughtered 2005-2009



(District Statistics, 2008-09)
Slaughtering of Animals in Public and Private sector is almost identical.

Sector Highlights

- Livestock Census comparison indicates that the population of livestock in the district has increased by a small percentage.
- Goats and sheep constitute the major share of livestock population in the district.
- A network of Public Sector Veterinary Institution, comprising 3 veterinary hospitals, 9 veterinary dispensaries, is available in the district.
- Government share in meat and dairy production is almost negligible.
- Most prevalent diseases in the district are lung-worm-infestation and wire-worm-infestation
- Livestock department is facing financial constraints to operate effectively in the district

8.1. Introduction

In District Gwadar, livestock farming system is not much pronounced but it still provides livelihood to many families of the district. The livestock mainly comprises of goats, cattle and camels. A large variation of sheep and goat population has been observed. Cattle are reared for getting milk because buffaloes are very rare. Asses and camels are available in a significant number and are important sources of draught farming and haulage.

The district does not have large population of livestock. This is due to lack of good rangelands. In Balochistan, except some portions of upper and lower highlands in north eastern part of the province, which have the best rangelands and support 76% of the livestock, the southern plains with big land mass have the poorest rangelands and support only 24% of the livestock population. The rangelands in southern parts do not even support rearing of livestock round the year thus necessitating seasonal migration of nomadic and transhumant grazers to find feed for their livestock comprising mostly sheep and goats and lesser number of cattle and camels.

Livestock Department, headed by the Deputy Director along with its staff, manages and controls all the activities pertaining to livestock including animal health coverage and husbandry. Vaccination is being carried out free of cost whereas the treatment is provided at 50% subsidized rates.

8.2. Livestock Population

In District Gwadar the highest reported population among all the ruminants was 89000 of Goats (Livestock Census, 2006). The livestock population reported over the last three decades of all categories is presented in the table below:

Table 8.1: Number of Livestock ('000' Numbers)

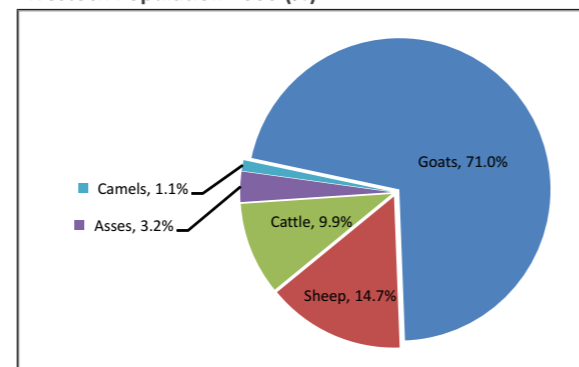
Livestock	1986	1996	2006
Sheep	104	6	18
Goats	162	81	89
Cattle	17	4	12
Buffaloes	Less than 1000	Less than 1000	Less than 1000
Camel	12	1	1
Poultry	n/f	46	53

(Livestock Census, 1986,1996,2006) n/f: Data not found

8.3. Large Ruminants

Since Gwadar is a coastal area and does not have large rangelands, livestock, whether large or small, does not have large population. Large ruminants altogether, especially, have population of a few thousands. The Cattle are 10% of the total livestock of the district followed by Asses 3.2%. The male cattle are mostly slaughtered and their beef is sold to fulfill food purpose. Cows are preferred in large ruminants and used for meeting milk requirements. People prefer male cattle for sacrifice on the occasion of *Eid-ul-Azha* and prices get very high in these days. However, the prices of beef go higher in normal routine as well due to expensive fodder, medicine and transportation overheads.

Livestock Population 2006 (%)



(Livestock Census, 2006)

8.4. Small Ruminants

85.70% of the livestock population comprises small ruminants, which shows that people prefer small ruminants as compared to large. The trend of keeping Goats is higher than the Sheep. Small livestock farmers, usually, have herd size up to 20-30 small ruminants. Sheep and goats are raised for multiple purposes: milk, mutton and reselling of male small ruminants in the market for economic gains.

8.5. Poultry

There are two government poultry farms one at Pasni and the other at Gwadar, and few small scale private/commercial poultry farms of broiler and layer breeds also exist. Enormous potential has been observed in rural poultry where every household has 5 to 6 poultry birds in their homes. The eggs and poultry meat is usually consumed domestically. Some people sale the eggs in the market occasionally as "Desi Eggs", which are sold at higher price than farm eggs.

8.6. Livestock Population Growth Rate

Yearly average growth rate factor for each category of livestock has been calculated on the basis of livestock Census conducted in 1996 and 2006. The applied growth rates and projected population is presented in the table below:

Table 8.2: Projected Livestock Population (Numbers)

Livestock Category	G. Rate	2006	2007	2008	2009	2010
Cattle	6.8	12,344	13,183	14,080	15,037	16,060
Buffalo	9.9	51	56	62	68	74
Sheep	1.8	18,363	18,694	19,030	19,373	19,721
Goats	2.6	88,901	91,212	93,584	96,017	98,514
Camels	1.5	1,432	1,453	1,475	1,497	1,520
Horses	4.3	12	13	13	14	14
Mules	10.7	18	20	22	24	27
Asses	2.4	4,052	4,149	4,249	4,351	4,455
Poultry	2.6	52,893	54,268	55,679	57,127	58,612

(Livestock Census, 2006)

8.7. Veterinary Institutions

There is a network of 3 veterinary hospitals, 9 veterinary dispensaries, 1 slaughter house, 2 poultry farms and 1 dairy farm in the public sector. Under a Federal Project "Fight against Congo Virus" dipping stations were established where animals are dipped for medication of external ticks and ecto-parasites. There is lack of artificial insemination center for breed improvement of dairy cattle. An extended coverage of veterinary services would lead to rapid progress in milk and meat yields and would add substantial income for livestock farmers.

The physical condition of the government veterinary institution's buildings and equipment are not up to the standard. There is an immediate need to renovate the buildings and provide latest equipment for appropriate health services. The Livestock department indicated need to construct buildings for the following:

1. Office of the Deputy Director, Livestock
2. Government Poultry Farm, Gwadar
3. Civil Veterinary Hospital, Gwadar
4. Artificial Insemination Center, Gwadar

Besides, operation and maintenance funds are insufficient to provide livestock services to the farmers.

The detailed veterinary institutions in District Gwadar are presented in the table 8.3:

Table 8.3: Veterinary Institutions (Numbers)

Name of Health Services	2009-10
Veterinary Hospitals	3
Veterinary Dispensaries	9
Slaughter Houses	1
Dairy Farm	1
Government Poultry Farm	2

(Directorate of Animal Husbandry)

8.8. Livestock Diseases

The disease control activities are well-known in the district to provide veterinary services through veterinary hospitals and veterinary dispensaries. Vaccination services are provided free of cost by the Government Livestock Department, whereas the other needed medication is facilitated at 50% subsidized rates to the livestock owners.

8.8.1. Major Diseases

The most prevalent diseases among the livestock in District Gwadar are:

- Worm Infestation
- Ticks
- Liver Fluke

Internal Worm Infestation, Ticks and Liver Fluke are the commonly found diseases in the livestock of District Gwadar. The ecto-parasites causing these diseases not only reduce the reproduction and breeding efficiency of the animals but also affect the animal's skin, which then could not be sold at market price. Various reported diseases among livestock are presented in the table below:

Table 8.4: Major Livestock Diseases (Numbers)

Name of Diseases	2005-06	2006-07	2007-08	2008-09
Lung-Worm-Infestation	67,197	60,538	54,539	49,134
Wire-Worm-Infestation	39,406	35,501	31,983	28,813
Liver Fluke	26,832	24,173	21,777	19,619
Mange/Mites	32,452	29,236	26,339	23,728
Ticks	28,362	25,551	23,019	20,738
Contagious	46	41	37	33
Non-Contagious	26,170	23,577	21,240	19,135
Systematic	26,121	23,533	21,201	19,100
Metabolic	12,108	10,908	9,827	8,853
Others	39,830	35,883	32,327	29,123

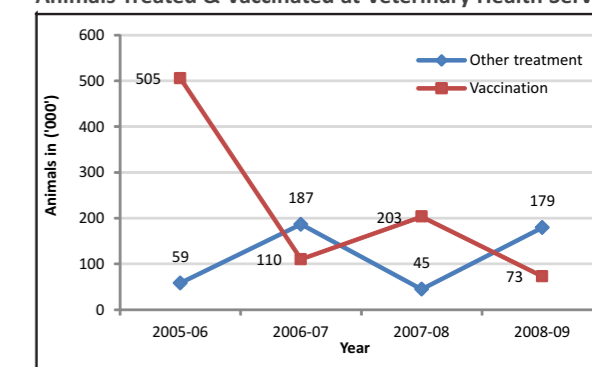
(Civil Veterinary Hospital)

8.8.2. Disease Control Activities and Mortality

The Livestock Department is continuously involved in animal convenient health coverage activities. It usually performs vaccination and medication in order to save animal lives. The highest number of livestock treated and vaccinated during

the last five years was reported in the year 2005-06, and during the succeeding years the trend declined. For further details please see table D1 Annexure D.

Animals Treated & Vaccinated at Veterinary Health Services



(District Statistics, 2008-09)

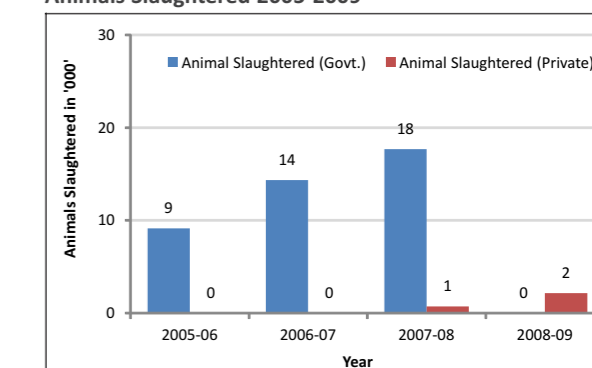
8.9. Meat and Dairy Production

The mutton production in the district has been increasing. Since 2007-08, and a significant increase from 300 tons to 600 tons was recorded. The beef production has remained 100 tons and no increase reported during the last five years. Milk production has risen gradually along with the increase of population of large ruminants. Similarly, poultry meat and egg production increased gradually, as no significant change was seen in the last five years. For further detail, please see table D2 Annexure D.

8.10. Slaughtering

The highest number of animal slaughtering was reportedly carried out by the government in the year 2007-08. The private slaughtering has been quite less, comparatively.

Animals Slaughtered 2005-2009



(District Statistics, 2008-09)

8.11. Functions and Structure of Livestock Department

The Livestock Department at district level is headed by a Deputy Director Livestock, assisted by a veterinary doctor with supporting staff including compounder and stock assistant technicians and other structural staff to carry out the day to day activities of the office and field. The government cattle and poultry farms are headed by a manager with support staff. The details of the actual strength of the staff in different categories are listed below in the table:

Table 8.5: Structure and Functions the Department

Structure	Numbers
Number of Sub Offices	3
Sanctioned Strength in Various Categories (Total)	72
Actual Filled Posts	50
Vacant Posts	22

(Livestock Department)

8.12. Some Development Projects

Some development projects along with the funding sources are as follows:

Table 8.6: Livestock Projects

Project	Funded By	Start Year	End Year
Development of Rural Poultry	ASPL-II	2004-05	2007-08
Fight Against Congo Virus	ASPL-II (Federal)	2005-06	2007-08
Strengthening of Livestock Services	Asian Dev. Bank	2004-05	2008-09

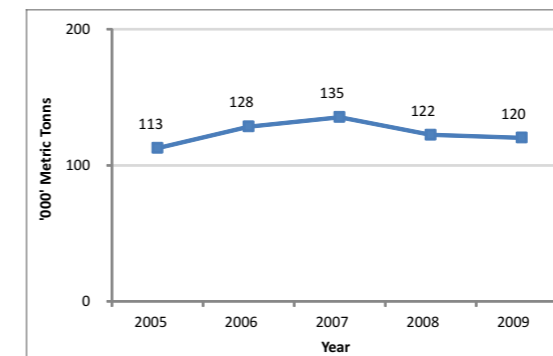
(Directorate of Livestock Planning, 2010)

8.13. Some Key Findings

- Latest equipment, particularly relating to artificial insemination, needs to be procured.
- Research to be carried out on the breed and genetics potential of livestock health and growth.
- Genetic potential of local breeds of Balochistan be exploited in favor districts to increase livestock as well as dairy products.
- Performance of livestock department needs evaluation
- Livestock department should make district wise plan for livestock development to facilitate priority setting in financial resource distribution for livestock activities (among districts)
- Artificial insemination does not exist in the district.
- Livestock export options be promoted through Gwadar Deep Sea Port

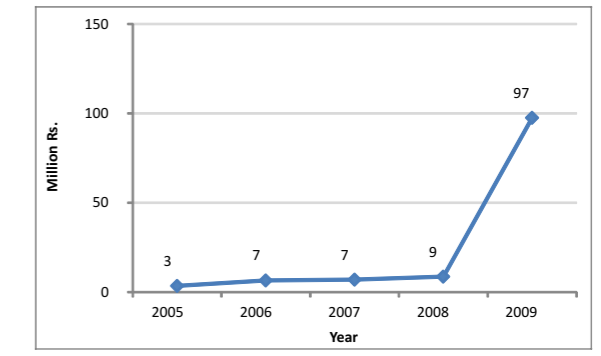
9 FISHERIES

Annual Production of Marine Fisheries



(Fisheries Department)

Annual Value of Marine Fisheries



(Fisheries Department)

9.1. Introduction

Fisheries sector contributes substantially in the livelihood of the people of the coastal belt in district Gwadar. The 600 Kms long coast is blessed with various kinds of fishing a large quantity and being close to Karachi possesses flourishing business opportunities and activities for fishing business. In 2009, the production of fish was 120,000 metric tons, with an estimated value of 97 million rupees. Fishing business is considered to be the mainstay of the economy for coastal community. Due to water scarcity agriculture activities are at a limited scale. The fish produced in Gwadar district is sold to the packing factories in Gwadar, Pasni and Karachi which is later exported to other countries.

9.2. Annual Production

The coast of Gwadar district has got a significant quantity of the best fish species such as Salmon, Shark, Stake, Ray, prawn, lobster and many others, both in the shallow and deep waters.

Table 9.1: Annual Production and Value of Marine Fisheries

	Unit	2005	2006	2007	2008	2009
Production	Metric Tons	112,642	128,421	135,405	122,347	120,216
Value	Million Rs.	3.4	6.5	6.9	8.6	97.4

(Fisheries Department)

Fishing is primary source of income for the people of Gwadar and most of the families are involved in this sector in one way or the other. According to the 1998 Census, 31 per cent of district's population belongs to those people who are directly engaged in the fishing sector.

The data of the Directorate of Fisheries shows that full-time fishermen population has increased from 16,380 to 30,815 over a period of 15 years from 1995 to 2010. The fishermen avoid from fishing at the time of south-west monsoon, from May to September, as the sea becomes rough with high tides. Another huge portion of population works in ancillary businesses like boat making, curing yards, salt making and ice factories. Their earning is usually related to the main fishing activities. Similarly, the fish market value is dependent upon the quality of products/services supported by ancillary business; therefore, both the professions are interdependent.

There are about 6500 marine fishing boats of various sizes ranging from 20 to 60 feet, types and capacity starting from 1 ton up to 200 tons. There are, generally, four categories of fishing boats registered with the Directorate of Fisheries. 'Yakdar' (Yak in Balochi language means one and dar means wood) is a small boat of 5 to 11 meters length built with one keel length of wood and its use is on decrease presently. Second type is 'Ranchan' which has the same size as Yakdar but different types of wood is used with small length wood planks and joined with iron nails. Thirdly, 'Gill-knitters' are the medium size boats with keel range of 9 to 14 meters. Lastly, 'Launch' is generally from 14 to 20 meters keel in length. The large boats like launch and gill-knitters have engines fitted inside the boat also called "mechanized boats" which have increased in number from 770 in 1995 to 4665 in 2010. "Motorized boats" are those which have engines fitted outside the boat. Usually Ranchans and Yaddars are used as motorized boats. The motorized boats have also increased considerably, from 770 to 4665 during last fifteen years.

9.3. Fishermen Population and Fishing Craft

In District Gwadar, almost the entire community is engaged in fishing and related activities. The following table shows the growth in the population employed in this sector from the year 2005 to 2009.

Table 9.2: Total Fish catch in Balochistan Coast and the Exportable Surplus Available

Year	Total Production	Local Consumption		Exportable Surplus Quantity	Total Production (Percentage)
		Quantity	Total Production (Percentage)		
2005	112,642	12,368	11%	100,274	89 %
2006	128,421	15,411	12%	113,010	88 %
2007	135,403	14,894	11%	120,509	89 %
2008	121,443	12,138	10%	109,305	90 %
2009	120,216	10,334	9%	109,882	91 %

(Fisheries Department)

Table 9.3: Fishermen Population on Balochistan Coast - Year wise

Year	Type of Fishermen			Total
	Full Time	Part Time	Occasional	
2005	27,284	9,808	5,211	42,303
2006	27,959	10,415	4,621	42,995
2007	28,398	10,657	4,810	43,865
2008	28,813	10,873	5,074	44,760
2009	30,815	12,808	6,348	49,971

(Fisheries Department)

Table 9.4: Number of fishing crafts year wise

(Numbers)

	2005	2006	2007	2008
No. of Launches	72	127	161	140
No. of Mechanized Boats	1,510	1,516	1,514	1,573
No. of Motorized Boats	4,556	4,613	4,641	4,665
No. of Sail Boats	13	n/f	n/f	n/f
Total	6,151	6,256	6,316	6,378

(Fisheries Department) n/f: Data not found

9.4. Fish Marketing, Processing and Exports

Most of the fish catch is marketed to Karachi from where it is further exported to other countries like Sri Lanka, China, Hong Kong and Korea. Sri Lanka is the major importer of Pakistani fish but businessmen are not happy over trade with Sri Lanka as they pay a relatively lower price. Fish is marketed in three ways. Some businessmen from Karachi or foreign countries buy fish in the open sea by avoiding the port charges. Secondly, most of the fish is auctioned at fish harbors like Gwadar and Pasni from where businessmen send the produce to Karachi and the neighboring districts like Kech, Panjgur and Awaran. Sometimes, it is exported directly to the foreign buyers. Thirdly, some portion of the total catch is marketed in the local market and local factories

Previously, the standard process for preserving fish in Gwadar was salting and drying. In 1970, the Department of Coastal Development and Fisheries established an ice factory at Pasni. At present, there are 16 ice factories in the district including 6 in Gwadar, one in Surbander, 2 in Jewani, 4 in Pasni and 3 in Ormara. The daily ice production at Gwadar is 200 cubic meters while at Pasni it is 100 cubic meters. Presently the fresh iced fish is sent to Karachi and other countries in big trawlers.

The advanced processing of fish, called canning, is done in Karachi. There is a great potential for canning industry in the district provided that road links are available for marketing. At present, Pakistan is one of the 80 countries whose canned fish is banned for import in European and other developed countries, mainly because of high un-hygienic canning factories. In Gwadar District, canning industry with international standards can not only earn a big profit In order to facilitate in maintaining standard, a project of establishing a certification lab (in Gwadar) has been included in the PSDP

2011-12. Similarly, poultry feed can be prepared here using various non-edible fish species.

9.5. Structure and Functions of Balochistan Coastal Department Authority

BCDA has the mandate to boost up the marine fishing industry in the province and to provide infrastructure, civic facilities and other related support to the fishermen community. In response to the need of an integrated coastal zone management, the role of BCDA is of paramount importance. BCDA is an excellent platform to regulate, manage and monitor activities regarding coastal development. The responsibilities assigned to this organization are limited to:

- Making appropriate regulations for coastal areas' development and enforcing them through relevant organizations.
- Commissioning, supervising and coordinating research and database management.
- Developing necessary infrastructure like small jetties and breakwaters.
- Developing tourist sites along the coast.

BCDA also issues permits to the fishing trawlers, of Sind province, for fishing within a specific area in the territorial waters of Balochistan. These trawlers are registered with the Sindh Fisheries Department but they are allowed into Balochistan waters with some restriction on the use of illegal nets. However, no fishing trawler operates from the Balochistan coast.

Table 9.5: Structure and Functions of Fisheries Department

Structure	Numbers
Number of Sub Offices	3
Sanctioned Strength in Various Categories (Total)	214
Actual Filled Posts	214
Vacant Posts	0

(Fisheries Department)

9.6. Some Development Projects

Some projects reflected in the PSDP 2011-12 are as under:

- Establishment Of Fish Processing Plant At Pasni
- Rehabilitation Of Pasni Harbor (Japan Counter Value Fund)
- Fisheries Infrastructure (Auction Hall, Certification, Lab, FGBB Yard, Nets Etc)
- Construction Of Five Fishermen Colony At Jiwani, Gwadar, Pasni, Ormara And Damb
- Completion of B.C.D.A Complex

Some projects for execution in future:

Table 9.6: Development Projects

Project	Estimated Cost in Millions	Start Year
Upgradation of 100 fishing boats as per EU standards	250	Under consideration
Construction of 10 auction halls for fisheries	100	Under consideration
Construction of 09 boat repairing workshops	20	Under consideration
Training programme for the capacity building of fisheries department	20	Under consideration
Construction of six jetties on Balochistan coast	4,800	Under consideration
Provision of water supply schemes in the coastal area of Balochistan	220	Under consideration
Provision of one medium size dredger	1,000	Under consideration
Provision of 08 patrolling and rescue boats	1,000	Under consideration
Provision of road infrastructure (127 km) in the coastal area	572	Under consideration

(Director Fisheries Pasni)

Table 9.7: Development Projects

Project	Estimated Cost in Millions	Start Year
Construction of Jetty at TAK Ormara	1,400	Under consideration
Construction of auction hall market and essential shore facilities	120	Under consideration
Up gradation of 200 fishing boats	600	Under consideration
Creation of fisheries cooperative at Jewani, Gaddani, Gwadar, Pasni, Ormara & Dam	100	Under consideration
Creation of Revolving fund for extending soft loans to fishermen	100	Under consideration
Creation of Revolving fund for extending soft loan to fish farmers	100	Under consideration
Institutional strengthening and capacity building of concerned government agencies and stakeholders	150	Under consideration
Total	2,570	

(Director Fisheries Pasni)

9.7. Some Key Findings

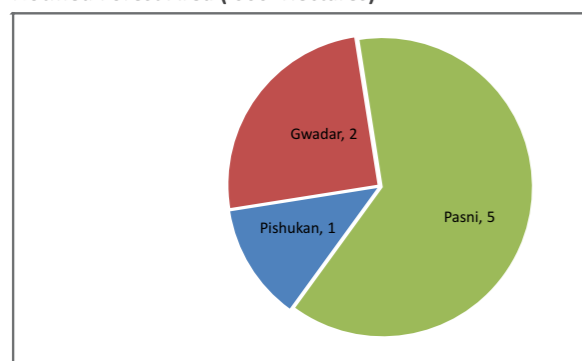
Existing fishing practices are hazardous to the coastal and marine ecosystem. It is important to increase the awareness of conservation issues among fishermen. Government departments also need to be revitalized in order to extend cooperation to each other, enforce state and provincial regulations and stop illegal activities.

- At the policy level, government must define a standard for the fishing boats and only those should be registered and allowed for fishing which fulfill requirements. The fishing crafts currently in use do not meet acceptable standards.
- Lack of infrastructure in terms of Auction Halls, Jetties, Harbors, Link Roads, Water Supply and Electricity hinder rapid growth of fisheries.
- Poor post-harvest catch handling is the area requiring immediate attention
- Lack of awareness about Standard Operating Procedures and, Post Harvesting Techniques adversely affects economic gains
- Illegal fishing is the major cause for depletion of fish stocks in the sea.
- Major environmental threats to marine and coastal areas are pollution, absence of solid waste management facilities and solid erosion.
- Lack of coordination among fishermen, Fisheries Department and other relevant agencies must be avoided to the benefit of fishing community.
- Government needs legislation to protect the coastal zone and endangered species and ensure effective implementation.
- Fishermen are unaware of appropriate post harvesting techniques which are necessary to maintain the quality of the product; otherwise, the fish brings low return after sale.
- A huge quantity of high market value of fish is caught in Gwadar but fishermen get less than 50 percent from the sale. This is because the marketing chain is long and a middle management gets the major share after the retailers and exporters.
- Fishermen need to be trained in modern fishing technologies, regarding seasonal fishing, quality control (Post harvesting,) marketing and cyclone/storms safety measures. Their skills in engine and net repair must be enhanced.
- No stock assessment has been conducted for the last three decades, therefore, it must be carried out following the international standards.

10 FORESTRY

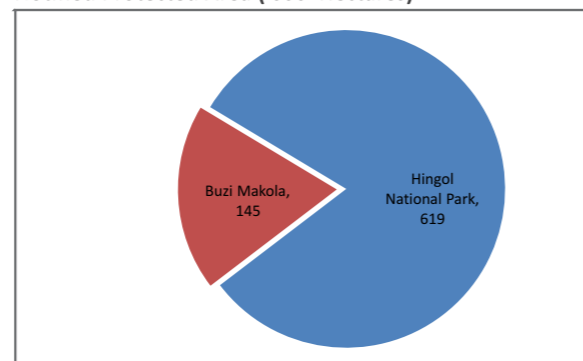
Total Forest Area	7,511 ha
Number of Sub Offices	2
Total Sanctioned Posts	36
Filled Posts	36

Notified Forest Area ('000' Hectares)



(Forest Department)

Notified Protected Area ('000' Hectares)



(Forest Department)

Sector Highlights

The district has a limited area under forest and a negligible area has been conserved as State Forest or Wildlife Protected Area. However, rest of the area other than agricultural lands, is unclassified wasteland, mostly community owned, which can be aptly termed as rangelands. These rangelands are substantially contributing to the local economy of the district as a source of forage for their livestock.

There are three (3) Notified natural forests which include: Pishukan, Gwadar and Pasni, measuring 7,511 hectare in total. Moreover, there are two (2) notified protected areas which include: Hingol National Park and Buzi Makola, measuring 764,201 hectare in total.

The coastline and the offshore resources of Astola Island and Astola Seamount include a range of biodiversity hotspots. These include marine turtle and sea bird nesting sites, localized outcrops of coral, mangrove swamps and extensive salt marshes are the wintering grounds of Palaearctic migrant birds.

Part of Hingol National Park is located in district Gwadar which, besides being a natural wonder, has rich historical and cultural sites related to Alexander the Great, Hindu settlements, Mohammad Bin Qasim and others. If further developed for tourism, the area can fetch revenue for the government and can improve the livelihood of the local population.

10.1. Introduction

Forests play an important role in the maintenance of environmental balance. It is a well established fact that life on earth is the function of a number of direct, indirect, tangible and intangible naturally active forestry factors. These may include emission of life-sustaining oxygen and absorption of toxic carbon dioxide. Forests are the main source of food, timber, firewood, shelter and a variety of medicinal herbs and also serve as baseline for food-web, thereby sustaining life on earth. It should be noted that forests are instrumental in the rehabilitation and development of rangelands, water management, wildlife management and soil conservation. In view of their variety of functions, it is imperative to protect and rehabilitate the forests.

There are mainly two representative forest types in the district; that are Dry Tropical Forests and Tropical Mangrove Forests. In Dry Tropical Forests, the climax formation is reduced to scrub condition due to grazing and fuel wood pressures. Presently it is with very open cover and a moderate amount of bushes and grasses. Major tree species are Pelu (*Salvadoraoleoides*), Kandi (*Prosopis cineraria*), Ber (*Zizyphusnummularia*) and Kikar (*Acacia Senegal*). Whereas, in Tropical Mangrove Forests, the major species are *Avicenia marina*, *Rhizophora mucronata* and *Ceriopstagal* and *Avicenia marina* is the dominant species regarding frequency of occurrence.

10.2. Major Vegetation

The major tree species found in the district are *Pelu (Salvadora oleoides)*, *Kandi (Prosopis cineraria)*, *Ber (Zizyphus nummularia)*, *Date Palm (Phoenix dactylifera)*, *Gaz (Tamarix sp.)*, *Kikar (Acacia senegal)* and *Kotor (Cadaba ferinosa)*. The mangrove species are *Avicenia marina*, *Rhizophora mucronata* and *Ceriops tagal*. Main shrubs are *Euphorbia caudicifolia*, *Haloxylon sp.*, *Calligonum polygonoides*, *Gugul (Commiphora mukal)*, *Merin (Heliotropium sp.)*, *Gujo (Aerva javanica)*, *Aak (Callotropis procera)*, *Alhaji camelerom* and *Mazri (Nannorrhops ritchieana)*.

The ground cover is constituted mainly by grasses like *Eliosine sp.*, *Lasiurus sp.*, *Chrysopogon sp.*, *Aristida sp.* and *Cymbopogon sp.*

Vegetation zones of the district consist mainly of the following categories:-

Table 10.1: Vegetation Zones

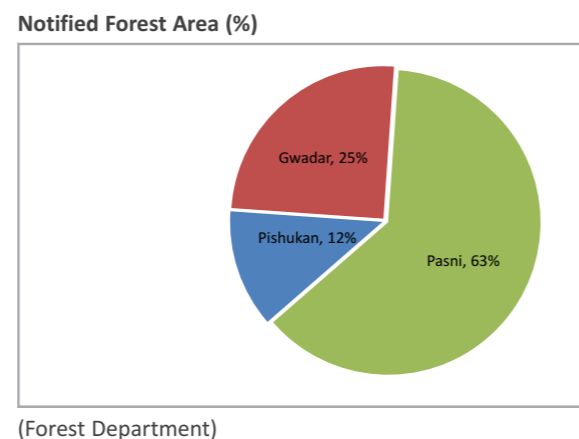
Vegetation Zone	Brief Description
Hills	The tree and bush species are <i>Zizyphusnummularia</i> , <i>Acacia senegal</i> , <i>Salvadoraoleoides</i> and <i>Nannorrhopsritchieana</i> .
Plains	The main species in the plains are <i>Prosopis cineraria</i> , <i>Acacia nilotica</i> , <i>Salvadoraoleoides</i> and <i>Zizyphusnummularia</i> .
River and stream beds	<i>Tamarix spp.</i> , <i>Prosopis cineraria</i> and the invasive alien species <i>Prosopisjuliflora</i> is naturally occurring on alluvium patches along the rivers.
Sand dunes on coastal front	On the dry sandy saline shore there is <i>Urochondrasetulosa</i> (a grass), which is common. Also found are the grasses <i>Sporoboluskentrophyllus</i> , <i>Dactuloteniumaristatum</i> and <i>Ochthochloacompressa</i> . Other scrubs in this area include <i>Heliotropiumcrispum</i> , <i>Haloxylon sp.</i> , <i>Tamarix sp.</i> , <i>Suaeda sp.</i> and <i>Salsola sp.</i>
Inter-tidal swamps, islands and lagoons	The mangrove species are <i>Avicenia marina</i> , <i>Rhizophoramucronata</i> and <i>Ceriopstagal</i> .

(Provincial and District Forest Departments, IUCN, UNDP, WWF, GEF)

10.3. Forestry Land use

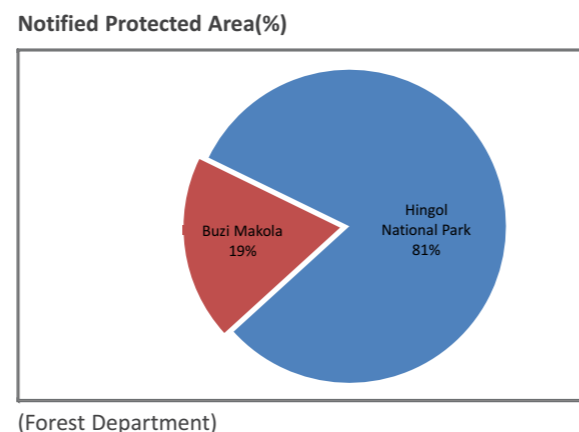
10.3.1. Notified Forests

There are three (3) Notified natural forests which are Pishukan, Gwadar and Pasni, measuring 7,511 hectare in total; see table E1 Annexure E for details.



10.3.2. Notified Protected Areas

There are two notified protected areas: Hingol National Park and Buzi Makola, measuring 764,201 hectare in total; see table E2 Annexure E for further details.



10.3.3. Rangelands

The type of rangeland present in the district is classified as South Western Balochistan Range. It has got species like: *Euphorbia caudicifolia*, *Haloxylon sp.*, *Calligonum polygonoides*, *Heliotropium sp.*, *Aerva javanica*, *Alhaji camelorum*, *Nannorrhops ritchieana*, *Eliosine sp.*, *Lasiurus sp.*, *Chrysopogon sp.*, *Aristida sp.* and *Cymbopogon sp.* The productivity is fair with average productive capacity of 160 kg /hectare. The rangelands are degraded due to overgrazing and fuel wood pressure. Most of the rangelands in the district belong to the communities living around them. Due to communal ownership, usually these are accessible to all members of the community. On the management side, no one assumes the responsibility for undertaking any activity aimed either at restoration of depleted areas or for improvement to increase the forage production and other tangible and intangible benefits. There is no limit on the number, type, season and period/duration of grazing. This free access to range resource by everyone and absence of responsibility on management side has led to what could be termed as the “Tragedy of Commons”, which has resulted in overgrazing and uprooting of bushes/shrubs from rangelands beyond their carrying capacities. As a consequence, most of the rangelands in the district are being degraded.

10.4. Forest Production

The useful plants fall mainly in the categories of fodder; fuel wood for energy purpose and construction wood for roofing and small implements and medicinal plants for people and livestock. However, timber is not produced on commercial basis.

10.5. Non-Timber Forest Produce

Leaves of Dwarf Palm *Nannorrhops ritchieana*, locally called *Pesh*, are used for weaving floor mats, bags, roofs for huts (*gedan*) and even for shoes. There is no knowledge or application of more advanced weaving patterns and coloring of materials and of more market oriented handicraft products. Mainly the raw materials (bundles of Mazri palm leaves) are sold while the processed products are used locally.

10.6. Wildlife

Wildlife habitat type is Arid Sub-Tropical. There are no historical bench marks to determine the status of wildlife in the area. However, according to the local community, the number of wildlife species has declined probably due to uncontrolled excessive hunting and long span of droughts. The key species include:

Table 10.2: Wildlife Common Species

Wildlife Type	Common Species
Mammals	Caracal (<i>Felis caracal</i>), Honey badger (<i>Melivoracapensis</i>), Chinkara (<i>Gazellagazella</i>), Ibex (<i>Capra aegagrus</i>), Urial (<i>Ovisvigneicycloceos</i>), Stripped Hyena (<i>Hyaenahyaena</i>), Wolf (<i>Canis lupus</i>), Bengal fox (<i>Vulpesbengalensis</i>), Asiatic Jackal (<i>Canisaureus</i>), Cape hare (<i>Lepuscapensis</i>), Porcupine (<i>Hystrixindica</i>), hedgehog etc. Sometimes Plumbeous Dolphin can be observed along coastal areas of the district.
Birds	The typical terrestrial bird groups found in the district are Wheatears, Common Babblers, Larks, Sand Grouses, Partridges, the Houbara Bustard, Shrikes, Buntings, Bee-eaters, Hoopoes, as Pigeons and Doves, Brown-headed Raven, owls and birds of prey (Eagles, Vultures, Hawks, Buzzards, Falcons) etc. The major birds found along coast line, lagoons and estuaries are seagulls, terns, pelicans, flamingos, herons, egrets, plovers, lapwings, stints, sandpipers, godwits, shanks, coots, curlews, king fishers, Osprey, etc.
Reptiles	The coastal areas are refuge of Green and Olive Ridley Turtles. Previously Marsh Crocodiles were found in the rivers but now they are rare. Spiny-tail Lizard, Black Rock Agama and Monitor Lizard are common lizards found in the district. Among snakes the Common Krait, two types of Cobras (the Common Cobra and the Brown or Oxus Cobra) and Vipers like Saw-scaled Sand Viper (<i>Echinatuscarinatussochurecki</i>) and Horned Viper (<i>Pseudocerastuspersicus</i>) are commonly found in the district.

(Provincial and District Forest Departments, IUNC, UNDP, WWF, GEF)

10.6.1. Wildlife Statistics

Wildlife survey was conducted in Hingol National Park and since the park is located jointly in three districts therefore, its data particularly for Gwadar district is not available.

10.7. Wetlands

Akara Dam, Astola (Haft Talar) Island, Astola Sea Mount, Dasht Kor, Jiwani Estuary, Kalamat Kor, Pasni Bay and Shabbi Creek are important wetlands in the district. Among these, two sites Astola Island and Jiwani Estuary are RAMSAR sites and globally recognized as wetlands under the Ramsar Convention which is the only global environmental treaty that deals with a particular ecosystem. The treaty was adopted in the Iranian city of Ramsar in 1971. These wetlands provide refuge and wintering grounds to the Pala-arctic migrant birds. The major birds found are Seagulls, Terns, Pelicans, Flamingos, Herons, Egrets, Plovers, Lapwings, Stints, Sandpipers, Godwits, Shanks, Coots, Curlews, King Fishers and Osprey.

10.8. Commercial Forestry (Plantations)

There was no commercial forestry plantation in the district; however, tree species planted for amenity and farm forestry purpose can be included in this category, which are mostly planted along water channels, water storage ponds, around farmlands and household compounds. The common species are *Ziziphus mauritiana*, *Euclptus sp.*, *Dalbergia sissoo*,

Albezzia lebbek, Melia azedarach, Azadirachta indica, Coronocarpus sp., Populus spp Cordia sp., Syzygium cumini, Mangifera indica, Ficus sp., Hibiscus rosa-sinensis, Bougainvillea sp., Jasminum sp.

10.9. Bee Keeping

Bee-keeping was not an economic activity in the district. Local people collect it from waste lands and forest areas for their own use.

10.10. Marketing and Processing

In the district, wood obtained from the forests and wastelands is mainly used for fuel purposes, minor timber for roofing and making small implements and boats. There was no data available about the quantity of wood utilized or exported from the district.

10.11. Structure and Functions of the Forest and Wild Life Department

Forest Department in the district is under the administrative control of the Divisional Forest Officer (DFO), he reports to the Chief Conservator of Forest in the province.

Functions of the Balochistan Forests and Wildlife Department in the district are listed as under:

- Forest conservation and management.
- Rangeland development.
- Wildlife conservation and protected areas management.
- Watershed management.
- Soil conservation and desertification control.

Table 10.3: Structure and Functions of the Department

Structure	Numbers
Number of Sub Offices	2
Sanctioned Strength in various Categories (Total)	36
Actual Filled Posts	36
Vacant Posts	0

(Provincial and District Forest Departments, IUCN, UNDP, WWF, GEF)

10.12. Some Development Projects

There is no District Government, PSDP, ADP funded development project under implementation in the district. However, a project named “Pakistan Wetlands Project – Mekran Coastal Wetland Complex” funded by Ministry of Environment (devolved to the provinces now) and UNDP was under implementation through the World Wildlife Fund – Pakistan (WWF-Pakistan). Moreover, IUCN is also implementing a donor funded project on conservation of Mangroves in Gwadar District.

10.13. Some Key Findings

- Area under forest reserves in district Gwadar is very small.
- Female involvement in the forestry activities is rare and limited to some jobs like collecting herbs, bushes and shrubs and sometimes they also collect fuel wood.
- In the development of forestry, participation of Local and Federal Government and NGOs is very low.
- Forest resources have depleted due to unavailability of cheap sources of fuel energy other than wood.

- Wildlife management is very poor and needs improvement.
- The environmental and ecological balance has been impaired due to soil erosion, depletion of rangeland and population pressure.
- There is lack of awareness towards conservation of forests, rangeland and wildlife.
- Irrational land use and its management should be controlled.
- Historically, there has been low development investment in forestry sector.
- Lack of alternate energy source put forest in danger of quick depletion.
- No community system is in place for management of wastelands.
- Wildlife hunting is not controlled and excessive hunting for fun and prestige is in peak which needs a special attention from the government.

The specific development issues are as follows:

- The coastline is enriched with important marine turtle and sea bird nesting sites, mangrove swamps and extensive salt marshes are the wintering grounds for Pala-arctic migrant birds. These areas are under pressure due to recent economic activity started in the district after development of Gwadar Deep Sea Port. The wasteland areas, which used to provide wilderness to the species, are now being converted to land tracts for other purposes.
- Increased economic activity has also increased the demand of energy and construction material. The items like LPG and processed timber are usually imported and due to high cost of transportation are unaffordable for the people, therefore, the people living in and around the economic activity zones still rely on local products. Moreover, local boat making industry also relies heavily on wood of Acacia species grown at farmlands and waste lands. If reforestation and farm forestry activities are not initiated at this moment, the increased demand for wood items will reduce tree cover in the district and will eventually put an immense pressure on mangrove forests.

11 MINING

Sector Highlights

- Large scale mining leases are granted to cement industry.
- Good quality Limestone is the major mineral of the area followed by Salt and Sulphur.
- A Sulphur mine is operating near Pasni and occurrence of Sulphurated Hydrogen at Kallag was reported as well.

11.1. Introduction

Major mineral deposits found in the district are Mudstone, shale, siltstone, limestone, sandstone and gravels. calcite veins, quartz calcite veins, iron oxide and associated mineral showings have been reported from various facts of mapped area. The large reserves of limestone, sandstone, shale and gravel are available in abundance to meet the diverse construction requirements of roads, buildings and cement industries.

11.2. Major Minerals

Major minerals in the district include Limestone followed by Salt and Sulphur. A Sulphur mine was operating near Pasni and occurrence of Sulphurated Hydrogen at Kallag was reported. Salt is obtained from sea or rain water. Small wells of 3-4 meters depth are dug near the sea shore and sea water is spread in panes made on plain surface. The usual dimension of the panes is 300 x 200 x 10 centimeters. Water usually takes 10 days to dry after that a huge quantity of Salt is collected. Each of the panes produces about 20 kilograms of Salt.

Prospecting licenses and 2 mining leases have been granted for limestone, *bajri* sand, ordinary marble to the private sector for exploitation of the mineral. Two large scale mining leases have also been issued to private sector for setting up cement manufacturing plants in the district. During the fiscal year 2005-06 to 2009-10, the detail of licenses/ production reported in the district is as under:

Table 11.2: Major Minerals

	No of Prospecting Licenses 2009-10		No of Mining Leases 2009-10	
	Number	Acreage	Number	Acreage
Lime Stone	2	1722.9	2	13738.6
Bajri Sand	3	273.5	n/f	n/f
Ordinary Stone	1	100	n/f	n/f

(Mines and Minerals Department) n/f: Data not found

11.3. Some Key Findings

Gwadar is covered with adequate bedded mudstone, shale, siltstone, limestone, sandstone and gravels. Planning projects to explore and utilize mineral resources of the district can add another dimension to economic activities. The production of salt may be organized as a small industry. Feasibility studies will attract potential investors more easily.

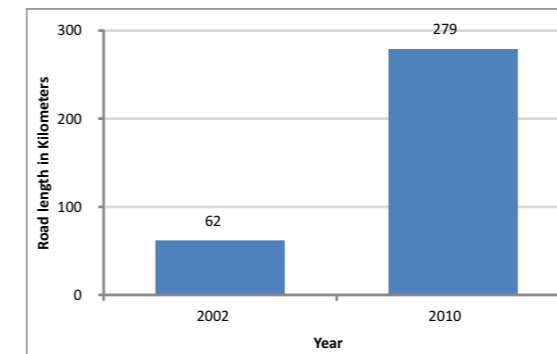
12 INDUSTRY AND MANUFACTURING

Relevant data could not be collected.

13 ECONOMIC INFRASTRUCTURE AND COMMUNICATIONS

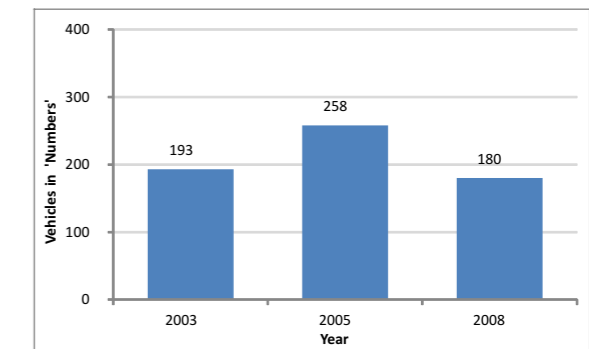
Economic Infrastructure and Communications	
Total Length of metalled roads	279 Km
Total Length of shingle roads	934 Km
Number of Telephone connections	1,693
Number of Post Offices	10
Hotels	Exist, number not confirmed
Motels	exist
Guest Houses	10
Rest Houses	01
Public Banks	02
Private Banks	>4

Black Topped Roads



(District Development Statistics, Balochistan, 2008-09)

Vehicles Registered by Year



(District Development Statistics, Balochistan, 2008-09)

13.1. Introduction

District Gwadar, a very important coastal district of Pakistan, is well-connected with other parts of the province and the country by air and road. The state of economic infrastructure in Gwadar is somewhat better than many other districts of Balochistan but it still requires improvement through investment in reconstruction of new infrastructure as well as maintenance of the existing ones.

13.2. Roads and Highways with Surface Classification and Length

The total length of road in Gwadar is 1,213 km, out of which, 279 km is black topped/metalled road. Major portion of the roads comprises of shingle roads. All these roads were constructed and are being maintained by the Provincial Building and Road (B&R) Division of the Constructions and Works (C&W) Department. Unavailability and sometimes improper utilization of development budget along with low cost-benefit ratio, are major factors behind this weak road linkages.

To bring Gwadar close to the national mainstream, a 700 km long Mekran Coastal Highway has been constructed. It links Gwadar with Pasni, Ormara and Karachi. Another regional linkage is the Gwadar Ratto-Dero motorway joining it with Indus Highway through Turbat, Awaran and Khuzdar.

Unavailability of black topped roads in Gwadar District has hampered the transportation of small scale fish export to Karachi, which benefits the fishermen. The daily traffic count on various roads of the district was 432 only (Provincial B&R Division). Transporters demand high fares due to high maintenance cost of the vehicles which further affects the costs. The table below gives the length of various roads.

Length by Surface Type	Black Topped	Shingle	Total Length
2002	62	934	996
2010	279	934	1,213

(District Development Statistics, Balochistan, 2008-09)

13.3. Transport

The Vehicle Excise Registration Office is present in District Gwadar. See table F1 Annexure F for the number of registered vehicle under various categories in the district since 2007-08. Usually, only government vehicles are registered in the district. In 2008, only 1 car was registered with the Motor-vehicle Registration Authority. All districts have vehicles that are registered in different parts of the province and country. Resale value in a particular area determines what area registration is preferred. Hence, presence of vehicles on road will not match with number of vehicles registered in a particular district. Due to weak check, unregistered vehicles can also be seen in almost all the districts and Gwadar is no exception

13.4. Railway, Harbor and Airports

No railway network exists in the district. The government of Balochistan intends to have a railway link between Gwadar and Mastung, which will connect Gwadar with other parts of the country and with Central Asian Republics. Feasibility study has already been conducted in 2008 and the provincial government is seeking investors for this mega project. Cost of the projects was estimated to be Rs. 107 Billion. The railway line will pass through Hoshab, Nag, Besima, Surab, Kalat. From Mastung to Quetta and then Chaman, this railway line will link Afghanistan. Length of the proposed railway line is 901 KM. 35 railway stations have been planned on this track.

Breakup of distances between Gwadar and Kushka (Turkmenistan)

Countries	Section	Existing Track (KM)	New Track (KM)	Total (KM)
Pakistan	Gwadar to Mastung (proposed Route)	0	901	901
	Mastung to Chaman	190	0	190
	Chaman to Pak -Afghan Border	0	15	15
Afghanistan	Pak-Afghan Border to Kandhar	0	97	97
	Kandhar to Heart	0	535	535
	Heart to Afghan -Turkmenistan Border	0	98	98
Turkmenistan	Afghan -Turkmenistan Border to Kushka (Border City of Turkmenistan)	0	12	12
Total		190	1658	1848

However, there are 4 airports at major towns of Gwadar, Pasni, Ormara and Jiwani: Gwadar and Pasni have status of international airports. Pakistan International Airlines (PIA) operates 31 domestic and 3 international flights per week to connect all the 4 airports of Gwadar District to Muscat, Sharjah, Karachi, Turbat, Panjgur, Gwadar, Pasni, Ormara and Jiwani. All the cities of Balochistan and towns of Gwadar District are connected to each other by road.

The first phase of **Gwadar Deep Sea Port project** has been completed, which includes three multipurpose 602m long berths besides construction of a 4.5 kilometer long approach channel dredged to 11.5m to 12.5m. This highly impressive national project also includes the development of a turning basin of 450m dia and one 100m service berth. Related port infrastructure and port handling equipment and pilot boats, tugs, survey vessels are also included in the first phase of this project.

Gwadar port has been equipped with the essential port handling equipment and other infrastructure required for smooth operations of a modern port. The Port can handle Bulk Carriers of up to 30,000 DWT and Container Vessels of 25,000 DWT. Some of the evident investment opportunities at Gwadar are construction / development of:

Master Plan related infrastructure i.e. internal roads & services, water, power and communication services for the new township and the Industrial Zone.

- Ware Houses and Cold Storages.
- Cargo handling equipment and trucking yards.
- Corporate Infrastructure i.e. offices for operating firms & agencies.
- Development of Commercial/residential areas & buildings.
- Labour related amenities for thousands of workers employed on developmental work of Gwadar.
- Hotels & Motels.
- Hospitals, Colleges & Schools.
- Tourism related industry including Coastal Beach Resorts, Ferry & Boat Service, Water/Theme Park, Water Sports, Scuba diving etc.
- Ferry services between Gwadar-Karachi/Oman/Bunder Abbas and UAE.
- Industrial Export Processing Zone

Gwadar Business Plan

Gwadar Development Authority is implementing Gwadar Business Plan, which costs Rs. 25.0 billion. Federal Government is financing the project under Federal PSDP. So far Rs. 5.0 billion have been spent. Main components of the Business Plan are as under:

1. GDA Master Plan Road Network (Rs. 10987 million)
2. Reconstruction of Air Port Road (Rs. 1207 million)
3. Construction of 350 Bedded Hospital (Rs. 500 million)
4. Fishermen Town Gorab (Rs. 876 million)

5. Construction of GDA Office Block (Rs. 30 million)
6. Construction of Sports Complex (Rs. 500 million)
7. Construction of Central Park (Rs. 20 million)
8. Purchase of land (Rs. 2000 million)
9. Establishment of Water Desalinations Plant (Rs. 7000 million)

Fish Landing Jetties and Allied Harbour Facilities at Surbandar (East Bay) and Pishukan (West Bay)

Gwadar Development Authority is implementing two other important projects of jetties at Surbandar and Pishukan with 80% financing by the Federal government through Federal PSDP. Major works under these two projects include:

- i. Dredging and reclamation
- ii. Construction of fish landing jetties
- iii. Construction of auction hall
- iv. Construction of break water
- v. Navigation aids

The project at Surbandat, East bay Gwadar was planned at Rs. 672.67 million and has been revised at Rs. 1113.340 million while the one at Pishukan was estimated at Rs. 628.57 million and now stands revised at Rs. 1043.44 million.

13.5. Radio and Television Stations

There are no radio and TV stations in Gwadar district. The television owners watch television programs through satellite dish antennas. There is no proper record of the number of television users and TV sets, however, as per estimate every fourth household owns a TV set and a satellite receiver. Pakistan Broadcasting Corporation has one radio broadcasting station of 0.25 K.W.at Turbat, which was inaugurated on January 4 1981.Three hours broadcast is in Urdu and two hours in Balochi while radio stations at Quetta and Khuzdar also transmit programs in Balochi which can be listened in Gwadar District.

13.6. Telecommunication and IT Services

The district is well-connected to other parts of the country through telephone. The data given in the table below shows a gradual increase in number of telephone exchanges and telephone lines in the district.

Table 13.2: Telephone Line, Exchange and Internet Users

Category	1998	2009
Telephone Lines /Connections	1,693	3,759
Exchange and Tele-density	8	7

(Pakistan Telecom Authority)

13.7. Post Offices / Courier Services

In District Gwadar, 10 post offices and 30 post boxes are facilitating the public. Mail reaches various parts of the district by air as well as by road but delayed delivery of mail is a common complaint. Presently, the fax and special mail services have been discontinued due to shortage of staff. Gwadar Post Office provides saving bank services as well.

13.8. Banking and Financial Institutions

The Small Business Finance Corporation and commercial banks have branch offices in the district. Commercial banking services are provided by Habib Bank Limited (HBL), National Bank of Pakistan (NBP), Askari Bank, United Bank Limited

(UBL), Allied Bank Limited (ABL) and Muslim Commercial Bank (MCB) in Gwadar District, while Agricultural Development Bank of Pakistan (ADBP) provides credit services for the fishermen. A branch of Small Business Finance Corporation is also available to finance small business enterprises. The principal business of the banks in Gwadar is remittance of money that comes from Gulf States; however, lending of money from the banks is also common among business community.

The Agricultural Development Bank of Pakistan has a mandate to provide loans to fishermen for fishing gears and boats. A pre-appraisal is prepared for lending by a Mobile Credit Officer, who prepares the financial appraisal. After financing, the bank keeps track of its investment and an evaluation of loan utilization is made. Usually boats and fishing gears are mortgaged and a loan up to 66 percent of their value can be provided on which a 14.5 percent mark-up is charged. Sometimes personal guarantee is also acceptable if the loan demanded is up to 30 thousand rupees. In the year 1995-96, an amount of 11.71 million rupees was given as loan to the fishermen. In the fiscal year 1993-94, lending to the fishermen amounted to rupees 14.136 million and in 1994-95 this amount was rupees 36.907 million. Recovery rate has been below 40 percent up to 1996 after that it increased to about 55 percent as a result of a special recovery campaign by the bank. The bank has appointed 5 Mobile Credit Officers in Gwadar District, 2 at Gwadar, 2 at Pasni and one at Jiwani for providing credit facilities to the fishermen.

The Agricultural Development Bank of Pakistan has introduced many schemes, some of which have been abandoned. A total of 14 tractors were provided to the farmers in Gwadar and Pasni at 12 percent interest rate under the Awami Tractor Scheme.

The Small Business Finance Corporation (SBFC) has opened its branch at Gwadar but it is not functional. The main reason behind non-provision of loans to the fishermen is that the corporation requires a land ownership certificate as mortgaging document. Gwadar is an unsettled area and none of the residents have land ownership certificates. The fishermen have their own boats, fishing gears and registration certificates to mortgage but the corporation does not accept these as guarantee. The result is very obvious that the corporation has not financed a single penny as loan in Gwadar, which was the real purpose of the corporation.

13.9. Energy

13.9.1. Electricity (Supply and Demand)

The district was first provided electricity with 4 diesel operated generators with a combined capacity of 17 MW from Pasni Power House by Water and Power Development Authority (WAPDA). During that period, major towns of the district were electrified through the local generators for a limited time of 8 to 12 hours everyday but suburbs and villages were deprived of this facility. However, for last about ten years 35 MW of electricity is being imported from Iran and almost all the small towns and villages stand electrified. Due to shortfall of electricity 3-4 hours load shedding is observed during 24 hours.

13.9.2. Gas (Supply and Demand)

Gas is not provided to Gwadar District through gas pipelines; however liquefied petroleum gas (LPG) is available in cylinders for cooking and household use. It is supplied by the Sui Southern Gas Company (SSGC), Wakgas and Burshane Gas through their agencies at Gwadar, Pasni, Ormara and Jiwani. Some proportion of gas cylinders is illegally imported from Iran as well. One cylinder of 10-11 kg of LPG supplied by Pakistani companies would cost 280-300 rupees while an Iranian cylinder of 7-8 kg costs 220-230 rupees. LPG is also available through refilling in smaller cylinders of 2 kg for 70 rupees. Although LPG is costly as compared to the other energy sources but still its consumption is increasing. At present, agencies of SSGC, Wakgas and Burshane Gas sell about four thousand cylinders per month. The consumption of Iranian gas is not measurable as many shops are selling refilled and Iranian cylinders because there is no check on refilling and selling of LPG. The price of LPG is a bit higher in Gwadar District because the transportation charges are much higher due to its distance. In this way price per cylinder increases to 270 rupees. Although Wakgas and Burshane Gas are available in required quantities, the agency holders sell their cylinders at the same price as being received by the SSGC agency holders.

13.10. Hotels and Resorts

There are ten government guest houses in the district and six are in Gwadar city. There is a governor Rest House where special guests and high dignitaries usually stay. In addition Gwadar has got good tourist hotels and beach motels



13.11. Some Development Projects

Some Development Projects in reflected in the PSDP 2009:

- Construction of residential /non-residential accommodation for Judiciary Department Gwadar.
- Gwadar cross to Nallant (60 km).
- Construction of Road from Kalag Kulanch to Coastal Highway.
- Construction of Road from Kalmat to Coastal Highway.
- Service Road and Right of way (GDA).
- Construction of black top Road Gubd of Samti via Doom Gwadar(20 km)
- Construction and black top of various Roads in Gwadar, Pasni, Jiwani towns (20 km)
- Construction of black top Road Nagor Sharif to Suntsar 54 km (Omani grant)
- Construction of black top Road Chip Rikani 15 km (Omani grant)
- Construction of black top Road Tak village to Coastal Highway 11.30 km (Omani grant)
- Laying of parallel pipeline Swali Gwarm to Pasni town (Omani Grant)
- 33kv lines from Gwadar to Pishukan and Gwadar to Kupper (Omani Grant).
- "2" MGD Water Desalination Project Gwadar Industrial Estate on 50:50 sharing basis (Federal: Provincial) (BDA).
- Master plan for development of water front in and around Gwadar.

13.12. Some Key Findings

- As compared to many other districts infrastructure condition in District Gwadar is better. Gwadar is connected to other cities by road and air. Development of any area is hard to be imagined without roads; therefore it is imperative to construct more metalled roads to link coastal towns with Karachi and other major cities of Balochistan. PIA operates flights for Gwadar, Pasni, Ormara and Jiwani but travel by air is expensive for the common people.
- Presently, the district is out of PTV's transmission range. Human resource mobilization can only be made possible through education, awareness and communication, and electronic media is the most effective medium. PTV can play a very positive role in behavioral change with regard to family planning, through persuasive communication.
- The district is well linked through telephone and mail. Postal services need to be improved. Commercial banks are functioning satisfactorily; however, the crucial role of the Agricultural Development Bank of Pakistan demands a broader mandate to serve the fisheries based economy of the district. The lending conditions of Small Business Finance Corporation may be made suitable to finance small manufacturing and business, like net making, boat-making and fish processing.



SECTION III Social Infrastructure

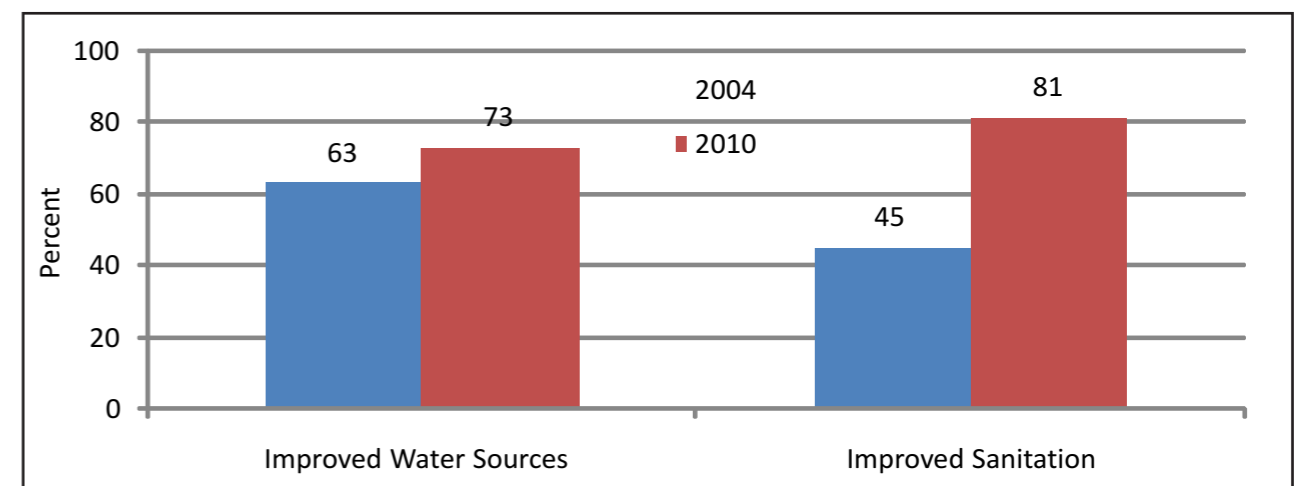
- 14 Water Supply and Sanitation
- 15 Health and Nutrition
- 16 Education

14 WATER SUPPLY AND SANITATION

MDG Indicators	
Goal 7: Environmental Sustainability	
7.8: Proportion of population using improved water source	73%
7.9: Proportion of population using an improved sanitation facility	81%

Water Schemes (numbers)		Purification Plants	
Functional	40	Functional	4
Non-functional	0	Non-functional	8
Total	40	Total	12
Water sources		Sanitation Schemes	
Tube well	1	Latrines	n/f
Spring	n/f	Sewerage Schemes	n/f
Open Sources	2	Solid waste Management	n/f
Canal	0	Others	n/f

n/f: Data not found



Sector Highlights

- Provision of drinking water has improved in the recent years
- PHED, under its CDWA program, is the major role player in water supply schemes.
- Under the Clean Drinking Water project, 12 water filtration plants have been installed at various locations of which 4 are functional.
- There has been a significant improvement in the use of sanitary toilets by households.

14.1. Introduction

Access to safe drinking water, sanitation and solid waste disposal is considered to be the fundamental right of every human being. It is duty of the state to provide these facilities by practicing comprehensive policies and good governance. Provision of safe water and sanitation services are effective interventions that help reduce the mortality caused by water-borne disease by an average of 65% and the related morbidity by 26%. Inadequate sanitation and unimproved drinking water create numerous health hazards.

The water and sanitation indicators for Balochistan are far lower compared to the national average and this disparity increases further in rural areas. Situation in District Gwadar is relatively better when compared with rest of the province. Recent surveys have shown marked increase in the use of drinking water and sanitation facilities. A profile of water and sanitation situation in the district is shown in the table below:

Indicator	2004	2010
Use of Improved water sources	63	73
Access to safe means of excreta disposal	45	81

(Multiple Indicators Cluster Survey, 2004 and 2010)

14.2. Drinking Water

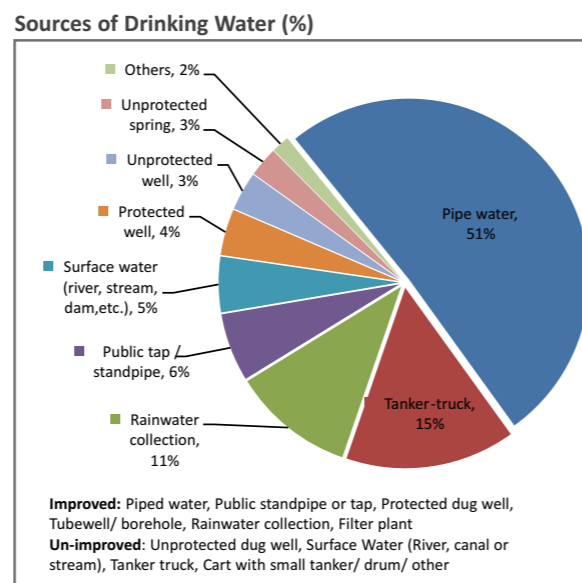
A recent household survey² conducted in 2010, has shown that 73% population has access to one or more improved water sources, of which, piped water constitutes 51 % as the major source followed by 11 % of rainwater collection. Whereas, other minor improved sources include 6% public standpipe or tap, 4% protected dug wells and 0.8 % tube wells/ boreholes. Major unimproved sources are tanker truck (15%), surface water (5%), unprotected wells (3%) and approximately 2% of unimproved water source belonged to other categories as mentioned in the graph. For details, see table G1 Annexure G.

About 41% household population has no water on their premises and have to travel long distances to fetch water, which is usually the responsibility of women or children of the household.

The drinking water data presented here only reflects the use of particular type of water source. It does not represent quality or quantity of water which is also of major concern. Drinking water from improved sources is vulnerable to contaminations MICS Balochistan 2010 gives Division wise results on water treatment. In Mekran Division, which includes Gwadar, a small number of households treat water for disinfection: 3% boil, 0.6% add bleach, 3.9% strain through cloth, 3.3% use solar disinfection technique and just 0.4% let water stand and settle.

14.3. Water Supply Schemes

Overall use of improved drinking water sources has improved since 2003-04, when the improved water sources were 63%. The table below shows the number of schemes implemented by PHED and other institutions.



(Multiple Indicators Cluster Survey, 2010)

Table 14.2: Schemes Established by Institutions

Type of Agency	Total Schemes
PHED	40

(Public Health Engineering Department, 2010)

Majority of these schemes were implemented by PHED, none of which, as per recent information, were reported as non-functional. The types of schemes implemented by PHED are shown in the table below:

Table 14.3: Type of Water Schemes

Type of Schemes	Total Schemes
Tube Well	1
Open Surface	2
Wahi	1
Dam	1

(Public Health Engineering Department, 2010)

The sources of the schemes are mainly dependent on overhead tanks as mentioned in the table below:

Table 14.4: Distribution of Schemes by Sources

Type of Sources	Total Schemes
Groundwater Tank	1
Overhead Tank	3
Direct Pumping From Dam Or Water	1

(Public Health Engineering Department, 2010)

The above mentioned schemes are being run using various energy sources. Out of total 5 PHED schemes, 3 are being run using electricity, whereas, in electricity shortage areas 1 scheme is being run on diesel engine whereas, 1 is through a diesel generator.

14.4. Water Purification Plants

Balochistan Government is striving for provision of clean drinking water. In this regard, PHED is implementing "Clean Drinking Water for All" program that aims to install water purification plant in every Union Council and some *Tehsils* of the district. In District Gwadar, so far 12 water purification plants have been installed, out of which 8 are not functioning.

14.5. Some Development Projects

Development Project reflected in the PSDP 2009:

- Rehabilitation of Suntsar Source for Water Supply Scheme for Gwadar town.

14.6. Sanitation

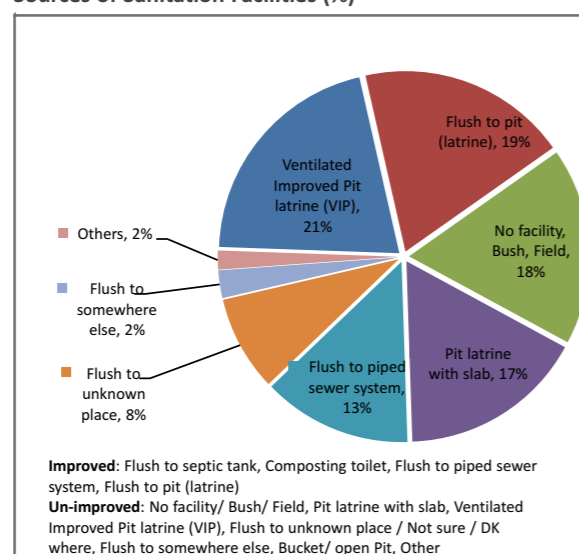
Inadequate disposal of human excreta and personal hygiene is associated with a range of diseases including diarrhoeal diseases and polio. An improved sanitation facility is defined as one that hygienically separates human excreta from human contact. Improved sanitation can reduce diarrheal diseases by more than a third, and can significantly lessen the adverse

health impacts of other disorders responsible for death and disease among millions of children in developing countries. Improved sanitation facilities for excreta disposal include flush or pour flush to a piped sewer system, septic tank, or latrine; ventilated improved pit latrine, pit latrine with slab, and composting toilet.³

14.6.1. Use of Sanitary Means of Excreta Disposal

About 81% households in the districts are using improved sanitary toilets for human excreta disposal. Of those, 43% has any flush system, while others are using different types of pit latrines. About 18% have no toilet facility and defecating in the open fields/bushes, raising the risk of disease transmission through air, insects/flyes or other means. For details, see table G2 Annexure G.

Sources of Sanitation Facilities (%)



(Multiple Indicators Cluster Survey, 2010)

14.7. Some Development Projects

There was no sanitation project reflected in the PSDP.

³ MICS Balochistan 2010

15 HEALTH AND NUTRITION

Maternal, Newborn and Child Health	
Antenatal Care	44%
TT2 Vaccination	27%
Vaccination (BCG, Fully)	80%, 46%
Institutional Deliveries	17%
Skilled Attendants at Birth	17%
Diseases (MICS 2010)	
Suspected Pneumonia <5 yrs	5%
Diarrhea in Last 2 Weeks <5 yrs	33%
Health Services Infrastructure	
Hospitals	1
Rural Health Centers (RHCs)	3
Basic Health Units (BHUs)	23
Dispensaries	15
MCH Centers	3
TBC	1
Others	n/a
Human Resource for Health	
Doctors	43
Nurses	0
Paramedics	174

(MNCH and Diseases Indicators, MICS, 2010)
 (Health Facilities and Human Resources, 2010)

MDG Indicators

Goal 1: Eradicate Extreme Poverty and Hunger

1.8: Underweight (<5 yrs) – 68% (2004)

Goal 4: Reduce Child Mortality

4.1: Under-five Mortality Rate (Mekran Division) – 55
 4.2: Infant Mortality Rate (Mekran Division) – 47 (2010)
 4.3: Measles Immunization Coverage – 78% (2010)

Goal 5: Improved Maternal Health

5.2: Skilled Attendants at Childbirth – 17% (2010)
 5.3: Contraceptive Prevalence Rate – 19% (2010)
 5.4: Adolescent Birth Rate – 0%
 5.5: Antenatal Care Coverage – 44% (2010)
 5.6: Unmet Need for FP – n/a

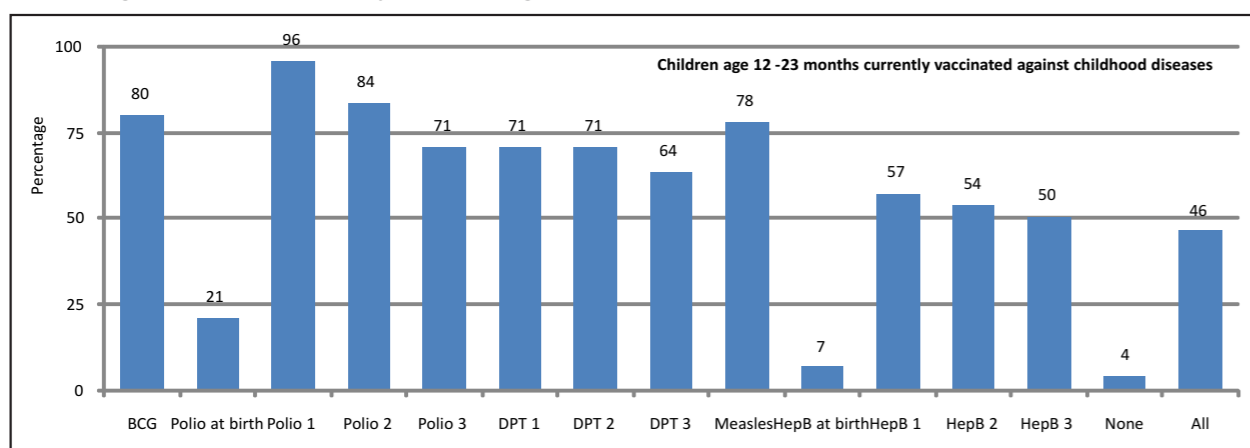
Goal 6: Combat HIV/AIDS, Malaria and Other Diseases

6.3: Correct Knowledge of HIV/AIDS – among Young Women (15-24y) – 8.1% (2010)
 6.6: Children <5 Sleeping Under ITN – 0.4%
 6.8: Children Treated with Anti-malarial Drugs – 0%
 6.9: TB Case Detection Rate – 27% (2009)
 6.10: TB Treatment Success Rate – 33% (2008)

(Infant Mortality and Under-five Mortality estimates are regional)

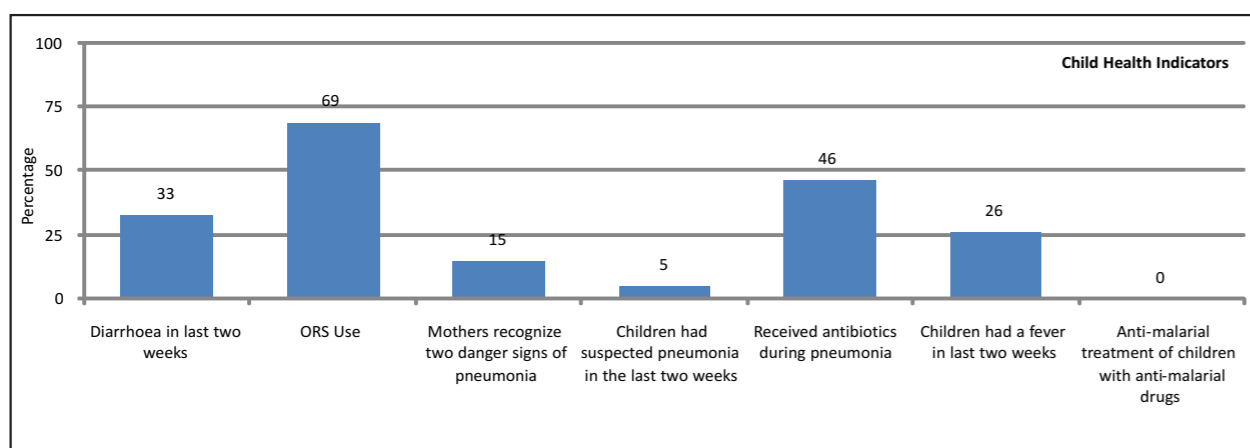
Following are the MICS Balochistan 2010 Indicators:

Children age 12-23 Months Currently Vaccinated Against Childhood Diseases



(Multiple Indicators Cluster Survey, 2010)

Child Health Indicators



(Multiple Indicators Cluster Survey, 2010)

Sector Highlights

- A total of 224,550 new cases of common illnesses, visited the government health facilities during 2009-10
- There are 21 doctors for about 264,168 population i.e. one doctor for 6,143 persons.
- TB Control Program has made significant achievement under its TB-DOTS strategy with an overall achievement of Case Detection Rate (CDR) 27% and Treatment Success Rate (TSR) 33%.

15.1. Health Needs

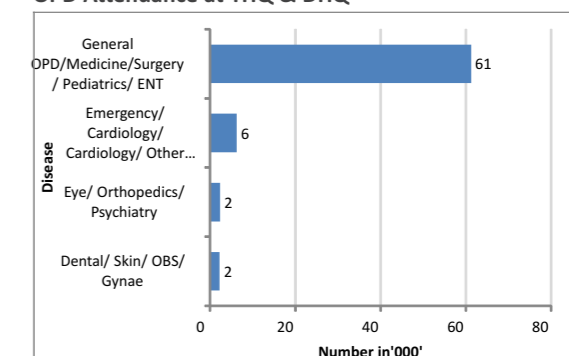
For every 1,000 live births, 47 babies do not survive up to their first birthday and another 8 die before reaching the age of 5 years. Similarly, women, who experience a high fertility rate (TFR: 2.2) as compared to the provincial average (TFR: 4.7) have poor access to skilled service providers for antenatal check-ups and delivery assistance. Other than the resourceful and affluent ones, most women are left to deliver at home by local untrained *dais* or by neighbors or relatives. There is no ambulance facility and people have to make their own arrangement in case of medical and obstetric emergencies.

According to District Health Information System (DHIS) reports, a total of 224,550 new cases of common illness, visited the government health facilities during 2009-10. Respiratory Tract Infections, Gastro Intestinal, Urinary Tract Infection were the most common diseases reported from health facilities. Other communicable diseases included Malaria, Meningitis, Fever and Scabies. Top ten new priority health problems are presented in chart below:

Another 41,217 new cases of common illness visited outpatient departments of the secondary hospitals. The distribution of top 10 disease is presented in the chart.

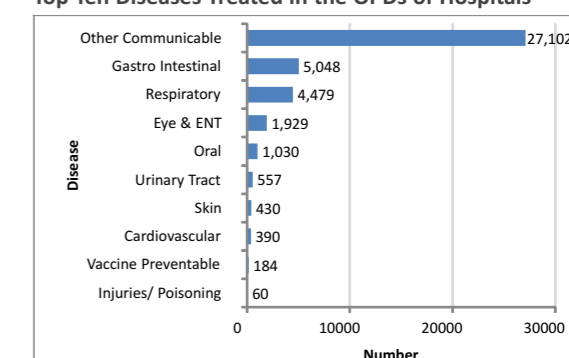
There have been 3,201 patients hospitalized during the year 2009-10. The distribution of indoor admission by disease category is presented in the chart in bottom right:

OPD Attendance at THQ & DHQ



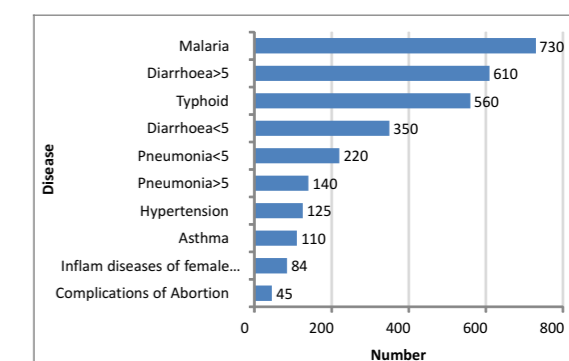
(District Health Information System, 2009-10)

Top Ten Diseases Treated in the OPDs of Hospitals



(District Health Information System, 2009-10)

Most Common Indoor Diseases Treated



(District Health Information System, 2009-10)

15.2. Health System and Resources

15.2.1. Health Facilities

The highly subsidized public healthcare system is the major provider of curative and preventive care services to the local population. The health facilities in the district comprise 1 Hospital, 3 Rural Health Centers (RHCs), 23 Basic Health Units (BHUs), 15 Civil Dispensaries (CDs), 3 Maternal and Child Health Centers (MCHCs) and 1 TB Clinic. There are 101 beds out of which 58 are situated in RHCs. Nonetheless, there is one non-functional school health services unit in the district. Moreover, 1 Leprosy Hospital with 20 beds, 2 Leprosy clinics and 1 private Hospital with 5 beds are also functioning in the district.

The public-sector healthcare system suffers from governance, funding, staffing and resource limitations. A number of health facilities lack essential staff and are under-utilized.

15.2.2. Human Resource

There are 21 doctors for about 264,168 population i.e. one doctor for 6,143 persons. The posts of dental surgeon are lying vacant at both DHQ Hospital and Rural Health Center level, which means that whole population of the district have no access to the dental care. The bed and Paramedical Staff ratio has been calculated in the following table:

Table 15.1: Health Staff and Facilities

Health Facilities	Health Staff and Facilities in 2010				Health Facilities
	Doctors M/F	Nurses M/F	Para-medical M/F	Beds M/F	
Hospitals	15/6	0	18/1	43	1
CDs	n/f	0	29/0	0	15
RHCs	n/f	0	25/3	58	3
BHUs	n/f	0	46/5	0	23
MCH Centers	n/f	0	0/4	0	3
TBC	n/f	0	0	0	1
Total	21+23=44	0	131+43=174	101	46
Unit/population ratio	6,143	0	1,518	2,616	5,743

(Blochistan Health Department)
n/f: Data not found

15.2.3. Administration of Health Department

The District Health Department is headed by District Health Officer he is assisted by the Deputy District Officer Health (DOH) Preventive, Curative and Medical Superintendent (MS) of the District Headquarter (DHQ) Hospital.

15.2.4. Reporting and Surveillance Systems

The District Health Department has upgraded its Health Management Information system in 2010 to a new version called "District Health Information System (DHIS)". This system routinely collects data on priority health problems, services provided and availability of resources from all health facilities in the district. The system was first restructured in the district during early 1990s and since then, data has been used for analysis and management feedback.

In addition, the National Program for Family Planning and Primary Health Care (NPFP & PHC) has also setup a comprehensive management information system to monitor performance of Lady Health Workers deployed at the community level. The system collects data from each LHW, consolidates and sends up in the management hierarchy.

Diseases Early Warning System (DEWS) is a weekly epidemiological surveillance and outbreak control reporting system for selected communicable diseases.

15.3. Health Services / Activities

According to DHIS, the overall utilization of health facilities during the reporting year was 850 new cases per 1000 population. On the whole, 774 of registered pregnancies and 267 deliveries were assisted by trained personnel in the district. Similarly, out of 739 family planning visits, 239 of the delivered women had one or more post natal visits. The data further shows that in total 1,140 less than five years old children were found to be malnourished.

15.4. Special Health Programs / Initiatives

15.4.1. Expanded Program on Immunization (EPI)

District Superintendent of Vaccination (DSV) manages the EPI in the district under the supervision of the EDO (H) And DOH. DSV coordinates and supervises the affairs and activities of the EPI staff at all fixed centers and outreach teams. EPI coverage of the district has been 74%.

15.4.2. TB Control Program

The district is running Tuberculosis Directly Observed Treatment Short-course (TB-DOTS) Program that screens sputum smears and puts under treatment all TB cases. This program is managed by a doctor (from the pool of doctors) under the supervision of EDOH. The number of T.B Patients registered under T.B DOTS program is given below:

Table 15.2: Number of Registered TB Patients

Year	No. of TB Patients Registered
2006	89
2007	176
2008	172
2009	77
2010 (up to 3 rd qtr)	32
Total	546

(Blochistan Health Department)

The success of the program is measured through two indicators: TB Case Detection Rate (CDR) and Treatment Success Rate (TSR). These are also MDG indicators related to Goal 6. According to Program's reported data, the CDR was 27% and TSR was 33% during the year 2008-09.

15.4.3. Malaria Control Program

District Malaria staff is under the control of District Health Officer. The objective of this program is to keep the annual Parasite Incidence (API) at 0.5 cases per 1000 population, Falciparum rate below 40% of all the Malaria infections, increase Passive Case Detection (PCD) more than 70% of all slides collected.

15.4.4. Hepatitis Prevention Control Program

Viral hepatitis is a serious global public health problem. Although five distinct types of pathogenic hepatitis viruses (A, B, C, D and E) have been identified but in Pakistan Hepatitis E remains endemic, mainly affecting the adult population. Hepatitis prevention and control program was launched in 2005 which provided Hepatitis B vaccination and, treatment of Hepatitis B & C through a sentinel sight established at DHQ Hospital. The number of patients registered during 2009-10 was as under:

Table 15.3: Number of Hepatitis Cases Registered During 2009-10

	Registered	Therapy Completed	Under Treatment
Hepatitis B	6	6	0
Hepatitis C	17	17	0

(Blochistan Health Department)

According to a survey⁴ conducted in 2008, the prevalence of Hepatitis B in the district was estimated at 1.1% and of Hepatitis C at 0%. This high level prevalence may be attributed to unsafe use of syringes/needles, blood transfusion or unsafe use of razors at barber shops. This indicates need for raising public awareness about prevention of Hepatitis B and C.

⁴ Prevalence of Hepatitis B & C in Pakistan, Pakistan Medical and Research Council (PMRC), 2008

15.4.5. AIDS Control Program

AIDS Control Program started in Balochistan Province in 1994 to raise awareness, prevent and control HIV/AIDS among general, population and vulnerable groups. Since then, many studies have been carried out for identification and location of vulnerable groups in different areas of the province. To reduce transmission of HIV/STIs Screening Center has been established at DHQ Hospital after imparting training on screening methodology, quality assurance and monitoring to the laboratory staff like Pathologist, Laboratory Technician / Assistant. Provincial AIDS Control Program supplies screening kits with all accessories and center submits quarterly feedback report regularly.

15.4.6. National Program for Family Planning & Primary Health Care

National Program for Family Planning and Primary Health Care provides the missing linkage between health care outlets and health service users through a network of community-based Lady Health Workers (LHWs). These health workers are trained in primary health care, family planning and community organization. There are 132 LHWs working under supervision of 4 Lady Health Supervisors (LHSs) in the district, covering a population of 27%.

15.4.7. National Maternal, Newborn and Child Health (MNCH) Program

This project aims to improve the health of women and children through focus on the following components.

- Improved access of quality health services.
- Provision of 24/7 Comprehensive and Basic EmONC Services.
- Child and Neonatal Health Strategy.
- Comprehensive Family Planning Services.
- BCC, Advocacy and Demand Creation.
- Management and Organization Reforms.
- Monitoring and Evaluation Framework.

DHQ Hospital will be strengthened for provision of Comprehensive EmONC Services and RHC Mande Haji, for providing Basic EmONC services. An ambulance is supplied for strengthening the provision of preventive EmONC Services at BHU level.

15.5. Nutritional Status

The situation with regards to nutritional status among children under-five years is not very promising, as the MICS 2003-04 reported that 68% children under-five were moderately or severely malnourished. 94% infants were on breast milk while just 33% were exclusively breastfed.

In micro-nutrition, the situation is also not very encouraging. Vitamin A supplementation during Polio immunization drives could hardly reach half of the target children population of 6-59 months of age. Similarly, only 16% households in the district were found consuming adequately iodized salt.

15.6. Development Projects

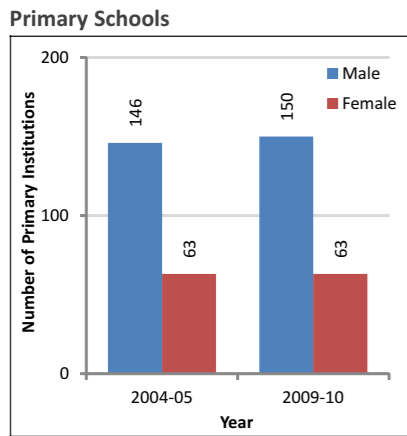
Following is the development project was reflected in the PSDP2009:

- Construction of 50 bedded hospital at Pasni.

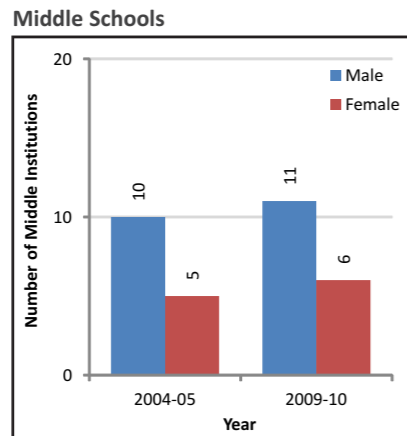
15.7. Some Key Findings

The health system in the district needs to be strengthened with focus on quality and increased utilization of services. Appointment of staff on vacant posts, especially female cadres (Nurses, LHVs, etc.), repair/renovation and up gradation of health facilities, timely flow of funds and improved governance are those immediate measures that can help improve the situation. Community-based health care system has proven its success in reaching out to remote rural population living in poverty and conservative social settings. Building on the success of LHW Program, community midwifery under MNCH Program should also be given due and immediate attention.

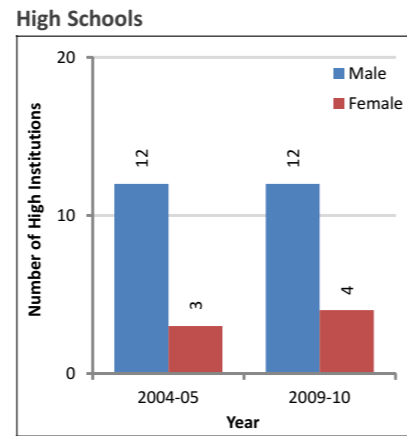
16 EDUCATION



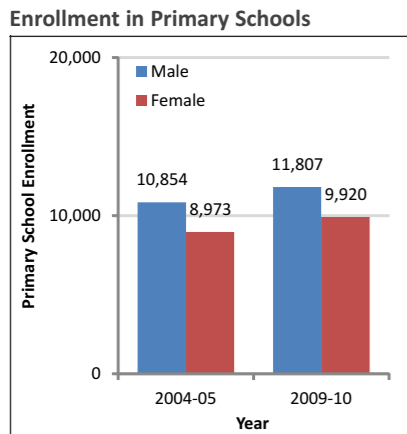
(BEMIS Statistical Profile, 2004-05 & 2009-10)



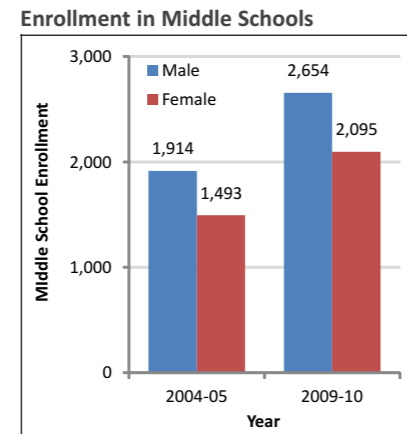
(BEMIS Statistical Profile, 2004-05 & 2009-10)



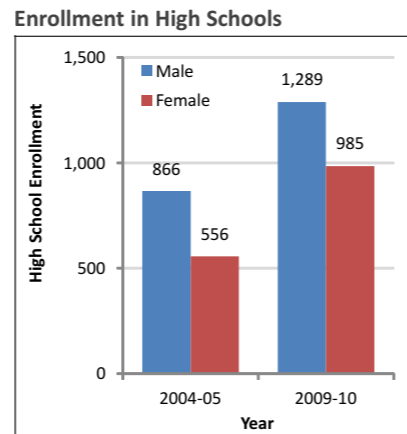
(BEMIS Statistical Profile, 2004-05 & 2009-10)



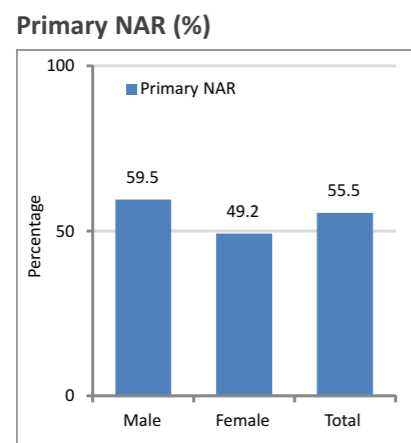
(BEMIS Statistical Profile, 2004-05 & 2009-10)



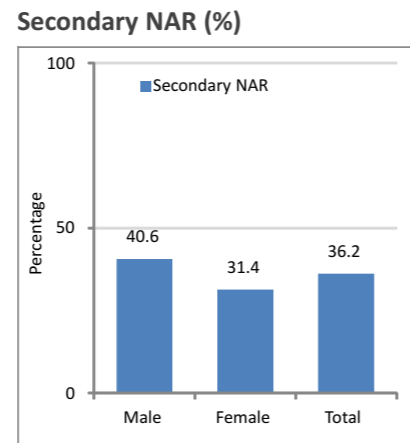
(BEMIS Statistical Profile, 2004-05 & 2009-10)



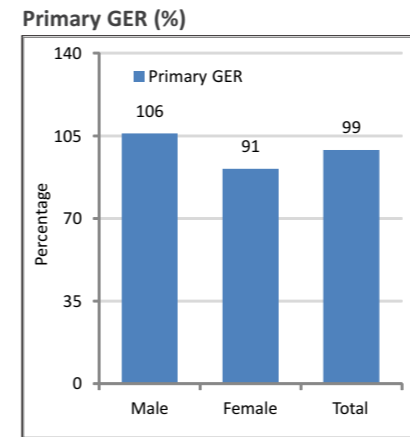
(BEMIS Statistical Profile, 2004-05 & 2009-10)



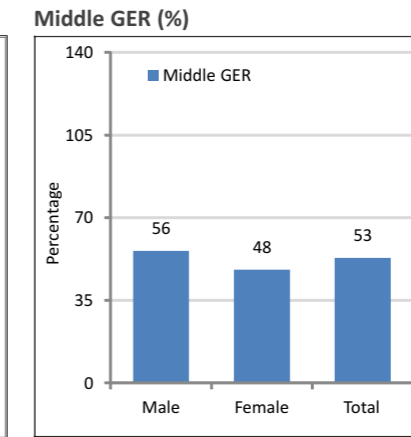
(Multiple Indicators Cluster Survey, 2010)



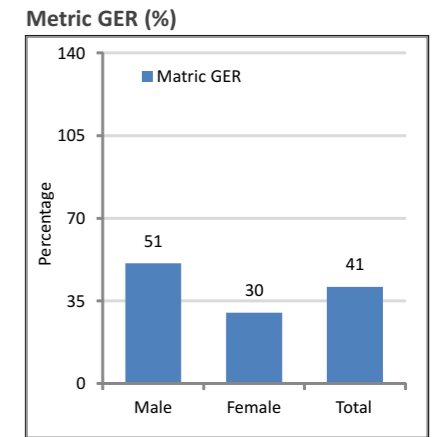
(Multiple Indicators Cluster Survey, 2010)



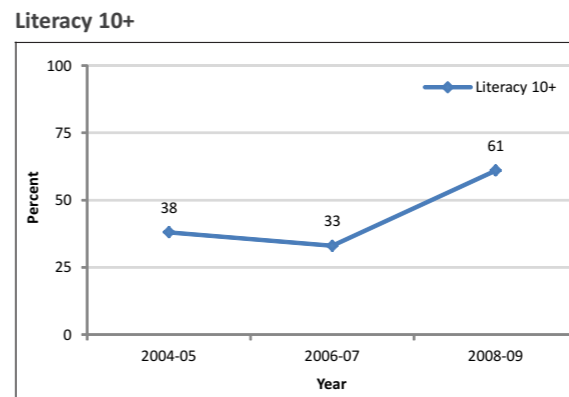
(PSLM, 2008-09)



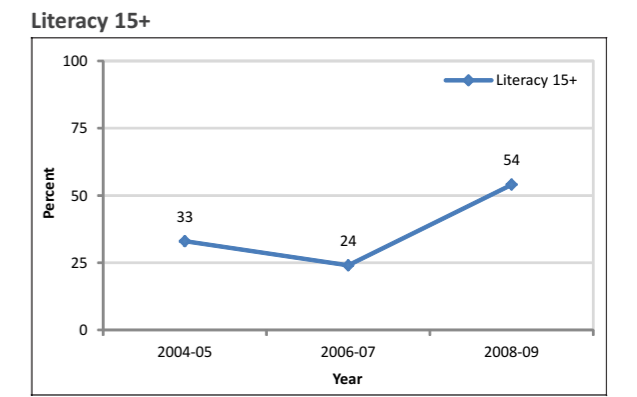
(PSLM, 2008-09)



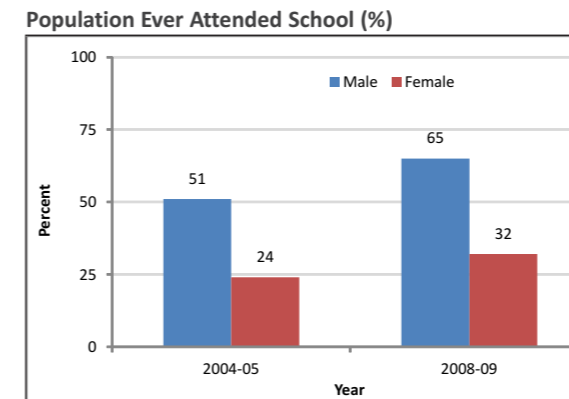
(PSLM, 2008-09)



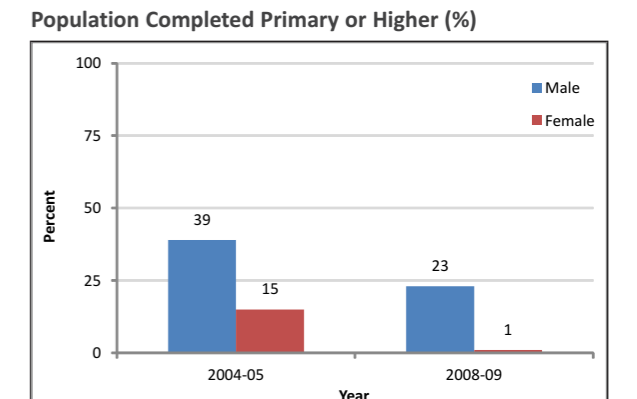
(PSLM, 2004-05, 2006-07 & 2008-09)



(PSLM, 2004-05, 2006-07 & 2008-09)

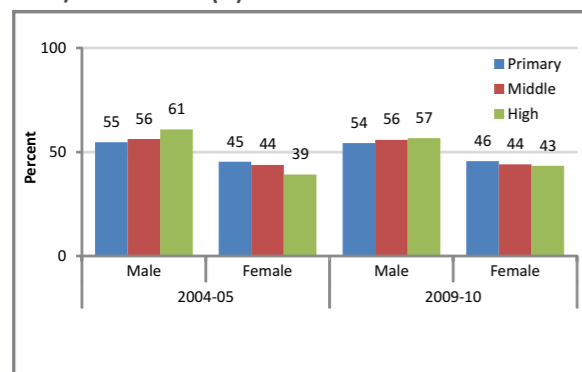


(PSLM, 2004-05 & 2008-09)



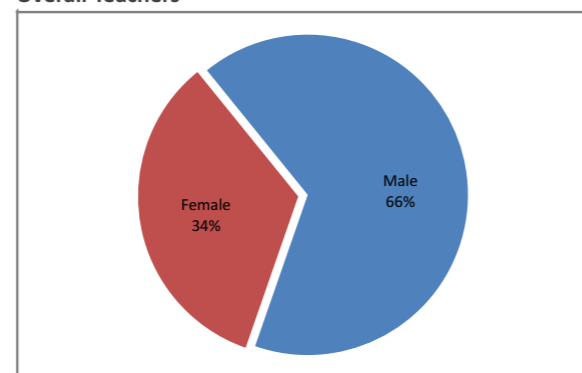
(PSLM, 2004-05 & 2008-09)

Male/Female Ratio (%)



(BEMIS Statistical Profile, 2004-05 & 2009-10)

Overall Teachers



(BEMIS Statistical Profile, 2009-10)

MDG Indicators

Goal 2: Achieve Universal Primary Education

- 2.1: Net primary enrollment ratio – 56% (2010)
- 2.2: Primary Completion rate – 64% (2010)
- 2.3: Literacy rate (10+ yrs) – 61% (2009)

Goal 3: Promote Gender Equity & Women Development

- 3.1: Gender Parity Index (GPI) for primary - 0.83 (2010)
- 3.2: Gender Parity Index (GPI) for secondary - 0.81 (2010)

Sector Highlights

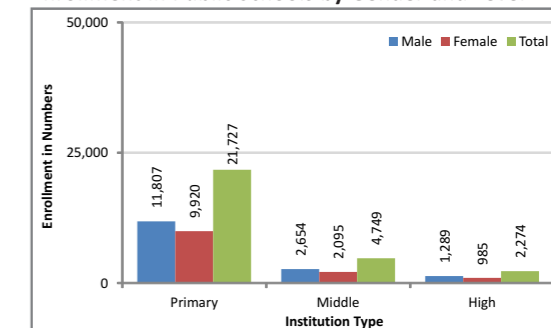
- Gender disparity is high at all levels of education including primary, high and middle.
- PSLM 2008-09 data suggests that about 51% population aged 10 years and older never attended any school
- Significant decline in secondary school NAR at 36% on average, (36% for boys and 31% for girls) shows that most children do not continue education beyond primary level
- Only 23% of rural females ever-attended any school and only 1% graduated from primary or higher levels
- One of the major reasons for low enrollment at secondary levels is difficult access to the schools. For 213 primary schools in the district, there are only 17 middle and 16 high schools which is very less.
- There is also general scarcity of female teachers as on average there is only one primary teacher per 42 pupils.
- Primary school completion rate is 64% which is relatively better.

16.1. Introduction

16.2. School Enrollment and Participation Rates

According to official statistics collected through Annual School Census, the overall student population in 246 public primary, middle and high schools is 28,750, whereas, 1,449 students were enrolled in Colleges, of which, 789 were boys and 660 were girls.

Enrollment in Public Schools by Gender and Level

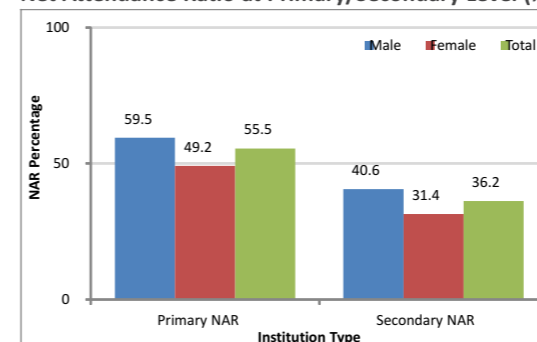


(BEMIS Statistical Profile, 2009-10)

16.3. Enrollment Rates

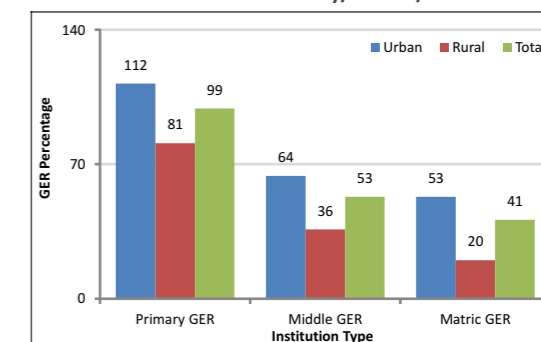
MICS conducted in 2010 has reported primary Net Attendance Ratio of school-going children at 56% with girls significantly lower than boys (49% versus 60%). This indicates that 44% children were still out of school, which will either join late, or probably will never get enrolled. Significant decline in secondary school NAR at 36% on average, (36% for boys and 31% for girls) shows that most children do not continue education beyond primary level. Similarly, Gross Enrollment Rate of primary and middle schools were 99% and 53% respectively. For details see tables I3 and I4 Annexure I.

Net Attendance Ratio at Primary/Secondary Level (%)



(Multiple Indicators Cluster Survey, 2010)

Gross Enrollment Rate at Primary/Middle/Metric Level (%)

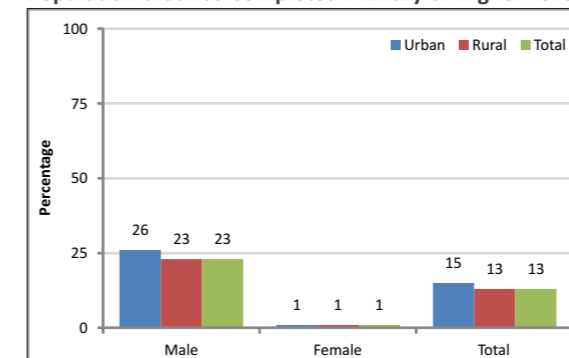


(PSLM, 2008-09)

16.4. Educational Attainment

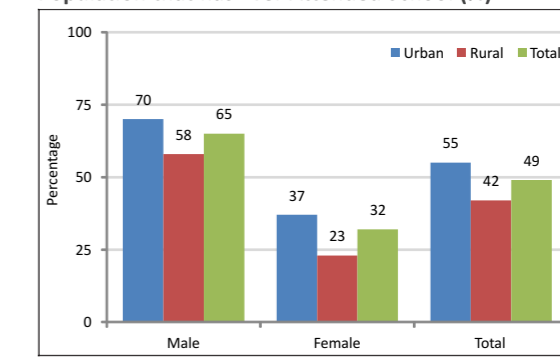
Educational attainment is also very low in the district. PSLM 2008-09 data suggests that about 51% population aged 10 years and older never attended any school, while, only 13% reportedly having completed this level. This is more pronounced for rural females, where only 23% had ever-attended any school and only 1% graduated from primary or higher levels. The best opportunities seem to lie with urban males, where nearly 70% ever attend and 26% completed primary levels. For details see tables I5 and I6 Annexure I.

Population that has Completed Primary or Higher Level



(PSLM, 2008-09)

Population that has Ever Attended School (%)

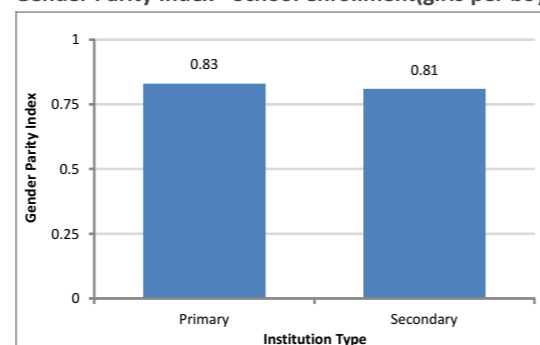


(PSLM, 2008-09)

16.5. Gender Disparities

This graph shows the percentage of male and female students by school level, according to which the gender gap is increasing with years of schooling. Girls mostly drop out or discontinue education beyond primary and/or middle levels.

Gender Parity Index - School enrollment(girls per boy)

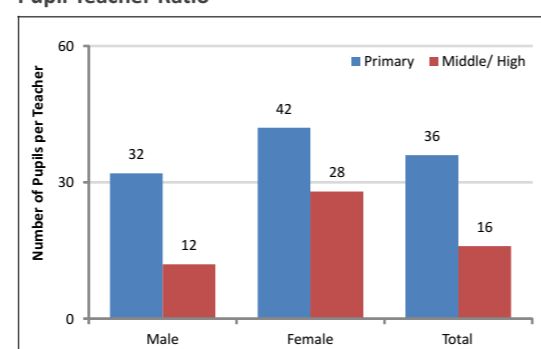


(Multiple Indicators Cluster Survey, 2010)

16.6. Pupil Teacher Ratio

Pupil-teacher ratio shows that there is one teacher each for 32 Primary school boys and 42 Primary girls. Whereas, there are sufficient teachers per students for middle level. For details, please see table I7 Annexure I.

Pupil Teacher Ratio



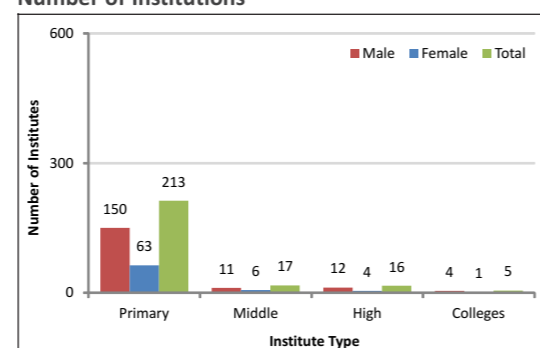
(BEMIS Statistical Profile, 2009-10)

16.7. Institutions

16.7.1. Government Institutions

As per BEMIS school Census 2009-10, there are 213 primary schools, 150 male and 63 female, 17 middle schools including 11 male and 6 female, 16 high schools including 12 male and 4 female, 3 Inter colleges (2 male & 1 female) and 1 degree college, for males only. For details, see table I8 Annexure I.

Number of Institutions



(BEMIS Statistical Profile, 2009-10)

16.7.2. Primary Schools

The total enrollment for primary level up to December, 2009 was 21,727, of which, 11,807 were boys and 9,920 were girls, which means that 54% of primary school students were boys. In each primary school, a senior Junior Vernacular Teacher (JVT) is assigned the charge of Head Master or Head Mistress. Government schools have a uniform curriculum and examination system.

As per Government of Pakistan's National Education Policy (NEP), now redundant after 18th Amendment, the primary education will be provided to all the children in the age group of 4-9 years. School facilities will be provided to every child within a radius of 1.5 kilometer, so that no child is deprived of basic education. Promotion of girls' education will be assigned high priority. However, considering the geographic spread, this policy may not be applicable in letter and spirit as it would require 10,144 schools to cover the district map. Balochistan Education Support Program has opened 12 community schools to promote primary education.

The following table computes the budget for opening new primary schools in Gwadar based on the information provided by the Provincial Education Department.⁵

Budget-Establish New Primary Schools

Description	2011	2012	2013	2014	2015
Boys' Schools					
Establish New Primary Schools	9	9	9	9	9
Budget					
Establish New Primary Schools	19.134	19.134	19.134	19.134	19.134
New Schools-Teachers Salary	3.240	6.480	9.720	12.960	16.200
Total (Rs. in millions)	22.374	25.614	28.854	32.094	35.334
Girls' Schools					
Establish New Primary Schools	20	20	20	20	20
Budget					
Establish New Primary Schools	42.520	42.520	42.520	42.520	42.520
New Schools-Teachers Salary	7.200	14.400	21.600	28.800	36.000
Total (Rs. in millions)	49.720	56.920	64.120	71.320	78.520

16.7.3. Middle Schools

Middle schools comprise of eight classes, with primary sections included. In 2009, there were 17 middle schools in Gwadar, 11 were for boys and 6 for girls. The total enrollment for middle classes up to December 2009 was 4,749, comprising 2,654 boys and 2,095 girls, which means that 55.47% of middle school students were boys. The Government sanctioned 15 posts for a middle schools including one post each of SST (Gen), SST (Sc), JAT, PTI, D.M, M.Q, two posts each of JET, JVT and 4 posts of *Naib Qasid*. A Senior Secondary School Teacher, SST (Gen) is usually posted as Head Master/ Head Mistress of middle school. The district has 17 middle schools functioning for 213 primary schools, which means that 12.53 primary schools feed into one middle school. This can be the main reason of drop out after completion of primary level.

16.7.4. High Schools

High schools comprise of 10 classes including primary and middle sections where Humanities and Science subjects are taught. When a Middle school gets upgraded from middle level to high level, additional staff is sanctioned including one Head Master or Head Mistress, a Secondary School Teacher (general science), a junior English teacher, a Junior Clerk and a peon. In 2009, there were 16 High schools in Gwadar, 12 for boys and 4 for girls. The total enrollment in secondary classes was 2,274, of which, 985 were girls and 1,289 were boys. The examination body for High school students is the Balochistan Board of Intermediate and Secondary Education Quetta.

16.7.5. Intermediate College

There are 3 Inter Colleges, 2 male and 1 female. 330 students are enrolled in 3 Inter Colleges: 200 students are boys and 130 girls.

16.7.6. Degree Colleges

According to information provided by the Directorate of Education Colleges, there is 1 Degree College (Males). In the Degree College, 1,119 students are enrolled, in which 589 students are boys and 530 are girls. Due to non availability of Girls Degree College, the girl students of area are admitted in Boys' Degree College.

16.7.7. Cadet College & Polytechnic Institute

There is no Cadet College in the district but recently, the Government of Balochistan established a Polytechnic Institute in Gwadar.

⁵ District EFA Plan, Gwadar 2011-2015, NCHD

16.8. Basic Infrastructure Facilities

16.8.1. School Buildings

According to a BEMIS 2009-10, 17% of primary schools are functioning without school buildings and some of them are even without shelter. This situation is comparatively better in middle and high schools.

Almost 69% of primary schools are without boundary walls.

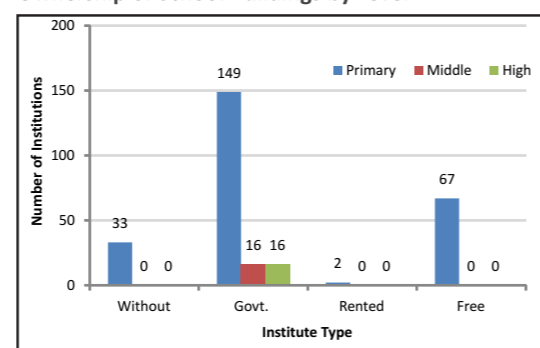
About 85% of primary schools are functioning without electricity. This situation is almost same in middle schools, whereas, situation in high schools is relatively better.

70% of primary schools are without basic toilet facility. This situation is relatively better in middle and high schools. 19% middle and 13% high schools are without toilet facility.

Water is the basic necessity. Almost 57% of primary schools are without water facility. This situation is almost same in middle and high schools.

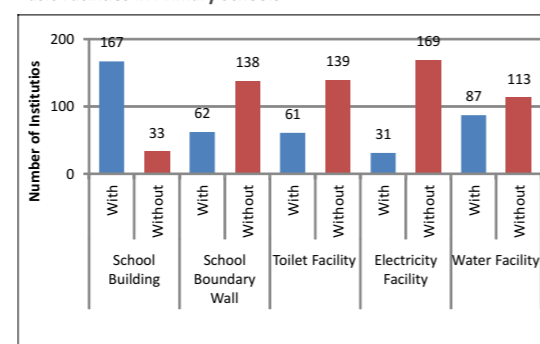
According to a previous survey, most of the schools were deprived of basic needs like boundary walls, toilets for students, class rooms, science labs, library, science equipment, furniture, reading writing material, computers and water facilities. The missing facilities are the major reasons for students' drop out.

Ownership of School Buildings by Level



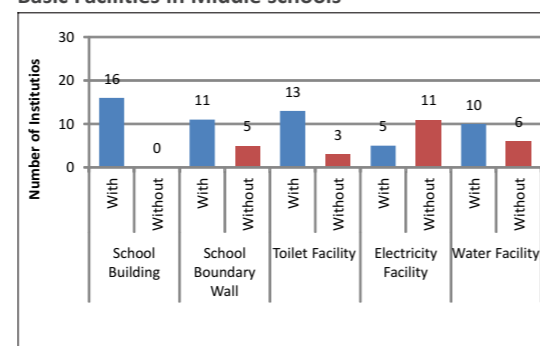
(BEMIS Statistical Profile, 2009-10)

Basic Facilities in Primary Schools



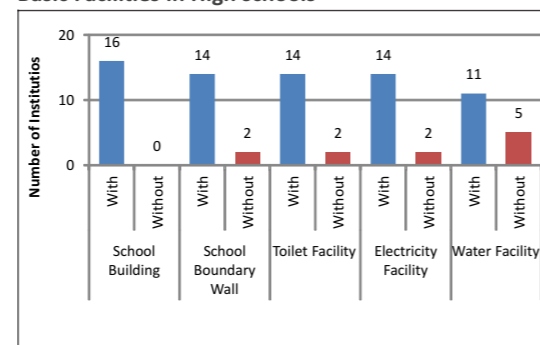
(BEMIS Statistical Profile, 2009-10)

Basic Facilities in Middle schools



(BEMIS Statistical Profile, 2009-10)

Basic Facilities in High schools



(BEMIS Statistical Profile, 2009-10)

16.9. Literacy

Article 37(b) explicitly states that the State of Pakistan shall endeavour "to remove illiteracy and provide free and compulsory secondary education within minimum possible period". Article 34 requires that "steps shall be taken to ensure full participation of women in all the spheres of national life". It is in this perspective that Pakistan has made a commitment to achieve the six 'Education for All' (EFA) goals within the specified target dates.

According to Pakistan Social and Living Measurement Survey (PSLM) 2008-09, the literacy rate of age 10+ in Gwadar District was 77% among males and 42% among females, with an overall literacy rate at 61%. The definition of literacy has been relaxed in this survey that considers only for stated ability to read and write with understanding. The literacy rate, if measured from the perspective of international standards, then the situation would be even lower than the reported status. For details, see table I9 Annexure I.

150 adult literacy centers are being run in the district for males and females by the Directorate of Literacy and NFBE and NCHD for 3,349 beneficiaries. An overwhelming majority of the adult literacy centers are for females.⁶

Table 6.1: Existing Adult Literacy Centers & Enrolment

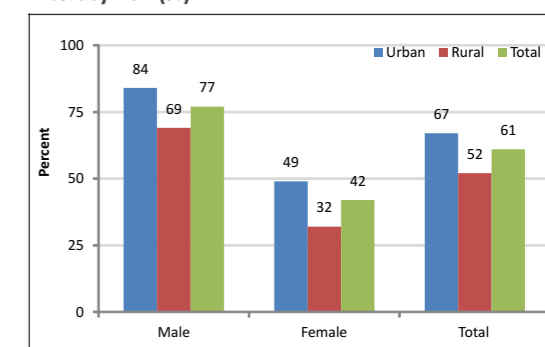
Description	Centers	Enrolment
Male Centers		
Literacy Centers -NCHD	3	40
Literacy Centers - Dir of Lit/NFBE	10	250
Sub-total Male	13	290
Female Centers		
Literacy Centers-Dir of Lit/NFBE	117	2,559
Literacy Centers - Dir of Lit/NFBE	20	500
Sub-total Female	137	3,059
Total	150	3,349

16.10. Non-Formal Education

In addition to the formal schooling system, a non-formal Education system has been introduced for those who have missed regular schooling during their school age. The curricula of non formal education system is usually short and based on fast-track. A number of organizations and bodies are supporting non-formal education including:

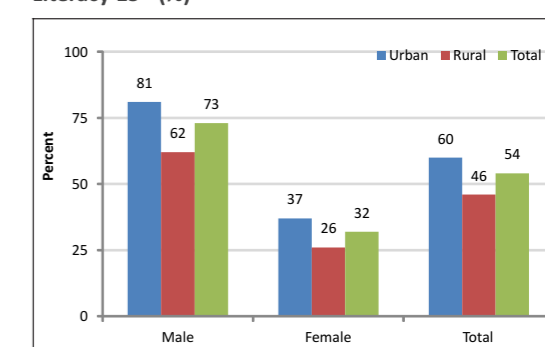
- Provincial Social Welfare Department
- National Commission for Human Development
- Prime Minister Literacy Cell and Asian Development Bank through Government of Pakistan.

Literacy 10+ (%)



(BEMIS Statistical Profile, 2009-10)

Literacy 15+ (%)



(PSLM, 2008-09)

⁶ District EFA Plan, Gwadar 2011-2015, NCHD

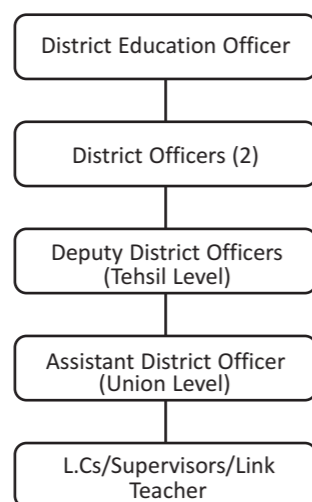
In the fiscal year 2007-2009, the Balochistan Education Foundation, with coordination of World Bank, established 12 community schools in Gwadar District through Community Implementation Partner (CIPs) like NRSP. The enrollment was 514, comprising 258 girls and 256 boys. These schools have been established in urban and semi-urban areas of the district. According to an approved agreement, the following criteria were followed by BEF:

- Community will provide shelter or one room on voluntary basis.
- Teacher shall belong to that area and only in case of non-availability, the teacher may be appointed from within the radius of 4 kms.
- There should be at least 20 school children of 5-9 years old.
- There should not be any girls' school within a radius of 2 kms but a minor amendment was made in phase III, which stated that there should not be any boys or girls school within a radius of 2 kms.

16.11. Education Department

The District Education Department is headed by a District Education Officer (DEO) supported by two District Officers, a male and a female each, Deputy District Officers and Assistant District Officers (ADOs), who are in close collaboration with the head teachers.

District Education Management Structure



16.12. Some Development Projects

Some Development Projects in PSDP 2009:

- Upgradation of Inter College Gwadar to Degree level and construction of a Boundary Wall.
- Construction of three Science labs, Building and Stores, Govt. College Gwadar

16.13. Some Key Findings

- Due to non availability of authentic data it isThe absence of data makes it difficult to compute the drop-out rates; however, Education Department's estimates a veryreport high drop-out ratioin primarygrades, especially for girls, in particular. There are a number of reasons for students to discontinue their schooling andof whichpoverty iscan probably be the major factor. Children usually take a late start, at the age of 8 or 9 yearsand then within few years; parents consider them old enough to lendhave a hand in income earning activities, or in case of girls, household chores or even marriage. Low quality of education is another major reason for high

Primary school drop-out rate. Teachers are generally un-trained and under-paid and they take no least interest in taking classes or motivating children. Girls are particularly disadvantagedmore vulnerable in terms of access to basic education. There are limited facilities like (schools and female teachers) as well as low preference of families to get their daughters educated.

- Most of the school buildings lacations have been located baseddecided on political influence instead of community needs. Rationalization of school construction is, therefore, needed to boost important in enhancing school participation rates.



SECTION IV

- 17 Sports
- 18 Community Development and Social Welfare
- 19 Women / Girl Child Development
- 20 Disaster Risk Reduction
- 21 District Accounts and Development Funds

In District Gwadar, people are very enthusiastic about local traditional games and international sports. The most popular game in the district is football. The best players are respected and honored in the community. It is so popular that every town and village has got at least one football club and a playing field. Open spaces, leveled grounds are used as playgrounds. Football clubs present in the district are mostly unregistered with sports board. Girls do not participate in field games; however, facilities are available for them to play Basket ball and other track games in their schools.

17.1. Development Projects

There was no project of sport in the PSDP 2011-12.

17.2. Some Key Findings

Sports have never been regarded as the development preference of any government as the major portion of Provincial Budget is always designated for other priority issues such as infrastructure, health and education. Most of the NGOs are also working in areas other than sports and hence sports development remains neglected. However, a special attention is required to promote sports so that youth is provided with sports facilities.

18 COMMUNITY DEVELOPMENT & SOCIAL WELFARE

18.1. Introduction of Social Welfare

Social welfare is a vital phenomenon of societal development focusing on the quality of life and promotes an effective role of vulnerable segments of community. In Balochistan, Social Welfare Department was established in 2004. Formerly, this department was functioning with the Women Development Department and Special Education. In 2009, Women Development Department was separated from Social Welfare and Special Education Department. In Balochistan certain development schemes were initiated by the Social Welfare Department aiming at the improvement of social environment by providing the opportunities to the underprivileged strata through policies, programs and projects in order to alleviate poverty and dependency. These projects included community development centers, community halls, income support programs and registration of the marginalized persons. Information on the budget allocated for Social Welfare Department, Gwadar during the fiscal years 2009-11 was not found.

18.2. Community Development Centers

The above mentioned Community Development Centers were established with the motive to enhance living skills of the underprivileged strata and to perform efficiently in enrolling the people and training them. These centers received grants through donations and *Zakat* fund.

Table 18.1: Community Development Centers

Community Center	Year of establishment	Purpose	Achievements
Rural Community Center, Pasni.	unavailable	To provide living skill to male and females such as computer training as well as stitching & cutting.	Number of beneficiaries is 170 which includes both males and females under the supervision of male and female instructors
Training and Rehabilitation Center, Pasni	Unavailable	To provide basic living skills trainings to both male and females such as cutting, stitching, embroidery	Number of beneficiaries were 20 which include both male and females under the supervision of male and female instructors
Rural Community Center, Jiwani	Unavailable	To provide basic living skills trainings to both male and females such as cutting, stitching, embroidery	Facilitated 190 male & female trainees at a time under the supervision of male and female instructors
Rural Community Center, Ormara	Unavailable	To provide basic living skills trainings to both male and females such as cutting, stitching, embroidery	Facilitated 80 male & female trainees at a time under the supervision of male and female instructors

(Community Development and Social Welfare Department)

Table 18.2: Number of Posts (Filled and Vacant) in EDO Office

Total Posts & BPS	No. of Posts	Filled	Vacant
Total number of posts of BPS-17.	2	1	1
Total number of posts of below BPS-16.	11	11	0
Total Posts.	13	12	1

(Community Development and Social Welfare Department)

Table 18.3: Number of posts filled & vacant in the Rural Community Centre, Pasni

Total posts & bps	No. of posts	Filled	Vacant
Total number of posts of BPS-17.	2	0	2
Total number of posts of below BPS-16.	7	6	1
Total Posts.	9	6	3

(Community Development and Social Welfare Department)

18.3. Benazir Income Support Program (BISP)

BISP was commenced by the Government of Pakistan with an initial allocation of Rs.34 billion (US \$ 425 million approximately) for the financial year 2008-09. This project was started in all over Pakistan with the objective of poverty alleviation and women empowerment among the deprived segment of Pakistani society including widows and women headed households particularly.

18.4. Zakat & Pakistan Bait ul Maal

Pakistan *Bait-ul-Maal* has been providing financial assistance towards poverty alleviation through its various poorest of the poor focused services and providing assistance to destitute, widows, orphans, and other needy persons with emphasis on rehabilitation.

Objectives of Pakistan *Bait-ul-Maal* are provision of:

- Educational assistance to needy orphan and stipends for the outstanding, non-affording students for higher professional education.
- Residential accommodation and necessary facilities for the deserving.
- Free medical treatment for indigent sick people, set up free hospitals and rehabilitation centers for the poor.
- Financial aid to charitable institutions including educational & vocational setups.
- Sponsor and promote self-employment schemes

18.5. Musalihat Anjumans

The Department of Community Development is implementing a UNDP project titled "Gender Justice through *Musalihat Anjuman* Project (GJTMAP)" in collaboration with District Judiciary and Police. In 2007, this project was started with the objective to provide an alternate system of dispute resolution particularly to the women in domestic violence and gender-related issues. For the purpose, *Musalihat Anjuman* has been formed in each union Council of the district. Subsequently, 13 *Musalihat Anjumans* are functioning in Gwadar District and have resolved 95 gender related cases.

18.6. Community Halls

Two Gender Resource Centers or Community Halls were established in Gwadar and Jiwani to provide appropriate place for Lady Councilors where they could conduct their meetings. Therefore, one Community Hall was established in Gwadar under Gender Reforms Action Plan (GRAP). For this purpose, each district was allocated sufficient budget throughout Pakistan.

18.7. Development Projects

Development project reflected in the PSDP 2009:

- Cultural Complex at Gwadar.



18.8. Structure & Functions of Department

Main functions of Social Welfare Department are as follows:

- Community development.
- Registration and control of Voluntary Social Welfare Organization.
- Women development.
- Supervision and control of orphanages.
- Registration of transsexuals and persons with impairments.
- Special Education.
- Rehabilitation of poor and destitute through training and rehabilitation center.
- Welfare of aged persons and rehabilitation of drug addicts through voluntary organizations. Eradication of social evils like vagrancy.
- Coordination of Social Welfare Programs / Schemes.
- Distribution of *Bait-ul-Maal* funds and *Zakat* to the needy.

The Social Welfare Department, District Gwadar has 13 posts of BPS 16-17 in which 1 post of BPS 17 was vacant while all posts of BPS-16 were filled. The detail of staff is as under:

Table 18.4: Number of posts filled & vacant in the Training & Rehabilitation Centre, Pasni

Total posts & bps	No. of posts	Filled	Vacant
Total number of posts of BPS-17.	1	0	1
Total number of posts BPS-16 and below.	5	5	0
Total Posts.	6	5	1

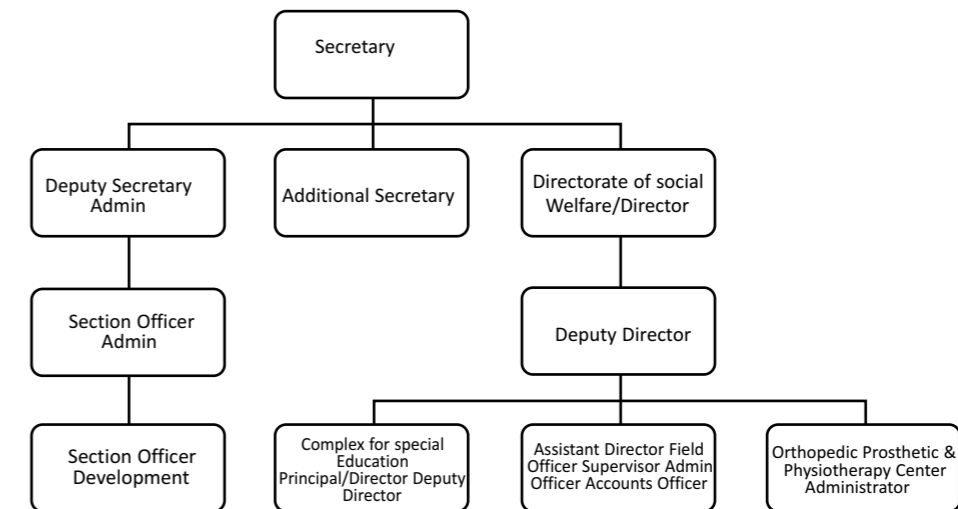
(Community Development and Social Welfare Department)

Table 18.5: Structure and Functions of the Department

Structure	Numbers
Number of Sub Offices	4
Sanctioned Strength in various Categories (Total)	48
Actual Filled Posts	47
Vacant Posts	1

(Social Welfare Department)

Social Welfare Department Organogram



18.9. Some Key Findings

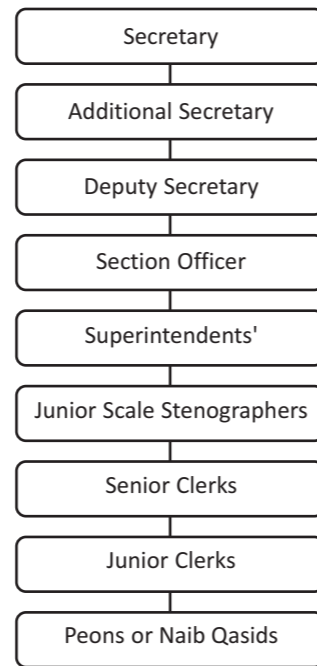
- Accurate record maintenance is essential to identify the needs of districts' development centers.
- A sufficient amount of budget is requisite to allocate toward Community Development Centers for their apt performance as well as to fulfill the requirements of community development schemes and projects.
- SMEDA needs to focus on its role for community development as well as in establishing small industries so the poor could be able to generate income competently.
- Pakistan Bait-ul-Maal needs to expand its role to acquire improvement and growth of community.
- Certain projects on education and rehabilitation of the persons with impairments and transsexuals are utmost essential to be initiated for the welfare of the marginalized strata.
- 132 CCBs and 56 NGOs were registered with Social Welfare Department in which 14 CCBs and 17 NGOs were not working. Appropriate liability and monitoring of CCBs and NGOs working is essential for community development.
- Affirmative safety net plans in Gwadar are required for the well-being of aged persons, orphans and rehabilitation of the drug addicts as well.

19 WOMEN/GIRL CHILD DEVELOPMENT

19.1. Structure of Women Development Department

In Balochistan, Women Development Cell was established in 1997 under the Planning & Development Department, which was the first initiative for women development in the province. Formerly, this department was working with the Department of Social Welfare and Special Education. Women Development Department (WDD) was separated from the Department of Social Welfare and Special Education on 03rd November, 2009. The department is nascent, therefore, it requires some more time to streamline effective projects for the empowerment and development of women and get the WDD district offices in order and fully functional.

Structure of Provincial Woman Development Department



19.2. Situation of Women

By and large, social organization in District Gwadar is semi-tribal and liberal as well as androcentric. Women status in Gwadar is slightly different from other tribal districts of Balochistan. They do not strictly observe veil/purdah when they go out for shopping. Furthermore, their inheritance in land ownership is socially accepted and practiced in the district. However, land ownership does not fully empower and give them social independence. Women are 46% of the overall population and 55% of them are above 15 years of age. Their economic dependency on males still persists high due to the patriarchal norms, even though they are equally active with men within their defined reproductive role in agriculture and livestock sectors, socially they are not accepted as farmers or the paid laborers. Women in rural areas are also involved in small industries, especially, in embroidery work as home based workers but they remain proletarians.

Social and Living Standards Measurement Survey (PSLM) conducted in 2008-09, has found that 61% among ten years old and above was literate in the district, out of which 77% were males and 42% females. In Gwadar, Girls' enrollment both in rural as well as urban was better than other tribal districts but it was much lower than boys at high level because girls' education is not much encouraged comparatively. Girls, even if enrolled in schools have high probability of dropout during the year or after completion of primary level as evident from the boys' and girls' enrollment ratio which for girls at primary level was 46%, at middle was 44% and at high level it was 43%, as compared to boys' having 54%, 56% and 57% respectively. (BEMIS -2009-10)

Women are experiencing high level of mortality and morbidity due to malnutrition, poor living conditions and inadequate health care. Health facilities in the district were poor as there were only 6 lady doctors, 132 LHWs and 4 LHSs in the district. Subsequently, many women have poor access to skilled attendants for antenatal check-ups and delivery assistance.

The issues related to women are considered as matter of honor and discouraged to be reported at police stations; instead such issues are resolved through Jirga. The cases of violence and crime against women in the district, generally, go unreported. This situation increases the demand for establishing a women police station and women police personnel in the district. So, that it could provide the women easy access to justice and protection. Besides, a system of alternate dispute resolution is also working in the district that provides amicable settlement of local disputes and instances of gender violence through an institutionalized network of *Musalihat Anjuman* working in each Union Council of the district.

A significant number of women are employed in education and health sectors. Female teachers employed in the district are 335 and there are 6 lady doctors, 13 paramedic staff employed in health department. Besides, 132 HHWs and 4 LHSs are working for improvement of maternal health in National Program for Family Planning & Primary Health Care.

19.3. Available Facilities

Some national level programs in health sector, though subject of health has been devolved to the provinces but these programs are still being funded under Federal PSPD, these are:

- Expanded Program on Immunization (EPI) for children and vaccination of pregnant women.
- AIDS Control Program to prevent women from STIs and STDs.
- National Program for Family Planning & Primary Health Care.

Besides, MNCH Program aims to improve the Health of Women and Children by focusing on the following components:

- Improve access to quality health services.
- Provision of 24/7 Comprehensive and Basic EmONC Services.
- Child and Neonatal Health Strategy.
- Comprehensive Family Planning Services.
- BCC, Advocacy and Demand Creation.
- Management and Organization Reforms.
- Monitoring and Evaluation Framework.

Moreover, certain steps have been taken for the development of girl child and women which include:

- Rural Community Center, Gwadar.
- Social Welfare, Training and Rehabilitation Center, District Gwadar.
- Industrial Homes.
- *Idara-i-Bahali Mustehqueen-i-Zakat* for females, District Gwadar.
- Training and Rehabilitation Center for *Mustehqueen-i-Zakat*.
- Benazir Income Support Program.
- *Musalihat Anjumans* to resolve the disputes particularly related to women under UNDP project.
- Community Halls for lady Councilors were established under GRAP.
- Non-Formal Education system for those who have missed regular schooling.
- Awareness Programs for Women's Rights and Empowerment.
- Establishment of Gender Resource Centers and Career Development Centers is under way.

The micro-finance facilities were introduced by commercial banks, particularly, for the empowerment of small entrepreneurs, farmers and women. Habib Bank Limited (HBL), National Bank of Pakistan (NBP), United Bank Limited (UBL), Allied Bank Limited (ABL), Muslim Commercial Bank (MCB), Agricultural Development Bank of Pakistan (ADBP) and Small Business Enterprises are functioning in Gwadar and providing all commercial banking facilities and loans. These institutions are not providing micro-finance or loan facilities specifically to women, which raises the need of establishing First Women Bank in the district to provide micro-credits to women entrepreneurs for their economical empowerment and livelihood improvement.

19.4. Vocational Trainings

Women in Gwadar are involved in home based embroidery work. There is no vocational training center in the district.

19.5. Recreational Facilities

Sports, on the whole, remain a much neglected area in Baloshitan. There are very few sports facilities for males. Since traditional norms do not allow women to indulge in outdoor recreational activities and indoor facilities are non-existent, government has not assigned any priority to creation of recreational facilities for women.

19.6. Women Development Initiatives

The Government of Pakistan is committed to several international obligations on the status of women such as Beijing Platform of Action 1995 and CEDAW. With initiatives such as National Commission on the Status of Women (NCSW) and GRAP to take strategic actions for women development in general, gender equality, gender mainstreaming and empowerment. The provincial Women Development Department was entrusted to implement and monitor such action plans. At provincial level GRAP could not take off. The GRAP project, having been reflected in provincial PSDP for a few years without any substantial progress, was deleted.

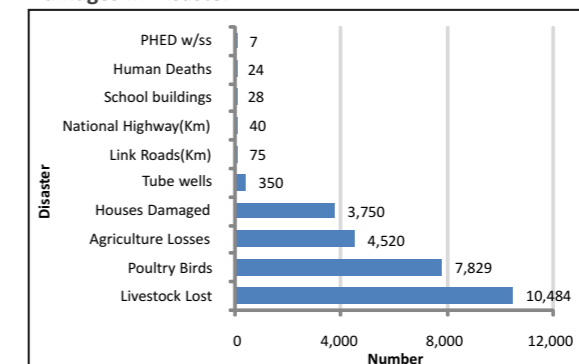
19.7. Some Key Findings

Some of issues and needs related to women in Gawadar are as following:

- Women in District Gawadar are unaware of their rights because of illiteracy and man dominance over power and decisions.
- There is an immense need of women empowerment programs to be initiated by Government and NGOs.
- District hospitals are needed to be equipped with essential equipments for on time primary health care services particularly in emergencies.
- Establishment of women bank is needed for the promotion of micro credits for women in Gawadar in order to improve their livelihoods and curtail economic dependency.
- Women representation is needed to raise their demands on the district level.
- SMEDA further needs to focus on role of women in industries.
- Community awareness is obligatory to curtail girls drop out and increase female literacy in the district.
- Women are not considered as farmers or the paid labor in agriculture and livestock endeavors. The payment of their work can help in the betterment of their livelihoods and economic empowerment.
- Certain gender equity programs are essential to involve women in the development sector to improve women empowerment.

20 DISASTER RISK REDUCTION

Damages in Disaster



(PDMA)

20.1. Introduction

The sea is a blessing as it provides livelihood to the vast majority of people but it can also be a destructive force. The monsoon winds, submarine topography and continuous process of erosion along the coast sometimes create catastrophe in the area.

Furhter, the Makran coast is seismically active and susceptible to earthquakes. The earthquake of 28th November, 1945 caused a tsunami and hit the district, killing more than 4,000 people. The tropical cyclone GUNO & 03B (YEMYINE), in the Arabian Sea, hit the coastal belt of Balochistan. It started from the first week of June 2007 and caused torrential rains and heavy flash flood in river *DASHT*, damaging coastal highway and public properties; livestock and government buildings. Fishermen community, living along the coast and the people living along the river Dasht, are primarily vulnerable to such kind of disasters. The flood water of the river extensively causes damages to the road network and interrupts food supply lines.

The following losses and damages were caused by the tropical cyclone of June / July 2007:

Table 20.1: Losses and Damages of Monsoon Rains in the Year 2007

Disaster name	Units
Human Deaths	24
Houses Damaged	3,750
Agriculture Losses	4,520
Livestock Lost	10,484
Poultry Birds	7,829
PHED w/ss	7
School buildings	28
Link Roads	75 Km
National Highway	40 Km
Tube wells	350

(PDMA)

Gwadar Flood in seasonal rivers are uncommon in Gwadar. Storage dams were constructed on many seasonal streams because of brackish underground water. These storage dams have caused floods due to the heavy rains in their catchment areas. The district is dotted with storage dams on major rivers. These dams are important sources of water supply. Akara Dam in Gwadar and Shadi Kaur Dam in Pasni are the largest among these storage reservoirs. *Shadi Kaur* Dam, near the town of Pasni usually spills over during the rainy season, causing havoc to the livelihood and property of the people. The rains in 2005 and 2007 washed away Shadi Kaur Dam, resulting in heavy floods and devastated the localities.

Although the Civil Defense Department has no presence in the district but it holds awareness programs in the district from time to time and have trained many government employees and community members in its Quetta based office.

20.2. Drought

District Gwadar experienced the drought spell from 1997 to 2003, which was the severe and long. Livestock in the district was badly affected and people from rural areas migrated to main towns of the district.

20.3. History of Natural Disaster

Table 20.2: Major Disasters Occurred

Hazard Threat	Year of Occurrence	Area Affected	Population Affected	Public and Private Property Affected
Earthquake	1945	Pasni and Ormara Town	60% of the total population in both towns	Exact damages are Unknown
Flood	1998, 2002, 2005 and 2007	Pasni, Ormara and Suntsar Union Council	30% of Pasni and 90% of the Union Council Suntsar were affected	60% in Pasni and 95% in the Suntsar
Sea Erosion	2005 onward	Surbander and Gwadar Town	20% of the Surbander area has been affected	40 houses has recently been washed away be the sea erosion which increasing day by day
Hurricane	1985, 2007	Dasht Area	10%	Unknown
Sand dune / sand storm	1990, 1995, 2001, 2006	Pasni Town	20%	Unknown
Tsu nami	Unknown	-	-	-
Sea Storm	1989, 1992, 1996, 1998, 2002, 2005, 2007	Jiwani, Ormara and Pasni	11 people killed by sea storm near Jiwani	-

(PDMA Gwadar)

20.4. Lead Agency and Support Organizations for Various Hazards

The following agencies have primary and secondary responsibilities to provide emergency assistance, as per their mandate and areas of competence, to the respective hazards identified.

Table 20.3: Lead Agency and Support Organizations for Various Hazards

Hazard Threat	Lead Agency / Department	Support Organizations
Drought	Livestock & Agriculture Department	PHE, Irrigation, Planning, Forest, Health & Social Welfare department, DDMAs, NGOs, PRCS and Community
Earthquake	PDMA	All Provincial departments, PRCS, Civil Defense, Community, NGOs, CBOs, Police, Military, Sui Southern Gas, QESCO, NHA
Floods	Irrigation Department	Civil Defense, Agriculture, Livestock, PHE, Health, C & W Metrological departments, Police Military, NGOs, Community, Civil Defense, Community
Fire (urban / rural)	TMA	Civil Defense, Pakistan Red Crescent Society, Boy Scouts Association, Police, Community, C & W department
Major transport accident-Road accidents	Police	Civil Defense, Fire Brigade, Health, PRCS, Boy Scouts Association, DDMAs, Community
Major transport accident-Rail accidents	Pakistan Railway	Police, Health, Civil Defense, Fire Brigade, Community, PRCS, Boy Scouts Association
Major transport accident-Aviation accidents	Civil Aviation Authority	Police, Health, Civil Defense, Fire Brigade, Community, PRCS, Boy Scouts Association, DDMAs
Major transport accident-Oil spill and Maritime	Fisheries Department, BCDA	Police, Environment, Community, Civil Defense, Fire Brigade, GPA, MSA, Boy Scouts Association, Hospitals, DDMAs
Industrial and Mine accidents / fires	Industries, Mines and Mineral Department	Police, Community, PRCS, Boy Scouts, Industries and Mines & Mineral department, DDMAs
Pollution	Department	-
Pollution, hazardous substances accidents (Nuclear, radiological & chemical)	Environment TMA	Fisheries, Health, Forest, Mines, Industry, Health & PHED department, Police Civil Defense, DDMAs
Refugees & IDPs	Home & Tribal Affairs Department	UNHCR, PRCS, DDMAs
Crisis (bomb threat, bomb explosion, hostage taking, stampede, demonstrations)	Police	Civil Defense, Community, PRCS, Boy Scouts, Military, DDMAs

(PDMA)

20.5. Some Key Findings

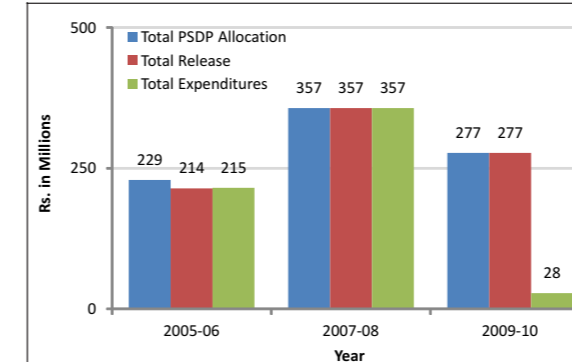
The District Disaster Risk Reduction Management Plan (DRRMP) is a guiding tool to mitigate the disaster damages, to the possible extent, through better managerial skills, scientific methods, collective efforts, rational mobilization of available resources and institutional mobilization. Although the DDMA's in the Province have developed the District Disaster Risk Reduction Plan (DDRRP) but the capacity to implement it is very limited and weak. The DRRM Plans do not lower the various phases of DRM; this might be due to lack of capacity and skill at district level. Challenges are the external or internal conditions which may hinder or can be the hurdles in achieving the objectives of Disaster Risk Management. The challenges, impediments and hurdles in managing disasters are identified as:

- Poor governance which is the root cause of all other factors, lack of understanding and awareness among decision makers and government officials regarding hazards that can become disaster.
- Inability to deal with emergencies, lack and absence of capacity regarding training, skills and awareness on disaster risk management among stakeholders.
- Lack of structure, resources and poor logistics and financial capacity.
- Weak links at grass root level to implement mitigation programs at community level.
- Poor preparedness capacity of Emergency Services and Fire Brigade.
- Absence of Civil Defense Department.
- Lack of Early Warning System.

DDRRMP is a good initiative, which lays foundation for more detailed work. Government departments and other stakeholders will have to review and update the plan in view of available resources and implementation capacities of those who have key role to cope with emergencies and disasters.

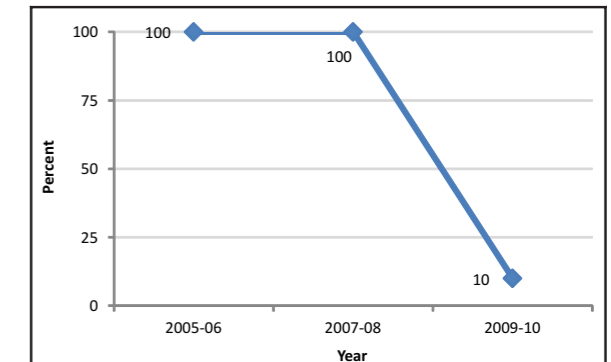
21 DISTRICT ACCOUNTS & DEVELOPMENT FUNDS

District Accounts Budget



PSDPs 2005-06 to 2009-10, (utilization figures for 2009-10 are low as financial year had not ended when data was being collected.

Budget Utilization (%)



PSDPs 2005-06 to 2009-10

21.1. Introduction

Finance resource distribution among districts, especially in case of development expenditure, has not been on any set rational formula. Population, area, poverty, specific situation in a particular sector and revenue generating potentials are not taken into account while planning for development. Therefore, a visible impact of development spending is hardly noticed in some districts, especially.

21.2. District Accounts - Budget Allocation/Expenditure

As almost all districts generate negligible revenue, therefore, all districts require funding from provincial resources. Due to time limitations data on district budget could not be collected for analysis. Regular budget estimates can be collected from Finance department while development funds allocation data is available with P&D department though there are some limitations with regard to analysis of the data. The database of the P&D department doesn't have entries for program and projects that under one umbrella but are being executed in more than one district. Similarly, amount spent on development activities through Public Representative Funds, Governor Funds and CM Special Funds do not have scheme wise details in the database.

21.3. Development Funds

Most of the development activities in the district are funded through the Public Sector Development Program (PSDP). Development funds from federal and provincial resources are only partly administered at the district level. Historically, due to paucity of resources in Balochistan, the government had no option but to opt for Revenue Deficit Budgeting to finance PSDP, relying mainly on the budgetary support provided by the Federal Government. Moreover, in case of block allocation at the provincial level, accurate break-down at the district level is not possible. The following table presents data on allocation, releases and expenditure of PSDP in Gwadar.

Table 21.1: PSDP Allocation to the District (Million)

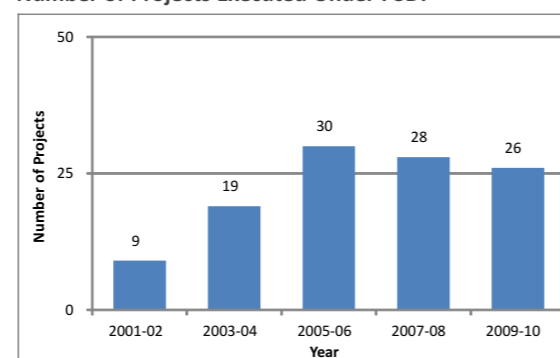
	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
Provincial PSDP Allocation GOB only	172	188	170	229	217	357	324	277
Total Release	80	77	135	214	n/f	357	288	277
Total Expenditure	84	92	124	215	n/f	357	102	28
Percentage Utilization	105%	119%	88%	100%	n/f	100%	35%	*10%

(PSDP, 2002-03 to 2009-10) n/f: Data not found
* when data was being collected

Note: These PSDP figures do not include all development funding in a district because scheme and district wise details of block allocations (like Public Representatives Program (PRP), CM Special Fund, Governor Special Fund and umbrella programs) are not entered in the database of PSDP. Utilization % has been calculated on allocation.

The graph below shows the number of projects executed under PSDP in Gwadar. Number of project, reflected each year, is not an indicator of more or less investment due to two reasons: size of project is unknown and secondly number of projects does not mean that all reflected projects are completed in a particular year. For detail see table K1 Annexure K.

Number of Projects Executed Under PSDP



(PSDP, 2010)



ANNEXURE TABLES

- Annexure A: District Government
- Annexure B: Law and Order
- Annexure C: Agriculture and Horticulture
- Annexure D: Livestock
- Annexure E: Forestry
- Annexure F: Economic Infrastructure and Communication
- Annexure G: Water Supply and Sanitation
- Annexure H: Health and Nutrition
- Annexure I: Education
- Annexure J: Community Development and Social Welfare
- Annexure K: District Accounts and Development Funds
- Annexure L: List of Villages (Rural)
- Annexure M: Balochistan Map by Divisions
- Bibliography

Annexure A: DISTRICT GOVERNMENT

Table A1: Provincial/National Assembly Seats

	Constituency No	Number of Seats
Provincial	PB-DI	1
National	NA-272, Kech-Cum-Gwadar	1
<i>Total</i>	-	2

(Provisional and District Election Commission of Pakistan)

Annexure B: LAW AND ORDER

Table B1: Type of law enforcement agencies and geographical coverage

Type of Law Enforcement Agency	Police Station / Thana / Chowki		Geographical Coverage
	Number	Name	
Police	4	n/f	8Km radius each except Gwadar 15km
Levies	6	n/f	B - Area

(Provincial Home Department, IG Police Office & Provincial and District FIA Office)

Table B2: Strength of law enforcement agencies

Type of Agency	Available Human Resource							Total
	SSP(s)/ Tehsildar/ Subaidar	SP(s)/ Hawaldar	DSP(s)/ Jamadar	SHO(s)/ Sipai	SI(s)	ASI(s)	Constable(s)	
Police	1	1	4	SHO 4 6 sipai	33	44	Constable=177 Head Constable=227	633
Levies Provincial	4	37	6	180	n/f	n/f	n/f	227
Total	5	38	10	190	33	44	354	860

(District Police Office, District Commissioner Office & Provincial Home Department and IG Police Office)

Table B3: Available Resources of Law Enforcement Agencies

Type of Agencies	Available Resources							Total
	Armored Vehicles	Vehicles	Arms	Ammunition	Mob Control Equipment			
					Tear Gas	Rubber Sticks	Armored Suits	
Police	n/a	97	369	52,686	723	n/a	n/a	n/a
Levies Provincial	n/a	14	n/a	n/a	n/a	n/a	n/a	n/a
Total		111	369	52,686	723			

(District Police Office, District Commissioner Office & Provincial Home Department and IG Police Office)

Table B4: Major cognizable crimes reported year wise

Category of Crimes	Number of Incidents					Total
	2006	2007	2008	2009	2010	
Explosion Incidents	12	13	6	30	17	78
Rioting	9	1	n/a	3	3	16
Kidnapping for Ransom	n/a	n/a	1	n/a	n/a	1
Total	21	14	7	33	20	95

(Registrar High Court, DIG (investigation) & District Police Office)n/a: Data not available

Table B5: Number of courts and benches

Type of Court/ Bench	Available Y/N	Numbers
High Court Bench	N	0
District & Session Court	Y	1
Judicial Magistrate	Y	2
Anti-Terrorist Court	N	0
Qazi Court	Y	1
Majlis-e-Shoora	N	0
Juvenile Court	N	0
Banking Court	N	0

(Registrar High Court, District & Session Judge)

Annexure C: AGRICULTURE AND HORTICULTURE

Table C1: Area and production of major rabi crop (Number)

Major Rabi Crops	Area (Hectare)	Production (Tones)	Yield (kg/Hectare) Average
Lentil (Masoor)	16	6	375
Vegetables	23	326	14,174
Fodder	12	442	36,833
Total	51	774	51,382

(Agricultural Statistics Balochistan, 2008-09)

Table C2: Area and production of major kharif crops (Number)

Major Kharif Crops	Area (Hectare)	Production (Tones)	Yield (kg/Hectare) Average
Fruits	2,796	18,057	6,458
Vegetables	20	114	5,700
Melons	13	130	10,000
Coriander	3	1	333
Total	2,832	18,302	22,491

(Agricultural Statistics Balochistan, 2008-09)

Table C3: Growth rate comparison - 2008-09 (Percent)

	Fruits	Fodder	Coriander	lentil
Gwadar				
Area	97.0	0.4	0.1	0.6
Production	94.7	2.3	0.0	0.0
Yield	8.7	49.9	0.5	0.5
Balochistan				
Area	20.1	3.1	0.2	0.3
Production	19.7	22.5	0.0	0.0
Yield	2.0	29.1	0.2	0.3

(Agricultural Statistics Balochistan, 2008-09)

Table C4: Number of government and private owned farm implements (Number)

Owner	Tractors	Threshers	Harvesters	Reapers	Bulldozers
Govt.	9	0	0	0	10
Private	172	0	0	0	21
Total	181	0	0	0	31

(Agricultural Statistics Balochistan, 2008-09)

Table C5: Area, production and yield of all fruits - 2008-09 (Number)

Fruits	Area (Hectare)	Production (Tones)	Yield (Kg/Hectare)
Dates	1,878	10,863	5,800
Mangoes	556	4,698	8,700
Citrus	129	845	6,815
Banana	15	126	11,455
Guava	79	505	6,824
Loquat	6	44	7,333
Papaya	6	9	2,250
Chickoo	25	197	8,565
Coconut	86	719	8,560
Other Fruits	16	51	8,500
Total	2,796	18,057	74,802

(Agricultural Statistics Balochistan, 2008-09)

Table C6: Area, production and yield of all vegetables (Rabi and kharif) - 2008-09 (Number)

Vegetables	Area (Hectare)	Production (Tones)	Yield (Kg/Hectare)
Cabbage	4	60	15,000
Carrot	4	60	15,000
Cauliflower	2	32	16,000
Radish	4	65	16,250
Turnip	2	30	15,000
Spinach	4	49	12,250
Tomatoes	4	28	7,000
Lady Finger	6	24	4,000
Brinjal	3	15	5,000
Pumpkin	7	47	6,714
Other Vegetables	3	30	10,000
Total	43	440	122,214

(Agricultural Statistics Balochistan, 2008-09)

Table C7: Area irrigated by various sources of irrigation

Sources of Irrigation	Area (Hectare)	Percent (%)	Total No. of Tube Wells	
			Govt.	Private
Canals	0	0	0	0
Tube wells	0	0	26	109
Wells	0	0	0	0
Karezes / Spring	2,600	100%	0	0
Total	2,600	100%	26	109

(Agricultural Statistics Balochistan, 2008-09)

Annexure D: LIVESTOCK

Table D1: Health services activities (Number)

Activities	2005-06	2006-07	2007-08	2008-09
Vaccination	505,284	110,267	203,217	72,800
Treatment	58,520	186,678	44,919	179,378
Animals Castrated	5,524	733	1,948	286
Animal Slaughtered (Govt.)	9,147	14,340	17,690	n/a
Animal Slaughtered (Private)	n/a	n/a	731	2,145

(Director Animal Health Balochistan)

Table D2: Meat, Milk and Dairy Production - Year wise

Total Meat Production	Unit	2005-06	2006-07	2007-08	2008-09	2009-10
Mutton	(000) Tones	0.3	0.3	0.3	0.6	0.6
Beef	(000) Tones	0.1	0.1	0.1	0.1	0.1
Milk	(000) Liters	6.8	6.9	7.1	7.2	7.3
Poultry	(000) Tones	1.0	1.0	1.0	1.1	1.1
Eggs	Million Numbers	12.9	13.2	13.6	13.9	14.3

(Directorate General Livestock, 2006)

Annexure E: FORESTRY

Table E1: Notified forests areas (000 hectares)

Forest Name	Area (Hectares)	Status
Pishukan	1	Sand dune plantation
Gwadar	2	-
Pasni	5	Sand dune plantation
Total	8	-

(Forest Department)

Table E2: Notified protected areas (000 hectares)

Forest Name	Area (Hectares)	Status
Hingol National Park	619	National Park
Buzi Makola	145	Wildlife Sanctuary
Total	764	-

(Forest Department)

Table E3: Forest department designations and posts

Designation	Grade (BPS)	Post (Number)
Divisional Forest Officer	17	1
Range Forest Officer	16	3
Assistant	14	1
Senior Clerk	9	1
Forester	7	3
Junior Clerk	7	2
Deputy Ranger Wildlife	5	1
Forest Guard	5	13
Jeep Driver	4	1
Game Watcher	1	6
Naib Qasid	1	1
Chowkidar	1	3
Total	-	36

(Provincial and District Forest Departments, IUNC, UNDP, WWF, GEF)

Annexure F: ECONOMIC INFRASTRUCTURE & COMMUNICATION

Table F1: Vehicles registered by year

(Number)

Vehicle Type	2003	2004	2005	2006	2007	2008
Motorcycle	44	44	52	n/a	84	39
Car	1	2	5	n/a	8	1
Jeep	12	17	20	n/a	45	13
Station Wagon	23	25	29	n/a	36	27
Tractor	7	8	11	n/a	15	3
Mini Bus	2	2	2	n/a	n/a	n/a
Delivery Van	n/a	n/a	n/a	n/a	1	n/a
Truck	2	2	3	n/a	3	2
Pickup	102	109	136	n/a	153	95
Total	193	209	258		345	180

(District Statistics, 2008-09)

Table F2: Number of Post offices and Courier Services

Services Category	1998	2009
Post Offices	11	10
Courier Services OCS, TCS, TNT, SpeedX	n/a	n/a

(Post Master General) n/a: Data not available

Annexure G: WATER SUPPLY AND SANITATION

Table G1: Improved & Un-improved Sources of Drinking Water (Percent)

Type and Source of Drinking Water	MICS 2010
Improved Sources	73.4
Piped water	50.9
Public standpipe or tap	6.1
Hand pump	0
Donkey pump/turbine	0
Protected dug well	4.1
Tube well/ borehole	0.8
Protected pond/ Tank	0
Protected spring	0.3
Rainwater collection	10.9
Filter plant	0.2
Un-Improved Sources	26.6
Unprotected dug well	3.5
Unprotected Spring	2.7
Unprotected Pond	0
Surface Water (River, canal or stream)	5.0
vendor provided	0
Tanker, Tractor, Donkey Cart	0
Tanker truck	15.2
Cart with small tanker/ drum	0.3
Bottled water/ can/ vessel	0
Other	0

(Multiple Indicators Cluster Survey, 2010)

Table G2: Improved & Un-improved Sources of Sanitation Facilities (Percent)

Access of water sources	MICS 2010
Improved sanitation facilities	80.6
Flush to piped sewer system	13.4
Flush to septic tank	0.0
Flush to pit (latrine)	18.8
Flush to somewhere else	2.5
Flush to unknown place / Not sure / DK where	8.5
Ventilated Improved Pit latrine (VIP)	20.9
Pit latrine with slab	16.6
Composting toilet	0.0
Un-Improved sanitation facilities	19.4
Pit latrine without slab / Open pit	0.3
Bucket	0.0
Public/ communal latrine	0.0
Other	0.3
Missing	1.1
No facility, Bush, Field	17.7

(Multiple Indicators Cluster Survey, 2010)

Annexure H: HEALTH AND NUTRITION

Table H1: OPD Attendance at THQ & DHQ Hospital

Category/ Department	THQ Hospital			DHQ Hospital		
	New Cases	Follow-up Cases	Total	New Cases	Follow-up Cases	Total
General OPD/Medicine/Surgery / Pediatrics/ ENT	n/a	n/a	n/a	n/a	n/a	61,232
Eye/ Orthopedics/ Psychiatry	n/a	n/a	n/a	n/a	n/a	2,356
Dental/ Skin/ OBS/ Gynae	n/a	n/a	n/a	n/a	n/a	2,203
Emergency/ Cardiology/ Cardiology/ Other (Specify)	n/a	n/a	n/a	n/a	n/a	6,240
Total	n/a	n/a	n/a	n/a	n/a	72,031

(Blochistan Health Department) n/a: Data not available

Table H2: Outdoor Diseases at District Hospitals

Name of Diseases	Number of Cases
Neuro-Psychiatric	8
Injuries/ Poisoning	60
Vaccine Preventable	184
Cardiovascular	390
Skin	430
Urinary Tract	557
Oral	1,030
Eye & ENT	1,929
Respiratory	4,479
Gastro Intestinal	5,048
Other Communicable	27,102

(Blochistan Health Department)

Table H3: Indoor Diseases at District Hospitals

Name of Diseases	Number of Cases
Neonatal Tetanus	2
Hernias	3
Congestive Cardiac Failure (CCF)	4
Burns	6
Acute Appendicitis	8
CVA/Stroke	8
Meningitis	8
Puerperal Sepsis	9
Ante partum Hemorrhage (APH)	11
Chronic Obstructive Airways	12
Prolonged/Obstructed Labour	12
Chronic Liver Diseases	13
Postpartum Hemorrhage (PPH)	13
Pre-Eclampsia/Eclampsia	15
Fractures	21
Chronic Renal Diseases	25
Head Injuries	25
Other Obstetric Complications	32
Complications of Abortion	45
Inflame diseases of female pelvic organs (PID)	84
Asthma	110
Hypertension	125
Pneumonia>5	140
Pneumonia<5	220
Diarrhea<5	350
Typhoid	560
Diarrhea>5	610
Malaria	730

(Blochistan Health Department)

Annexure I: EDUCATION

Table I1: Enrollment in Government Schools by Gender and Level Year wise (Number)

Institute Type	2004-05			2009-10		
	Male	Female	Total	Male	Female	Total
Primary Section	10,854	8,973	19,827	11,807	9,920	21,727
Middle Section	1,914	1,493	3,407	2,654	2,095	4,749
High Section	866	556	1,422	1,289	985	2,274
Inter Colleges	66	0	66	200	130	330
Degree Colleges	0	0	0	589	530	1,119
Total	13,700	11,022	24,722	16,539	13,660	30,199

(School Census 2009-10, 2004-05 & 2009-10)

Table I2: Primary Level Enrolment in Government Schools (Percent)

	Urban			Rural			Total			Percentage of
	Male	Female	Total	Male	Female	Total	Male	Female	Total	
	95	100	98	100	99	100	97	100	98	Total
	96	100	98	88	98	92	93	99	96	Primary

(School Census 2009-10, 2004-05 & 2009-10)

Table I3: Net Attendance Ratio at Primary/Secondary Level (Percent)

	Male	Female	Total
Primary	59.5	49.2	55.5
Secondary	40.6	31.4	36.2

(School Census 2009-10, 2004-05 & 2009-10)

Table I4: Gross Enrollment Rate at Primary/Middle/Metric Level (Percent)

Age	Urban			Rural			Total			Kachi Class
	Male	Female	Total	Male	Female	Total	Male	Female	Total	
4-9	114	98	106	87	66	77	101	85	93	Including
5-9	121	104	112	88	74	81	106	91	99	Excluding
6-10	106	106	106	84	79	82	96	95	96	Excluding
10-12	63	65	64	46	23	36	56	48	53	-
11-13	86	68	77	54	30	44	72	55	64	-
13-14	65	41	53	30	5	20	51	30	41	-
14-15	58	47	53	29	4	17	47	30	39	-

(PSLM, 2008-09)

Table I5: Population Ever Attended School (Percent)

	Urban			Rural			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
	83	49	67	69	32	52	77	42	61

(PSLM, 2008-09)

Table I6: Percent Distribution of Population which Completed Primary or Higher Level (Percent)

	Urban			Rural			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
	70	37	55	58	23	42	65	32	49

(PSLM, 2008-09)

Table I7: Pupil Teacher Ratio (Number)

	Male	Female	Total
Primary Level	32	42	36
Middle and High Level	12	28	16

(BEMIS Statistical Profile, 2009-10)

Table I8: Type and Number of Institutions Year wise (Number)

Institute Type	2004-05			2009-10		
	Male	Female	Total	Male	Female	Total
Primary Schools	146	63	209	150	63	213
Middle Schools	10	5	15	11	6	17
High Schools	12	3	15	12	4	16
Inter Colleges	1	0	1	2	1	3
Degree Colleges	0	0	0	1	0	1
Elementary Colleges	0	0	0	0	0	0
Cadet Colleges	0	0	0	0	0	0
Polytechnic Institute	0	0	0	1	0	1
Total	169	71	240	177	74	251

(School Census 2009-10, 2004-05 & 2009-10)

Annexure J: COMMUNITY DEVELOPMENT & SOCIAL WELFARE

Table I9: Literacy Rate by Urban and Rural (Percent)

Literacy	Gender	Urban (%)	Rural (%)	Total (%)
Literacy 10+	Male	84	69	77
	Female	49	32	42
	Total	67	52	61
Literacy 15+	Male	81	62	73
	Female	37	26	32
	Total	60	46	54

(PSLM, 2008-09)

Table I10: Male/Female Ratio of Students (Percent)

School Gender	Primary	Middle	Secondary
Male	54	56	57
Female	46	44	43

(BEMIS Statistical Profile, 2009-10)

Table J1: Number of Posts (Filled and Vacant) in EDO Office

Nomenclature & bps	No. of posts	Filled	Vacant
EDO (CD), (B-17).	1	1	0
Social Welfare Officer (Female). (B -17).	1	0	1
Needle & Craft Instructor, (NCI). (B -09).	2	2	0
Junior Clerk. (B-07).	1	1	0
Auxiliary Workers. (Male). (B -06).	2	2	0
Auxiliary Worker. (Female). (B -06).	2	2	0
Naib Qasid. (B-02).	2	2	0
Chowkidar. (BPS -02).	2	2	0

(Community Development and Social Welfare Department.)

Table J2: Number of posts filled & vacant in the Rural Community Centre, Pasni

Nomenclature & bps	No. of posts	Filled	Vacant
Social Welfare Officer. (Male). (B -17).	1	0	1
Social Welfare Officer. (Female). (B -17).	1	0	1
Multi-Purpose Workers. (Male). (B -08).	2	2	0
Multi-Purpose Workers. (Female). (B -08).	2	2	0
Junior Clerk. (B-07).	1	1	0
Chokidar. (B-02).	1	1	0
Naib Qasid. (B-02).	1	0	1

(Community Development and Social Welfare Department.)

Annexure K: DISTRICT ACCOUNTS AND DEVELOPMENT FUNDS

Table K1: Projects executed under PSDP (Number)

Year	Projects in Numbers
2001-02	9
2002-03	12
2003-04	19
2004-05	20
2005-06	30
2006-07	28
2007-08	28
2008-09	18
2009-10	26

(PSDP, 2010)

Annexure L: LIST OF VILLAGES (RURAL), GWADAR, CENSUS 1998

S.No	Sub-Division	Village	Population	Households
1	GWADAR	ANKARA	302	63
2	GWADAR	CHATI	166	33
3	GWADAR	CHIBB KALAMATI	433	58
4	GWADAR	CHIBB REKANI	1103	205
5	GWADAR	DARBELA	692	138
6	GWADAR	DHORGAI	1595	285
7	GWADAR	GAMARO	62	11
8	GWADAR	GRANDANI	254	47
9	GWADAR	GROOK	118	19
10	GWADAR	JORKAN	591	97
11	GWADAR	KENDUASOLE	119	22
12	GWADAR	KEYA KALAT	165	37
13	GWADAR	MAZZANI	490	73
14	GWADAR	NIGOR SHARIF	744	182
15	GWADAR	PASSU	116	23
16	GWADAR	PESHKAN	10179	1490
17	GWADAR	PLERI	1979	396
18	GWADAR	PRAINTOOK	169	37
19	GWADAR	ROBAR	147	35
20	GWADAR	SAIJI	579	140
21	GWADAR	SHABI	44	9
22	GWADAR	SHINKANI DAR	449	82
23	GWADAR	SUR BANDAR	5962	975
24	GWADAR	TUNK	71	15
25	GWADAR	ZIARAT MACHI	1064	211
26	GWADAR	BANDI	254	44
27	GWADAR	BANDRI	1019	179
28	GWADAR	GANZ	1375	409
29	GWADAR	KARGUSHKI	537	118
30	GWADAR	OKAR	600	82
31	GWADAR	PANWAN	1931	412
32	GWADAR	CHOO/BAL	1999	349
33	GWADAR	GABD	1456	287
34	GWADAR	HUJAT BAZAR	424	73
35	GWADAR	KALATO	2420	377
36	GWADAR	KERMI	998	197
37	GWADAR	KULDAN	1985	289
38	GWADAR	MIRJAT	1130	288
39	GWADAR	SUI DALSAR	3544	679
40	GWADAR	SUNTSER	2099	372
41	GWADAR	ZEHRAN	1291	258

Annexure M: BALOCHISTAN MAP BY DIVISIONS



SOME WEBSITES

- www.balochistan.gov.pk
(Government of Balochistan: District Development Profiles and District Development Atlases available)
- <http://www.phedmis.gob.pk/phe1/index.aspx>
(Public Health Engineering Department, Balochistan)
- www.bemis.edu.pk/
(Education Department, Balochistan)
- http://www.ndma.gov.pk/publications_district_drm.html
(National Disaster Management Authority)
- <http://nchd.gov.pk/ws/>
(National Commission for Human Development)
- www.pc.gov.pk/
(Planning Commission of Pakistan)
- www.finance.gov.pk/
(Finance Division of Pakistan)
- www.ead.gov.pk/
(Economic Affairs Division, Pakistan)
- www.pbs.gov.pk/
(Pakistan Bureau of Statistics)
- www.census.gov.pk/
(Census Organization of Pakistan)
- www.pap.org.pk/statistics/population.htm
(Population Association of Pakistan)
- www.nips.org.pk/
(National Institute of Population Studies)
- www.gsp.gov.pk/
(Geological Survey of Pakistan)
- www.pide.org.pk/
(Pakistan Institute of Development Economics)
- <http://portal.punjab.gov.pk/portal/>
(Punjab Gateway-Government of Punjab, Pakistan)
- www.sindh.gov.pk/dpt/Planning-&-Development/index.htm
(Government of Sindh, P&D Department)
- www.khyberpakhtunkhwa.gov.pk/
(Government of Khyber Pakhtunkhwa)
- www.childinfo.org
(for downloading MICS Balochistan 2010 report)

BIBLIOGRAPHY

Agriculture Department. Government of Balochistan (n.d)

Agriculture Statistics of Balochistan. (2005-06 & 2008-09). Directorate of Crop Reporting Services, Agriculture Department Balochistan, Quetta.

Agriculture Statistics of Balochistan. (2008-09). Directorate of Crop Reporting Services, Agriculture Department Balochistan, Quetta.

Balochistan Coastal Development Authority. (2010). Government of Balochistan.

Balochistan Education Management Information System (BEMIS) Statistical Profile. (2004-05 & 2009-10), Quetta: Directorate of Education (school) Balochistan.

Balochistan Health Department. (n.d.).

Census. (1998). *Population of Pakistan.* Retrieved from Population Association of Pakistan: <http://www.pap.org.pk/statistics/population.htm#tabfig-1.1>

Civil Veterinary Hospital. (2010). District Gwadar.

Clean Drinking Water for All (CDWA) Project in Public Health Engineering Department (PHED). (2010)

Community Development and Social Welfare Department. (n.d)

Director Animal Health Balochistan. (n.d)

Director of fisheries. (n.d). Pasni, District Gwadar, Government of Balochistan.

Directorate General Livestock and Livestock Census. (2006).

Directorate of Animal Husbandry. Quetta. (2010)

Directorate of Livestock Planning. (2010). Spiny Road, Quetta.

District Accounts. (n.d)

District Development Statistics, Balochistan. (2008-09). Retrieved from Provincial Buildings and Roads Division.

District Health Information System. (2009-10).

District Profile (1998). Retrieved from United Nations International Children's Emergency Fund (UNICEF). Retrieved from <http://un.org.pk/profiles/lasbella.htm> (change district name)

District Revenue Office, Gwadar. (n.d)

Fisheries Statistics. (2009). Retrieved from Provincial Fisheries Department, Government of Balochistan.

Forest Department, Government of Balochistan. (2010)

Health Department. Government of Balochistan (2010)

Health Facilities and Human Resources. (2010), *Health Department, Government of Balochistan.*

Industries and Manufacturing Department. (n.d.). [specific districts]

Licensing facilities. (2010). District Kharan.

Livestock Census. (1986, 1996, 2006). Livestock Department, Balochistan.

Livestock Census. (2006). Livestock Department, Balochistan.

Livestock Department. (n.d) Government of Balochistan

Local Government Balochistan. (2005). Retrieved from [Balochistan.gov.pk](http://www.balochistan.gov.pk): http://www.balochistan.gov.pk/index.php?option=com_content&task=category§ionid=4&id=39&Itemid=581

Local Governments, TMAS, LG Department, PHE Department and NGOs. (n.d.).

Mines and Mineral Department. (2010). Government of Balochistan

Multiple Indicators Cluster Survey (MICS). (2010), Planning & Development Department, Government of Balochistan.

Multiple Indicators Cluster Survey (MICS). (2004), Planning & Development Department, Government of Balochistan.

Pakistan Social and Living Standards Measurement Survey (PSLM) (2004-05 & 2008-09). Federal Bureau of Statistics, Statistics Division, Government of Pakistan.

Pakistan Telecom Authority. (2004-05 & 2009-10).

Population Census Organization. (n.d.). Retrieved from Population by Province/Region Since 1951: <http://www.census.gov.pk/ProvinceRegion.htm>

Post Master General. (2009), District Gwadar

Provincial and District Election Commission. (2010).

Provincial and District Forest Departments, *IUCN, UNDP, WWF, GEF.* (n.d)

Provincial Disaster Management Authority (PDMA). (2010)

Provincial Home Department, IG Police Office & Provincial and District FIA Office. (2010)

Provincial and District Election Commission of Pakistan. (n.d.)

Public Health Engineering Department, (2010). Government of Balochistan.

Public Sector Development Programme (PSDP). (2010).

Regional Meteorological Center (RMC) *Karachi.* (2008). (climate data retrieved from multiple websites.)

Registrar High Court, District & Session Judge. (n.d). District Gwadar

SMEDA-Gwadar. (n.d.). Retrieved from SMEDA Balochistan: <http://www.smeda.org/main.php?id=328>

Social Welfare Department, .(2010). Government of Balchistan

State Bank of Pakistan. (2010). Retrieved from Quetta Office for All Banking Information.

The Gazetteer of Balochistan: Makran. (n.d.).