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BALUCHISTAN NEEDS ASSESSMENT

DEVELOPMENT ISSUES AND PROSPECTS

PART I - MAIN REPORT

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Pakistan Country Management Unit

South Asia Region



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ABBREVIATIONS AND ACRONYMS

BHUs	Basic Health Units
DAI	Degree Awarding Institution
DHS	District Health Survey
FATA	Federally Administered Tribal Areas
GDP	Gross Domestic Product
GER	Gross Enrollment Rate
GST	General Sales Tax
HEC	Higher Education Commission
HEI	Higher Education Institution
KP	Khyber Pakhtunkhwa
LEAPS	Learning and Educational Achievement in Punjab Schools
MDTF	Multilateral Donor Trust Fund
MICS	Multi-Indicator Cluster Survey
MMR	Maternal Mortality Rate
MPA	Member Provincial Assembly
MSY	Maximum Sustainable Yield
NER	Net Enrollment Rate
NFC	National Finance Commission
O & M	Operations and Management
OECD	Organization for Economic Cooperation and Development
PCNA	Post Conflict Needs Assessment
PGDP	Provincial Gross Domestic Product
PPIU	Policy Planning and Implementation Unit
PRSP	Poverty Reduction Strategy Paper
PSLM	Pakistan Social and Living Standards Measurement
SBP	State Bank of Pakistan
UNESCO	United Nations Educational, Scientific, and Cultural Organization

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This report is a part of a process for engagement with the province of Balochistan which aims to set the stage for increased dialogue to better understand stakeholders development perspectives, elaborate a shared **insight into key development challenges** and potential opportunities, and discuss strategic actions. To that end a series of consultations were held with stakeholders in Islamabad and Quetta with representatives of Government, Parliamentarians, civil society and the non-government sector, whose views have informed this report.

The report was prepared under the overall guidance of Rachid Benmessaoud, Country Director for Pakistan. The team comprised: Eugenia Marinova (Senior Country Officer for Pakistan, Task team leader); Khalid Ikram (Consultant, Key Author); Robert Bou Jaoude (Program Coordinator, Multi Donor Trust Fund for KP, FATA and Balochistan); Michael Stanley (Lead Mining Specialist); Mahwash Wasiq (Senior Operations Officer); Grant Milne (Senior Resource Management Specialist), Inaam Haq (Senior Health Specialist), Rashid Aziz (Senior Energy Specialist), Umbreen Arif (Senior Education Specialist); Anjum Ahmad (Senior Energy Specialist); Amer Zafar Durrani (Senior Transport Specialist); Sher Shah Khan (Governance Specialist); Haris Khan (Disaster Risk Management Specialist); Kiran Afzal (Private Sector Development Specialist); Muhammad Waheed (Economist); Muhammad Riaz (Sr. Agricultural Specialist); Erik Nora (Country Officer); Maha Ahmed (M&E Officer); Robert Howard Lindley (Consultant); Miraj Ul Haq (Consultant); Mehnaz Akbar Aziz (Consultant); Dr. Shahid Ahmad (Consultant); Tjaart Schillhorn, Dr. Abdul Ghafoor Khan (Consultant); Shaheen Malik (Consultant); Saleha Waqar (Consultant); Raja Muhammad Nasir (Multi Donor Trust Fund for KP, FATA and Balochistan, Program Assistant); Ghulam Farid (Program Assistant); and Lin Chin (Senior Country Program Assistant).

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EXECUTIVE SUMMARY

1. An overarching medium-term perspective for a country or a province encompasses several aspects: political, social, economic, and cultural—it comprises a wide-ranging vision of the goals that society and policymakers would like to see that entity achieve. The Government of Balochistan is drawing up a comprehensive development strategy—in effect, the economic facet of a vision for the province—and has invited the World Bank to assist it in this effort. The present report is intended as an input into the preparation of such a strategy. It does not aim to be an encyclopedic survey of the economy of Balochistan nor to replicate the Post-Conflict Needs Assessment (PCNA) of the Multilateral Donors Trust Fund (MDTF) on the KP province and FATA.

2. The present report builds on recent work on the economy of Balochistan, in particular the World Bank/Asian Development Bank's 2008 *Balochistan Economic Report*, but goes well beyond it in a number of important ways. First, it updates data (including the provincial GDP series), analyses, and assessments from the earlier work. Second, it reflects the outcome of substantial consultations with Balochistan's political leaders and civil society; the earlier report did not benefit from such a dialogue. Third, the strategy proposed in the present report takes into account the greater policy leeway and responsibilities that have devolved on the province as a result of the passage of the 18th Amendment to the Constitution of Pakistan, and the greater access to resources that this legislation provides. Fourth, Part II of the report gives detailed analyses of the issues, policy recommendations, and action plans (the 2008 report did not offer this level of detail or lay out action plans) of the key sectors requested by the Government of Balochistan. The present report also provides a framework for monitoring and follow-up for key elements in the strategy. Fifth, it looks at Balochistan's development prospects in the context of a regional setting.

3. The Government of Balochistan's goal for its medium-term plan is a continued and sustainable improvement in the lives of the province's citizens. Attaining such a goal will require a strategy to raise incomes by providing productive employment to the labor force. The available data suggest that the growth of Balochistan's GDP has lagged that of the other provinces since the early 1970s by at least one percentage point. This might not seem to be very much; however, the power of compound rates is such that an annual average GDP growth rate of 4 percent—the experience of Balochistan—would over a period of 40 years produce a GDP that was 4.8 times its original level, while an annual average growth rate of 5 percent—the average for the other provinces—would produce one that was more than 7 times its starting level. The inevitable consequence of this disparity in growth rates is a wide and continuing divergence in standards of living between Balochistan and the rest of the country. Moreover, the growth rate of Balochistan's GDP has been insufficient to provide employment to the province's growing labor force; it is crucial, therefore, to substantially accelerate the growth rate of Balochistan's GDP.

4. How fast a growth of GDP must Balochistan aim at? The relationship between the growth of Balochistan's GDP and employment suggests that the GDP must expand at a rate of 6.5–7.0 percent annually in order to employ all the additions to the labor force and to start decreasing the backlog of unemployment. The required growth rate is a significant increase over the rate of 4

percent achieved between 1991 and 2010, but is feasible if Balochistan effectively uses the wide range of assets it has the potential to deploy. The present report identifies the main challenges that Balochistan will confront in meeting this goal, recommends policy responses for overcoming the challenges, and suggests detailed action plans for the key sectors.

5. Attaining the growth rate faces challenges from four principal factors:

- an unsettled security situation, which deters investment;
- a small population thinly spread over a vast land surface, which raises the costs of producing goods and providing services, including that of governance;
- an uncertain supply of water, which can create substantial fluctuations in the output of the key agricultural and livestock sectors and thus have a major impact on employment, incomes, and poverty;
- an inadequate institutional and human resource base, which results in weak governance and drags down the productivity of virtually all economic sectors.

6. In order to overcome the challenges, Balochistan will have to mobilize the very considerable assets that it possesses. The assets include the vast land area (almost 45 percent of the area of Pakistan) that has been the major producer of Pakistan's natural gas for more than 50 years, but where many promising geological structures remain unexplored. The province also contains one of the largest deposits of copper in the world—a resource that has barely been touched to date—and substantial barely-developed deposits of gold, marble, granite, onyx, and other minerals. Balochistan's coastline of nearly 750 km provides a base for fisheries, ports development, tourism, and other activities. Much of the province is classified as rangelands that support a large livestock sector, offering a considerable potential for downstream development, such as the production of meat, leather, wool, and dairy items. The province's topographic and climatic conditions hold out the prospect of generating large amounts of power from wind and solar sources. Balochistan also occupies a strategic location that could help it act as a "hub" for trade between the Middle East and the Central Asian republics, as well as between Pakistan and Iran.

7. A *sine qua non* for making the most of this potential is the restoration of security in the province. Specific recommendations on dealing with the security situation fall outside the remit of this report. It is likely, however, that the strategy of inclusive growth that it propounds would help to channel unemployed and discouraged elements of the population towards a constructive participation in the development of the province, and thus make a significant contribution to improving the security situation.¹

8. Implementing the strategy will require action on both the "hardware" (such as physical projects) and the "software" (policies, institutions, incentives, regulations, etc.) of growth. It will require efforts to develop the human resource base of the province, especially steps to increase women's education and to encourage them to participate in the labor force; and measures to

¹ It is reported that some 70 percent of those involved in the unrest did so because of financial considerations (*Washington Post*, March 3 and 4, 2009).

strengthen institutions so as to provide better governance and greater efficiency. Doing all this will require political will to overcome the social and cultural constraints that have held back the development of the province, and will require the mobilization of a larger volume of resources, both internally and from external donors. An encouraging note is that after the passage of the 18th Amendment to the Constitution of Pakistan, Balochistan has much greater autonomy to construct a strategy appropriate to its own special circumstances and has access to a much larger volume of resources with which to finance such a strategy.

9. The proper utilization of Balochistan's resources will also require the formulation of strategies that would be optimal for different time periods. In the short term, the activities that would yield the most significant increases to income and employment would likely comprise the following. First, the construction of schools, medical centers, roads, and other infrastructure. This would not only expand the physical plant required to underpin growth, but would have substantial multiplier effects since construction draws its inputs from a large number of other sectors—brickmaking, carpentry, electrical, plumbing, cement, iron and steel, glassmaking, furniture and fittings, etc. Moreover, the participation of even unskilled labor in construction activities can help to upgrade their skills through "learning by doing" on the job. Second, in order to deliver a higher level of services, many more teachers and medical personnel will have to be hired. Third, it would be possible to significantly increase value-added in a number of activities through simple measures of training—for example, teaching fishermen how to handle the fish catch in a more hygienic manner and how to prevent waste—and relatively minor upgrading of facilities—such as providing cold storages, improving the condition of auction halls for fish in Gwadar and other ports, and so on. Candidates for attracting this type of attention would be fishing, and the production of meat, wool, leather, and dairy and fruit products. Significant additions to value could also be made in the mineral sector, by substituting more modern methods of extracting marble than the current practice of blasting, which wastes enormous amounts of material. Fourth, efforts should be made to step up the utilization of Gwadar port.

10. In the medium to long-term, a number of other sectors and activities could additionally come into play. First, the emphasis on education and training should be producing results and yielding economic and social dividends. Second, water-conservation efforts, both through policy measures (such as rationalizing the electricity subsidy for tubewells), and the construction of small dams to capture the runoff from floods, should measurably increase the supply of the province's water. Third, the exploitation of the potentially very large minerals sector would occupy a central place in Balochistan's development strategy. Activities in the sector would include not only an expansion in extraction from existing sources, but also a vigorous program of exploration to discover new deposits. Fourth, Balochistan should be able to take advantage of its regional location to expand and facilitate trade with Iran and the Central Asian republics. The foregoing possibilities are only indicative, and a more comprehensive examination should throw up more options.

11. The analysis in this report of many of the issues confronting Balochistan's development has identified "governance" and the strengthening of institutions as critical areas. "Governance" is a very wide-ranging term, and can cover almost anything from selecting Balochistan's cricket team on merit to ensuring the observance of the rule of law in day to day life. The scope of this report confines the discussion to governance in economic matters.

12. The sectoral discussions in the report emphasize that effective economic governance rests on three inter-related pillars. First, the organization concerned must be very clear about its responsibilities for a given situation. Second, the organization must have the necessary resources—such as an appropriate structure, qualified staff, adequate finances, the necessary political and administrative support, etc.—to carry out its responsibilities. Third, the organization must be held accountable for satisfactorily discharging its responsibilities; this means designing and putting in place mechanisms to report on and to evaluate the performance of the organization. The sectoral discussions make clear how far short governance in the province falls when measured against these criteria.

13. Institutions, in the sense used in economic literature, are defined as the set of rules (both formal and informal) governing human behavior. The formal rules include matters such as laws and regulations created and enforced by government agencies, while informal rules cover codes of conduct established by society. Well-functioning institutions are vital to an economy because they support markets and transactions by protecting property rights, enforcing contracts, and reducing uncertainty. These actions help to determine production and transaction costs, and thus determine the profitability (and therefore the incentive) of engaging in economic activity. The report details areas in which the suboptimal functioning of institutions has raised the cost of doing business in Balochistan as compared with the other provinces—in 2010 Quetta ranked 12th out of 13 cities in the World Bank's computation of the ease of doing business in Pakistan—and over time even in Balochistan itself; for example, in 2006 it took 41 days on average to get an electricity connection in Quetta, but by 2010 the delay had increased to 70 days.

14. Moreover, it appears that the severity of institutional constraints on economic activities varies with the size of firm—the smaller the firm, the more binding the constraint. The effect is particularly apparent with certain constraints, such as dealing with the tax administration, and access to finance and intermediate inputs. This is a matter of concern, because over 95 percent of Balochistan's firms are small, and hence the constraints strike with particular severity directly on the areas where efforts to expand jobs and to reduce poverty should be focused. A detailed study of the issues affecting micro and small-scale enterprises should be a priority for economic management in the province.

15. It would be a counsel of perfection (and quite unrealistic) to recommend that Balochistan must put in place the complete structure described above to improve governance in each and every sector all at once. The foregoing description of an efficient governance structure is intended as a framework within which it would be useful for the province to think as it goes about establishing an architecture for its development efforts. The importance of constructing these three pillars concurrently should also help the province to prioritize its sectoral efforts. Balochistan does not have the resources to install in every sector the governance framework indicated here; it will therefore have to decide in which sectors such frameworks will first be established while it creates additional resources to expand these efforts to other sectors.

16. Much of the necessary reshaping of governance does not involve greater financial expenditures; what it requires is an acceptance by Balochistan's political leaders that unleashing the full potential of the province will demand changes in many of the ways in which economic

activities are presently conducted. The report does not assume that governance changes will be easy or occur automatically. However, consultations in recent months with Balochistan's legislators and civil society (summarized in an annex) suggest that there is an increasing recognition on the part of these bodies that institutional and governance improvements are crucial to a prosperous future for the province, and that there is the stirring of a momentum to support such reforms.

Issues in key sectors

17. The following paragraphs summarize the key issues in six sectors—water, agriculture, livestock, fisheries, alternative energy sources, and health—for which the Government of Balochistan requested analytical support. The sectors are covered in more detail in Part II of the report.

Water, Agriculture, and Domestic Water

18. Scarcity of water is the critical constraint to Balochistan's development. While some 87 percent of Pakistan's total available water is contributed by the Indus Basin Irrigation System (IBIS), Balochistan lies at its periphery and relies largely on non-perennial and some perennial sources of water (from IBIS and outside IBIS). And while Pakistan's water economy is highly integrated, allowing for risk pooling, Balochistan's water economy is highly segmented, with 18 river basins accounting for its vast territory. Rural livelihoods are dependent on precipitation and these were severely affected during drought of 1998–2005. Crops can fail after a seasonal drought, whereas livestock and orchards are vulnerable to persistent drought. Since agriculture accounts for 97 percent of Balochistan's water use, any strategy to deal with water scarcity has to assign this sector a high priority.

19. The key issues in the water sector are:

- Floodwater accounts for almost two-thirds of total available water, but hardly 40 percent is utilized. The availability of floodwater in all the river basins is extremely variable;
- Groundwater constitutes around 4 percent of total water available, but is an over-utilized and depleting resource;
- Climatic variability in precipitation and water availability was extremely high even before the ongoing changes in climate; therefore with climate change the extremes of water availability during dry and wet years are likely to worsen;
- The subsidy on the electricity tariff for tubewells (now running at about Rs 8 billion a year) has resulted in a wasteful use both of water and energy. The subsidy creates a disjunction between social and private profitabilities—there are losses to society as a whole, but financial gains to individual farmers;
- The sector is characterized by weak institutions and poor implementation of announced policies.

20. The key issues in the agriculture sector are the following.
- Although the sector is recovering from the drought of 1998–2005, it is still performing below its potential for a variety of reasons. The cropped area is constrained by: (a) lack of adequate irrigation infrastructure; (b) reliance on family labor for farm operations; (c) low quality seeds; (d) lack of fertilizers and pesticides in remote areas; (e) outdated technology; (f) low public funding; and (g) weak institutions;
 - Climate change can be expected to have a major impact on Balochistan's agriculture in the form of: (a) a shift in the boundary of crops in the hot regions because of the rise in temperature; (b) a rise in crop water requirement, again because of an increase in temperature (which will put further pressure on groundwater resources); and (c) reduced productivity in dry years, because climate change is likely to make droughts more severe and frequent.
21. The key issues relating to domestic water supply are the following.
- Uneven access and uneven quality of domestic water;
 - The operation and maintenance costs of public-sector water schemes are high and can be unaffordable for communities;
 - The institutional structure of the sector is inefficient, because multiple players are involved in the provision of water and responsibilities can be unclear—Public Health Engineering; Local Government and Rural Development; WASA; and NGOs.
22. The strategy for the water, agriculture, and domestic water sectors described in the report focuses on key elements in the areas of (a) policy and institutional reforms; (b) investment projects and economic activities; and (c) expansion and improvement of human resources. The strategy recognizes that the different sectors present different potential and opportunities.
- The *water sector* has the potential to utilize the two-thirds of unutilized floodwater by developing cost-effective spate irrigation schemes to provide water for farming and to generate new livelihoods. Excess water during wet years can be stored in cascades of storage dams to provide reliability to *Sailaba* (floodwater irrigated) farming and support production of high value crops. Putting the development of floodwater resources at the center of the water strategy is important, not only because this is by far the biggest source of unutilized water in the province, but also because this resource occurs over virtually the entire province and thus its development would offer opportunities for all ethnic groups in Balochistan. The strategy also recognizes that the command areas of existing dams have scope for considerable further development;
 - The highest potential for the *agriculture sector* lies in *Sailaba* farming, because of availability of unutilized floodwater. It is estimated that the productivity of existing spate irrigation schemes could be doubled with the provision of quality services and supplies in partnership with the private sector. In the future, the command areas of storage dams have to be integrated with *Sailaba* farming to involve all the beneficiaries. There is great

potential for improving the efficiency of groundwater schemes, both in terms of water and energy, and considerable scope exists for increasing the productivity of canal command areas (along with their sustainability).

- For the *domestic water supply sector*, improvements should start by creating awareness of the crucial importance of conserving water, as much of the rural population still considers that water is not a finite resource. Participatory water supply schemes must therefore play a key role. In the urban areas, private sector operators should be encouraged to bid as providers of services to consumers. Close monitoring of water supply schemes is important, as it would provide an effective tool for improving the management of physical and financial resources.

Fisheries

23. The fisheries sector in Balochistan provides direct employment to an estimated 400,000 people, and perhaps an equal number in ancillary industries such as marketing, boatbuilding, etc. In coastal areas, fisheries can account for up to 70 percent of the local employment. Fish product exports from Pakistan rank fourth among export commodities, with a significant share originating from Balochistan.

24. Balochistan's fishery sector follows global trends, with actual values lagging behind potential. The sector can clearly generate greater net benefits and become a stronger engine for rural economic growth and social development. However, to realize this potential, a program of reforms and investments must be carefully implemented over an extended period at both national and province levels; the latter in Balochistan, which accounts for the bulk of fish production in the country.

25. The fisheries of Balochistan can be divided into four main sub-sectors: (i) marine capture; (ii) brackish coastal water (i.e., coastal aquaculture); (iii) inland open water capture and inland closed water capture (i.e., freshwater aquaculture).

(i) Marine Capture Fisheries

26. Almost all the fish produced in Balochistan come from marine capture fisheries along the 750 km coastline of the province. These are based on the fisheries resources of the thin continental shelf that characterizes the majority of the coast. More than 135,000 Tonnes (T) of fish was caught in 2011 by an estimated 52,000 fishermen operating 7,186 boats. This represents a third of the total Pakistan catch; Sindh, with its much wider continental shelf, accounts for the remainder of the marine catch.

27. The marine capture fisheries subsector faces a number of important problems:

- appropriate infrastructure is lacking in all the landing sites. Jetties, quays, and auction halls are urgently needed to improve the quality and the value of landings;

- there is a serious problem of poaching. Trawlers from outside Balochistan, especially from Sindh, fish in Balochistan's territorial sea (out to 22 km or 12 miles). These vessels tend to use gears such as trawls and seines, which are very destructive and are banned in Balochistan. The catch of these vessels is not recorded as part of the Balochistan catch;
- evidence indicates that the marine offshore fishery resources have been overexploited. The fishing effort (crudely measured in numbers of boats) has risen roughly in line with the country's population (2–3 percent a year) while the catch has remained roughly the same.
- A key priority for the Government of Balochistan is to address overfishing in marine capture fisheries, and its negative effects on fishing rents, returns, and biological sustainability. Without action to restrict new entry into the fisheries sector, there is likely to be a collapse in fish catches and with it the subsequent economic and social crises that have characterized Sindh fisheries in recent years. To address the overfishing issues, approaches to fisheries management must move away from the present-day laissez-faire practices to a more structured approach of co-management with the users of the resources. This will require a revision of marine fisheries policy, legislation, and supporting regulatory frameworks;
- post-harvest handling and marketing arrangements are inadequate. It is estimated that 25 percent of the potential value of the catch is lost by a failure to maintain quality from sea to market as well as by poor value addition. There are no sanitary controls in Balochistan and the authorities' reach does not extend beyond Karachi.
- Research into fisheries in Balochistan is very limited, largely because of the paucity of qualified personnel and inadequate levels of funding. Establishing a formal fisheries research coordination body for the whole of Pakistan would be an appropriate first step to address research needs in the province.

(ii) Coastal Aquaculture

28. There is virtually no large-scale commercial coastal aquaculture in Balochistan. However, coastal aquaculture is widely perceived as having substantial potential in the future. The major attraction for aquaculture is the long coastline with plenty of land that may be suitable and relatively unpolluted water. Various attempts at shrimp farming have been undertaken or are ongoing on a small scale. None have resulted in significant commercial enterprises.

29. There are many constraints to successful coastal aquaculture in Balochistan, and before large scale private investment in the sub-sector can be expected, these issues will have to be overcome. The major constraints include uncertainty over land tenure, feed availability, a severe skills shortage, financing options, and security. Currently a lack of confidence to invest, mostly due to the security situation, is the major constraint.

30. An appropriate initial response to the lack of development in coastal aquaculture would be to produce an aquaculture masterplan detailing the opportunities and covering the ways to overcome the main constraints.

(iii) Inland Fisheries (open and closed capture)

31. Inland fisheries account for about 5.7 percent of the fish production of Balochistan, and derive almost entirely from open-water capture fisheries. There is virtually no commercial production from freshwater aquaculture in managed ponds. Average production per hectare from inland freshwater aquaculture is very low by world standards and reflects the lack of skills and investment in the subsector.

32. The current system of auctioning short-term fishing rights for inland open water fishing is not ideal either for sustainability or for equity. It also does not encourage investment by rights holders to increase yields. Options for improved leasing mechanism and exploring various co-management regimes should be evaluated. Production could also be increased by efforts to improve productivity from farmed fish and by increasing the number of fish ponds in areas of waterlogged or salt-intruded land.

Livestock

33. The livestock sector contributes about one-third of Balochistan's agricultural GDP and about 8 percent of its total GDP. Over 70 percent of the population derives all or part of its livelihood from this sector. Cattle, buffaloes, pack animals, camels, and poultry all feature significantly in the livestock resources of the province, but the dominant position is held by small ruminants, such as sheep and goats, which according to the Livestock Census 2006 numbered respectively 53.7 and 26.4 million and accounted for 35 percent of the national population of such animals. The significantly higher number of small ruminants is mainly due to their suitability for the bio-physical environment and the availability of the vast grazing lands in the province; the proper management of such rangelands, therefore, is crucial to the proper development of Balochistan's livestock sector.

34. Nearly 93 percent of the total area of Balochistan is considered as rangelands, which are used for grazing by small ruminants and camels. However, the condition of these rangelands is steadily deteriorating largely because of two factors—the frequent droughts and the “tragedy of the commons”—joint ownership of the lands implies that no single herder has the incentive to invest in improving the pasture, while each one has the incentive to graze more animals on the pasture than is justified by the sustainability of the system.

35. The deterioration of the rangelands impacts on nutrition, not only by reducing the amount available, but also by becoming deficient in biomass, protein, and minerals. These deficiencies are generally responsible for still-births, low birth-rate and a higher infant mortality rate immediately after birth. Inadequate and imbalanced feeding also results in low body weight, reproductive inefficiency and proneness to diseases.

36. Apart from inadequate and imbalanced nutrition for animals and the improper management of rangelands, the report identifies a number of other important issues and constraints faced by the livestock subsector. The most important of these are: a weak program for improving breeds; an inefficient livestock marketing system; the absence of a system for forecasting drought and for mitigating its effects; a weak institutional capacity, especially for helping to strengthen the value-chain for livestock production; inadequate human resource development; lack of support for research and development; and insufficient budgetary allocations. This report presents an action plan for dealing with these issues. The strategy that it recommends is essentially to promote productivity per animal, instead of increasing livestock numbers, by appropriate price policies both for the outputs of meat and milk as well as for the inputs. It also makes recommendations for strengthening the institutional framework in order to ensure the formulation and implementation of effective policies.

Alternative Energy Sources

37. In 1952, Balochistan provided the first discovery of natural gas in Pakistan, and until the 1980s produced well over 50 percent of the country's natural gas. Currently, the province accounts for about 20 percent of total natural gas production in Pakistan. Despite the decline in Balochistan's share of gas produced in Pakistan, the province still accounts for nearly 35 percent of Pakistan's proven and recoverable gas reserves.

38. Apart from natural gas, Balochistan possesses a considerable potential for the development of alternative sources of energy, principally wind and solar. The potential for renewable energy sources in Pakistan was estimated in a comprehensive study in 2007. This study found that three regions of the country—including the Nokkundi region in the north-western corner and ridges in the Chagai area of Balochistan—had significant potential for developing wind energy resources. Balochistan's wind resource potential was estimated to be more than 20,000 MW (or roughly equal to the total installed generating capacity of Pakistan in 2011).

39. The development of wind resources is, however, constrained by a number of factors.

- The estimates prepared by NREL were based on GIS/Satellite imagery. Subsequently, the Alternative Energy Development Board (AEDB) has carried out tests to confirm the wind resource estimates (essentially, to document wind speeds, durations, etc, over a period of time) by installing wind monitoring masts. However, such monitoring stations/systems have been installed only in Sindh. The wind resource potential of Balochistan has to be verified through similar wind monitoring stations/masts. A PC-II for installing five such monitoring stations has been submitted to the Alternative Energy Development Board;
- Many of the areas that have a high or very high wind potential in Balochistan are not connected, or close, to the transmission grid. The province's demand for electricity is also scattered over very large geographic areas. Therefore, one consideration while preparing proposals for exploiting wind resources is how to transmit that power to the load centers;
- Developing the wind potential on a large scale will also require significant amounts of financial resources, since—in common with virtually all major renewable energy

technologies—wind power projects are capital intensive. In view of the constrained fiscal situation of the federal and provincial governments, the private sector will need to be attracted for developing the province’s wind resources.

40. Balochistan also ranks very high, in fact the highest in the country, as regards the potential for solar energy. Around 40 percent of the land area of Balochistan receives direct solar radiation with an energy potential of more than 6 kWh per square meter per day, while the rest of the province receives direct solar radiation with an energy potential of 4.5 kWh per square meter per day. Extrapolation from these numbers yields a total power generation potential of as much as 1.2 million MW. However, a number of important issues must be considered in assessing the development of Balochistan’s solar energy potential.

- These estimates of the solar energy potential are based on GIS data and/or satellite imagery. These (raw) estimates must be verified through ground-level investigations before specific projects are prepared and/or implemented;
- Many of the areas of Balochistan are not connected, or close, to the transmission grid. The province’s demand for electricity is scattered over very large geographic areas. Therefore, the issue of transmitting the power to load centers comes up again;
- Developing the solar potential on a large scale will require significant amounts of financial resources, since solar power projects are very capital-intensive. As with the development of wind energy, the realization of the province’s potential for solar-based energy will also require creating the institutional and other structures to attract private sector participation.

Health

41. Balochistan’s health indicators are the worst in the country. Health outcomes at all levels are poor; for example, the province suffers from significant higher neo-natal mortality rates, infant mortality rates, and under-5 mortality rates than the other provinces.

42. The reasons for Balochistan’s poor health outcomes are a combination of weak governance, underdeveloped human resources, poor infrastructure, and the challenging physical and demographic characteristics of the province, namely, a small population scattered over a very large area. These characteristics reinforce each other’s shortcomings and thereby make the situation even more difficult.

43. Weaknesses in governance and human resource development are reflected in the large number of unfilled vacancies and the high rate of absenteeism in public-sector medical institutions. There is a shortage of female staff in the health sector; in Balochistan’s conservative society it leads to major reluctance on the part of women to use the public sector health facilities. Supervision in medical institutions is weak, and is made more difficult by the remoteness of many of these facilities—an estimated 25 percent of the facilities are located between 15 and 100 km from roads—thereby making access onerous and expensive; in many areas, therefore, it tends not to be done. Information on health indicators is missing, erratic, or unreliable; for example, data from routine statistics, such as the health management information system or

epidemiological reports, are only partially available and present a biased picture because they frequently concentrate only on selected health outcomes. This makes it quite a challenge to plan for an effective health system.

44. Deficiencies in medical infrastructure are reflected in the low use of the facilities. Mean bed occupancy rates are low: basic health units (19 percent), Tehsil Headquarter Hospitals (35 percent), and District Headquarter Hospitals (34 percent). In 2010/11 in Balochistan 74 percent of infant deliveries took place at home, far higher than in any other province and well above the national average of 58 percent. Only 43 percent of women in Balochistan availed themselves of antenatal care services, and an even lower proportion (18 percent) of postnatal care; these figures are well below the national average. Balochistan also reported 37 percent of all confirmed polio cases in Pakistan.

45. A contributor to the poor health outcomes is the low position that the sector apparently occupies in the province's priorities. Its share in total expenditures dropped from 11 percent of the total in 2007/08 to 9 percent in 2010/11, and even further in the first half of 2011/12 to 5 percent. Given these constraints, it is not surprising that surveys find medical facilities to be badly maintained, and medical supplies and services (such as emergency obstetric care, family planning, etc.) to be seriously deficient.

46. Tackling the problems in Balochistan's health sector demands a multifaceted approach. Such an approach would concentrate on improvements in governance; developing the human resource base of the province, with special emphasis on female education and the creation of job opportunities for women in the health sector; developing public-private partnerships in the sector; and looking for innovative ways in which to minimize the constraints of remoteness. One way, for example, would be to decentralize medical facilities. A *tehsil* headquarter hospital or a rural health center could be set up as a hub (perhaps with somewhat expanded facilities) for a number of basic health units. The latter would be staffed by paramedics, who would be managed by physicians located at the hub. Another way could be to use mobile units for delivering services to the patient's house. The underlying aim of both these initiatives would be to minimize the distance between the patient's home and the availability of medical care.

Regional Location

47. An underutilized asset of Balochistan is its location in the region; two aspects are particularly important. The first is its potential to act as a hub as Pakistan seeks to redevelop what used to be some of the country's most important trade routes. These routes had been severely downgraded with the occupation of the subcontinent by the British and the political rivalry between Britain and Russia (the so-called "Great Game"). The reactivation of trading routes to the West and the North West would be to Pakistan's advantage for two reasons. First, the countries in those areas (such as Iran and the Central Asian Republics) are developing rapidly and have the potential to provide a growing market for Pakistan's exports. Second, these countries are resource rich, especially in oil and gas, which they are no longer constrained to sell at artificially low prices to the former Soviet Union, and which they could therefore provide to Pakistan in exchange for the latter's manufactures and agricultural commodities.

48. The second aspect is the 750 km coastline of Balochistan and the development of Gwadar as an important port. This report recognizes that the growth of the port faces a number of obstacles, such as the competition from other ports in the region, and recommends that Gwadar might look to handling the spillover of traffic from the existing ports—Karachi and Port Qasim—while developing the other possibilities of transit trade and transshipment.

Planning and Economic Management

49. Following the devolution to the provinces of authority in key sectors such as agriculture, education, and health, under the 18th amendment to the Constitution of Pakistan, Balochistan's share in the country's revenues almost tripled, from Rs 29 billion in 2009/10 to Rs 83 billion in 2010/11. Balochistan was also granted arrears of Rs 120 billion in gas development surcharge outstanding since 1954, to be paid in annual installments of Rs 12 billion. With the increase in funds from the divisible pool, the retrospective increase in the gas price, and the reimbursement of gas arrears, the province's revenue receipts almost doubled in 2010/11. Balochistan now has a much greater opportunity to prepare a development plan that reflects its own priorities and is tailored to its specific circumstances. This in turn will require the system of planning and economic management to be strengthened by allocating a due amount of resources to the relevant departments and by augmenting their human resources through recruitment and training.

50. It also means that the information base of the province must be built up, especially if the province is to design medium or long-term plans to implement its vision for the future. At present, even such crucial data as the provincial GDP, are not available from official sources. The GDP series used in the present report has been prepared by the World Bank. While these numbers do provide a consistent series for a significant length of time, in a number of places their construction has perforce had to rely on assumptions where hard data based on surveys were not available and, of course, the present series does not carry an official cachet. Moreover, figures for key variables, such as provincial savings and investment, their distribution between the government and household sectors, the main issues confronting the small and medium industries sector (which accounts for over 95 percent of Balochistan's enterprises), the economic returns to education, and so on, are absent. Constructing a development plan under such handicaps is akin to making bricks without straw. The Government of Balochistan must strive to fill in the informational and analytical gaps, and the federal authorities and international institutions should stand ready to provide support, because the prosperity of Balochistan is important not only to the citizens of the province, but to the entire country.

Chapter 1 INTRODUCTION

1.1 The Government of Balochistan is preparing a medium-term strategy for the development of the province, the first phase of which is expected to cover 5–7 years. This report has been developed in response to a request from the Government of Balochistan to help with the analysis of issues in certain key sectors, to recommend policies for them, and to prepare sectoral action plans with estimates of the resources (financial and human) that would be required to implement the recommendations. The present report constitutes a part of the World Bank's response to assist the Government of Balochistan in formulating the medium-term development strategy.

1.1 The scope of the report

1.2 In view of the limited time within which the report has had to be prepared, it does not attempt to present an encyclopedic view of Balochistan's economy or to provide a comprehensive response and action plan. Moreover, because of differences in the political and security situations of Balochistan and the KP province and FATA, it does not replicate the pattern of the *Post Conflict Needs Assessment* (PCNA) for those areas prepared by the Multilateral Donors Trust Fund. The focus of the present report is on an analysis of the structural, durable features of key areas in Balochistan's economy and on recommendations for addressing problems within them. The underlying rationale of the report is to assist the Government of Balochistan to prepare an inclusive development strategy that would improve the life of its people and thus contribute in a major way towards building a prosperous and peaceful province.

1.3 The present report builds on the 2008 *Balochistan Economic Report* but differs from it in a number of important ways. First, it updates data (including the provincial GDP series), analyses, and assessments from the earlier work. Second, it reflects the outcome of substantial consultations with Balochistan's political leaders and civil society; the earlier report did not benefit from such a dialogue. Third, the strategy proposed in the present report takes into account the greater policy leeway and responsibilities that have devolved on the province as a result of the passage of the 18th Amendment to the Constitution of Pakistan, and the greater access to resources that this legislation provides. Fourth, Part II of the report gives detailed analyses of the issues, policy recommendations, and action plans (the 2008 report did not offer this level of detail or lay out action plans) of the key sectors requested by the Government of Balochistan. The present report also provides a framework for monitoring and follow-up for key elements in the strategy. Fifth, it looks at Balochistan's development prospects in the context of a regional setting.

1.4 A medium-to-long-term strategy begins with the articulation of a vision that defines where the province is headed. This vision, to be effective and sustainable, must be expressed by the people of Balochistan themselves and must be "owned" by them—it must reflect their deepest aims and aspirations and they must be committed to it. It thus goes without saying that an outside institution cannot articulate such a vision for the province. The present report, therefore, aims only to facilitate the province's policymakers in developing a strategy that would help Balochistan attain the economic goals that its policymakers and civil society have broadly endorsed.

1.5 In order to elicit a wide range of views, the World Bank team held meetings in Islamabad with representatives of the Government of Balochistan and provincial legislators. This was followed by a conference in Quetta that was attended by legislators, government officials, and members of academia and civil society. The views expressed at these meetings have been reflected in this report. A summary of the consultations appears at Annex 2 of the main report.

1.2 The approach of the report

1.6 The report takes as its starting point that the primary role of a government is to provide a better life for its citizens. An important component of such a life is a higher income, because this gives persons command over the goods and services that enable them to lead lives that they have reason to value. The strategy does not assert that income is the sole measure of a person's well-being; it simply says that a higher income makes it easier to obtain the elements that improve the quality of life.² The focus of the report, and of the government's medium-term plan, is the reduction of poverty through an inclusive development strategy that harnesses Balochistan's mineral, locational, and human assets to the maximum extent. An inclusive development strategy, by offering people the hope that tomorrow will be better than today, should help to discourage participation in an insurgency by those who have joined it out of despair for their future. The World Bank's *World Development Report 2011: Conflict, Security, and Development*, emphasized the importance of institutional transformation and job creation programs as important elements in reducing conflict and improving security. The foregoing, together with the simplification of private sector regulations and the removal of infrastructure bottlenecks (in particular, electricity, which it listed as the most important constraint for businesses in fragile and violent areas) were described as the most important lessons of what works in program design to restore confidence and reduce conflict. All these matters are addressed in the present report in the context of Balochistan.

1.7 A successful medium-term strategy must recognize the international and domestic environment in which Balochistan's development will evolve, and it must lay out the general steps that the government will take to address issues that are likely to arise in this environment. The strategy must also take account of Balochistan's specific constraints, particularly those imposed by its geography and demography.

1.8 In framing and implementing a medium-term strategy, two considerations are crucial.

- First, the strategy must be realistic. It should inspire Balochistan to make a committed effort, but should be attainable with the resources, financial and human, that can likely be mobilized. Thus the strategy must be prepared to consider tradeoffs—what part of one goal might have to be delayed or given up in order to attain another, more important, goal. Absent that, a strategy runs the danger of becoming simply a wish list or a fairy tale.
- Second, as other countries and regions that have prepared medium-term strategies have discovered, a strategy for the medium-term cannot be a once-for-all exercise. It must be

² More than 2000 years ago, at the beginning of his *Nicomachean Ethics*, Aristotle observed that “wealth is evidently not the good that we are seeking, for it is merely useful and [sought] for the sake of something else.”

anchored in a sober assessment of present realities and periodically be recalibrated in the light of achievements, of reassessments of the availability of resources, and of changing pressures and expectations generated by the domestic and international environments.

1.3 The structure of the report

1.9 The structure of the report is as follows:

- Part I: This part report provides an overall framework and discussion of the main challenges that the province as a whole and the critical sectors will face in achieving the objectives of the medium-term strategy, and the responses that will be required of them. Part I of the report thus summarizes the overall architecture of the economic strategy. The remaining parts flesh out the details and provide sectoral action plans.
- Part II: Studies on the five sectors on which the Government of Balochistan requested detailed support—water, agriculture, livestock, fisheries, and alternative energy—will be found in this part of the report. Each sector discussion articulates actions for implementation.
- Part III: This part comprises the construction of two provisional GDP series for Balochistan covering the periods 1991–2005 and 2000–2011 (the latter rebased on 1999/2000 prices) and a description of their construction. The series are unofficial, but follow, as far as possible, the methodology of the Federal Bureau of Statistics in constructing the all-Pakistan figures. Moreover, the series cover the GDPs of all the provinces on a consistent methodology, and are the only set available for a period of significant length. It is to be hoped that the present preliminary series will be superseded by a definitive and official set of figures issued by the Federal Bureau of Statistics and the Government of Balochistan but, *faute de mieux*, have been used in the present report for assessing trends in the overall economy of Balochistan and for comparing it with the performance of the other provinces.
- An appendix to the report contains an indicative action plan which was developed during a technical workshop held in September 2012 in Islamabad with the participation of experts from the Balochistan Government and Bank staff and consultants.

Chapter 2 THE ECONOMIC AND SOCIAL BACKGROUND

2.1 This chapter provides a thumbnail review of the economic and social background against which a strategy for attaining the vision must unfold.

2.1 Growth Performance

2.2 A definitive analysis of Balochistan's economy in relation to those of the other provinces is made difficult by the scarcity of reliable information. The biggest weakness is the absence of securely-based provincial GDP accounts. A number of attempts have been made to calculate the GDPs of the different provinces, but some serious methodological and data considerations remain. The main ambiguities arise from the treatment of what would be foreign trade and investment had the accounts referred to countries.³

2.3 In the analysis of gross domestic product for the provinces, this report has consulted a number of sources.⁴ The figures ultimately used are from a series prepared by the World Bank for economic reports on Pakistan's four provinces. The methodology follows that of the Federal Bureau of Statistics as far as is practicable, but at times assumptions had to be made where specific data were not available. The methodology is explained in detail in Part III of this report.

³ In the case of Balochistan, the most consequential weakness concerns the treatment of the production and distribution of natural gas. Balochistan for many years was the biggest producer of natural gas in Pakistan. However, the overwhelming amount of Balochistan's gas is used in other provinces. If one were dealing with national entities, the accounts would show this as exports to other countries for which Balochistan would be recompensed by acquiring financial claims on these countries. Under present circumstances, Balochistan does not receive compensation for the full value of its natural gas exports, but is only paid a small fraction of that by way of a royalty, which has remained fixed for some years and has therefore depreciated in real terms. Moreover, much of the income generated from the production of gas occurs as returns to capital (i.e., profits), and accrues to the owners of the gas producing and distributing enterprises, who are resident outside the province. This creates a large difference between *income produced* in Balochistan and *income accruing* to Balochistan. Most studies substantially overestimate income actually available to Balochistan, because the calculations are based on value-added generated within the province and do not allow for the export of profits. This should be borne in mind during the following discussion.

Another way of considering this matter is the following. The total value-added within the borders of a national entity composes its gross *domestic* product, or GDP. Payments that accrue to factors of production outside the borders of the reporting entity, known as "factor payments abroad," are excluded from the GDP and receipts from abroad added, in order to obtain the gross *national* product, or GNP. In the case of Balochistan, the returns to capital accrue to organizations resident outside the province and substantially outweigh remittances received from people of Balochistan working in other parts of Pakistan. Thus, the provincial "national" product measured from the flow of incomes is less than the provincial "domestic" product.

⁴ (i) Calculations by Hamid and Hussain (1992) based on published information in the *Panel of Economists Report* on the Fourth Five-Year Plan, and on unpublished estimates prepared by the Ministry of Economic Coordination and by the National Finance Commission; (ii) A set of estimates, using consistent methodology, in Bengali and Sadaqat (2006); (iii) A provisional series covering the period 1991–2011 prepared by the World Bank. The methodology used in the World Bank study is similar to that employed in the most recent reports of that organization on the Punjab, the NWFP, and Sindh that were prepared in conjunction with the provincial governments and the Asian Development Bank, and is broadly consistent with the procedures used by the Federal Bureau of Statistics for the construction of the all-Pakistan accounts.

2.4 Of course these estimates cannot substitute for an official set of figures prepared by the Federal Bureau of Statistics. The World Bank's GDP series are drawn upon only as an interim measure while awaiting the Federal Bureau's issuance of provincial GDP accounts. However, it might be mentioned that the Government of the Punjab has extended the series from 2005 to 2009 using the World Bank methodology.⁵

2.5 Subject to the foregoing cautions, the performance of Balochistan's GDP can briefly be summed up as follows. Balochistan's performance is compared first with those of all provinces between 1973 and 2005, since GDP accounts are available for all the provinces for this period. After that, Balochistan's performance is compared with that of all-Pakistan for the two decades, 1991 to 2010.

2.6 Balochistan has the weakest growth performance over the last decades and the lowest per capita income of all the provinces. Between 1972/73 and 2004/05, Balochistan's GDP is estimated to have grown at an average rate of 4.1 percent a year in real terms. This rate was 0.7 percent lower than that of the KP Province and Sindh's, and 1 percent lower than that of the Punjab. (Figure 2.1 A). The annual difference might appear small; however, a difference of 0.7 percent compounded annually over 32 years translates into a difference of 25 percent, while an annual difference of 1 percent leads to a difference of almost 38 percent after 32 years.

2.7 The growth rate of per capita GDP followed a similar pattern. In per capita terms, Balochistan's growth rate averaged 2.1 percent since 1980/81, between 0.1 percent (KP and Sindh) and 0.7 percent (Punjab) lower than the other provinces. (Figure 2.1 B).⁶

2.8 The growth path of Balochistan's GDP has been erratic, with high and low growth episodes following in quick succession. Real annual GDP growth was slightly above the national average from 1972/73 to 1977/78, fell behind the other provinces during the growth spurt from 1977/78 to 1988/89, and increased to more than one percentage point over the national average from 1988/89 to 1995/96. The subsequent growth slowdown affected Balochistan more than other provinces. Partly because of a severe drought, GDP growth lagged by 2.5 percent compared to Pakistan from 1995/96 to 2002/03, and per capita GDP growth even turned negative. Growth accelerated sharply over the last two years, but GDP per capita in 2004/05 did not exceed the level of 1995/96, although for the other provinces it was between 12 to 21 percent higher. As a result of the differing provincial trends, Balochistan's contribution to national value added in 2004/05 fell to less than 3.5 percent, compared with 4.2 percent in the mid-1990s. It remained below the share of the province's population in that of the country.

⁵ Government of the Punjab, *Economic Report 2008*, Lahore, 2009; DFID/Crown Agents, *Private Sector Development in the Punjab*, Lahore, 2010.

⁶Owing to a likely underestimation of the Balochistan population in the 1972 Census, per capita income estimates for the 1970s are unreliable. The provincial GDP figures presented in this note combine estimates from Bengali and Sadaqat (2006) for 1972/3 to 1999/2000 with the World Bank's preliminary calculations for 1999/2000 to 2004/5. Since they are derived on the basis of income *originating* instead of income *accruing*, they are primarily a measure of productive efficiency of provincial resources rather than a measure of provincial living standards. In particular, the income of Balochistan's residents is overestimated to the extent that natural resource profits accrue to residents of other provinces, while it is underestimated to the extent that households in Balochistan receive remittances from other provinces.

Figure 2.1A: Growth of provincial GDP, 1972/73-2004/05 (Rs million at 1980/81 prices)

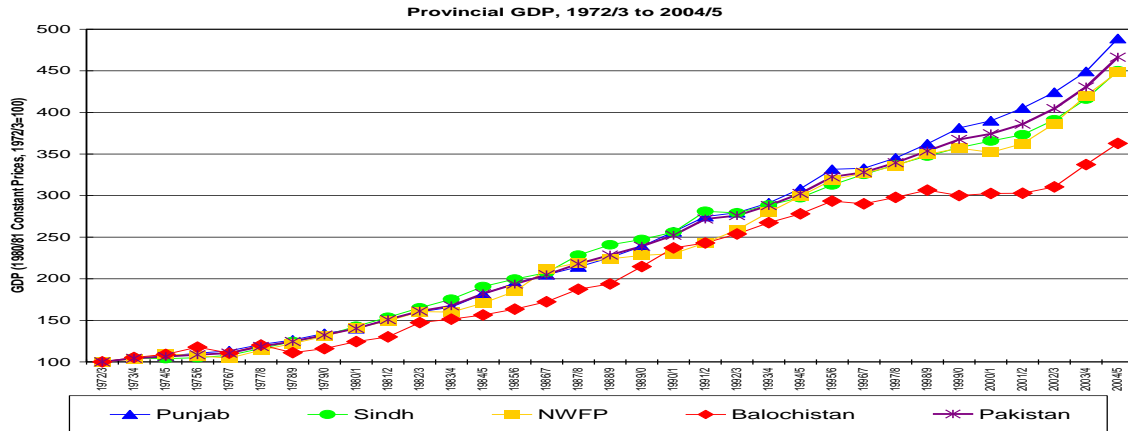
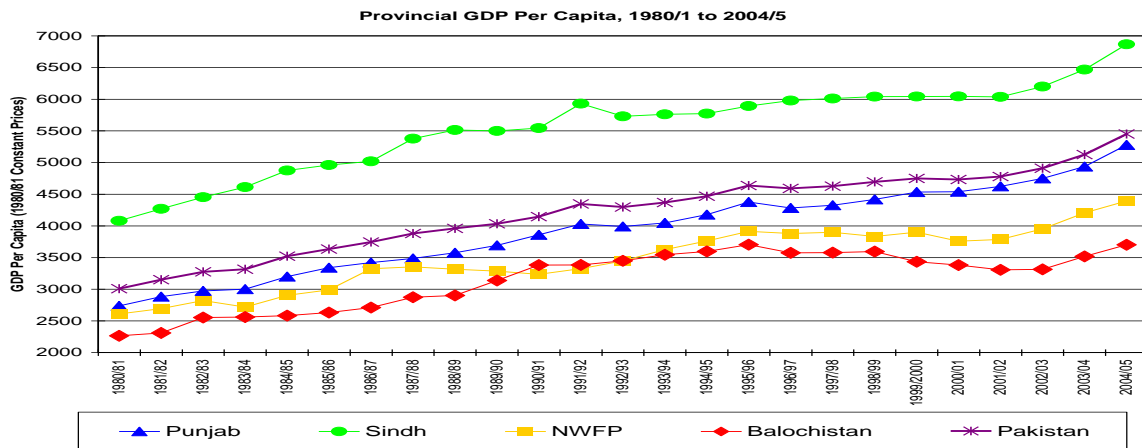


Figure 2.1B: Growth of provincial GDP per capita, 1980/81-2004/05 (Rs at 1980/81 prices)



Source: World Bank

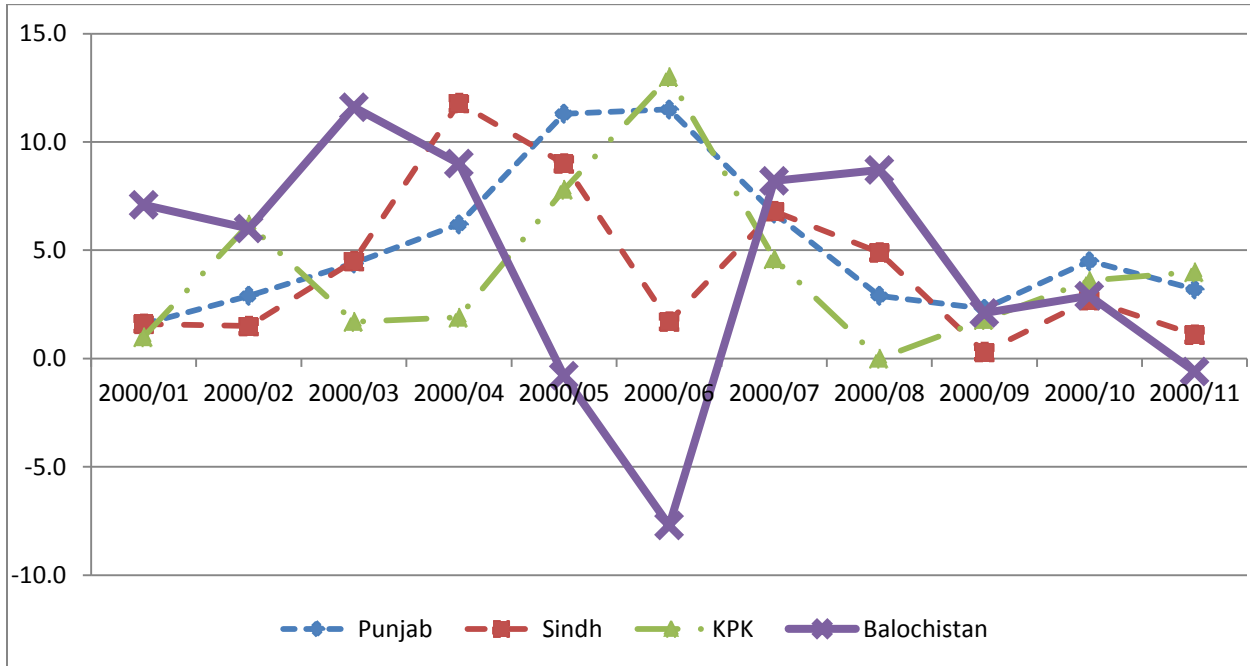
2.9 The growth rate of Balochistan's GDP fluctuated much more than that of the other provinces.⁷ This is brought out clearly in the figure below (Figure 2.1 C), which shows the growth performance of the provinces in the decade 2001–2011. In general, these fluctuations can be expected to have had two effects. First, for the period as a whole, the average per capita income remained below that of the other provinces. Second, the wide swings in the GDP growth rate would have created considerable uncertainty about returns on investment and heightened perceptions of risk, and would thus probably have deterred investors from making large-scale or long-term commitments (the absence of data on provincial investment makes a more detailed or definite analysis impossible).

2.10 The provincial swings are thrown into sharper relief when compared with the GDP growth of Pakistan as a whole; this is brought out in Figure 2.1 D. Broadly speaking, the trend in the GDP growth of Balochistan followed that of Pakistan, but the provincial fluctuations were more pronounced. Over the 11 year period, Balochistan GDP increased by about 50 percent

⁷ As determined by the coefficient of variation, which measures fluctuations in relation to the mean.

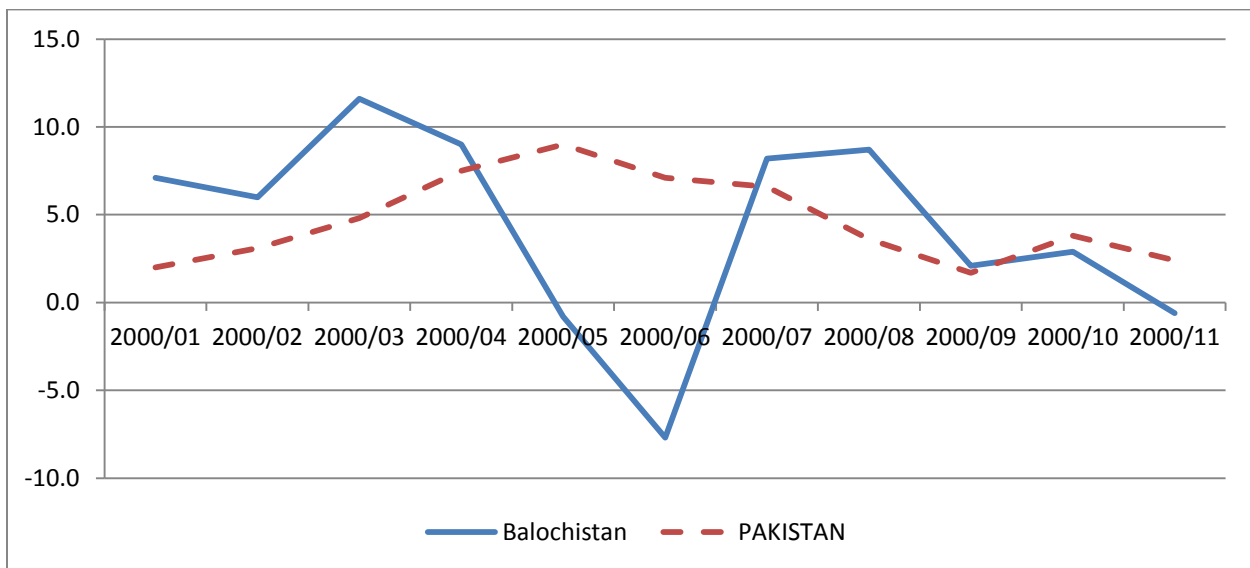
while that of Pakistan as a whole rose by 67 percent (and that of the other three provinces taken together increased by around 72 percent).

Figure 2.1 C: Provincial GDP growth rates, 2001–2011
(Percent at 1999/2000 prices)



Source: World Bank.

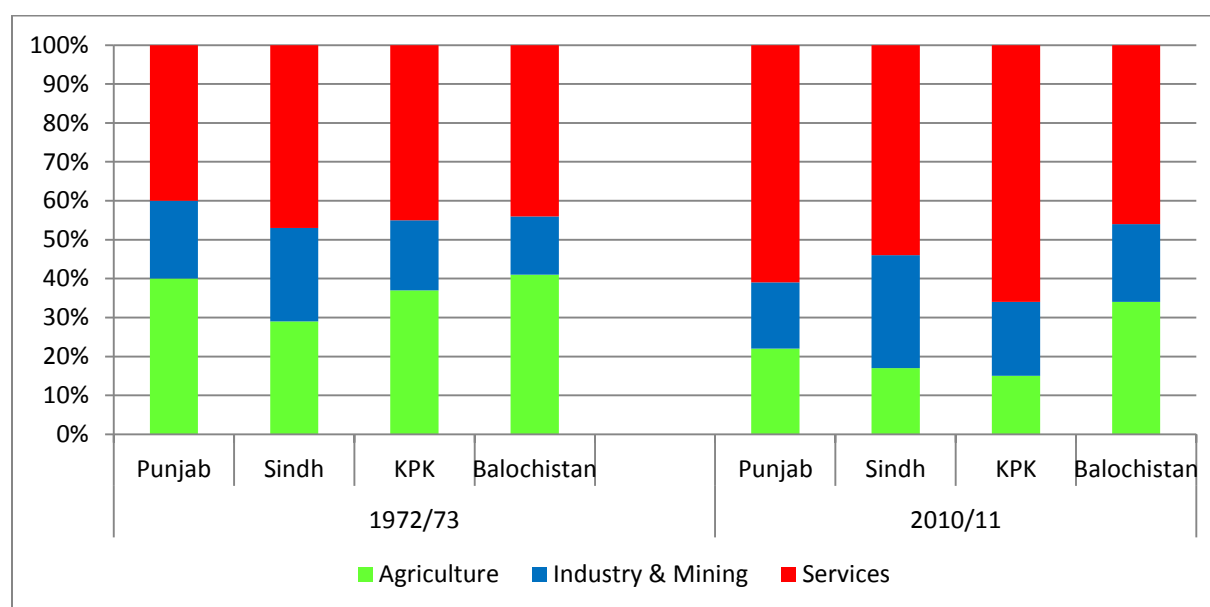
Figure 2.1 D: Pakistan & Balochistan: Growth rates of GDP, 2001–2011
(Percent at 1999/2000 prices)



Source: World Bank.

2.11 A reason for Balochistan's greater vulnerability to fluctuations in its GDP is that its economy remains more dependent on agriculture than that of the other provinces. In 1973, with the exception of Sindh, the economies of the other provinces were dominated by agriculture, which contributed at least 40 percent to the GDP. By 2011, the share of agriculture in the GDP of the Punjab, Sindh, and the KP province had dropped to 20 percent or lower, but still exceeded 30 percent in Balochistan (Figure 2.1 E). Given the importance of crop agriculture and livestock in Balochistan's agricultural sector, it is evident that the fluctuations in water availability would affect output in a major way.

**Figure 2.1 E: Structure of provincial GDPs, 1972/73 and 2010/11
(Percent of provincial GDP)**



Source: Bengali and Sadaqat (2006), World Bank.

2.2 Poverty

2.12 Problems with data are not confined to estimates of the GDP. The measurements of poverty obtained from some of the Household Income and Expenditure Surveys have aroused skepticism.⁸ The poverty headcount numbers raise questions on the level, trend, and urban-rural gap.⁹ The low level of poverty also conflicts with all other corroboratory indicators, such as education, access to clean water, percent of households with no toilet, access to health facilities, and other social indices, which showed Balochistan to have the worst outcomes of all the

⁸ Thus, for example, the 1998/99 round of the Household Integrated Expenditure Survey surprisingly showed a *decrease* in poverty from previous years.

⁹ First, while Balochistan's GDP per capita from 1990/91 to 2001/02 was on average 5 percent below NWFP's, 17 percent below Punjab's, and 40 percent below Sindh's, Balochistan was shown as the province with the lowest share of the population below the poverty line in 1990/91 and 1998/99. Second, in 1991/92 and 1998/99, Balochistan's rural poverty was stated to be 4.4–5.8 percent *lower* than urban poverty, whereas rural poverty was 21 percent *higher* than urban poverty in 1993/4. This finding is surprising, because rural poverty systematically exceeds urban poverty in the other provinces.

provinces. The provincial government in its *Poverty Reduction Strategy Paper* (PRSP) and in its presentation to the Pakistan Development Forum 2003 estimated poverty at between 41.3 percent and 47 percent as the headcount of poverty in 2002/03.

2.13 In view of the problems that arise from assessing poverty exclusively on the basis of what could well be an inadequate sampling procedure of expenditures, it is clear that an appraisal would be more securely founded if other relevant collateral information were also considered. A discussion of some of the alternative, and perhaps more reliable, indicators of the province's relative poverty, follows later in this section.

2.14 The slow growth of the economy of Balochistan and the lack of targeted policies is also shown by disparities in equity within the province, and by the fact that out of 30 districts, only one (Quetta) can be defined as being highly-developed. An investigation by the Social and Policy Development Centre of regional inequality within provinces observes that this type of inequality is higher in Balochistan than in any of the other provinces of Pakistan.

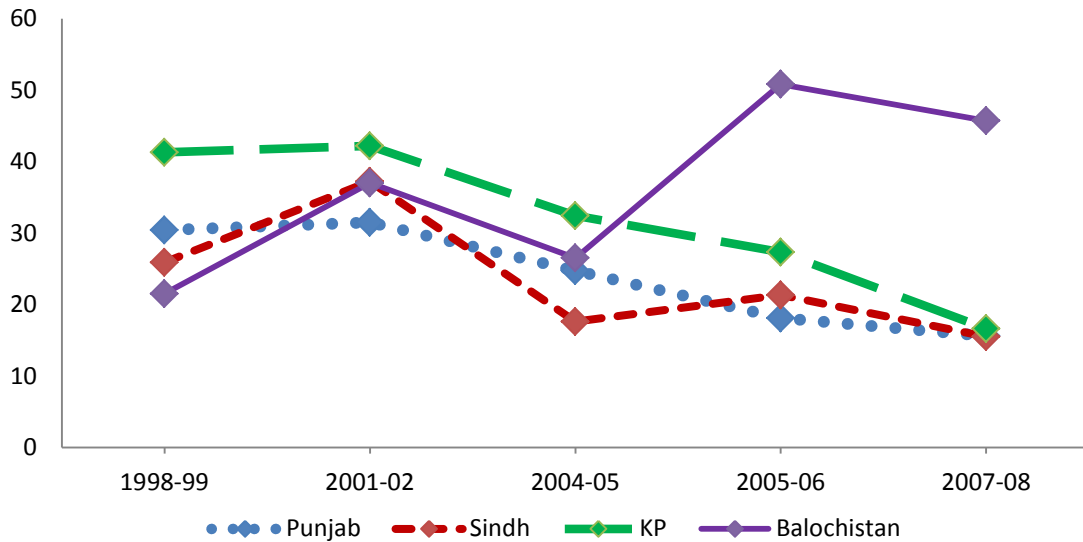
2.15 The foregoing discussion should give some flavor about the uncertainty that surrounds discussions of poverty in Balochistan. We can also draw on some preliminary World Bank work that might help to give matters a little more perspective; however, the reader is cautioned that this is still work in progress. The findings should not be considered definitive; for that, we shall have to wait for a review of the World Bank work by the federal and provincial governments. Until such a review has been performed, we can only use these figures as representing one more attempt to shed light on the subject.

2.16 Figure 2.2.1A (below) shows movements in the poverty headcount rate in the provinces from 1998/99 to 2007/08. This brings out a difference in the pace of poverty reduction in Balochistan on the one hand, and in the Punjab and the KP province on the other. The pace of poverty reduction was stable in the Punjab and KP, but poverty incidence in Sindh and Balochistan has continued to fluctuate, quite substantially in the latter.

2.17 The World Bank study found that the volatility in Sindh and Balochistan appeared to be highly correlated with the growth rate of agricultural GDP, particularly the GDP of main crops. On the other hand, poverty rates in the Punjab and KP did not show any clear linkage with the rise and fall of the growth rates of major crops. Another factor influencing the differing performance of poverty rates between the two groups of provinces was the behavior of workers' remittances.

2.18 According to data in the PSLM 2007/08, the Punjab and KP are two provinces where reliance on foreign and domestic remittances is high when measured as its ratio to household expenditures; it is much less so in Balochistan and Sindh. For instance, in 2007/08, the sum of foreign and domestic remittances on average amounted to more than 20 percent of household expenditure per-adult-equivalent in KP and about 12 percent in the Punjab, compared with around 2.5 percent in Balochistan and less than 1 percent in Sindh. Therefore, the sharp increase in workers' remittances from about \$1 billion in 1996/97 to over \$8 billion in 2008/09 benefited KP and the Punjab much more than Balochistan and Sindh.

**Figure 2.2.1A: Poverty headcount, 1998/99–2007/08
(Percent of population)**



Source: World Bank staff estimates.

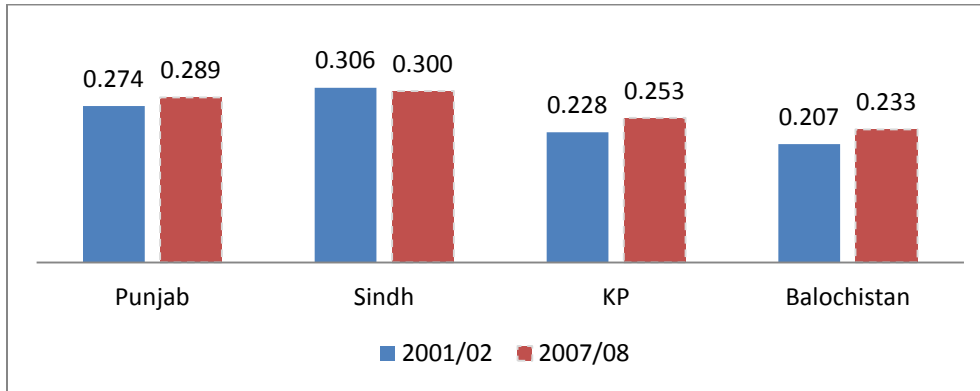
2.19 What has happened to income distribution? Inequality of incomes increased in Balochistan between 2002 and 2008 (but income distribution in the province still remained less unequal than in the others). Figure 2.2.1B displays the Gini coefficients for all the provinces between these dates.¹⁰ It shows that inequality increased in all the provinces (except in Sindh, where it more or less stayed the same), but the degree of inequality remained the lowest in Balochistan. Further disaggregation of the data shows that in Balochistan, as in all the other provinces, inequality remained higher in urban than in rural areas. Indeed, the overall result for Balochistan was influenced chiefly by a steep fall in the inequality of rural incomes (possibly because of a recovery from the earlier drought years), which moderated the effects of an increase in the inequality in urban incomes.

2.20 In view of the uncertainties connected with estimates of Balochistan's poverty rate derived from household expenditure surveys, the following sections supplement them with an examination from other sources of physical and social indicators that bear on the quality of life.

2.21 Balochistan is deficient in several areas that contribute to a better standard of living. The panels in Figure 2.2.2 (below) throw up in sharp relief how much worse off Balochistan is compared to the other provinces in the percentage of households living in *pucca* housing units, in that of housing units with electricity, or housing units using gas, or housing units with a separate kitchen, or housing units with a separate latrine. The province also has the least developed social indicators.

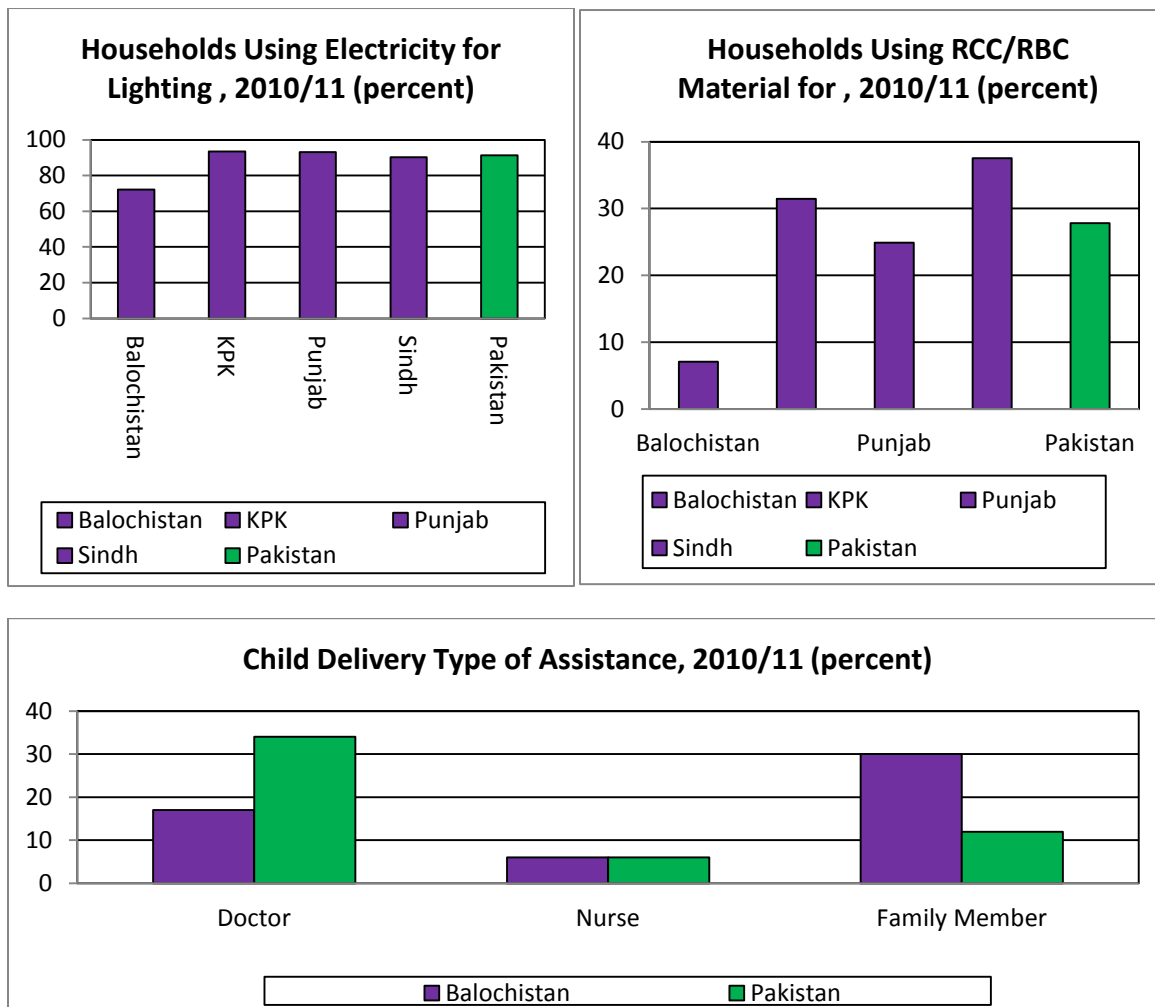
¹⁰ The larger the coefficient, the greater the degree of inequality.

Figure 2.2.1B: Gini coefficients, 2002 and 2008



Source: World Bank staff estimates based on PIHS 2001/02 and 2007/08.

Figure 2.2.2: Interprovincial comparisons of housing, child delivery, 2010/11

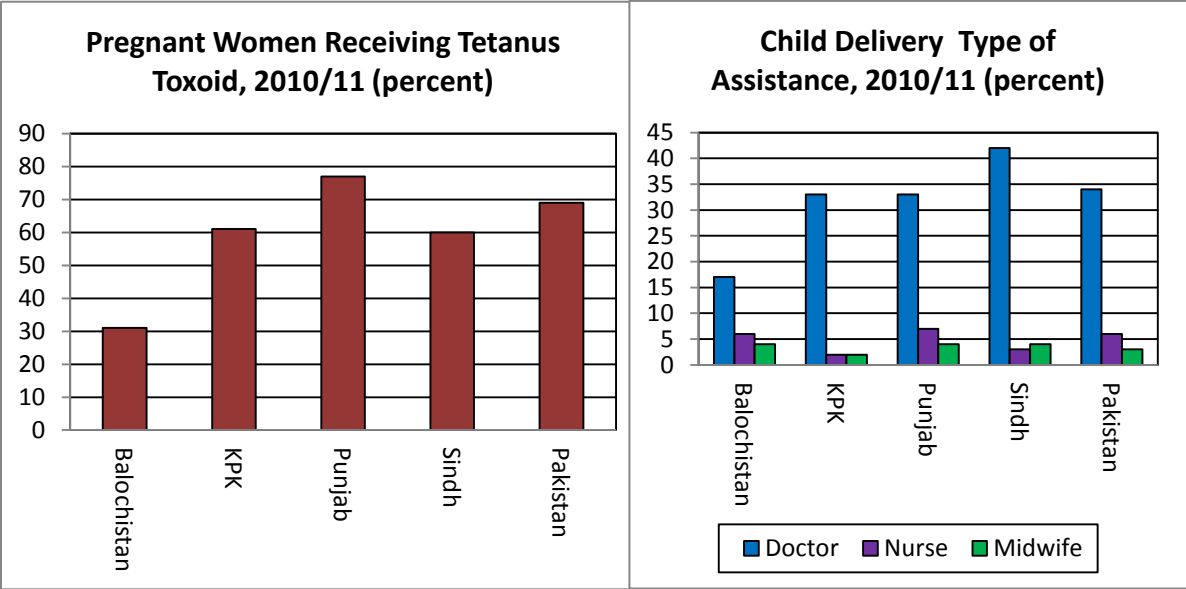


Source: Pakistan Social and Living Standards Measurement, 2010/11.

2.22 The labor force participation rate, especially by women, remains very low. Males comprised 66 percent of the total labor force and females the remaining 34 percent. The rate of participation in the labor force was reported as 6 percent for women (compared with a national average of 14.4 percent), and 68 percent for men (national average 70 percent). Nearly 67 percent of employed persons in Balochistan were illiterate.

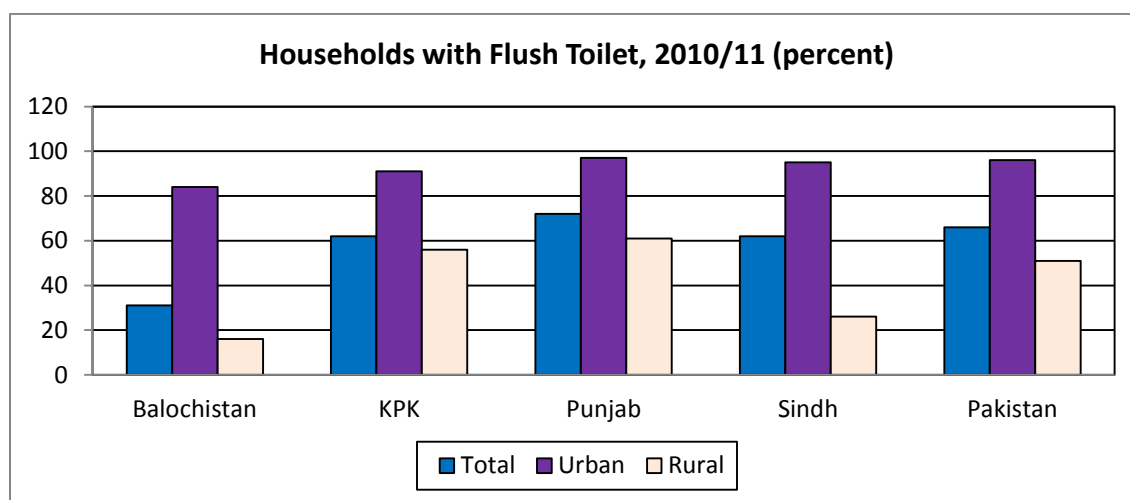
2.23 The indicators for health outcomes and service delivery are no more encouraging. Two in five infants do not receive full immunization, which is the most cost-effective, equitable health intervention available. Two in three women did not receive tetanus toxoid during their last pregnancy, exposing their babies to the risk of infant mortality due to neonatal tetanus. (Figure 2.2.3 A). The infant mortality rate in 2004 was 104 per 1000 live births, compared with an average for the other three provinces of about 80. A skilled attendant is present at only 21 percent of deliveries—one-third the national average. The situation is more acute in rural areas, where only 10 percent of deliveries are by a skilled birth attendant. Poor water and sanitation contribute to unsatisfactory health outcomes. More than one in two households rely on unprotected wells, rivers, canals and streams for drinking water. A large urban-rural difference exists for access to piped water—nearly 90 percent of urban households have access to piped water inside (74 percent) or outside (5 percent) the house, compared with only 21 percent of rural households (15 percent inside and 3 percent outside the house. Two in three families have no flush toilet. (Figure 2.2.3 B).

Figure 2.2.3 A: Provincial Health Indicators, 2010/11 (percent)



Source: Pakistan Social and Living Standards Measurement 2010/11.

Figure 2.2.3 B: Distribution of Households by Type of Toilet, 2010/11 (percent)

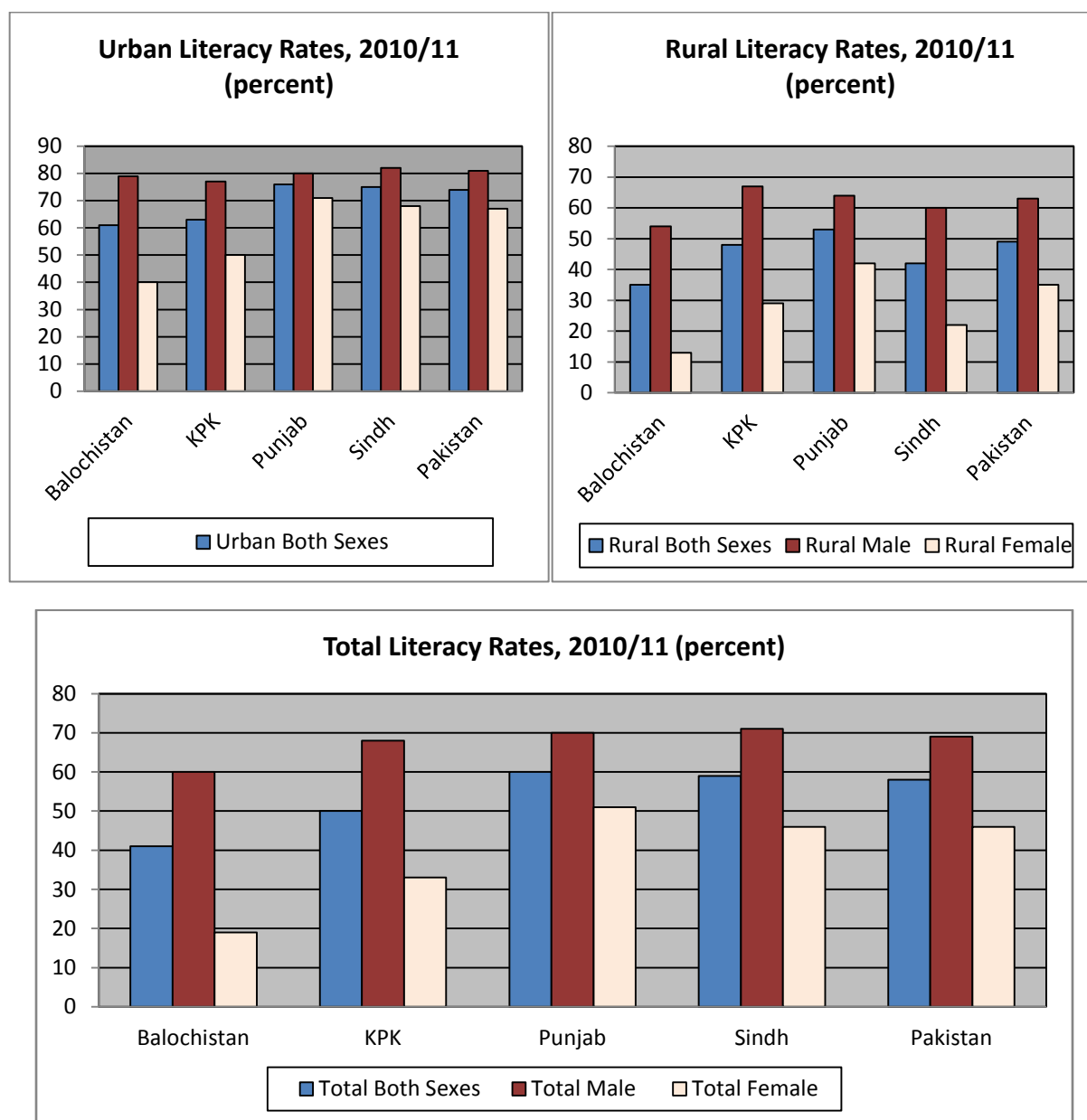


Source: Pakistan Social and Living Standards Measurement 2010/11.

2.24 Outcomes for education and labor force participation are considerably inferior to those of the other provinces. (Figure 2.2.4 A-C). Over two-thirds of persons above 10 years of age are illiterate, pointing to a low-skilled workforce; 54 percent of primary school-age children are not in school. The situation is worse in rural areas and for women. In Balochistan the female literacy rate (age 10 and above) is 19 percent compared with the national average of 46 percent. The gross primary enrolment rate (age 6–10) is 54 percent for girls compared with 92 percent for boys. Three-fourths of women over 10 years of age are illiterate. Sixty-three percent of the population aged 15 and above years has never attended school; for women this figure rises to 85 percent. The shortage of female teachers is reflected in the student: teacher ratios—in primary schools, the average student: teacher ratio is 1:10 in boys' schools and 1:17 in girls' schools. Female teachers comprise a very low 30 percent of the total teaching force. The data disaggregated by district present an even more dismal picture—in Dera Bugti, for example, only 11 percent of the teaching force is female. This has a considerable impact on girls' enrolment, especially in higher grades.

2.25 Education is marked by low access (less than two in five of children aged 5 to 9 are enrolled in primary school); low efficiency (because of late enrolment and repetition, about 45 percent of children in primary school are older than nine years); and high dependency on public schooling (only one in 16 children attending primary school is enrolled in private schools). The public schools are generally in a very poor condition: according to the 2010/11 education census 78 percent of schools had no electricity, 79 percent no latrine, 66 percent no boundary wall, and 28 percent no water.

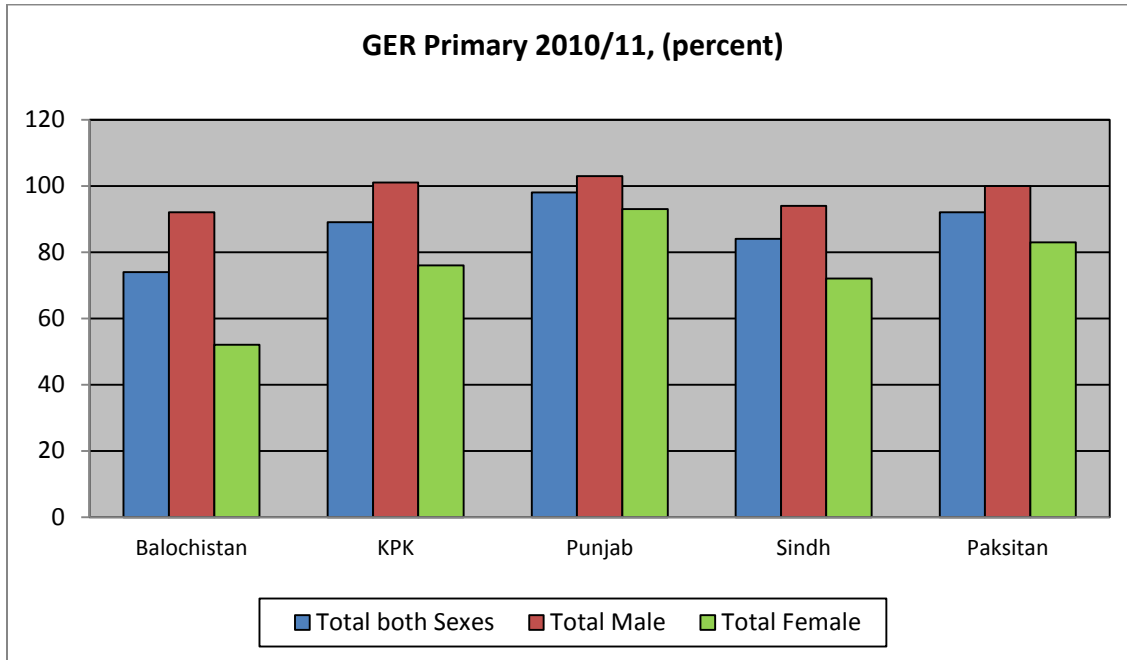
Figure 2.2.4 A: Literacy Rates, 2010/11: Ages 10 years and above (percent)



Source: Pakistan Social and Living Standards Measurement 2010/11.

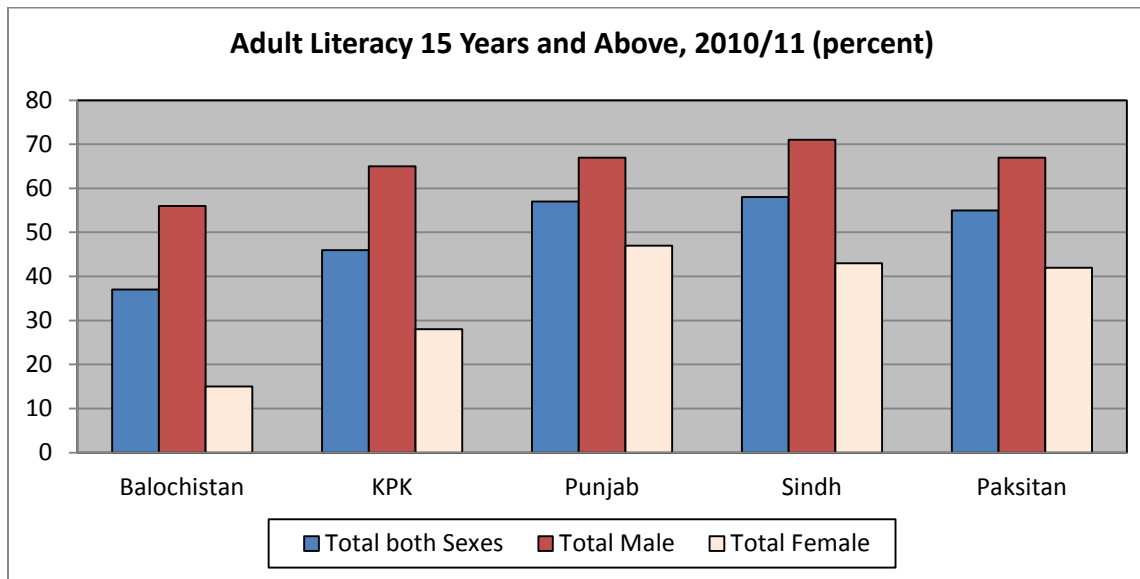
2.26 Balochistan also has the poorest record on gender equality. Balochistan's sex ratio (male to female population), a measure of sex-based discrimination, was 115 according to the population census, compared with 112 in Sindh, 107 in Punjab, and 104 in the KPK province. Education, literacy and immunization indicators, expressed as female attainment as percent of male attainment as shown in Figure 2.2.5 confirm this picture. The only exception is gender gap in immunization, where Punjab ranks lowest followed by Sindh and Balochistan respectively.

Figure 2.2.4 B: Gross Enrolment Rate, 2110/11 Primary Level (percent)



Source: Pakistan Social and Living Standards Measurement 2010-11.

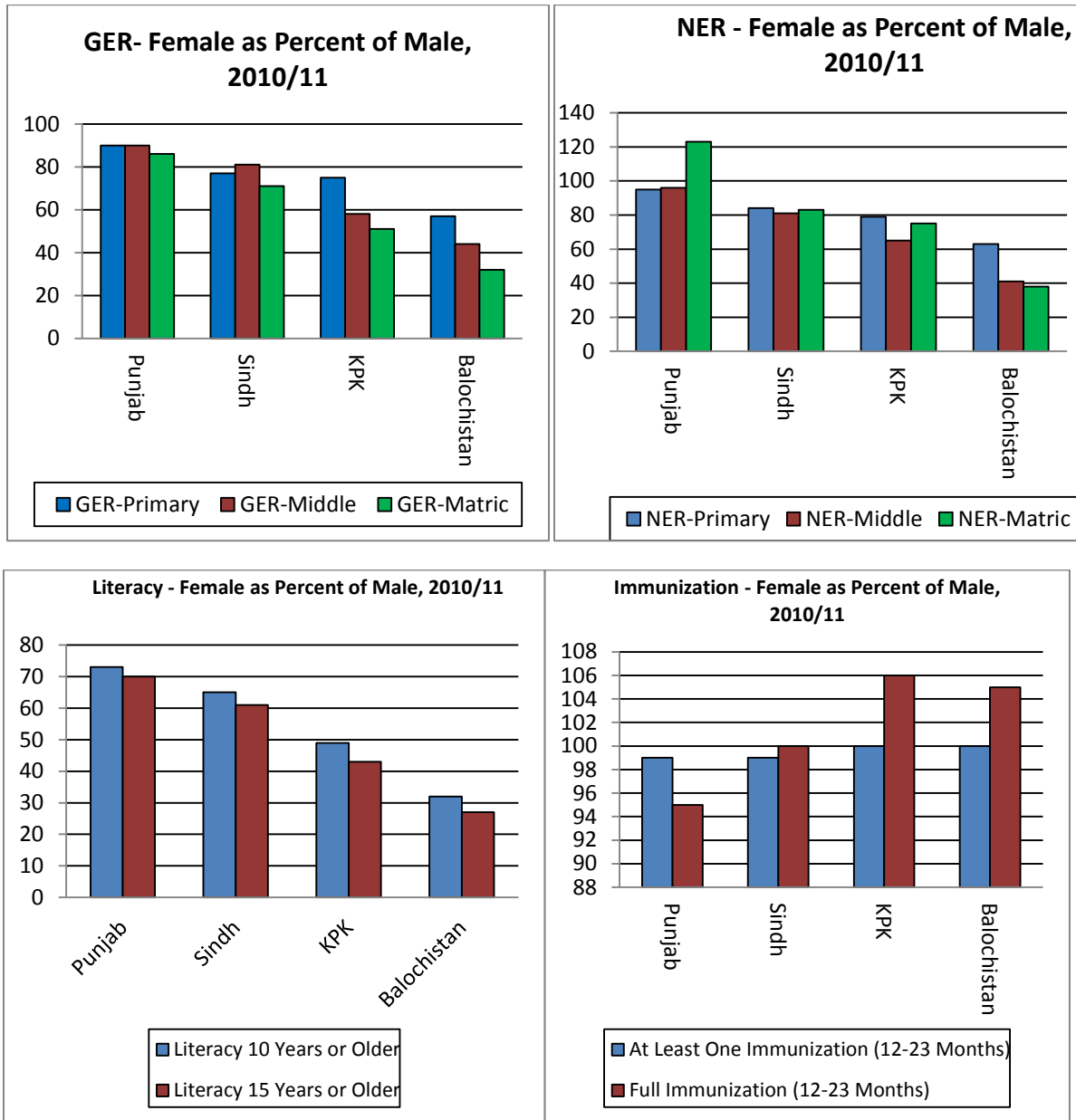
Figure 2.2.4 C: Adult Literacy Rates, 2010/11 Ages 15 years and above (percent) (percent)



Source: Pakistan Social and Living Standards Measurement 2010/11.

2.27 In short, Balochistan stands out as the province with the weakest social indicators—in 2010/11, it scored lowest in 12 out of 13 key indicators for education, literacy, health, water, and sanitation. (Table 2.1). The danger is that the existing shortcomings in education and health will carry male-female disparities into succeeding generations.

**Figure 2.2.5: Gender gaps in education, literacy, and immunization, 2010/11
(Female as percent of male)**



Source: Pakistan Social and Living Standards Measurement 2010-11.

Table 2.1: Provincial Social Indicators, 2011 (percent)

Indicators	Balochistan	KP	Punjab	Sindh	Pakistan
GER Primary	74	89	98	84	92
NER Primary	47	51	61	53	56
Middle GER	35	57	58	48	54
Middle NER	13	17	23	19	20
Matric GER	38	54	61	55	57
Matric NER	6	7	14	11	12
Literacy Rates (10 years and older)	41	50	60	59	58
Adult Literacy Rate (15 years and older)	37	46	57	58	55
At Least One Immunization (12-23 months)	94	98	97	98	97
Full Immunization (12-23 months)	53	77	86	75	81
Tetanus Toxoid (percentage of Married women aged 15-49 years)	31	61	77	60	69
Piped Water	35	45	24	43	32
Toilet with Flush	31	62	72	62	66

Source: Pakistan Social and Living Standards Measurement 2010/11.

Chapter 3 CHALLENGES FOR A MEDIUM-TERM STRATEGY

3.1 Once a vision has been agreed upon and its main parameters spelled out in some fashion, the question arises: what challenges will the province face in attempting to attain the vision and how should it respond to them?

3.1 The Strategic Environment

3.2 The first step towards outlining an agenda for making the vision a reality is to explore the main contours of the environment within which the development of Balochistan will have to take place, and to examine the chief pressures, external and internal, that the province is likely to be subjected to during the next 20 years.

3.3 In what sort of an environment, international and domestic, is Balochistan's development likely to unfold?

3.1.1 International Factors

3.4 The increasing integration of the countries of the world means that the effectiveness of several policies adopted by Balochistan will be contingent on events and circumstances in the world beyond. Globalization is likely to be a major force shaping the world in which Pakistan's and Balochistan's development will have to take place. The increasing integration of trade and factor movements between countries is already leading to much stronger competition for capital and offering greater inducements for skills to move across borders. This will impinge strongly on the economy of Pakistan as a whole.

3.5 Capital resources, both external and domestic, can move relatively easily to most parts of the world and, within Pakistan, can be located in any province that offers the appropriate mix of security and financial return. Balochistan will require large amounts of capital to build infrastructure and productive facilities; it will be competing vigorously with all other provinces and, in so far as it wishes to attract international capital (e.g., for the development of mineral resources), Balochistan will be competing with many other countries.

3.6 Moreover, in view of Balochistan's relative paucity of labor and managerial skills, the province cannot afford a brain drain. Talented people are mobile; they will move to places that offer not only good job opportunities, but also a high quality of life. The competition for human talent is nationwide, indeed, world-wide. If the province does not become more "livable" compared to other provinces in Pakistan, or indeed, to other countries, Balochistan will increasingly run the risk of losing its best and brightest citizens. Thus, economic decisions taken in Balochistan will progressively have to take account of interprovincial and international factors.

3.1.2 Internal Factors

3.7 Nevertheless, globalization will not be the only force impinging upon Balochistan's development in the next 20 years. The vision must also incorporate alterations to the domestic political and social contours of the country. The first of these changes is likely to be a continuation of the movement towards increased decentralization, democratization, and people's participation in society. Thus, the vision must clearly recognize a different and more nuanced role for government.

3.1.3 Decentralization

3.8 In the modern world, successful countries have found that they can respond more quickly and flexibly to the needs of their citizens by decentralizing many government functions and relying more on local bodies. Constitutional changes in Pakistan, such as the 18th Amendment to the Constitution, are also hastening moves in this direction; the results are likely to impact especially on the delivery of key services. A properly designed system of decentralization can increase the efficiency and responsiveness of government because locally elected leaders are more familiar with their constituents' needs than are authorities at the national level, and physical proximity can make it easier for citizens to hold local officials accountable for their acts.

3.9 The increased decentralization and more vigorous civil participation will require changes in the manner in which economic and other policies are conducted. First, it means that there will be more transparency and accountability for government actions and less of an ability on the part of the government to impose its will unilaterally. This may initially cause some discomfort in certain areas of the government, but overall should make government actions more effective because they will be more responsive to people's felt needs.

3.10 Second, the increased political pressure will almost certainly require making the provision of full employment a central tenet of economic policy-making. This will call for a delicate balance. The resources of the Government of Balochistan do not permit the creation of large numbers of "make work" jobs in the public sector; nor would this be an efficient use of scarce resources. Hence, most of the jobs will have to be created in the private sector. However, in dealing with the private sector, an important asymmetry exists. The authorities can prevent the private sector from doing certain things (by, for example, passing a law or denying the sector access to some key input), but they cannot make the private sector do something; they can only provide incentives that they expect the private sector to consider sufficient. A key challenge for the government in realizing its vision will be to create a business environment in which the private sector feels comfortable and secure, and in which it is willing to invest on the scale that would create the required number of productive jobs.

3.11 Third, the experience of other regions and countries shows that wider political participation will increase the demand for improved social services, particularly health and education. Balochistan will not be exempt from such pressures. One cannot, for example, envisage a Balochistan 20 years hence in which the vast majority of the labor force is illiterate. Thus, the vision must incorporate very substantial improvements in the coverage and quality of health care, in access to higher quality education, and in the improvement of technical training to make it more relevant for the needs of Balochistan's economy.

3.12 Fourth, participatory politics is likely to put much more stress on equity in the distribution of incomes, both between persons and between different regions of the province. There will also be pressure to develop more comprehensive social safety nets so that the disadvantaged are, to a significant extent, protected from disaster. The vision must therefore incorporate policies to redress large-scale differences in the distribution of incomes between individuals, and explicit regional policies to stimulate the development of the rural areas of Balochistan. The discussion in subsequent chapters, particularly in education and health, throws into sharp relief the wide disparity in key outcomes between urban and rural areas.

3.1.4 Urbanization

3.13 A critical element in the vision must deal with the issues of urbanization. According to the 1998 Census of population, about 25 percent of Balochistan's inhabitants live in areas classified as "urban." A strategy of rapid development that depends largely on industrialization, the exploitation of minerals, the creation of infrastructure to facilitate transit trade, and the development of the southern seaboard will almost inevitably accelerate the urbanization of the population.

3.14 What challenges does this present for Balochistan?

- The first important challenge is the cost of providing the infrastructure, such as water, sewerage, transportation, housing, health care, and educational services to the rapidly expanding urban population. The present urban areas evolved over a much longer interval, involved fewer numbers, and developed in an environment that did not have to apply strict standards relating to labor, human rights, and the environment. The present situation is very different. Urbanization must take place in a situation in which standards in these areas are specified and, over the next two decades, increasingly likely to be enforced; this substantially raises the costs of urban development. Mobilizing resources to provide these facilities, at an acceptable level of quality, to the increasing urban population thus will be relatively more difficult than was the case in earlier periods.
- The second important challenge provided by urbanization is political. Large concentrations of population make it easier to organize and for groups to voice their demands more assertively. The vision of Balochistan must therefore include a strong base of local government organizations that can respond more quickly and flexibly to rising expectations.
- The third important consideration for Balochistan that stems from urbanization is a more rational use of land. Balochistan at present lacks an effective urbanization strategy, with the result that urban sprawl is making it difficult to provide services and is steadily eating away valuable agricultural land. Moreover, insufficient coordination between industrial location and the creation of housing communities has resulted in the expansion of informal settlements closer to where employment opportunities are present. The inhabitants of these settlements bear all the costs of informality: they cannot use the properties as collateral for loans (they represent "dead capital"), they are ill-served by public services, and they live on the fringes of the law and order network.

Recurrent Themes

3.15 In addition to the strategic challenges discussed above, which Balochistan shares with several other regions, the province faces some major challenges that are specific to it. Three of these challenges—the tension between the province’s geography and demography, the security situation, and the scarcity of water—cut across all sectors. A fourth—uncertain governance—should also be added. Issues connected with the first three of these challenges are discussed in this section. However, “governance” is such a catch-all term that major manifestations of where and how it must be strengthened are best discussed in the specific sectors where they arise most sharply.

3.16 The most effective way to manage these constraints is for the province to concentrate much of its efforts on a triad of areas—economic growth, human resource development, and improved governance. Each of these areas is discussed in this report, and the sectoral reports, while an indicative "results matrix" provides a brief overall summary of the principal actions to be undertaken (see Annex 1).

Geography and Demography

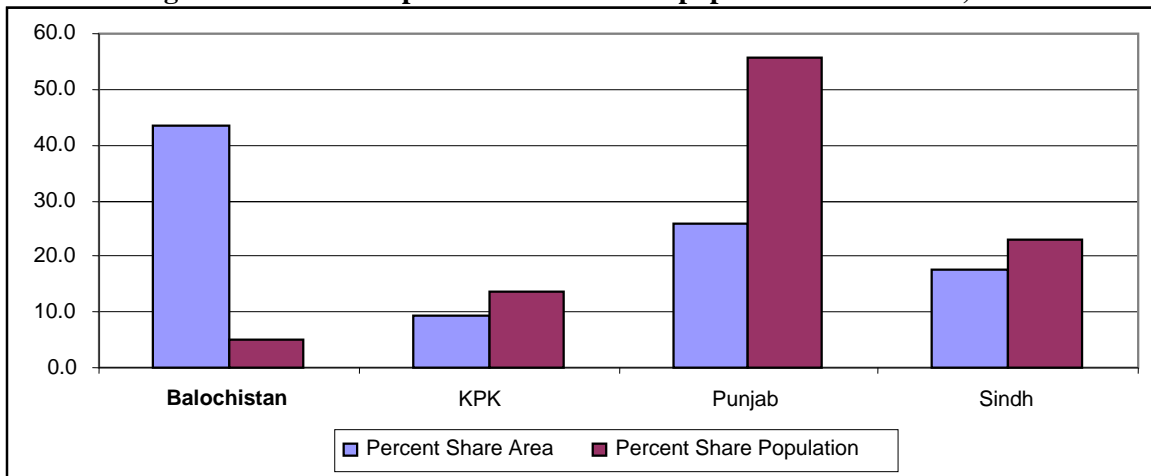
3.17 The underlying development predicament for Balochistan is that while it accounts for nearly 45 percent of the land area of Pakistan, it is home to only 5 percent of the population. This combination results in many of the province’s inhabitants being thinly dispersed over wide areas—in 2010, Balochistan’s population density at 19 persons per square kilometer was only 5, 8, and 9 percent respectively of that of the Punjab, Sindh, and the KPK Province. (See Figure 3.1). Such dispersion creates special difficulties. In particular, it means that the critical mass of skills required for specialization is present in only a few localities; it results in smaller markets, thus losing most economies of scale; and it raises the cost of providing a unit of service, including governance, above that in the rest of Pakistan.¹¹

The Security Situation

3.18 A key challenge is to stabilize the law and order situation. There is no single tool for dealing with the situation in this region, because it arises from an intricate mixture of politics, economics, religion, geography, and history (including a perception of neglect by the central government). Its solution requires a multidimensional approach. A strategy to address the law and order issue must include the creation of economic opportunities, the alleviation of poverty, the greater empowerment of citizens, the promise of education, the expectation of better health for one’s family, in short, it must validate the hope that tomorrow will be better than today.

¹¹ In 2009, Balochistan had 2.1 civil service posts per 100 of the population, compared with 1.1 in the Punjab, 1.2 in the NWFP, and 1.3 in Sindh.

Figure 3.1: Share of provinces in area and population of Pakistan,2010



Source: Pakistan Economic Survey 2011.

3.19 The Government of Balochistan is aware of this requirement. But it nevertheless bears repeating, because the pressure of expectations and the logic of both domestic and international politics dictate that the province must proceed much faster. It has frequently been pointed out that poverty is seldom the cause of civil conflict, but it has the potential to ignite grievance into violence by lowering the opportunity costs of hostility. In other words, "conflict is more attractive when potential recruits have little to lose by engaging in violence. Hence poverty and the absence of economic opportunities bolster rebel recruitment."¹² Indeed, the experience of other countries has shown that rapid economic growth, especially one in which the increasing income is equitably shared, can act as a very powerful solvent of frustrations arising from unemployment and poverty, and can thus be a potent factor in stabilizing the social and political situation.

3.20 The difficulty is that resolving this problem is not entirely within the control of the provincial government. There is an international dimension to the security issue, the responsibility for resolving which lies more with the federal than with the provincial authorities. However, the provincial government could do more to tackle other facets of the problem.

3.21 The institutions to tackle the law and order situation need to be augmented and strengthened. The approximately 80 police stations cover only about 4 percent of Balochistan's territory, while levies of tribal recruits are in charge of securing the other parts of the province. And although Balochistan is possibly the least secure province, just over one in six households would contact the police for a problem of personal safety—the lowest share of any province. The unrest also affects the delivery of key services and is the main reason why at times nearly 80 positions of senior government officials have remained vacant in the province. Officers from other provinces refuse to be transferred there in spite of improved financial and career incentive packages.

Water

¹² World Bank (2008) Volume II: 116–117.

3.22 The key characteristics of Balochistan's economy are a vast area of 347,190 sq km, a rapidly rising population set to increase by 45 percent and to double in urbanization over the next two decades, and a relatively small and highly variable water supply.

3.23 Balochistan is an arid region because of its location and its physiography. The province lies outside the monsoon belt of the Indo-Pakistan subcontinent—therefore it does not have a copious or a regular source of rainfall. Its topography ranges from a few feet to over 9000 feet above mean sea level—therefore the sparse and irregular rainfall that it does get, varies markedly between different parts of the province. Historical data from the 19 weather stations in Balochistan indicates a 50 percent probability of annual rainfall of 8 inches (200 mm) or more in only five locations, and a 75 percent probability of such rainfall in but two. Rainfall in the Rabi season (winter) varies from less than 2 inches (50 mm) to 10 inches (250 mm), with the major part of the province receiving less than 4 inches (100 mm). The Kharif season (summer) rainfall similarly ranges from less than 2 inches to 8 inches, again with the bulk of the province receiving less than 4 inches.

3.24 Since Balochistan is largely an arid region, its development potential depends to a considerable extent on the amount of water available per unit area. By this measure, Balochistan is less well endowed than the other provinces. About 556 m³/ha/year of water are available to Balochistan, compared with a national average of 2453 m³/ha/year, and an average of 3921 m³/ha/year for the other provinces. Thus, spatial water availability in Balochistan is less than one-fourth the national average, and only about 14 percent of the average of the other three provinces. A further difficulty for water management is that the available water is very thinly distributed over the vast area of the province.

3.25 Most of the province lies far from the Indus basin; therefore, the waters from this river are not widely available. River basins within the province are marked by considerable spatial and temporal variability—water availability in certain basins at particular times can be as little as one-half to one-third of average resources. Moreover, Balochistan's water system is highly segmented. At least 13 separate and disconnected river basins can be distinguished, which means that risk-pooling is extremely difficult. Infrastructure is insufficient and has developed in a skewed manner, with the result that 1 percent of the province's area benefits from 14 percent of available water resources, while the other 99 percent faces acute water shortage. Much of the water from floods and runoffs is not harnessed.

3.26 To make matters worse, uneconomic subsidies for electricity to run tubewells have provided incentives for the indiscriminate exploitation of groundwater, thus intensifying water scarcity and making water management even more difficult. This problem is explored in more detail in the section on water in Part II of this report; therefore, only some of the highlights might be noted here.

3.27 The number of electric tubewells installed has consequently increased at an annual rate of over 8 percent between 1970/71 and 2010/11, rising from less than 750 to around 20,000 between the two dates.¹³ This has resulted in excessive use of water, because the private cost of

¹³ At the same time, diesel operated tubewells increased at a rate of over 5.5 percent a year, increasing from about 1600 to close to 15,000.

using the resource has become much less than the social cost. Indeed, more water is being extracted from the aquifer than is being added to it, with the result that the water table is falling. The dwindling supply of groundwater is demonstrated by the increasing depth to which tubewells have to be sunk—depths of 250–300 meters are now commonly reported. Moreover, the water table is dropping quite quickly; in some important districts (for example, Quetta, Mastung, and Mangochar) in the last eight years the level of groundwater has fallen by as much as 3 meters per year. The major part of groundwater has already been exploited. It is estimated that groundwater will contribute only about 2 percent of the total water available for future development.

3.28 The combination of inefficient water use, waste of surface and ground water, and inadequate investment in water infrastructure has resulted in less than 40 percent of available water being utilized. It is not surprising that only about 2.1 million hectares (approximately 6 percent of Balochistan's geographical area) are cultivated,¹⁴ and that at recurrent intervals water shortages have been severe enough to tip the province into a prolonged drought. Analysis of precipitation data from 1878 to 1960 has estimated that mild drought (defined as precipitation deficiency 20-29 percent of average) in Balochistan recurs on average at intervals of seven years, moderate drought (precipitation deficiency 30-39 percent of average) at 10 years, and severe drought (precipitation deficiency 40 and more percent of average) at 14 years. More recent experience indicates that the frequency of drought in the province has actually been higher than that projected using historical data.¹⁵

3.29 Overcoming Balochistan's water predicament requires careful planning, expansion of the necessary infrastructure, and policies that provide incentives for the rational use of water. Balochistan's long-term water strategy requires four pillars.

- a) *Conservation*: The province must conserve groundwater by recharging the aquifer through the construction of a number of storage/delay action dams. It must also aim at reducing losses in irrigation and water use in agriculture by a combination of civil works and policy improvements (such as controlling the subsidy on tubewells), and by taking steps to improve the performance of the system. "More crop per drop" should be the guiding principle for water use in agriculture. It should go without saying that the province must also develop measures to further the efficient use of water for all purposes.
- b) *Management*: Managing Balochistan's water resources requires an integrated process. This requires taking a hydrological basin as the basic unit for planning, and tailoring the planning and policies to the requirements of each basin. These policies should cover all subsectors of water use, such as agriculture, industry, etc., and consider all sources of water, i.e., floodwater, canal water, and groundwater.
- c) *Augmentation*: In the medium to long-term, Balochistan will have to build new canals to make use of perennial and non-perennial flows of Indus Basin water. The province must

¹⁴ About 47 percent of the cultivated over [15,000.]area is irrigated, while the remaining 53 percent is under *Sailaba* and *Khushkaba* farming. The latter farming systems contribute to the livelihood of a sizeable majority of the population.

¹⁵ The most recent drought, which persisted for seven years between 1997 and 2004, was the longest and most severe spell recorded in the history of Balochistan.

make greater use of floodwater, and store and divert water for *Salaiba* agriculture. It is important that the province develop new water resources by recycling and reusing wastewater (such as sewage and agricultural effluents). It must also explore measures for the desalinization of brackish groundwater and of seawater.

- d) *Institutional strengthening*: The institutional setup in the water sector must be strengthened by setting up a Balanced Water Resource Management Authority and basin water boards. These should be responsible for policy, planning and monitoring of integrated water projects, water allocation, and regulation.

3.30 The objectives of water conservation and management cannot be fully achieved unless water is made the business of everybody in the province. The authorities must work with civil society to create an awareness of water as a finite resource, and involve all stakeholders in all the major phases of development. It will also require a political consensus for developing the required infrastructure and for adopting and implementing the necessary policies.

Chapter 4 THE RESPONSE: RAPID ECONOMIC GROWTH AND ITS DRIVERS

4.1 While it is recognized that the vision for a province encompasses many matters, the remit of this report requires it to focus on the economic elements of the vision. The major challenges that could impede the attainment of Balochistan's vision have been discussed in earlier chapters. This chapter argues that attaining the medium-term vision requires as a necessary condition that Balochistan's economy grow as rapidly as possible.

4.1 The Urgency of Growth

4.2 The main goal of a government is to improve the life of its citizens. A starting point for providing a better quality of life to the province's citizens is an increase in their incomes. This is only a starting point, because quality of life depends on many considerations, such as assured personal security, guaranteed equality under the law, a strong cultural identity, and so on.¹⁶ One must of course look beyond economic growth, but one cannot ignore its importance for helping to acquire many of the components, both material and nonmaterial, that contribute to a better life. A crucial step on the road towards attaining Balochistan's vision is therefore a strategy for increasing incomes.

4.3 In a modern economy, the bulk of incomes result from employment. The first priority for the Government of Balochistan, therefore, is to adopt policies that will accelerate the growth of the GDP and create sufficient jobs to absorb the additions to the labor force and progressively decrease the backlog of unemployment.

4.4 How fast must the GDP grow? Data on GDP growth and employment in Balochistan are not as robust as one could wish. However, estimates by the World Bank indicate that over the last decade the elasticity of employment with respect to GDP growth has been about 0.5; in other words, a 1 percent growth in GDP is associated with 0.5 percent increase in employment. The labor force is currently estimated to be growing at about 3.2–3.5 percent a year. Thus, Balochistan's GDP must grow at about 6.5–7.0 percent a year in order to provide jobs for all the new entrants into the province's labor force. In order to eliminate the backlog of unemployment and to significantly reduce the rate of underemployment over the next 20 years, the GDP growth must obviously be higher.

4.5 Because of the uncertainties in the data, particularly of underemployment, it is not possible to specify how much higher the required GDP growth should be. As a first approximation, the province might aim at a growth rate of 7 percent a year, which should significantly reduce unemployment and raise living standards. An average annual growth rate of 7 percent will lead to a level of GDP in 20 years' time that is nearly 4 times the present level. If the population of Balochistan increases on average by 2.0 percent a year during the next two decades, the province's per capita income will grow at 5 percent annually, and at the end of the period will be almost 2¾ times its level in the base year.

¹⁶ GDP growth is not the ultimate goal for development policy, but a crucial means for attaining the goal. The goal, as writers such as the Nobel laureate Amartya Sen have argued, is something wider: it is the creation of “the substantive freedoms—the capabilities—to choose a life that one has reason to value.”

4.6 The indications are that over the last 20 years the province's GDP increased at an average rate of about 4 percent a year. The increment required to meet the government's goals would thus be substantial—the average growth rate for, say, the next two decades would have to be about 75 percent higher than it was during the last two decades. However, given the drivers of growth that are potentially available to the province, this would be an attainable, even if demanding, target.

4.7 Where will this growth come from? The most important drivers of growth, the challenges posed in harnessing the drivers, and the responses to these challenges are discussed in the next three chapters. However, a more general point must first be made.

4.2 Crucial Driver of Growth - Private Sector Development

4.8 Economic growth in Balochistan depends on building, growing and sustaining a healthy and vibrant private sector. Development of the private sector will create jobs and increase incomes and can have important spillover impacts on social indicators such as health, education and security. Yet private sector development (PSD) has not been a key priority of the provincial authorities because of other competing priorities, such as security and water management.

4.9 The key challenges to the growth of the private sector include limited financial services and low penetration of the banking sector, security situation, weak human resource base, lower productivity of labor compared with other provinces, and nonfunctional markets. Yet, Balochistan has a number of promising endowments and pockets of opportunity on which to build. These include dimension stones and minerals, a suitable climate for fruit orchards, the unique craftsmanship of rural women, and possibilities for establishing franchises of private school systems, eateries, medical centers, diagnostic labs, and so on. This section provides an overview of Balochistan's private sector dynamics, issues on the access to finance, and the opportunities and the challenges ahead. It also recommends some priority action steps required to develop the sector and to use it as a conduit for creating jobs and exploiting indigenous resources.

4.2.1 Balochistan's Private Sector—A Background

4.10 It is estimated there are upwards of 150,000 enterprises in Balochistan, most of which are small and informal. Most of the enterprises are service providers that cater to local demand and include confectionaries, restaurants, small traders, auto parts vendors, processed/dry fruit merchants, and transporters. Despite the abundance of natural resources including petroleum and minerals, the industrial activity in the province is limited to the Hub region because of its proximity to Karachi, and rice mills and brick kiln industry in the district of Jaffarabad.

4.11 Balochistan's private sector is underdeveloped because of the underlying problem confronting the province that was described earlier—the population is sparse and widely scattered. Thus a critical mass both of skills and market demand exists in only very few localities, and the province misses out on the benefits of specialization and the division of labor.

4.12 This state of affairs is further affected because:

- the labor force is largely illiterate, therefore many of the skills required by a modern economy are missing;

- poverty in the province is high, thus resources to finance the establishment and expansion of private enterprises are in short supply;
- much of the private economic activity is conducted in very small units and that has failed to create significant links between enterprises and sectors;
- the cost of doing business in the province is high due to inadequate infrastructure and inefficient provincial government interventions for land registration, inspection, tax reimbursement, stamp duty, etc.;
- the penetration of financial services is the lowest of all provinces in the country. This is true for both commercial banks and the microfinance sector;
- the institutions that could facilitate PSD are either weak or non-existent. The academic and research bodies provide no services to the industry and;
- the natural resource sector has not established linkages with the local economy through mining and processing activities. For example, much of the value added in dimension stones sector is done in Karachi because of its better infrastructure and market linkages.

4.13 Underlying all of these challenges is the law and order situation, which deters investment in Balochistan from within the province, from other parts of Pakistan, and from abroad.

4.14 The strategy for dealing with the challenges and exploiting Balochistan's opportunities comprises three elements.

- First, the authorities can facilitate the expansion of the private sector by removing impediments to the growth in the number and size of enterprises by developing better infrastructure, building a skilled labor force, and reducing the cost of doing business in the province. These policies would provide a more level playing field and would benefit all elements in the private sector.
- Second, access to finance is scarce in the region, and provincial authorities should explore sustainable ways to deepen financial outreach of both commercial and microfinance activities.
- Third, the authorities should follow a policy of providing special attention to activities that have been identified as high-potential such as: minerals sector development, fisheries, livestock, ports and the coastline, and alternative sources of energy. These are areas where market failure has occurred—because of inadequate financial structure; insufficient private savings to finance large and "lumpy" investments; institutional and regulatory weaknesses (such as unclear property rights in mineral-producing areas); etc—and therefore the growth of the sector has fallen short of what would be optimal from society's point of view. There is thus a valid case for government intervention to help overcome these deficiencies.

4.15 Underpinning these three strategic approaches is the need to create a more secure and stable environment for businesses. Security and private sector growth are fundamentally linked, and should be tackled in tandem.

4.2.2 Challenges to Private Sector Development

4.16 As a result of the tension between geography and demography, factor and output markets are highly segmented. Predictably, this creates a preponderance of very small enterprises with few linkages to local, regional and global markets. This structure prevents firms from exploiting economies of scale and dampens the multiplier effect of increased business investment or government expenditure¹⁷.

4.17 If the private sector is to be encouraged to take the lead in the development of Balochistan, the authorities must make a sustained effort to reduce the cost of doing business in the province. Analyzing the results of six topics dealing with the ease of doing business in Pakistan, the World Bank report *Doing Business in Pakistan 2010* placed Quetta (a surrogate for Balochistan) in 12th position out of the 13 cities that were studied.

4.18 Most of the weaknesses arose from inefficient institutions and the length and number of procedures that impacted on business activities. Thus, for example, gathering the necessary documents and obtaining clearances to start construction could take up to three months in Quetta, compared with 1½ months in Lahore and Peshawar. Delays and costs connected with property rights were seen to be particularly onerous in Balochistan—registering property in Quetta cost 11 percent of the property value, compared with 7.0 percent in Islamabad and double the South Asia average of 5.5 percent; stamp duty rates on transferring property were also highest in Balochistan—5.0 percent of the property value *versus* 2.0 percent in the Punjab and 3.0 percent in Sindh and the KP province; transferring the property title took 52 days on average in Quetta compared with 30 in Lahore. Moreover, in certain key areas the situation is becoming worse—in Quetta it took an average of 70 days in 2010 to get an electricity connection, compared with 41 days in 2006. Since Quetta compares less favorably on the environment for doing business, it deters investment and pushes entrepreneurial activities to more favorable regions in the country.

4.19 The high costs provide an incentive for businessmen to undervalue their property or even to evade registration altogether. The World Bank's *Cost of Doing Business* database lists 49 economies that have reduced the cost of registering property since 2005. Even more important, evidence from regions where reforms have been introduced and sustained suggests that reducing fees does not necessarily mean reducing revenues. The database lists a number of countries and subregions (such as provinces) that have increased revenues even while lowering fees, because the reduction in fees frequently leads to a sharp increase in registrations. For example, within six months after Egypt replaced its 3.0 percent stamp duty with a low fixed fee, the surge in registrations increased government revenues by 39.0 percent.

4.20 The ranking of the ease of doing business in the major cities of Pakistan is shown in the table below (see Table 4.1).

¹⁷ Because of the paucity of interlinks, complementary goods and services have, in effect, to be "imported" from outside the province, thereby leading to high leakages from the multiplier process.

Table 4.1: Ease of doing business in Pakistan, 2010

City, Province	Ease of doing business (rank)	Starting a business (rank)	Dealing with construction permits (rank)	Registering property (rank)	Paying taxes (rank)	Trading across borders (rank)	Enforcing contracts (rank)
Faisalabad, Punjab	1	2	6	1	3	4	2
Multan, Punjab	2	6	1	7	3	5	4
Lahore, Punjab	3	3	3	4	3	13	8
Islamabad, ICT	4	1	8	3	1	11	10
Sheikhupura, Punjab	5	9	8	5	3	7	6
Gujranwala, Punjab	6	13	2	6	3	10	4
Sukkur, Sindh	7	10	4	10	11	3	1
Peshawar, Khyber Pakhtunkhwa	8	3	6	9	10	8	8
Karachi, Sindh	9	3	10	11	11	1	3
Rawalpindi, Punjab	10	8	5	7	3	12	10
Sialkot, Punjab	11	12	11	1	3	5	10
Quetta, Balochistan	12	6	12	13	2	9	13
Hyderabad, Sindh	13	11	13	11	11	2	7

Source: World Bank, *Doing Business in Pakistan 2010*

4.21 Presently, the demographics of firms in Balochistan are not favorable for growth. The small population spread over a vast land area means that, to a substantial extent, the economic structure of Balochistan is a mosaic of segmented economies and markets. The private sector consists disproportionately of individual and very small enterprises. Almost 97 percent of enterprises located in Balochistan employed 1–4 workers (higher than in any other province), compared with an average of 92 percent for the remaining provinces combined.

4.22 Furthermore, a very large proportion of these enterprises are located in sectors and industries that offer minimal linkages to each other. Balochistan has a higher concentration of enterprises in the retail sector (70 percent of total enterprises) and a lower concentration in manufacturing industry (13 percent), compared with an average of 52 and 20 percent respectively for the other provinces. This distribution leads to a significantly lower level of linkages within the provincial economy, explaining the possibly low multiplier effects and consequently the low growth momentum in the private economy.

4.23 As a result of the segmentation, markets are too small to acquire the characteristics that are conducive to growth for enterprises. The most important of such characteristics are:

- a. *Economies of scale and specialization:* Enterprises and markets need to be able to grow sufficiently before they can benefit from the economies of scale and make specialization viable. Adam Smith had pointed out as long ago as 1776 in *The Wealth of Nations* that the division of labor is limited by the size of the market.
- b. *Pool of specialized labor and quality of employment:* A labor pool with a diversified skill set is largely absent—the literacy level in Balochistan is only 27 percent and the labor force participation rate also only about that level. One also has to bear in mind that the

productivity of labor is low in Balochistan. Workers produce about one-quarter less than the workers in Khyber Pakhtunkhwa and the Punjab, and one-third less than workers in Sindh.

- c. *Cost of service delivery:* The proliferation of small, isolated units makes service delivery (water, utilities, energy) and access to finance too high.
- d. *Market information:* Information (on markets, financial status) is either unavailable or too costly to obtain for small enterprises where the transactions may not be formally documented. In the absence of such information, it is very difficult to design and target interventions for the growth of the private sector. This also creates hurdles for the business development service providers who might be interested in rolling out pilots in new markets. Similarly the lack of information on the existing and potential markets and customer preferences also keeps the small and medium enterprises (SMEs) from product diversification, competition and business expansion.
- e. *Investment climate:* In case the regulatory and business environment does not create the correct incentives, inappropriate policies can also act as a barrier to growth.¹⁸ The Table 4.1 presented earlier on the cost of doing business in the different cities of Pakistan show several areas where weaknesses that would largely fall under the rubric of "governance" impact with particular severity on the investment climate in Balochistan.
- f. *Access to Finance:* The outreach of the formal financial sector in this province remains very low. There is limited exposure of the development financial institutions in the province. Regular commercial banking products are available through a limited number of banks that mostly operate in Quetta and some parts of urban Balochistan. Microfinance penetration is low. The number of active borrowers is approximately 22,000, representing only 1 percent of the active microfinance borrowers in the country (see numbers in Box 4.1).¹⁹
- g. *Women's role in the private sector is very limited:* The importance of women contributing to growth has been well-documented, and can have important effects for household welfare, children's schooling, health and other positive benefits. Their continued exclusion in the economic sphere can be costly for both growth and livelihoods.

¹⁸ See Pakistan Investment Climate Assessment (ICA) 2007 for both objective and subjective constraints to growth

¹⁹ The predominance of very small enterprises gives rise to situations of asymmetric information and is the main reason for the small amount of lending. Banks and financial institutions have access to much less information than the potential borrower and thus cannot accurately forecast risk exposure or financial credibility of small investors, particularly as they do not have fixed collateral. As the costs of obtaining the necessary information can outweigh the potential profit from lending, the credit is not extended in these situations. In many cases, this can restrict the growth of the borrowing enterprise and keep it smaller than would be optimal from society's point of view. The low levels of migration of workers from this province to other parts of the country or abroad means that small enterprises derive little benefit from remittances and Diaspora networks. The lower level of emigration results in remittance income in Balochistan being significantly below Pakistan norms.

Box: 4.1: Overall Picture of Microfinance Industry in Balochistan

Compared with other provinces in Pakistan, penetration of microfinance remains low in Balochistan. Currently, 6 microfinance providers (MFPs) are operating in Balochistan with only 24 branches across the province as of December, 2011. Locations of the branches are limited to certain urban areas such as Quetta, Jafferabad, Nasirabad and Gwadar. This is only 2 percent of total MFP branches in Pakistan.

Typical microfinance products are microloans, microsavings and microinsurances. Currently approximately 22,000 loans are provided in Balochistan. Majority of microloans are provided by two large MFPs; namely Khushhali Bank and BRAC (a development organisation dedicated to alleviating poverty). These loans are mainly used for micro-business and consumption. Microsavings are offered to approximately 87,000 clients with majority of the services provided by National Rural Support Program (NRSP).

Table 4.2: Outreach of Microfinance in Pakistan (As of 2011, December)

Province	The Number of Branch	The Number of Active Borrowers	The Number of Active Savers	Gross Loan Portfolio (Thousand PKRs)
Balochistan	24	22,128	86,627	192,563
Khyber Pakhtunkhwa (KP)	66	77,817	241,178	728,492
Punjab	1,126	1,380,718	2,175,152	19,101,412
Sindh	467	555,463	1,196,282	8,327,518
Gilgit Baltistan (GB)	15	9,270	51,182	238,459
Islamabad Capital Territory (ICT)	7	2,926	14,976	31,708
Pakistan	1,739	2,073,071	3,933,497	28,845,306

(Source: MicroWatch, Pakistan Microfinance Network.)

As a result of low population density and small clusters of populations (and enterprises) along with underdeveloped infrastructure in Balochistan, it is significantly difficult for the MFPs to operate in a commercially viable manner.

4.2.3 The response

4.24 What would be the main elements in a strategy to develop Balochistan's private sector?

4.25 A two-pronged approach is indicated. The first element would be to provide an environment that is conducive to the growth of the private sector as a whole. Some parts of the strategy, such as maintaining a macroeconomic balance in the country's economy, are outside the remit of the province. There is also little need to labor the point that improved security is a sine qua non for rapid private sector development.

4.26 However, even apart from these issues, Balochistan itself can do a good deal to produce an atmosphere in which private enterprise feels secure and able to conduct its business with the lowest possible costs. This obviously involves taking measures to stabilize the security situation, and also requires action on other fronts, such as improving the physical infrastructure, developing institutions that facilitate private sector expansion, expanding opportunities for education and technical training, and so on. Balochistan has a weak and underfinanced private

sector, where local investors do not have the skills and capital to grow and external investors are not willing due to security concerns, which are unlikely to be settled in the short term.

4.27 The second element in this approach would be to try to identify a number of potential growth engines that are in line with the province's comparative advantage. A number of such areas can be recognized; these would include agribusiness, dairy, wool, seafood, marble and minerals, construction, and transport. The materials for such activities are located within the province, and these undertakings offer a variety of links to other undertakings and occupations within the provincial economy. It should be possible to offer special incentives to these activities, drawing on best practice in other countries.

4.28 Broadly speaking, the two-pronged approach would comprise the following.

Providing an Environment Conducive to Growth

4.29 The World Bank's studies on the investment climate in Pakistan and on the cost of doing business in Pakistan show that many of the impediments that restrict investment and growth of enterprises fall under the ambit of what might be called "software" issues, i.e., those arising from institutional weaknesses, unnecessary and confusing regulations, corruption, poorly trained officials, and that do not require a great deal of financial resources to correct. This does not, of course, mean that questions of "hardware" are unimportant; even a cursory glance at the depredations on employment, output, and income caused by the erratic electricity supply would provide an immediate corrective. However, the point is that Balochistan, which ranks near the bottom of virtually all the indicators defining the investment climate and the cost of doing business could make an early beginning to stimulating private sector growth by reducing the software problems.

4.30 In order to create an enabling environment, an effort must be made to integrate the separate regional economies. Growth and integration can be accelerated by improving the road network and possibly through clustering of industries.

4.31 *Setting up industrial estates and encouraging clustering:* Clustering creates an area of linked businesses that can benefit from lower costs of service delivery, economies of scale because of specialization, and access to a common skilled labor pool. Industrial estates are also a mechanism for inducing clustering and reducing the cost of service. In addition to the industrial plants located inside these industrial estates, there are a number of units outside which include power plants, food processing, and other support services, which contribute to the development of local industry.

4.32 Balochistan must take advantage of the central purpose behind industrial estates, which is the creation of a central location that can provide services and facilities directly to enterprises in a streamlined manner. This means ensuring that land pricing is sufficiently competitive to encourage industry to relocate, and that service delivery is efficient and cost-effective. Adequate access must be ensured to essential facilities, such as water, energy, and other utilities. A successful industrial estate is also contingent upon the availability of skilled manpower, raw materials and access to markets.

Improving the skilled labor pool and including women in the labor force

4.33 The second essential is to strengthen the province's human resources. Balochistan seriously lags behind the other provinces in education (particularly of women) and health indicators. Another issue that needs significant debate is the complete lack of female labor force participation in the province. Apart from contributing toward agricultural labor through the livestock sector, women do not participate in the economic activities and are generally more marginalized when it comes to benefitting from education and vocational training. If the province's human resources are not greatly strengthened, then it will suffer on two counts:

- a. the numerical smallness of the population will not be offset by greater quality, and thus will be unable to develop the potential of the province;
- b. the lower productivity of Balochistan workers will mean that, by and large, they will occupy the lower-paid rungs of the employment ladder, and thus will obtain only limited benefits from the development of their province. This would be a most unfortunate outcome from the point of view of the province and of the country as a whole, as it would not reduce poverty as rapidly as desired, and could add to the resentment of the people of Balochistan..

4.34 Considering that most enterprises in Balochistan are oriented towards services, it would be easy for the female labor force to find an entry into these and this is an area where the civil society and microfinance institutions can play a significant role. It might be possible to provide customized training programs to the women in urban and peri-urban areas of the province while creating linkages with markets in Quetta. Some training could be provided to them in the areas of confectionary, culinary skills, packaging, marble mosaic and handicrafts, embroidery and so on.

Increasing access to finance

4.35 A critical restraint to growth for enterprises is access to finance. The main reason that this impacts with particular severity on Balochistan is, as mentioned earlier, the generally smaller size of the enterprises in the province and high transaction cost for the MFPs. To make matters worse, the slow working of the legal system means that the recovery of collateral in the event of a default is a drawn-out and expensive process. All these factors create strong disincentives for the private lender, and thus the loan is frequently not made. This credit constraint can partly be addressed through MF institutions which reduce the cost of acquiring information through access to local knowledge, and eventually can allow enterprises to demonstrate credit-worthiness making them viable to larger and more commercial sources of finance. Development of Islamic microfinance products could also promote the expansion of the microfinance sector in Balochistan.

Strengthening PSD support institutions

4.36 It is unfortunate that business development service providers (BDSPs) are virtually absent from the province. The Small and Medium Enterprise Development Authority (SMEDA)—the apex institution for SMEs—has a representation, but only through a single local office in Quetta. When one considers the important role played by SMEDA's regional office in the province of Khyber Pakhtunkhwa, it becomes evident that the institutional side of PSD needs

strengthening in the province. It could be through extension of services provided by SMEDA, SME Business Support Fund and the certified BDSPs of Business Edge.²⁰ At the same time, it is important to undertake measures in the public sector to strengthen the capacities of the departments that are in a position to facilitate PSD, and introduce reforms conducive to business and investment. These include Finance, Planning, Minerals, and Industries, and such assistance can be extended through targeted technical assistance (TA) from the development sector.

Establishing linkages with international brands

4.37 It might be beneficial to seek linkages with enterprising individuals and innovative firms across the country to introduce the local craftsmanship. See box 4.2 below which narrates the case of 'Polly and Me' – accessories from Chitral.

4.38 The Polly and Me case can perhaps be replicated in Balochistan provided the world finds out more about the local civilization and its uniqueness. Considering, that tourists do not venture into that part of the country, this service has to be done by an institution such as SMEDA.

Box 4.2: Taking Chitral to the world—how local women are contributing

The brand 'Polly & me' has been well established in the international markets. Nine years ago, two sisters from Australia were inspired by the beautiful and colorful embroidery works done by the women in Chitral in the confinement of their homes. The sisters Ange and Cath Braid decided to use these embroidered pieces as the material for chic handbags and as imprints on the home decorations. Settling into Islamabad and traveling back and forth to Chitral, they created 'Polly & me'. There's been no looking back ever since. Years later, 'Polly & me' is well-known internationally, having been featured in international fashion shows, Vogue UK and Grazia Australia. The brand is now stocked in multi-label stores in Pakistan, Australia, Lebanon, India and the U.A.E. and also has an online clientele from all over the world. The talented women of Chitral are now earning regular income while working from home as the two ladies got the markets working for them.

Identify growth engines

4.39 The second element in a strategy for developing the private sector of Balochistan would be to pay special attention to activities in which there is a strong presumption that the province could be competitive. Such a strategy would mean identifying growth engines, providing specific recommendations for sectors that build on Balochistan's strengths, and creating linkages within the economy to encourage regional economic integration.

4.40 This is not to suggest that an across-the-board industrial policy of "picking winners" is recommended as an industrial strategy for Balochistan. This strategy was adopted by a number of fast-growing East Asian countries. Under this approach, the government judged which industries had the potential to grow, and then provided them with all the support they needed, in

²⁰ Business Edge (BE) is a product of the International Finance Corporation (IFC). The IFC provides customized BE training to the BDSPs in delivering training programs to SMEs in various areas such as accounting, marketing, book keeping, and so on. After successful completion of the training, the BDSPs are certified by IFC. The IFC also supports translation of SME training modules in local languages and supports recruitment of women trainers in areas where cultural barriers are strong.

the shape of subsidies, tax breaks, land at concessional prices, access to foreign exchange, flexibility of labor laws for them to hire whatever specialties they required, and so on. The most active practitioner of such policies was Korea.

4.41 In order to be successful, a strategy of picking winners requires a special set of circumstances, and yet can have significant downsides even when these conditions are met. The special set of circumstances is that the country or province should possess a large, well-trained, and well-informed bureaucracy with access to a great deal of information and analysis. The quality of the bureaucracies in the successful East Asian countries—Japan, Korea, Taiwan, Singapore, Malaysia, Hong Kong—is well known. Moreover, the main economic ministries in all these countries were backed by research institutions with substantial numbers of qualified personnel and statistics departments with large databases. Many of these characteristics are, at least at the moment, largely absent in Balochistan.

4.42 Moreover, despite the availability of the foregoing factors, these policies had significant downsides. In Korea, for example, the strategy discriminated against small and medium enterprises, especially in the allocation of credit; it created substantial excess capacity in certain industries, where the policymakers misjudged the required scale of enterprises; and it created an inflation at various times because of a mismatch between what was demanded by consumers and what was supplied by the country's industries, and the shortages resulting from such mismatches. There is much that Balochistan could learn from the experience of the East Asian countries in formulating and implementing economic policies, but the lessons have to be carefully nuanced to fit the circumstances prevailing in the province.²¹

4.43 The approach in Balochistan must be more nuanced. One approach that other countries with similar conditions to Balochistan have adopted is the notion of a Development Corridor. Balochistan has the advantage of a significant port (Gwadar) located in the province that can help to connect the natural resource riches of the province with the outside world. The Development Corridor would allow the development of these resources, while ensuring that all stakeholders are fairly treated in terms of economic benefits and that local livelihoods are improved through direct and indirect employment.

4.3 Starting Small

4.44 Some sectors that could offer a high potential are agribusiness, dairy, wool, livestock, fish and shrimp, marble and minerals, and construction. A main thrust of the PSD should be on the small-scale, low-skill, and low-technology-driven initiatives that could add value to and supplement the existing activities of the local population. The medium term strategy for growth in the private economy is to move up the value chains in sectors such as dimension stones, horticulture and fisheries. More detailed comments are offered in the sectoral analyses in later chapters of this report.

4.45 In sum, the province offers considerable scope for private sector development; however, the implementation of the required measures will take time, not least because of the security situation. The province is also prone to natural calamities such as earthquakes, droughts, and

²¹ See Ikram (2011) on lessons for Pakistan from the East Asian experience.

floods. The uncertainty created due to crisis and lack of security can be a big disincentive to the operation of private firms. Such situations also discourage the local supply of labor since education is disrupted and job-related skills and training are lost. It is here that the development sector can assist the provincial government of Balochistan in designing and implementing public works programs and introducing training and self-employment assistance programs. Although much of the efforts would center on agriculture/livestock/fisheries and construction, the focus of these should shift in the medium term towards higher productivity non-farm jobs in sectors such as minerals exploration and processing.

4.46 Additionally, it is important to acknowledge that creating more and better jobs for a growing labor force requires a reform agenda that cuts across the sectors. For example, ***strong governance*** to reduce corruption in dealings between state and firms; ***facilitating access to land***; ***providing smooth transport linkages*** between town and country; ***ensuring better nutrition*** in early childhood; ***providing quality education*** to equip workers with relevant skills; ***protecting workers (especially women) in both formal and informal sectors*** rather than protecting jobs; and ***addressing power issues*** to ensure reliable electricity supply to firms in urban and rural areas,²² are all vital links in the chain of policies that would lead to a faster growth of employment and incomes for the people of Balochistan.

²² World Bank (2012). More and Better Jobs in South Asia. Overview. South Asia Development Matters.

Chapter 5 DRIVERS OF GROWTH—MATERIAL SECTORS

5.1 Economic growth in Balochistan will be driven by a number of different activities. This and the following two chapters discuss the main drivers of growth. While the discussion takes up each of these factors separately, it must not be forgotten that many of them interact simultaneously with each other and that their combined influence is greater than the sum of the individual parts.

5.1 Agriculture

5.2 Agriculture contributes one-third of the provincial GDP, employs more than 40 percent of the labor force, and provides a livelihood to more than half the population; it therefore forms the backbone of the economy. Within the agricultural sector, agricultural crops contribute about three-fifths of Balochistan's agricultural value-added. Nearly one in two rural households is headed by a crop farmer or agricultural laborer, thus crop production is crucial to raising rural incomes and reducing poverty.

5.3 The crops subsector has seen various ups and downs over the last two decades. The value of production grew sharply between the early 1990s to the mid-1990s, but production volumes declined by about 7 percent a year between 1998/99 and 2002/03 because of the severe drought. However, because of a shift to higher value crops such as vegetables and fruits, the decline in the value of production was not as marked. Water is the binding constraint on the expansion of cultivated land—only about 6 percent of Balochistan's area is under cultivation—and the fluctuations in crop production and the area under crops are generally in line with the availability of water. There has been some increase in productivity per hectare, especially for wheat, but yields for most crops remain lower than in other provinces.

5.1.1 Main Challenges

5.4 Balochistan's agriculture faces a number of challenges, the most important of which can be identified as follows.

Lack of reliable access to water

5.5 According to the *Agricultural Census 2000*, more than 80 percent of farmers in Balochistan do not have access to regular sources of water, such as canals, tubewells, or minor irrigation schemes. They are thus at the mercy of the weather. In years of drought or of low rainfall or low floodwater, it is not surprising that the output from these farms falls drastically. The income of many farmers, therefore, varies directly with the availability of water.

Predominance of small farms

5.6 Most agricultural holdings are small. The *Agricultural Census 2000* for Balochistan reported that nearly 83 percent of farms in the province had an area of less than 10 hectares, while 30 percent of farms had an area of less than 2 hectares. The small size of farms imposes technical and economic limits on the use of machinery, restricts productivity, and makes it very difficult to produce a surplus for the market. This, in turn, keeps the incomes of small farmers

low, and thus makes it difficult for them to adopt more technically up-to-date methods of production. The farms that matter most, i.e. electric tubewell farms, have an area of around 10 ha. The farmers in the canal command area are either too large or too small. The smallest farms are located in Karezes, dugwell, or spring-operated farms.

Limited job creation

5.7 The small size of farms inhibits job creation for non-family workers. Data in the *Agricultural Census 2000* for Balochistan show that only about 4 percent of farm households employed any permanently hired labor, the remaining 96 percent resorted entirely to the use of family labor. Among farms of less than 10 hectares, only 2 percent of households employed permanently hired labor. From the figures of the *Agricultural Census 2000*, it appears that overall, out of some 783,000 farm workers, only about 4 percent were permanently hired workers.

5.8 The foregoing would seem to indicate that the prospects for labor absorption by crop agriculture are quite limited. Consequently, if Balochistan is to rapidly increase employment, it will have to place more emphasis on the development of the other sectors, such as livestock rearing, fisheries, manufacturing, mining, and services. However, value addition in fruits and vegetables would also provide opportunity for more employment.

Lack of quality inputs

5.9 Most of the farms in Balochistan do not have access to quality seeds, and many to the appropriate types of fertilizer. Less than one-half of 1 percent of Pakistan's seed dealers are located in Balochistan, and the small volumes and long distances between markets make it unattractive for the private sector to be very active in the distribution and marketing of seeds. The lack of quality seeds, in turn, contributes to lower yields. The Seed Industry of Pakistan has calculated that barely 15 percent of the amount of improved seed required in Balochistan is available in any year. Apart from the unprofitability entailed by long distances and small volumes, there is a severe shortage of storage capacity for seed; in recent years it has averaged only about one-third of even the vastly insufficient quantities of improved seed that were made available.

5.10 Similarly, shortages of fertilizer have been reported, particularly from remote areas. Again, the distances combined with small volumes make marketing and delivery an expensive and unprofitable operation for the private sector.

Inadequate allocations for development

5.11 Although agriculture, including livestock, accounts for almost one-third of Balochistan's GDP and is the main source of livelihood for nearly three-quarters of the population, its allocations under the Annual Development Plans have not been commensurate with its size—for example, it received only 3.5 percent of the provincial Annual Development Plan in 2004/05. Moreover, the share decreased from 7.6 percent in 2002/03. Even including water, the share of development funding declined from 42 percent in 2002/03 to less than 15 percent in 2004/05.

Inefficient policies for water use

5.12 Balochistan has not helped itself by subsidizing electricity for tubewells use. The predictable result has been a waste of both water and electricity, and gross inequity in the distribution of public-sector support to rural communities. The overpumping of water has seriously lowered the water table in several districts and led to the mining (i.e., more water is taken out than is recharged into the aquifer) of groundwater. In districts with a large population of electric-operated tubewells (for example, Mastung, Pishin, Loralai, Quetta, etc.) tubewells have to be bored to a depth of over 1000 feet before they strike water, and in certain areas boring has to reach 1400–1500 feet.

5.13 Inequity arises because the huge subsidy is provided to only about 2.5 percent of the crop farmers of Balochistan; the vast majority of farmers are excluded. Moreover, the farmers using electricity are generally richer than those using diesel-operated tubewells, or those relying on *Sailaba* or *Khushkaba*.

Inadequate institutional framework

5.14 The institutional framework does not match the requirements of the field. The structure to train the trainers for the crop subsector is minimal, the courses and training modules obsolete, faculty staff inadequate, and methods and curriculum have not adapted it to the changing needs of the farming communities. The situation is even worse in the livestock subsector.

Weak market access and market information systems

5.15 The agricultural marketing system is generally weak. The disposal of the marketable produce is directly dependent upon consumer markets located in other parts of the country. The weak agricultural marketing system limits the access of growers and producers to markets and marketing information. It makes them largely dependent on contractors or middlemen. The inadequate storage facilities, the absence of refrigerated transport for fruits and vegetables, and the lack of processing and packaging facilities further weaken the marketing system.

5.1.2 The response

5.16 The Government of Balochistan can respond to the foregoing challenges by a number of policies that could substantially boost agricultural output. The government prepared a realistic analysis of the situation in the agricultural sector in its 1996 Balochistan Agricultural Research Master Plan and sketched out a number of objectives. The principal objectives of this Master Plan are still relevant:

- improve the social economic status of small farmers;
- increase productivity;
- conserve groundwater levels to ensure sufficient water for future generations;
- minimize degradation of the environment occurring through wind and water erosion, deforestation, salinity and waterlogging; and
- encourage farm mechanization instead of continuing to use traditional field implements.

5.17 With most of the objectives of this Master Plan not achieved, with population continuing to grow, with groundwater levels continuing to fall, and with rural poverty increasing, the need for action has become even more pressing.

5.18 The following measures would help realize the province's goals.

Improve the efficiency of water use

5.19 Since the availability of water constitutes the most severely binding constraint to the expansion of agricultural output in Balochistan, the main priority of the policy response must be the augmentation of water and its more efficient use. Measures for augmenting the supply of water are described in the section on water. The more efficient use of water will require limiting and ultimately removing the electricity subsidy for tubewells, substituting water-efficient crops for water-intensive crops, and using drip or sprinkler irrigation systems, largely in place of electricity-operated tubewells.

5.20 Because of the overall arid conditions in the province and limited water resources, the efficient use of irrigation cannot be over-emphasized. It is estimated that an additional 30 percent of the present irrigated area could be irrigated through water conservation techniques such as trickle irrigation, reduction of water losses during conveyance and field applications, and construction of water storage tanks. The substitution of water-efficient crops for water-intensive crops—such as cotton in place of rice in the canal command area, or squashes/tomatoes instead of onions in the tubewell command area—could also help alleviate the negative impact of the intensive use of irrigation. It is obvious that different cropping patterns would be efficient in the different agro-ecological zones of Balochistan; the table below provides more detailed recommendations (see Table 5.1.1).

Increase productivity

5.21 Since the supply of arable land with access to water is limited, the expansion of crop farming in Balochistan must rely heavily on improvements in productivity. The combination of improved seeds, increased fertilizer use, and better use of water has benefited agriculture in the rest of Pakistan as well as in other countries of South Asia; it is important to extend this package to Balochistan. In order to efficiently develop and deliver these applications, Balochistan could find it effective to establish public-private partnerships between extension agents, research institutions, and farmers. The government must also increase funding for agricultural research for water-efficient higher value crops and improvements in seed certification and quality control.

Make available zone-specific production technologies

5.22 Balochistan occupies nearly 45 percent of the land area of Pakistan, and its topography varies from desert plains to mountains. It is therefore not surprising that soil and climatic conditions show a wide divergence in different parts of the province. Agricultural scientists and planners dealing with Balochistan have established five agro-ecological zones on the basis of altitudes. In order to be most effective, an agricultural strategy must take into account the specific requirements of the different agro-ecological zones.

Table: 5.1.1: Substitution of water-efficient crops in irrigated cropping patterns

Agro-Ecological Zones	Irrigated Cropping Pattern Existing	Irrigated Cropping Pattern (proposed substitution)
I. Cool Temperate Highlands	Wheat (25%)-Fruits (63%; of which Grapes 27%, apples 25%, Other stone fruits 6%)	No major change (emphasize almonds/pomegranate); use high efficiency irrigation techniques.
II. Cool Temperate Mid-Highlands	Wheat-barley (38%)-Fruits (40%; of which apples 19%, Other stone fruits 11%, almonds 5%)-Onions (5%)-Veg (4%)-Fodder (4%)	Emphasize almonds, pomegranate; substitute onion with cabbage, cucumber, tomato
IIIa. Hot Arid Lowland Plains (HALP)	Wheat-barley (32%)-Fruits (40%; of which dates 36%, Other sub-tropical 2%, sub-temperate 2%)-Fodder 8%-Onions (6%)-Cumin (4%)-Veg (4%)-Melon (2%)-Cotton (1%)	Substitute rice with cotton, guar seed; emphasize maize where possible
IV. Hyper Arid Desert	Wheat-barley (32%)-Fruits (40%; of which dates 36%, Other sub-tropical 2%, sub-temperate 2%)-Fodder 8%-Onions (6%)-Cumin (4%)-Veg (4%)-Melon (2%)-Cotton (1%)	Substitute onion with tomato; rice with cotton, guar seed
V. Coastal Subtropical	Wheat (23%)-Cotton (22%)-Fruits (33%; of which tropical 22%, dates 8%)-Fodder (8%)-Onion (4%)	No major change, except substitute onion with cabbage, cucumber, tomato
IIb. HALP Canal Commanded	Wheat-barley (40%)-Rice (38%)-Oilseeds (4%)-Gram (4%)-Cotton (5%)-Sorghum (2%)	Substitute rice with cotton, guar seed; emphasize maize; de-emphasize sugarcane where grown

Source: Shahid Ahmed, Background Paper for World Bank (2008).

5.23 Based on farmers' problems and perceptions from the field, zone-specific technical packages must be developed for the farming community considering the market demand. In order to develop these packages, formal linkages with research institutions need to be initiated and strengthened in conjunction with a wider set of stakeholders, such as farmers, NGOs, researchers, and extension agents. Field demonstrations on new technical packages, innovative crop substitutions, and drought-resistant technologies must be carried out. The important point to note for the research institutions is that farming is a business and the package must be developed considering the current envelope of potential and constraints faced by the farmers and the market demand. For this purpose, they have to conduct research at the farm level in a participatory manner.

Strengthen the institutional framework

5.24 There is a strong need to improve coordination among various public sector institutions. Leister production, rangeland management, fodder production, and water sector interventions are domains that fall under different line departments, and there is little coordination among them for the delivery of services. At present, these departments have their own timeframes, implementation methods, and tools, and can often give conflicting signals to the farming community. Moreover, the accountability of staff and the monitoring of activities are weak, because communities are not involved in decision-making and there is no institutionalized manner of making their voices heard.

5.25 It is important to build the capacity of farmer groups. Key elements for the capacity building of farmers are: (i) promoting such groups, with a focus on enterprising farmers (whether small or medium); (ii) developing farmers or farmers' organizations and private sector partnerships in providing inputs and disposal of the marketable products; and (iii) broadening the skills of farmers in order to help them diversify farming activities.

Invest in human capital

5.26 Examinations of agricultural issues in Balochistan have shown that farmers lack awareness of the existence of modern technologies and of the knowledge of how to apply them. Investing in human capital will therefore be necessary in order to modernize Balochistan's agriculture. This would involve setting up, in different locations, vocational training centers that provide agricultural courses. The instruction should include training for operators of tractor and precision land-leveling equipment, high-efficiency irrigation systems operations and maintenance, the repair of agricultural machinery, seed processing at the farm level, and information technology for rural markets.

Develop agribusinesses

5.27 Priority should be given to small scale interventions that can directly impact rural livelihoods and thus poverty. There is considerable potential in Balochistan for agribusiness development in horticulture, market vegetables, and fruit processing. The primary focus should be on moving up the production value chain; indeed, various measures to this end have been put forward. Thus, installing spinning machines in households so that cotton can be sold as yarn rather than processed, would significantly add value to the local cotton production. As Balochistan cotton is white and does not require bleaching, it would have a cost advantage in the market. Investment in micro irrigation projects would also enable farmers to hedge against droughts and the problems created by the continuously decreasing water table in major agriculture producing areas. The development of a cool chain for the horticulture industry would also increase the capacity to export grapes, apples, and other fruits.

5.28 Low technology solutions to improve the quality of processed wool would be easy to implement in the short term. Providing simple spools to local communities will increase the value of the wool—spun wool sells at a price that is nearly 4 times that for raw wool. Moreover, this is an activity that can be done by women living at home, and requires low technology and skills. However, its impact on reducing poverty could be significant. The strategy for establishing a leather industry and developing the export potential of livestock could be a part of longer-term objectives. More detailed comments on the livestock sector are offered in a separate section.

5.29 Lastly, similar responses were also made in the past. However, because of the vast geographical area of the province, scattered and remotely located farms, these responses could not have a larger impact as the major part of the expenditures were used to strengthen public-sector institutions, facilitate mobility, and pay salaries. Hardly any resources were available for enhancing productivity at the farm level. Another reason was lack of participation of watershed users, water users of command area and Sailaba farmers, and the approach of not conducting research in real-life situations. Therefore, the most feasible strategy is to link agriculture

development projects with the water sector development projects so that effective interventions can be implemented in the watersheds, reservoirs, command area and lower-riparian Sailaba farming systems of water schemes with active participation of watershed users/water users of command area/Sailaba farmers' associations and their federation.

5.30 The purpose of such an integrated approach is to enhance the benefits of agriculture, and to ensure that beneficiaries get the major share rather than public-sector institutions. That the benefits of agriculture are enhanced and beneficiaries get the major share rather than the public-sector institutions. Watersheds will provide forage, fuelwood and arid fruits; reservoirs aquatic food resources including cage fish; command area crops fruits, and vegetables; and Sailaba area crops, melons, and pulses. *In fact an effective entry point has to be identified for integrating agricultural productivity enhancement schemes with the water sector projects.*

5.2 Livestock and rangeland management

5.31 Balochistan is an arid region and does not provide much support to intensive arable agriculture. However, livestock, particularly small ruminants and camels survive well under these harsh conditions and can efficiently convert the sparse vegetation into useful products. Livestock performs several functions in Balochistan's rural economy. Meat and milk are a vital part of the food basket; it provides a cushion to farmers in case of crop failures or adversities; it is a marketable product that can provide cash to meet farmers' needs and social obligations; and in many parts of the province provides the sole source of farm power and transport.

5.32 Livestock occupies a crucial part in the agrarian economy of Balochistan; indeed, in large parts of the province it dominates rural livelihoods. More than two out of three rural households in Balochistan are engaged in livestock production and in the province as a whole, even including the urban areas, one in two households maintain goats or sheep. As a result of this widespread involvement in livestock production, 33 percent of Balochistan's agricultural value added and 8 percent of its GDP in 2010 were contributed by the livestock subsector. The livestock subsector is therefore crucial to Balochistan for providing employment and income, and for reducing poverty.

5.2.1 Main challenges

The deterioration of rangelands

5.33 Over 90 percent of the province is classified as rangelands, which are crucial for the maintenance of livestock. However, over the years, there has been a continued deterioration of rangelands, largely as a result of two factors—frequent drought and the "tragedy of the commons."

5.34 The section on water described that Balochistan lies outside the monsoon area of the Indo-Pakistan subcontinent and that the rainfall it does receive is neither regular nor copious. The province, therefore, is particularly susceptible to drought. Frequent droughts—a particularly long one occurred in 1998–2005—wither much of the vegetation, reduce animal fodder, and can lead to sharp losses of the livestock population.

5.35 The problem of the "tragedy of the commons" is familiar from experience all across the world. The joint ownership of resources means that no single owner has much of an incentive to invest in improvements; rather, he has an incentive to graze as many animals as possible on the common pasture. The result frequently is that more animals are loaded onto a system than it can sustain, with the inevitable result of overgrazing and increasing desertification.

Marketing constraints

5.36 Physical and informational constraints make it difficult or impossible for the livestock producer to get the full value of his product. The physical constraints include distances from the markets and the consequent high transport costs, the absence of nearby processing facilities, and the difficulties in maintaining livestock at the markets until a sale is made. Transporting the animals over long distances results in injuries and loss of weight.

5.37 The lack of information on demand and on sale prices makes it risky for the livestock producer to undertake the often arduous and costly journey to distant markets. As a consequence, it is estimated that around 80 percent of the livestock is sold to intermediaries, who sell them further to contractors, commission agents, or butchers. The intermediaries act as monopsony buyers and can therefore exercise much greater influence over prices compared with the fragmented group of settlers. Furthermore, livestock is largely fed on rangelands and additional feed resources are not provided for fattening; this is another reason for low prices of animals sold for meat.

5.38 Moreover, the frequent occurrences of drought often compel distress sales, in which the livestock producer has to dispose of stock at even lower prices than he normally would receive. Even in normal years, because of political, urban, and social pressures, arbitrary curbs are placed on the prices of livestock products, including meat and milk. This creates further distortions in the market.

Institutional and infrastructure weaknesses

5.39 The livestock sector in Balochistan lacks basic infrastructure, such as refrigeration, transport, feed and other services that would raise the quality of the products and make them suitable for export. The slaughterhouses in the province lack basic facilities and are not, in practice, subject to any government or regulatory oversight. Meat continues to be sold on the basis of quantity rather than quality, so there is little incentive to increase the value of the products. Owing to the lack of adequate regulation and of the lax implementation of such rules as do exist, most of the slaughtering takes place in private premises instead of in the abattoirs. Facilities for processing skins, hides and wool are inadequate, and consequently these activities take place for the most part in other provinces, especially Sindh and the Punjab.

5.40 The institutes conducting research on different aspects of production are not geared to undertake this work. The research agenda of the institutes is not connected with current problems, since there is no feedback from the farmers. In spite of the large population of small ruminants and their economic importance, there is no institute that deals with research in this area. Moreover, the rangelands, which provide a major contribution to livestock production, are seldom part of the research agenda.

5.41 Technologies generated do not reach the stakeholders in good time. Moreover, there is no system for the validating technologies as conditions change. The present extension system tends to concentrate on aspects of animal health only, and has no mechanism for transferring production technologies to the grassroots level. The extension services cover less than 30 percent of the livestock population. The logistic arrangements with government departments are limited. Hospitals and other service providing agencies are located far from production centers. There have been many reports that extension workers stay away from the more remote centers and have only limited mobility to perform extension work.

5.42 Balochistan has lacked a comprehensive plan for the development of such an important sector. Responsibilities for formulating and implementing policies remain fragmented between different government ministries, which accentuate the difficulties of coordination and effective implementation.

Low development allocations

5.43 In spite of its major contribution to employment and income, and its potential for export, the livestock sector during the last two decades received only 3 percent of total budget spending. Moreover, much of this amount is devoted to salaries so that expenditures on crucial activities, such as increasing rangeland productivity, remain almost negligible. The trifling allocations make it impossible to provide either the hardware (such as the necessary infrastructure) or the software (such as adequate coverage by the extension services, or implementation of regulations on hygiene, or measures to improve breeds) that would be necessary to realize the sector's potential.

Inadequate human resource development

5.44 There is no system of imparting adequate hands-on training skills at the grass-roots level. There are no arrangements for post-degree refresher courses or for updating the skills of middle-level workers. Veterinary and range education is largely obtained from other provinces, with no arrangement for refresher courses for in-service staff. The relevance of the existing system of education and training to Balochistan is also questionable, as the livestock production system is different from the Punjab and Sindh. Moreover, in Balochistan the education system largely focuses on animal health rather than production.

5.45 In Balochistan, many activities relating to livestock production are carried out by women and children, who simply use local or traditional knowledge to deal with issues. Under the prevailing conservative social system, it is difficult to reach this component of the population to impart better methods of dealing with livestock problems. Despite a growing awareness of the importance of reaching women farmers, Balochistan's extension services are still heavily skewed towards males.

5.2.2 The response

5.46 *Formulate a strategy for the livestock subsector, located within a comprehensive growth strategy for the agriculture sector:* The strategy should focus on the sustainable use of resources—natural, human, and financial. It must take into account budgetary allocations, which

should be provided according to relative sectoral importance. In order to be effective, the strategy cannot be limited only to financial allocations; measures for improving the coordination of activities between the different departments must also be spelt out. In addition, active participation of pastoralists and livestock farmers in research and development is essential to have a real impact.

5.47 *Improve access and promote market integration:* The costs associated with remoteness bear with particular severity on the livestock sector. The shortcomings of Balochistan's infrastructure—especially roads, markets, and the difficulties with disseminating market information—increase the costs, amplify the risks to the livestock producer, and reduce the prices that he is able to get. These factors also prevent the integration of the producer into a wider market, intra-provincial, interprovincial, and global.

5.48 The most effective way to deal with the challenge of remoteness and to support the development of the livestock sector is to disperse the most important facilities. For example, it has been suggested that agro-livestock centers should be established at Rakni, Quetta, Chamman, Dalbandin, and Lasbela. Of course, expanding the number of such facilities will require additional commitments of financial and human resources. However, the point being made in this report is that the livestock sector is crucial to the economic development and well-being of Balochistan, and must be given the support that is commensurate with its importance. This sector has great potential, and should be able to repay to the province—in terms of employment, income, poverty reduction, and exports—many times more than the investment likely to be required. The key is the shift in the approach and active participation of pastoralists and livestock farmers right from planning to implementation.

5.49 *Improve supply conditions and productivity:* The continuing deterioration in the quality of the rangelands poses the prospect of a long-term crisis for Balochistan's livestock sector. Ultimately, the province will have to develop measures to reduce pressures on grazing systems. This will not be easy, because it will require changes in attitudes by livestock producers. The major challenge lies in convincing locals about the benefits of reducing stocking rates and improving production efficiencies. Experience shows that such convincing is most effectively done through local communities; they are best able to determine herd restrictions and get agreement on grazing bans that can allow pastures to recover. Donors can assist by providing funding to cover costs, to help create local institutions and mechanisms, and to bring to local communities knowledge of the best practices employed in other countries. But the key is the active participation of rural communities and local leadership.

5.50 *Create public-private partnerships:* The private sector is not well developed in Balochistan, and the public sector has limited resources and needs to increase its efficiency. Developing the livestock sector in Balochistan requires the strengthening of physical infrastructure, the implementation of carefully thought-out regulation, improvements in breeding practices, expansion of access to market and price information, and a general emphasis on quality rather than quantity. Neither sector alone could develop Balochistan's livestock sector to perform to its potential. It would be more effective to combine the resources of the private and public sectors so that they could work together in an integrated manner. Such public-private partnerships have been working successfully in other provinces in Pakistan, especially in dairying, providing livestock breeding and health services in major cities, and developing and

disseminating technologies for feed processing and wool production. The poultry and feed industry have also been developed in the other three provinces using this method of partnership. The methods and experience of such public-private partnerships should be studied by Balochistan so that it could use these mechanisms to develop its own livestock sector. The role of public sector institutions has to be revised so that they concentrate on facilitating the involvement of the private sector.

5.51 *Formulate a drought-mitigation strategy:* Since drought appears to be a structural rather than a transient factor affecting Balochistan, it is important to develop a strategy that would help the livestock sector deal with recurring droughts. The following would be the main elements of such a strategy.

- build up feed reserves from seasonal surpluses;
- develop a feed-manufacturing industry based on local agro-industrial products, particularly those that can be generated from the irrigated belt of the province;
- introduce fodder crops that can survive in areas of variable rainfall and those that require less water;
- support supplementary feeding of livestock in winter and in other lean periods arising out of drought or dry spells.

5.52 *Strengthen research and disseminate information more effectively:* The discussion earlier in this section highlighted weaknesses in the province's efforts at conducting relevant research and in disseminating the findings. Indeed, there has been little monitoring of physical and economic conditions on the rangelands, or the conservation of local breeds and what could be done to improve them. Effective policies are based on accurate information. High priority must therefore be given to developing adequate monitoring systems.

5.53 Moreover, policies are most effective when they target specific and clearly defined issues. Thus, even though Balochistan should be aware of best practices in other regions, it cannot in all cases rely simply on applying generic policies that might have been effective elsewhere—it will often have to modify them or work out its own policies to address issues that are *sui generis* to Balochistan. This underlines the importance of developing a vigorous research capacity in Balochistan and of strengthening extension services so as to make available the results of the research where it counts.

5.3 Fisheries

5.54 Balochistan accounts for more than 70 percent of the coastline of Pakistan and about one-third of the country's fishermen, but provides only around 15 percent of Pakistan's value-added in fisheries. During the last 15 years, Balochistan's official marine production has been less than 150,000 metric tons annually, about half that of Sindh (even though some of the catch recorded in Sindh may have been caught off the Balochistan coast by vessels registered in Sindh). The performance of Balochistan's fisheries appears to fall well short of its potential contribution to the economy of the province and the country.

5.55 What is a likely estimate of this potential? On the demand side, there does not appear to be any constraint. Pakistan's annual fish exports during the last two decades have seldom touched

\$200 million, even though the total fisheries imports of developed countries doubled from about \$35 billion in 1990 to \$70 billion in 2010. Thus Pakistan lags considerably behind other developing countries in its neighborhood—fish exports from Thailand in 2010 exceeded \$5 billion, those from Vietnam were about \$4 billion, close to \$2 billion from India, and around \$450 million from Bangladesh.

5.56 For the supply side, the last fish stock assessment was, unfortunately, made as long ago as 1987. This covered only a partial area (only about 50 nautical miles out to sea, compared with the 200 nautical miles of Pakistan's fishing grounds) and excluded aquaculture, such as shrimp farming. On the basis of that limited assessment, it was estimated that Pakistan could add about \$400–\$600 million (in present-day prices) in exports. Adding in the potential of the wider area that has been earmarked for marine fishing and the potential of aquaculture, it has been estimated that the annual export potential of the sector could be in the range of \$1 billion (six times the present level).

5.57 However, while it may be true that there is a substantial potential for the increase in value of production and exports from the fisheries sector, two cautions are necessary. First, there are indications that areas of Balochistan's waters may have been overfished; consequently a firm estimate of this potential is contingent on an updated assessment of the biomass available. Second, one must also consider the challenges that an expansion faces, and the (substantial) amount of investment in physical and human resources that would be required in order to judge the likely timeframe in which a significant expansion could occur.

5.3.1 Main challenges

5.58 The challenges that confront the fisheries sector in Balochistan arise from nature, finance, human resources, and institutional weaknesses. Perhaps the most serious weakness related to thinking about the development of the fisheries sector is the poor state of knowledge concerning it.

5.59 *Uncertainty about the maximum sustainable yield (MSY) of the fishing grounds:* As was mentioned earlier, the most recent assessment was made in 1987 and there has been no scientific study or comprehensive data collection of fish stocks since that time. There have been some case studies of the catch in a number of fishing villages—for example, Ganz, Somiani, and Kalmat Khor by the World Wildlife Foundation (WWF)—that suggest major *decreases* in the fish catch and a continuous degradation to marine fisheries in recent years. Other field investigations have reported mixed opinions by fishermen as to whether there was a decline in the catch. In some villages, the local fishermen reported the catch going down, while in other landing sites they reported no change. Attempts have been made to estimate the potential increase in earnings from fish exports; however, the results are very susceptible to the assumptions employed, and only emphasize that it would be prudent to conduct a rigorous survey before embarking on an unfettered expansion of the fishing fleet.²³

²³ One method of estimating the potential compared the average catch of different types of marine species during the past six years with the maximum sustainable yield of the species estimated by the 1987 survey. It also added in a figure to approximate the potential catch from the Economic Exclusive Zone that had been excluded from the 1987 survey and which, therefore, had underestimated the biomass. The difference between the MSY identified in 1987

5.60 *Insufficient catch*: Owing to a number of reasons discussed later in this section, local fishermen rarely venture beyond 35 nautical miles. Almost all the marine catch is from the area up to this limit, and the area beyond that is effectively used only by foreign trawlers. Even within the area covered by Balochistan's fishermen, an estimated 40 to 50 percent of the total fish catch is used for fish meal or entirely discarded—a very high ratio by international standards.

5.61 *Poor equipment*: Balochistan's fishing fleet consists chiefly of small (three-quarters of the vessels are less than 40 feet in length), wooden, non-mechanized boats that lack navigation equipment and the fish-finding apparatus necessary to locate fish in deep waters. They also lack the refrigeration and other facilities required to preserve the fish once it is caught. In the circumstances, it is neither possible nor profitable for them to venture out too far into the open sea, and most trips last less than three days.

5.62 *Poor quality*: Because of the lack of a proper cold chain, the catch tends to deteriorate quickly. Moreover, most of the fishermen are ignorant of hygienic handling practices, which results in substantial losses of the catch and, of course, rules much of it unfit for exports. The European Union, which usually accounts for about one-quarter of Pakistan's seafood exports, has banned imports of seafood from Pakistan on a number of occasions.

5.63 *Poor harbor infrastructure*: Although there are about 40 fishing settlements and towns along the Balochistan coast, they are served by only two harbors, Pasni and Gwadar. These two account for roughly half of Balochistan's fish catch. The other fishing stations lack landing jetties, refrigeration facilities, fresh water, adequate electricity, or road connections to the coastal highway. In these settlements, the transshipment of fish from larger to smaller boats that can navigate the shallow waters, and its handling prior to sale leaves the fish in an even worse state than in the unhygienic auction halls of Gwadar and Pasni.

5.64 *Weak institutions and human resources*: There has been very little research into the issues connected with the fisheries sector of Balochistan. Different sources provide different estimates of the catch. Nobody has carried out any stock assessment work in Balochistan for more than 25 years; therefore estimates of the current biomass available and thus of the maximum sustainable yield are anybody's guess.

5.65 Fishing officers lack proper training, computing resources, and there are major shortcomings of transport equipment. Basic rules and regulations are said to be only loosely enforced. The budget is limited, and much of it goes to staff salaries. No effective fisheries training is conducted, apart from some *ad hoc* courses.

5.3.2 The response

5.66 The foregoing discussion of the challenges that confront the fisheries sector in Balochistan shows that a many-sided response will be required. Moreover, a number of key issues will have to be addressed simultaneously and not serially; in particular, strengthening

and the actual 6-year average catch was defined as the potential for increase in the catch. The lower limit of the value of the potential increase was then estimated by applying the existing unit prices to the potential increase in volume; the higher end of the range used unit export prices that were 50–75 percent higher, because of assumed quality improvements.

institutions and improving the human resource base are matters that can take significant amounts of time, and therefore actions in these areas should be initiated as soon as possible.

5.67 The main elements of a response to the challenges would comprise the following.

Develop an overall strategy for fisheries and involve the private sector

5.68 The aim of the strategy should be to use public funds to draw in private resources for productive activities. Public funds should aim at developing public goods, such as infrastructure, research, extension services that disseminate best practice, and so on.

5.69 Since the private sector will be the main agent conducting productive activities, it is important to involve it in policy planning. The Government of Balochistan has set up a formal mechanism for the development of the sector—the Fisheries Sector Promotion Committee—in which both the public and the private sector are intended to participate. This committee should be strengthened, provided adequate resources to cofinance feasibility studies, and to fund demonstration projects. It should also be able to advise the government on how to improve coordination between the different government branches that deal with the fisheries sector.

5.70 The overall strategy for the development of fisheries sector would be made more effective if the various bodies involved in its preparation were able to draw on the experience of other countries. A number of countries—some, such as Thailand, in Pakistan's immediate neighborhood, others, such as Chile, further away—have very successfully developed their fisheries sectors, and it would be useful to study the methods that they employed.

5.71 The fisheries policy should aim to harvest the marine resources of Balochistan in a sustainable manner, ensuring that the resources serve not only the present generation but also remain for the benefit of future generations. It should further aim to create a business climate in which government decisions are transparently and expeditiously made, so that the confidence of the private sector is enhanced and it is encouraged to invest more in both the capture and the processing subsectors.

Undertake a new assessment of fish stocks

5.72 The most recent assessment of fish stocks and the estimate of the maximum sustainable yield based on it were conducted in 1987. If a fisheries policy is to be realistic, and particularly if the private sector is to be induced to invest in it, a credible, up-to-date assessment of the available biomass must be undertaken. Such an assessment should also show whether and which marine species are being overfished, and provide a more accurate assessment of the potential of the sector. If the Balochistan authorities are unable to perform this work themselves, technical expertise must be sought from one of the multilateral agencies, such as the FAO (which did the 1987 assessment), or from a recognized organization in one of the developed countries. It should also be possible to approach donors for funding this exercise.

Modernize harbors and auction halls at Pasni and Gwadar, and build new harbors

5.73 Balochistan's coastline of about 750 km is served by only two proper harbors—Pasni and Gwadar. Moreover, while these harbors may have more or less adequate facilities for docking

fishing boats, their halls for fish auctions leave much to be desired as regards hygiene, and handling, grading, and storage facilities for fish. Additional fish harbors will have to be constructed at several other sites along the coast. A number of possible locations have been identified— for example, Ganz, Peshukan, Ormara, Surbandar, Kappar, Char Bandar, etc. The proposed comprehensive strategy for fisheries should prioritize the order in which these harbors are to be constructed.

Establish a program for strengthening the human resources involved in the fisheries sector

5.74 Reviews of the fisheries sector in Balochistan invariably point to human resource inadequacies as a major constraint on the development of the sector. These inadequacies apply to government departments dealing with fisheries as well as to fishermen and others involved in the production chain. The studies point to several areas of technical weakness, the poor diffusion of knowledge, ignorance of even basic hygiene, and the lack of even simple business skills for fishermen regarding maintenance of quality, the control of fish spoilage, etc. These weaknesses result in major losses of the catch, degradation of quality, and very much lower export prices; in other words, they result in substantial losses of income for fishermen.

5.75 It is therefore crucial that a structured training program be set up for officials of the fisheries department so that they can acquire knowledge in the first instance that they are supposed to pass on down the line to the fishermen. The extension services must be strengthened so that the fisheries sector is provided the technical base that is necessary— for example, for engine maintenance, for handling navigation equipment for longer ocean voyages, for using fish-finding equipment, etc.—and that fishermen and fish handlers are taught the basics of hygiene, fish handling, and preservation so that higher incomes can be obtained from even the existing catch. The province should be prepared to approach an overseas body or donor for a system to provide training to address skill shortages in the fisheries sector. It is also important to expand research on issues connected with the fisheries sector in Balochistan; to be effective, the fisheries policy must be knowledge-based and address problems that are specific to Balochistan.

Reduce the licenses given to foreign trawlers

5.76 Fishermen from Balochistan confine their activities largely to an area within about 35 miles from the coast. The area beyond that, up to about 200 miles is classified as an Exclusive Economic Zone and is open to licensed foreign vessels. The license fees are insignificant, but the fishing by foreign trawlers using advanced equipment contributes to the erosion of Balochistan's marine resources. It would help to reduce overfishing and conserve these resources, and also damp down the resentment from local fishermen, if the number of licenses given to foreign trawlers were significantly reduced.

Explore potential for aquaculture, especially farming of shrimps and other organisms

5.77 There is some evidence that shrimp may have been overfished off the Balochistan coast, but an accurate picture of the potential for caught shrimp will only be available once a new stock assessment has been made. In view of the potentially high earnings from shrimp exports, the Government of Balochistan should explore the possibilities of aquaculture. While most of the discussion on aquaculture has focused on the farming of shrimp, there is no need to confine

aquaculture to this item. There are many other organisms that could be farmed in Balochistan, such as various sorts of clams, breams, bass, seaweeds, mussels, etc.

5.78 In shrimp farming, as in most other activities related to Balochistan's fisheries sector, realizing the potential will require significant investment in physical infrastructure, in productive facilities, and in human resource development. The end results may well justify the public and private allocation of the required inputs—even bringing production up to the levels of the other provinces would triple Balochistan's output. However, the first step in comparing the potential benefits with the costs, especially if large-scale investment is to be induced from the private sector, would be to formulate a clear roadmap of the government's intentions in this area that would provide assurance of the coherence and stability of official policies. This means that the government should issue, as soon as possible, a plan or a strategy for the development of aquaculture. The government should also be active in acquiring the required expertise from international institutions, ministries and other organizations in countries that have a flourishing aquaculture sector, and from private consultants who have a demonstrated track record in this area.

5.4 Improved connectivity

5.79 As has been seen, Balochistan's characteristic of remoteness imposes severe economic costs; measures to alleviate this by, for example, expanding and improving the road network will provide a substantial pay off.

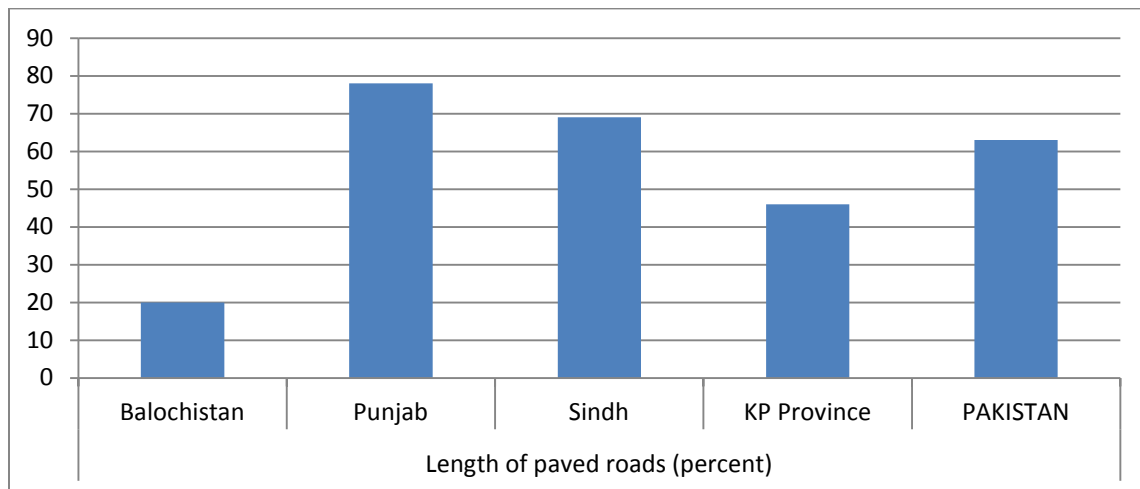
5.4.1 Improving the road network

5.80 The road network in Balochistan represents about one-fifth of the total road network of Pakistan. However, because of the vast size of the province, Balochistan's road density (road length per square kilometer) is only about half the national average. Moreover, only about one-fifth of Balochistan's road network is paved; this is much less than in the other provinces and compares with a national average of about two-thirds. (See Figure 5.4.1).

5.81 Of the provincial road network, only about one-fourth is paved. While roads occupy a dominant share of the provincial Annual Development Program (between 40 and 50 percent), there is so much to be done that even at the present rate of funding it would take another 20 years to pave the 20,000 km of shingle roads that remain. Moreover, the construction of new roads has been at the expense of maintaining the old; various estimates indicate that Rs 25–Rs 30 billion would be needed to remove the maintenance backlog. It would appear efficient to increase the share of the development program going to maintenance—it has been estimated that Re 1 in road maintenance saves Rs 3 in transport costs.

5.82 The improvement of the road network would pay off in matters other than saving transport costs. The analysis of data shows a strong correlation between social outcomes and access. Education—literacy rate and primary school net enrolment rate—is very sensitive to motorable access. Paved access results in some further improvements in education indicators. Health—immunization coverage, infant mortality rate and contraceptive prevalence rate—is greatly affected by motorable access. Immunization and contraceptive provision are almost nonexistent in communities without motorable access (see Table 5.4.1).

Figure 5.4.1: Length of paved roads, 2010 (percent of total road network)



Source: World Bank.

Table 5.4.1: Quality of access and social outcomes, 2005

Indicator (Median Values)	Basic Motorable Access			Paved Access	
	Without	With	% increase	With	% increase
Education					
% Literacy Rate	19	32	68	36	89
Primary School NER	22	44	100	48	118
Health					
Immunization Coverage	0	43	100	43	100
Infant Mortality Rate	67	59	-12	63	-6
Contraceptive Prevalence Rate	0	7	100	10	100

Source: Raja, Background paper for World Bank (2008).

5.83 Balochistan also has the most extensive national highways network, and between representing nearly 40 percent of the total length of the national highways. However, again questions of quality intervene, and the poor condition of the roads means that commercial traffic runs at speeds between 35 and 45 km/h, and that speeds for the average trip are around 25 km/h. The result is long transit times and high transport costs, both of them inimical to the goal of better integration of the province.

5.5 Power

5.5.1 Main Challenges

5.84 The energy situation in Balochistan presents a number of challenges. These include low levels of commercial energy consumption—in absolute terms and/or relative to the national average (Table 5.5.1), and lop-sided patterns of consumption particularly in electricity and natural gas.

5.85 The province accounts for about 2.8 percent of national consumption of petroleum products, 1.5 percent of natural gas, and 5.25 percent for electricity.

Table 5.5.1: Final Energy Consumption by Sector 2010/11 (Excluding Power & Fertilizer Feed Stock)

		Domestic	Commercial	Industry	Agriculture	Transport	Other/Gov't	Total
Balochistan								
Oil	bbtu	50	0	1,093	5	11,628	184	12,961
Gas	mmcf	9,019	649	197	0	827	0	10,693
LPG	tonne	10	5	1	0	0	0	16
Electricity	GWh	464	94	114	3,265	0	111	4,048
Coal	tonne	0	0	0	0	0	0	0
Total		9,544	748	1,406	3,270	12,456	295	27,718
Pakistan								
Oil	bbtu	3,693	0	56,827	1,772	392,711	16,440	471,442
Gas	mmcf	232,325	36,479	335,499	0	113,095	0	717,398
LPG	tonne	259	182	25	0	0	0	465
Electricity	GWh	35,885	5,782	21,207	8,971	1	5,253	77,099
Coal	tonne	0	0	7,558	0	0	0	7,558
Total		272,161	42,443	421,115	10,743	505,8.6	21,693	1,273,962

Source: World Bank

5.5.2 The response

5.86 *Raise electricity usage in Balochistan:* Per capita electricity consumption in Balochistan was 446 kilowatt hours (kWh) in 2010/11, whereas the national average is 426 kWh. The corresponding figures for natural gas are 126 Tons of Oil Equivalent (TOE) in Balochistan, and 146 TOE in the country as a whole.

5.87 However, nearly 80 percent of total electricity consumption in the province is for agriculture tubewells. Similarly, almost 88 percent of total gas used in Balochistan is for power generation. If one excludes electricity consumption in agriculture and gas consumed for power generation, the levels of commercial energy use in Balochistan depict a very different picture (Table 5.5.2).

Table 5.5.2: Per Capita Consumption of Electricity and Gas, 2009–11

Per Capita Electricity Consumption during 2010/11, kwh				
	Overall	Excluding Agriculture	Domestic & Commercial	Industry
Balochistan	446	86	61	13
Country-Wide	426	376	230	117
Ratio	1.05	0.23	0.27	0.11
Per Capita Gas Consumption during 2009/10, TOE				
	Overall	Excluding Power	Domestic & Commercial	
Balochistan	126	28	25	
Country Wide	147	111	35	
Ratio	0.86	0.25	0.72	

Source: World Bank.

5.88 Thus, the per capita consumption of electricity and natural gas in Balochistan is only one-quarter of the national average. Indeed, Balochistan's share of gas consumption (1.5 percent) is well below its share in the total output of natural gas (about 20 percent).

5.89 *Prepare a strategy for developing Balochistan's energy resources:* The province has a relatively high endowment of energy resources, both of conventional fuels (particularly natural gas) and renewable energy, and a comprehensive and realistic strategy for developing them must be formulated.

5.90 Provide conditions to renew exploration for natural gas: Much of the natural gas potential has been exploited—the Sui gas field was the first major gas discovery, and there were subsequent gas discoveries in the province. Overall, Balochistan accounts for about 35 percent of natural gas reserves, and about 20 percent of gas production in the country. However, given that exploration for several years has not been intensive, plans should be implemented to provide conditions (such as security) in which investors could have the incentive to renew exploration for natural gas.

5.91 *Pay more attention to development of alternative energy sources, especially wind and solar:* The renewable energy resource (specifically, wind and solar energy) potential of the province was assessed through a comprehensive exercise financed by USAID in 2007.²⁴ Balochistan's wind resource potential was estimated to be around 20,000 MW;²⁵ the Nokkundi region and hills and ridges in the Chagai area, as well as Makran area hills and ridges were identified as the most promising areas for developing wind power resources. The concentration of wind resources in the north-western parts of Balochistan (Nokkundi, Chagai and Taftan areas) could provide opportunities for large-scale power generation. This possibility merits serious investigation.

5.92 Most, if not all, of the areas that have a high or very high wind potential in Balochistan are not connected, or close, to the national transmission network. The province's own demand for electricity is also scattered over very large geographic areas. While preparing proposals for exploiting wind resources, therefore, the province must address the question of how to transmit that power to the load centers.

5.93 *Solar energy in Balochistan has perhaps even more potential than wind:* A study²⁶ estimated the national and province-wise potential of solar energy—the resource potential of Balochistan ranks the highest in the country. About 40 percent of the land area of Balochistan receives direct solar radiation with an energy potential of more than 6 kWh per square meter per day, while the rest of the province receives direct solar radiation with an energy potential of 4.5 per square meter per day. This translates into a total power generation potential of as much as 1.2 million MW. Again, these gross resource potentials need to be confirmed through ground-level investigations and tests.

5.94 Two further factors emphasize the importance of solar energy.

²⁴ Wind Resource Assessment for Afghanistan and Pakistan, National Renewable Energy Laboratory (NREL), Golden, Colorado, USA.

²⁵ To place this figure in context, Pakistan's total installed generation capacity in 2011 was about 22,000 MW.

²⁶ NREL 2007

- (a) Solar potential has better spatial coverage as compared with wind and therefore there are considerable areas within close grid proximity where grid-connected power generation can be considered.
- (b) Off-grid solar applications, such as stand-alone or mini-grid type models, can play a vital role in providing energy to remote communities of the province, which otherwise would have little chance of getting grid electricity in their lifetimes.

5.6 Minerals and Mining

5.95 Balochistan hosts a wealth of energy and mineral resources. The energy resources, particularly natural gas from Sui and other fields in eastern Balochistan, have been exploited and have been producing gas since the late 1950s. By contrast, the minerals sector in Balochistan is currently small, but its reserves have the potential to become a major contributor to the provincial GDP.

- The only active metal mine of significant scale in Pakistan, the copper-gold mine at Saindak in Chagai district, is located in Balochistan. At least two more known venues with significant potential for large-scale metal mining are also located in Balochistan: Reko Diq in Chagai district and Duddar in Lasbela district. Among other metals, Balochistan has significant reserves of iron ore (estimated at 273 million tonnes), with the largest at Dilband (200 million tonnes).
- Industrial stone mining has been a steady source of revenue in the Balochistan, but still significantly below its potential capacity. Specifically, cement production can develop in a major way in Balochistan and target markets include domestic and export to nearby southwestern Afghanistan. There are estimated 355 million tonnes of reserves of gypsum and very large reserves of limestone.
- Dimension stone (marble, granite, onyx) mining also has an excellent potential with large but unmeasured reserves. However, the industry is currently dominated by small, inefficient operators with more than 70–80 percent of the mineral mined being wasted because of primitive blasting techniques.²⁷

5.6.1 Main challenges

5.96 While the minerals sector in Balochistan offers tremendous potential, its optimal development faces a number of important challenges. The following are the most crucial.

5.97 *The security situation:* Some of the most important of Balochistan's mineral resources, such as copper and gold, lie in remote areas where the security situation can be particularly problematic. The situation can be aggravated if the local residents of the areas around the mines do not feel that they are benefiting adequately from the exploitation of the resources.

5.98 *Dearth of geological data:* Pakistan, and Balochistan, have not invested sufficiently in prospecting for research in collecting a sufficient volume of up-to-date geological data relating to the province's mineral potential (the provincial allocation in the development budget to the

²⁷ While using blasting techniques to mine marbles, granites and gemstones, remains primitive, in the absence of other technologies available to miners, it continues and is not regulated.

mining sector has for the most part in the last three decades been lower than 2.5 percent). The absence of such information can act as a deterrent to private investment in large-scale mineral extraction, because this activity is very capital-intensive, and investors seek a considerable amount of information before committing the scale of funds that would be required.

5.99 *Lack of transport connectivity:* The distance of the mines with the greatest potential from the main export points or population centers requires a strong network of roads and railway lines. The remoteness of the area in which these mines are located means that existing transport links are far from adequate.

5.100 *Absence of required skills and technology:* The minerals sector, in common with most of the sectors in Balochistan, suffers from an acute shortage of skilled personnel. The technology employed also tends to be very crude and inefficient, wasting much of the material; for example, marble and onyx extraction through blasting loses an estimated 80 percent of material, and damages and reduces the value of much of the remaining amount.

5.101 *Weak governance:* A study by the World Bank (2008) shows that Balochistan's mining sector, benchmarked on good governance against best practice in five key areas (community development, social, administration, economy, and environment) fell significantly short in each. The performance in community development and social development was particularly abysmal. This is a matter of considerable concern because, unless the local community feels that it benefits from the development of resources which in some sense they own, and the exploitation of which impacts negatively on their quality of life, it can give rise to resentment, leading to obstructions to the mining activity, and even to a deterioration in the security situation surrounding the mines.

5.6.2 The response

5.102 The complex and deep-seated nature of the challenges makes it clear that the response will have to be multi-faceted and that a completely successful implementation of it will require time. The fundamental issue of the security situation cuts across all sectors, and the urgency of dealing with it should be taken as read in this case as well. The other critical areas of the response would have to be on the following lines.

5.103 *Invest in updating the geological information:* Minerals exploration is a high-risk, high-reward, capital-intensive activity. A private investor requires access to as complete information as possible in order to enable him to judge the balance between risk and reward before deciding whether to commit capital on the scale and for the time period required. Since the development of Balochistan's mineral resources requires attracting private investment on a large scale, it is essential to update the geological data to provide investors to make their calculations with the necessary confidence.

5.104 *Strengthen governance:* Many of the most crucial challenges to developing Balochistan's mineral sector lie under the broad rubric of "governance." A detailed discussion of this matter is beyond the remit of the present report; the point to emphasize is that the Government of Balochistan must ensure competition, transparency, and adherence to international best practice for authorizing new investments in the sector.

5.105 Transparency should be heightened by sharpening the criteria and explanations for the licensing process, thereby reducing the scope for discretionary actions by the government and thus reassuring private investors. It would also help to clearly separate the rules for large-scale mining from those for artisan and small-scale mining. These different scales cater to different types of minerals, and require more precisely-targeted interventions. Large-scale mining would be directed at globally traded commodities, such as copper/gold, coal, iron ore, etc. Small to medium scale mining in Balochistan is directed towards dimension and industrial stone, and (for historical reasons) coal. Balochistan's artisanal mining enterprises focus on dimension stone (such as marble, onyx, and granite), and limestone for cement and construction materials. Some of the challenges faced by these different scales of enterprises are generic—such as government rules and regulations that could be clearer—while others are *sui generis* to the scale of activity concerned.

5.106 Compared to global best practice, Balochistan's mining and minerals sector requires considerable attention to legal, regulatory, and fiscal frameworks. It requires a much clearer and more explicit minerals policy that would create a more welcoming business environment, and provide a tax regime that would strike a fair balance between society's receiving an equitable share of revenues and the private enterprise's obtaining adequate returns on its investment. The governance of the mineral sector is a major factor in determining whether and how fast and efficiently the sector will develop. In view of the potential of this sector to act as a major engine of growth, it would be worth the Government of Balochistan's while to obtain the best possible expertise in this area.

5.107 *Ensure that the community in which the minerals are located benefits significantly from mining activities:* The mining of minerals is frequently carried out in enclaves, not integrated into the economy or the community at large, in which a relatively small number of persons obtain substantial benefits while the rest of the community perceives itself as the victim of the negative environmental and social impact of the activity. This has aroused antagonism against the mine's operators and led to actions that have impeded or even closed down the mine's operations. Since Balochistan's record of social governance in the mining sector fares poorly against international best practice, it is particularly important to ensure that the benefits of mineral extraction are more widely shared.

5.108 One way of achieving this is to adopt a "corridor" approach. The core argument of a resource corridor approach in Balochistan is that the province needs to articulate through policy and actions the expected contributions of a single or group of mines towards broader economic growth and diversification. A resource corridor approach, therefore, is an effort to transform and leverage a large but enclave extractive industry investment, and its need for infrastructure and goods and services, into a viable and diversified economic space. A resource corridor approach is based on inclusive growth, with a focus on giving voice to the poorest, the most disadvantaged, and the most vulnerable in the impacted communities. These sections of society typically do not share in the income or employment benefits that extractive industries bring, but who shoulder a great many of the social, environmental, and cultural costs that such activities can bring.

5.109 The successful implementation of resource corridor development will require actions, *inter alia*, (a) to remove information barriers that prevent inclusive planning, it being understood that community structures and dynamics create a significant local political economy; (b) to

strengthen capacity for social mobilization, to better articulate local needs and objectives; and (c) to provide education and skills training to increase employment and to enhance opportunities for enterprise development.

Chapter 6 DRIVERS OF GROWTH - SOCIAL SECTORS

6.1 This chapter discusses the issues in health and education and the quality of the service delivered. These sectors play a dual role in attaining any vision for Balochistan. On the one hand, both of them would be considered essential elements in improving the "quality of life," and therefore improvements in health and educational outcomes would form a necessary part of a development vision for Balochistan. But they have an additional role—both of them also function as important drivers of growth.

6.1 Health

6.2 Balochistan's health, nutrition, and population outcomes, despite some improvements, lag significantly behind those of Pakistan, which is among the lowest performing countries in South Asia and unlikely to achieve the health related Millennium Development goals, especially in key areas such as maternal and child mortality and nutrition. The 2010 Balochistan MICS reports an under-five mortality rate of 89 and infant mortality rate of 72 per 1,000 live births. In addition, the high fertility rate of Balochistan (30 percent higher than the national average of 4.1) contributes significantly to poor reproductive health outcomes. On all measures, the outcomes for women are worse than those for men, and those for women living in rural areas are the worst. Moreover, while improvements have taken place during the last two decades, data weaknesses and inconsistencies due to the widely dispersed population make it difficult to judge precisely how much improvement has occurred—these have come at a very slow pace and the graph of improvements has been erratic.

6.3 At a general level, priorities in health policy are clear: identify the cost-effective interventions for those diseases that impose the largest burdens on the population, and determine how to deliver those interventions effectively, efficiently, and equitably. As a number of studies of Balochistan's health sector have pointed out, the province is still at an early stage of the epidemiological transition, which is characterized by mostly preventable or readily treatable diseases affecting primarily young children and women of reproductive age. Much of the discussion in this section, therefore, focuses on challenges related to maternal and child health. It does not, by any means, pretend that all the critical health issues facing Balochistan will thus have been addressed; it argues only that these are perhaps the most crucial and that, with limited resources, deserve the most urgent attention.

6.1.1 Main Challenges

6.4 *Small and variable progress in reducing child mortality:* The overall picture is that Balochistan has made little progress in reducing child mortality. As stated above the 2010 MICS reported under-five mortality rate of 89 per 1000 live births, and infant mortality rate of 72 per thousand; these are sharply higher than the rates of 59 per thousand and 49 per thousand that were reported in the 2007 DHS. Of course, these figures come from different sources and may reflect differences in methodology; however, the differences between the two sets of results are sufficiently wide to raise red flags.

6.5 Figures 6.1.1 and 6.1.2 show estimates of the infant and child mortality rates from 1991 to 2004 and 2011. They show estimates from the different sources that are available, and underscore the variability in the outcomes reported.

6.6 *Wide gender disparities:* Infant and child deaths in Balochistan show significant gender disparities. According to the 2010 MICS, for every 1000 live births, 63 males and 82 females died within the first year of life—a rate that was 30 percent higher for females. The difference in mortality rates for children under the age of five years was even worse: for every 1000 live births, 74 males and 107 females died before the age of five years—a rate that was 45 percent higher for females.

Figure 6.1.1: Infant Mortality Rates, 1990/91—2011

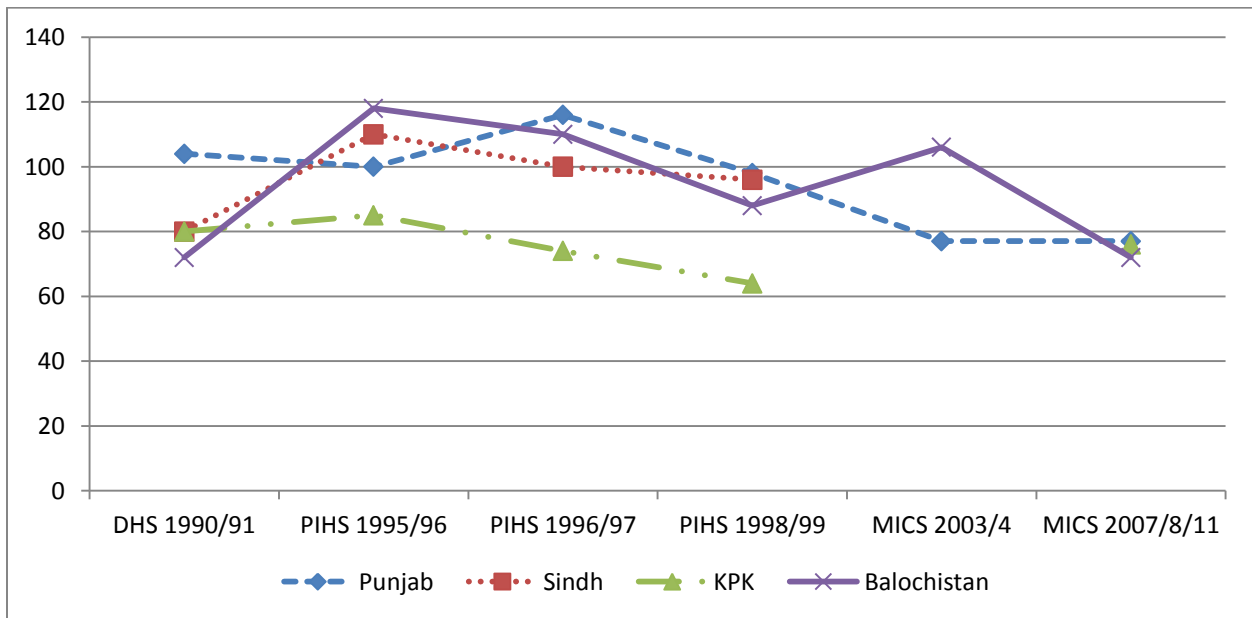
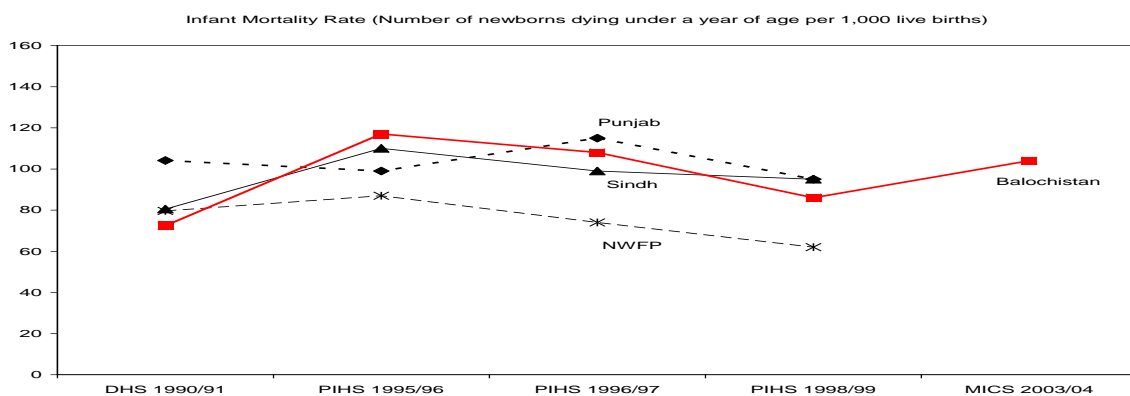
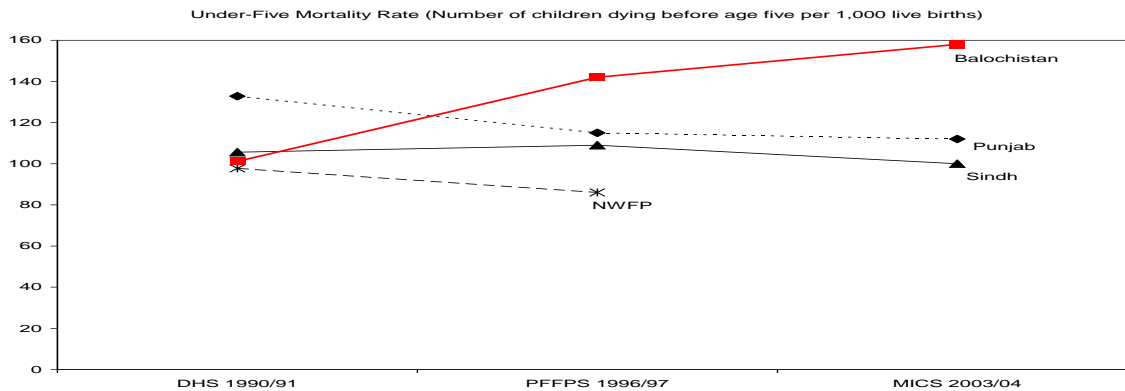


Figure 6.1.2: Infant and Under-Five Mortality Rate, 1990/91—2003/04





Source: World Bank.

6.7 *Maternal mortality in Balochistan is extremely high.* Data on maternal mortality are scarce both in Pakistan and Balochistan – the latest estimate for Pakistan²⁸ is 276 per 100,000 and for Balochistan 785 per 100,000 live births. Earlier surveys also reported high maternal mortality ranging from 289 in Pishin to 673 in Khuzdar²⁹ and the 2004 MICS estimated the MMR at 600 per 100,000 births. The latest numbers indicate that improvements have been small since the 1990s.

6.8 *Continuing challenge of nutrition:* Balochistan faces a continuing challenge of undernutrition. This has resulted in a high rate of stunting of 52.2 percent among children under age 5 with high prevalence of underweight children at 39.6 percent, and a wasting prevalence of 16.1 percent. Neither of the above has changed during the last two decades. The draft National Nutrition Survey 2011/12 reports a prevalence rate of 7.0 percent for severe acute malnutrition in Balochistan, compared with a rate for Pakistan of 5.8 percent. This rate is only marginally less than the 7.4 percent reported by the National Nutrition Survey 2001/02. The 2011 survey found that almost 1/3 of children in Balochistan were severely stunted, the highest rate among the four provinces of Pakistan.

6.9 This is also complicated by micronutrient deficiencies and high levels of anemia in children and women. High levels of malnutrition are compounded by high levels of food insecurity. As a result of the arid and mountainous nature of Balochistan and periods of prolonged drought, such as that of 1997–2003. A study for the Swiss Agency for Development and the World Food Programme estimated that over 60 percent of the population lived in districts that were classified as "extremely" to "low" food insecure.³⁰ The likely effects of this on health outcomes, especially those of women and children, are only too plain. Food insecurity in Balochistan arises from both availability and access.

6.10 *Inadequate performance of the sector:* The performance of the sector in terms of access and coverage shows a mixed picture. Despite some improvements, the coverage of maternal and

²⁸ Demographic and Health Survey (DHS) 2006/07.

²⁹ Balochistan Maternal and Infant Mortality Survey 1991

³⁰ A. Q. Suleri and S. Haq, "Food Insecurity in Pakistan," Swiss Agency for Development and World Food Programme, 2009.

child health, communicable disease and basic curative care remains limited and unsatisfactory. It is lower than the other provinces and varies significantly across districts.

- Immunization coverage of children 12-23 months in the province has decreased or at best has remained stagnant. About half the children are not fully immunized and overall coverage has declined from 54 percent in 2006/07 to 53 percent in 2010/11.³¹ The MICS survey paints a much bleaker picture, indicating that the overall complete vaccination rate was only 4 percent.
- The maternal health and reproductive health coverage, although improving, also remains the lowest in Pakistan with significant urban-rural differentials. Antenatal care coverage has increased from 31 percent in 2006/07 to 43 percent in 2010/11 but remains lower than the national rate of 62 percent in 2010/11. The postnatal care coverage remains static (18 percent in 2010/11), ten percentage points lower than the national average. Only 29 percent of the cases received assistance from skilled attendant at delivery with significant variation across districts and income groups. The contraceptive prevalence remains low at 15 percent, showing little improvement. Significant challenges remain on the maternal and reproductive health aspects, with only one in three deliveries attended by a skilled professional. Only one couple in seven uses modern contraception (nationally about a third do and more than half of them do in Bangladesh).
- The availability of insecticide-treated bednets remains very low at 2.9 percent. HIV/AIDS, as in many parts of South Asia is currently limited to vulnerable groups, such as injecting drug users.
- The access to services and coverage data show significant variations across districts, urban and rural and between the rich and poor. The gap in access to services between the poorest income quintile and the wealthiest as measured across various indicators does not appear to be narrowing. There are large geographical variations in coverage of services. The recent health facility assessment with a focus on maternal, newborn and child health (MNCH) indicates the performance is low due to the limited availability of inputs and lack of MNCH-related staff at the facilities.

6.11 *Low health expenditures and weak expenditure management:* Public health expenditures in Balochistan have consistently been low by international standards—barely 1.25 percent of GDP. Figure 6.1.3 below highlights the disparity. The increases that have come in the last three years mainly reflected salary increases.

6.12 *Low utilization of public health services:* Public health facilities in Balochistan are underutilized (Table 6.1.1). On an average day, a primary health care facility in Balochistan is likely to see no more than 17–18 patients, compared with 35 in the Punjab and 45 in Sindh. People seek out a healthcare facility in Balochistan only about once every two years (see Figure 6.1.4).

³¹ Pakistan Social and Living Standards Measurement (PSLSM) 2010/11.

Figure 6.1.3: Public Health Spending, 2009 or latest available year (percent of GDP)

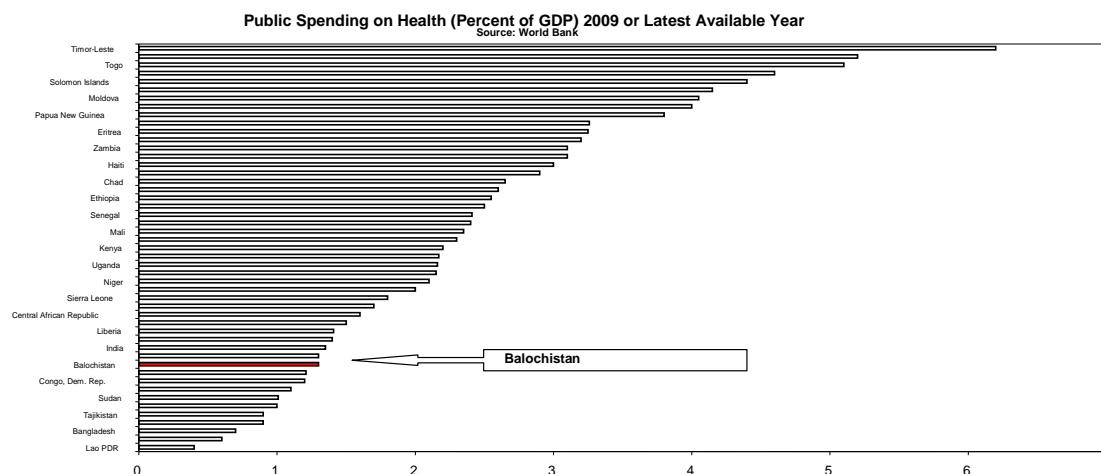
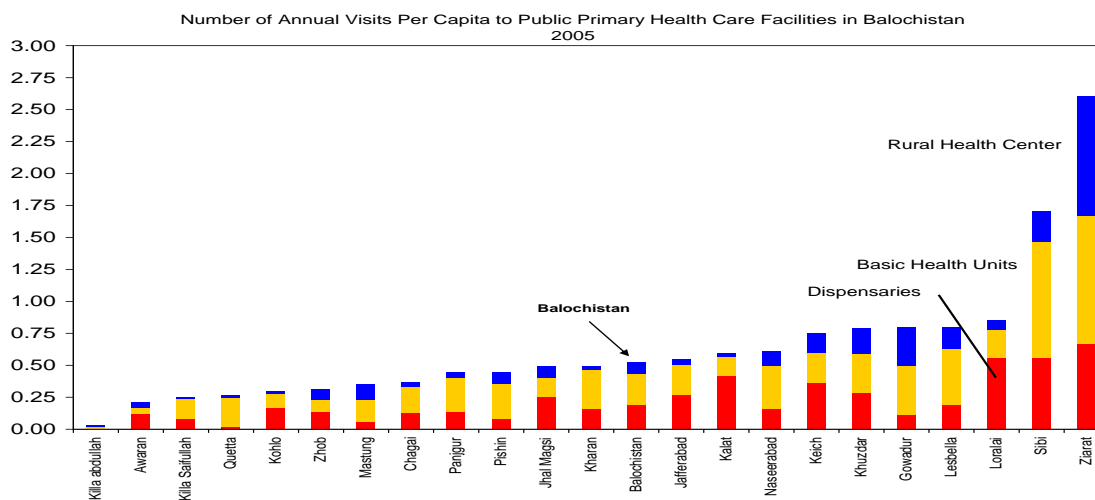


Table 6.1.1: Type of provider consulted for Diarrhea Treatment for children under five years

	Urban			Rural		
	Govt	Private	Other	Govt	Private	Other
Pakistan	22	69	9	17	78	5
Balochistan	38	55	7	23	73	4
Punjab	14	76	10	13	81	6
KPK	32	45	23	27	48	25
Sindh	31	67	2	20	78	1

Figure 6.1.4: Balochistan: Annual Visits Per Capita to Public Primary Health Care Facilities, 2005 (number)



Source: World Bank.

6.13 Despite relative increases, the absolute amounts of health expenditures remain low and are complicated by weak management, which further reduces their effectiveness for planning, policymaking, and execution. The classification of expenditures—most spending is allocated under the heading "general hospitals and clinics"—makes it difficult for policymakers to separate funding of different levels of care, and thus to increase allocations to front-line services that play the key role in delivering essential health services. Expenditure management in the health sector is fragmented. This can create a disjunction between expenditures on capital investment and required recurrent spending, and can lead to inadequate expenditure on key items such as maintenance. Effective expenditure management in the health sector has also been hampered by frequent turnover of senior staff.

Why are Balochistan's medical facilities underutilized?

6.14 The answer appears to be a mixture of ignorance of what would be best from a medical point of view; cost; poor governance; social mores; and distance.

6.15 All these factors apply, for example, to decisions regarding location of childbirth. Most children (87 percent of all deliveries, rising to 92 percent in rural areas) are born at home. Only about 13 percent of all births occurred in institutions, both public and private. In fact, 19 out of the 29 districts reported that fewer than 10 percent of women resorted to government facilities for childbirth. According to the DHS 2007, the most frequently-cited reason in Balochistan for not delivering in a medical facility was that most women (44.3 percent) considered it "not necessary"; the second most common reason was cost (39.8 percent). Poor governance, social mores, and the inadequate infrastructure also played important parts—the three other reasons in the top five were "facility was not open" (22.6 percent), their family did not give them permission (18.8 percent), and "transport was not available" (16.9 percent). The last is not surprising; one-third of the population in Balochistan lives more than an hour away from the nearest health facility, compared with only one-tenth for Pakistan as a whole.

6.16 The overwhelming prevalence of childbirth at home, where skilled birth attendants are almost invariably not available, may be a major factor in the very high maternal mortality ratio (MMR) in Balochistan. The DHS 2007 reported the MMR at 758 per 100,000 live births, compared with an all-Pakistan rate of 276 per 100,000 live births.

6.17 In the public sector, 33 percent of the total staff strength consists of medical officers, followed by 26 percent dispensers/technicians. Nurses comprise 15 percent of the total staff strength. Two-thirds of the 554 basic health units (BHUs) in Balochistan do not have female staff. Almost one-fourth of the BHUs do not have personnel to offer family planning (FP) counseling or other services; almost 40 percent do not have a maternity kit; and almost 50 percent do not have a labor room.³² Poor management of health resources makes the delivery of adequate health services more difficult. The distribution of health services among the districts and between urban and rural areas within districts is very uneven. Not surprisingly, the urban areas are relatively better served—about two-thirds of the specialists and nurses and one-third of the physicians are posted in provincial institutions or in Quetta. Equally unsurprisingly, this leads to much worse quality of service in rural areas and a greater degree of dissatisfaction with the

³² Free and Fair Election Network (FAFEN), a coalition of 30 Pakistani civil society organizations.

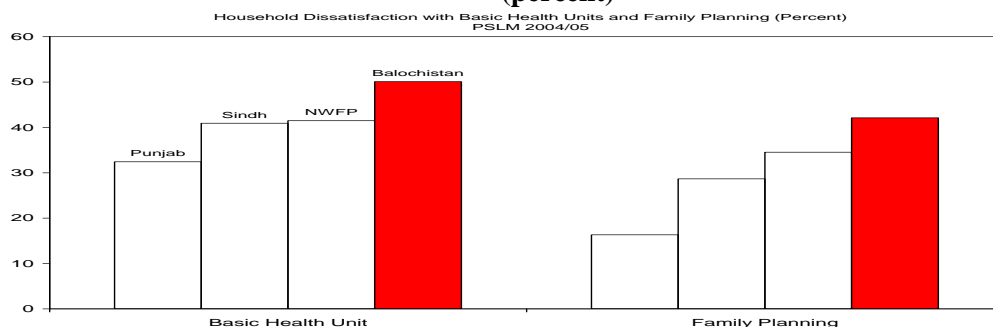
government health services. Accountability is weak and absenteeism high—only one-third of the staff was actually present at their duty station during the 2006 primary health facilities survey.

6.18 Another important factor in the underutilization of public-sector medical facilities is the mismatch between the requirements of patients and what the facility provides. Two major mismatches may be mentioned. First, the numbers of both doctors and nurses are insufficient and, in fact, the ratio of doctors to nurses is 4:1, instead of being the other way round, as recommended internationally to ensure good quality hospital care.

6.19 There is an insufficient number of female personnel in the health services. Many women gave the lack of female personnel—doctors, nurses, paramedics—to attend to them as their chief reason for not going to a government hospital. Indeed, according to some reports, two-thirds of the government's basic health units did not have any female staff in 2009.

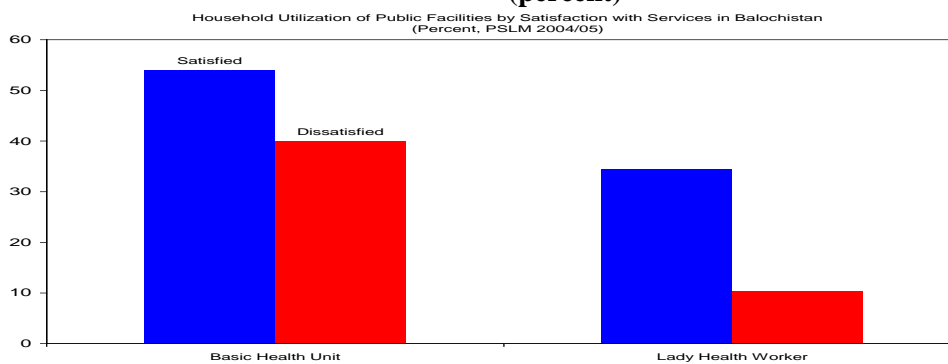
6.20 In view of the foregoing challenges, it is not surprising that the population generally expresses dissatisfaction with the health services available. Some studies have shown that 44 percent of patients were dissatisfied with the services received in the health sector in Balochistan, compared with 31 percent in Pakistan. Figures 6.1.5 and 6.1.6 below show the dissatisfaction expressed by households in Balochistan the services of basic health units and lady health visitors compared with that shown in other provinces.

Figure 6.1.5: Dissatisfaction with Public Health Services, Balochistan & other Provinces (percent)



Source: World Bank.

Figure 6.1.6: Balochistan: Household satisfaction with services of BHU & LHW (percent)



Source: World Bank.

6.1.2 The response

6.21 In view of the low base from which Balochistan's health outcomes start, the special features of the province's geography and demography, and the very conservative social mores, one must recognize that the standard health service delivery system that might work satisfactorily in, say, the Punjab and Sindh, would be much less effective in Balochistan. The response to Balochistan's health challenges must combine doing standard things better with thinking outside the box.

6.22 Solutions to the problems faced by the health sector in Balochistan require a comprehensive overhaul of the existing system, which currently is on the same lines as the more populous provinces. A major issue is the governance structure and capacity of the health department. The current structure is not conducive to new approaches and has so far not been able to implement simple solutions nor ensure that the staff actually posted at the rural facilities, especially in remote areas, is available for delivering the required services.

6.23 Another major drawback is the non-availability of administrative data in the health department; in the absence of regular reporting it is very difficult for the system to adjust and respond to the population needs. Planning without data results in poor allocation of resources and further exacerbates the inefficiencies in the system

6.24 *Thinking outside the box:* Two of the biggest challenges that the authorities face to making the health sector more effective are remoteness and the deeply conservative social mores. Distance makes access to medical facilities difficult for everyone; the deeply conservative nature of society makes it even more difficult for a woman to seek medical help outside the house, especially if the facility in which the help is sought lacks female personnel.

6.25 These matters can be addressed in innovative ways. One way, for example, would be to decentralize medical facilities. A *tehsil* headquarter hospital or a rural health center could be set up as a hub (perhaps with somewhat expanded facilities) for a number of basic health units. The latter would be staffed by paramedics, who would be managed by physicians located at the hub. Another way could be to use mobile units for delivering services to the patient's house. The underlying aim of both these initiatives is to minimize the distance between the patient's home and the availability of medical care, and to ensure that the medical personnel delivering the service are of the appropriate gender—thus addressing issues of both remoteness and social conservatism. Innovative initiative such as the foregoing would also help to reduce the disparity in health services between different districts and that between the rural and urban areas within districts.

6.26 *Allocate more resources to the health sector and secure a better balance between investment and recurring expenditures:* It is clear that the health sector has been grossly underfunded for decades. The government cannot realize its aims or increase the satisfaction of the population with the quality of health service delivery without allocating more resources to this sector. Fortunately, the revised award of the National Finance Commission provides Balochistan with substantially more resources; a political decision to allocate more of them to the health sector will have to be made.

6.27 However, the resources allocated will also have to be carefully managed; in particular, attention will have to be paid to the balance between investment and recurring expenditure. It has too often been the case in Pakistan that investment has been considered desirable, while recurring expenditures have been classified as consumption, and hence liable to be given short shrift when *there* is a squeeze on overall resources. Such an attitude can be a formula for underutilization and waste of resources; for example, it is not much use constructing a medical facility to high standards, and then stinting on expenditure on doctors, paramedics, nurses, or medicines.

6.28 *Improve governance:* Many of the weaknesses in Balochistan's health sector can be reduced by strengthening governance. Thus, officers must be held accountable to address questions of absenteeism, unpunctuality of staff, proper treatment of patients, and so on. However, officers will be able to do this more effectively if they can remain in position for sufficiently long periods to establish their authority; this means that the government must pay attention to the frequency with which it transfers officers. Improvements in governance also have to strengthen merit-based recruiting, including hiring managers from the market (such as has been initiated by the Department of Health in the KP province).

6.29 *Harness the private sector:* The weaknesses of publicly-delivered health services in Balochistan have forced patients to turn to the private sector in a number of fields. The "private sector" in this context does not necessarily refer to a qualified physician and a hygienic medical facility; it may simply mean a *dai* (a more or less trained midwife based in the community).

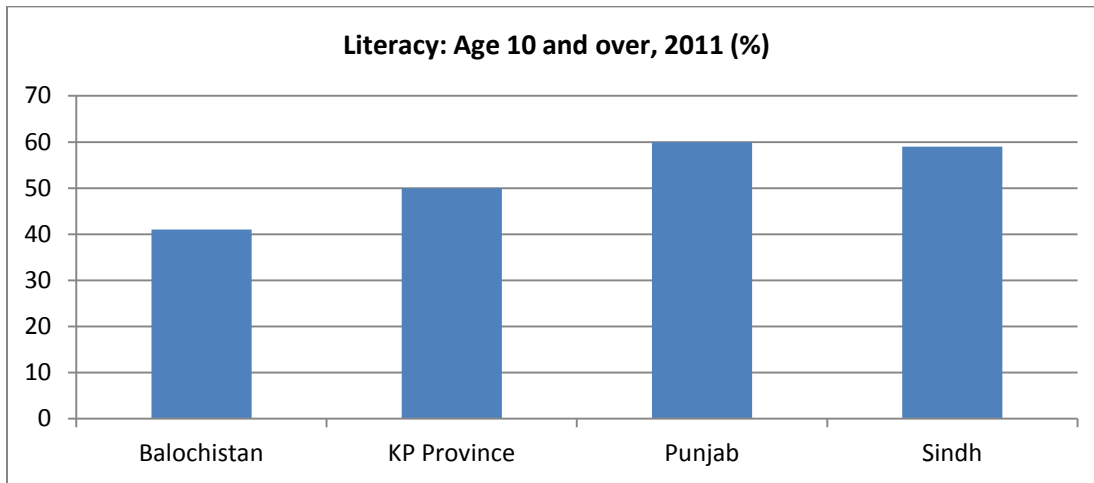
6.30 However, even this would be better than nothing. Thus, for example, the 2010 Balochistan MICS reported that in the district of Dera Bugti about 94 percent of women sought prenatal consultations at private health facilities; this figure rose to 97 percent in the rural part of the district. Let one hasten to add that this reflects more the absence of public facilities than the excellence of private institutions. Only 2–3 percent of those from Dera Bugti visited government facilities, and this 2–3 percent was entirely from the urban population, confirming the lack of access to government facilities in rural areas.

6.31 If government facilities are inadequate, and the private sector does have a role to play, then it is important that the public sector establish some kind of partnership with the private. The partnership should concentrate on areas in which the province is especially backward, such as the provision of obstetrical services in remote or underdeveloped districts. This approach should be accompanied by an independent system of monitoring and evaluation, so that errors could be corrected and lessons that are learned could be applied to future efforts in other health fields.

6.2 Education

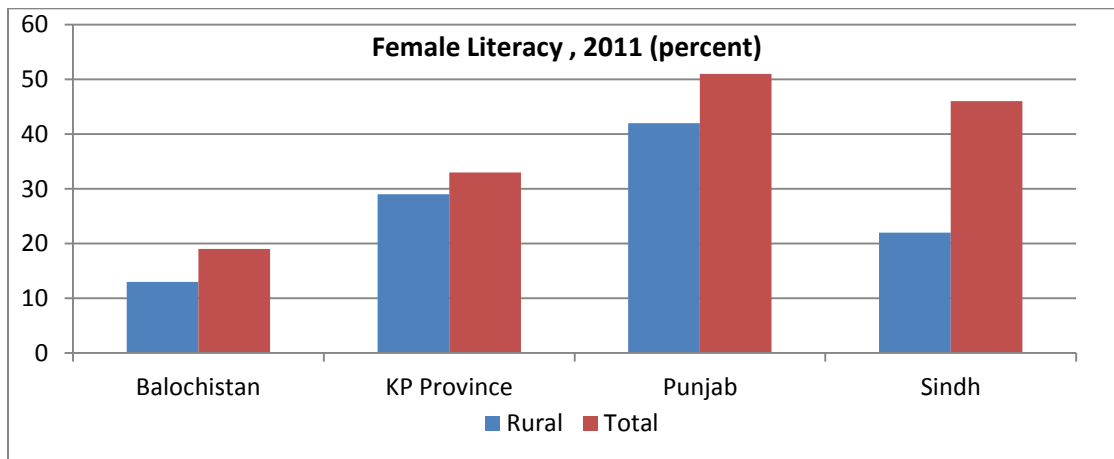
6.32 Education is a key contributor to the overall socio-economic development of a country. Literate and skilled citizens are essential to make the best use of resources to improve social and economic standards of life. Unfortunately, Balochistan has some of the worst education outcomes in Pakistan, resulting in very low literacy rates, especially at the rural level and for women. Figures 6.2.1 and 6.2.2 present an overall comparison of literacy rates among the provinces and for females in rural areas. The high incidence of illiteracy, especially among women, lowers enrollments and the quality of human capital.

Figure 6.2.1: Literacy rates, 2011 (Percent)



Source: PSLM 2010/11.

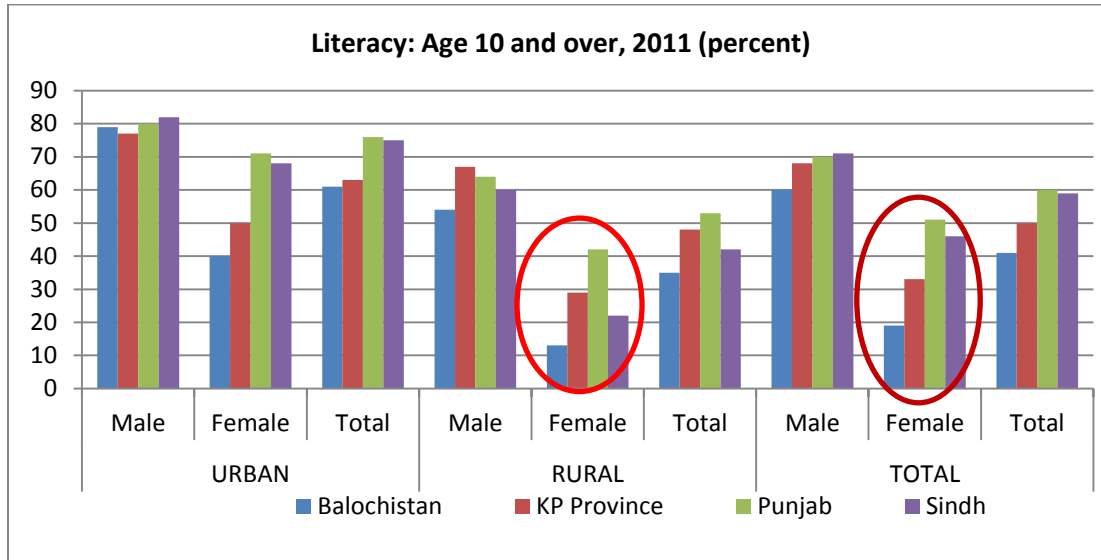
Figure 6.2.2: Female Literacy, Rural & Urban, 2011 (Percent)



Source: PSLM 2010/11.

6.33 One of the main reasons for the dimly low literacy rate in Balochistan is a long legacy of neglect in the public sector education system. Government school systems are weak all across Pakistan, but in other provinces and areas the private, for profit and non-profit, sector has filled some of the gaps by providing access to almost 30–40 percent of the school going population. The private sector in Balochistan has not been able to provide the same support to the public sector because of the low economic indicators and distance compounded by security issues. Literacy rates by total, gender, and region (urban or rural) is highlighted in Figure 6.2.3 (below). The effect of the very low literacy rate for rural women in depressing the total literacy rate for Balochistan is clearly brought out.

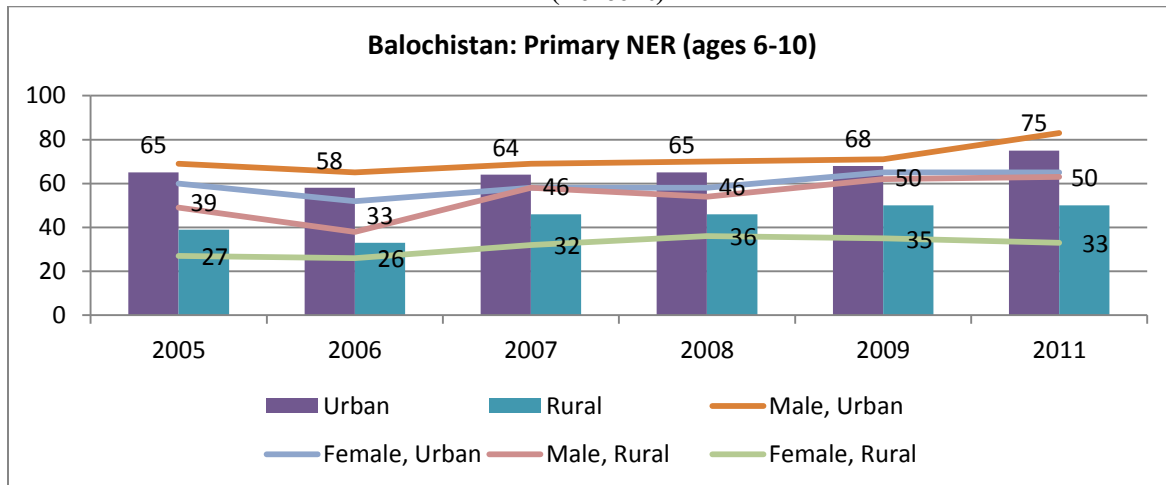
Figure 6.2.3: Literacy, age 10 and over, 2011(Percent)



Source: PSLM 2010/11.

6.34 In some respects, the situation may be improving. Primary net enrolment (age 6–10) has seen an increase of 6 percentage points since 2006/07, but this has largely resulted from an increase in boys’ enrolment—girls’ enrolment actually fell by 2 percentage points in 2010/2011 as compared with the reported NER in 2008/09 (see Figure 6.2.4).

Figure 6.2.4: Primary Net Enrollment Rate by gender and urban/rural, 2005–11 (Percent)



Source: PSLM (various years).

6.35 Another potential source of improvement could be the increased powers of the provincial government in educational matters following the passage of the 18th Amendment to the Constitution of Pakistan, and the much larger amount of resources made available to Balochistan by the most recent award of the National Finance Commission. Under this award, a special effort has been made to increase the share of Balochistan in federal transfers; financial issues affecting

Balochistan, including the chief provisions of the NFC award, are discussed in Chapter 7. Table 6.2.1 summarizes some of the main educational outcomes for Balochistan.

Table 6.2.1: Comparative Education Indicators, 2011 (percent)

	Gender	Punjab	Sindh	KPK	Baluchistan
POP. that ever attended School	M	72	72	71	61
	F	53	47	35	20
Pop. that completed primary or above	M	60	62	57	48
	F	44	40	26	13
GER Primary (6-10)	M	103	91	100	92
	F	92	71	76	54
NER Primary (6-10)	M	73	68	71	68
	F	68	55	56	40
NER Middle (11-13)	M	38	39	40	34
	F	32	32	25	13
NER Secondary (14-15)	M	24	26	23	21
	F	21	20	14	4
Literacy Rate 15+	M	67	71	65	56
	F	47	43	28	15

Source: GOB, PPIU 2011.

6.2.1 Main challenges

6.36 Efforts to improve the education outcomes in Balochistan face many challenges including long-term under-funding, ineffective use of resources, weak human resource base, fragmentation of managerial authority, high levels of politicization, and a failure to translate policy intentions into long-lasting improvements. These are further compounded by distance, sparsely populated communities, continuing conflict and security concerns, and most importantly a failure to identify Balochistan-specific solutions to the unique problems faced by the area.

6.37 A report by the Government of Balochistan's Policy Planning and Implementation Unit (PPIU) and UNESCO estimated that in 2011 there were approximately 1 million children not attending school.³³ Why are so many children not attending school in Balochistan?

Access

6.38 The unique geography of the area and small settlements make the provision of education access a huge management challenge for the government, and leave many settlements without a school.

Distance to school

6.39 The province contains approximately 22,000 settlements, but only 10,000 of these have schools. The situation is particularly bad in rural areas—schools are fewer and spread out further. The province has the highest average commute time to schools for rural areas in the country. One

³³ PPIU, GoB and UNESCO, “Policy Analysis of Education in Balochistan” (2011).

in five children has to travel more than 30 minutes to attend school (compared with less than 1 in 10 for the Punjab and the KP province), while for 1 in 10 the journey to school takes one hour. Middle and High school numbers are drastically low with only 1 middle school per 11 primary schools creating a bottleneck beyond the primary level.

6.40 A large-scale study of schools in the Punjab found that the enrollment of girls dropped by 20 percentage points for every 500 meters that a girl had to travel to school. If these findings apply to Balochistan—and it is likely that in the more conservative society of the province they could apply with especial force—the effect of the paucity of girls' schools and the consequent increase in the average distance to school could be a very substantial deterrent to enrollment and retention.

Poor placement of schools

6.41 The Education department does not have a policy or specific criteria for the Balochistan context to ensure adequate placement of schools on the basis of need and demand. Lack of adequate data is a key hindrance in planning adequate placement of schools. The placing of schools shows a bias towards the urban centers. Compared with the distances and time required for the average primary school student in rural areas (above), the 2004/05 PSLM reported that only 2 percent of households in cities required a commute of more than 30 minutes to reach the nearest school; this was similar to the share in other provinces.

Lack of physical infrastructure and availability of local teachers

6.42 School attendance is further affected by the poor physical conditions of the schools and teacher absenteeism. Nearly 28 percent of schools were reported to have no drinking water, 78 percent no electricity, 66 percent no boundary wall, 79 percent no toilet, and 9 percent had no shelter at all.³⁴ The absence of boundary walls and toilets is a particular disincentive for parents to send girls to school. Absence of qualified local teachers contributes to teacher absenteeism. Although hard data on teacher absenteeism are not available, anecdotal evidence suggests that it is very high, especially in rural areas, and is a major contributor to low transition rates and dropout—22 percent of children in school dropout.

Equity

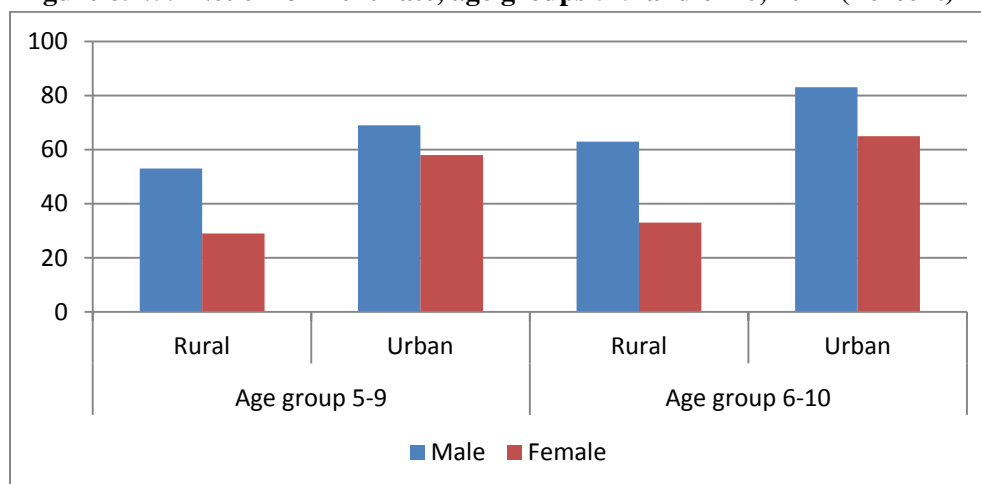
6.43 Enrollment in schools is affected by various inequities.

Gender inequities

6.44 There is a distinct gap in the net enrollment rate (NER) between boys and girls. The gender gap is larger in rural areas than in urban. For the age group 5–9, the difference amounts to 24 percentage points between rural males and females and 11 percentage points between them in urban areas. The gender gap for the age group 6–10 is larger, amounting to 30 percentage points in favor of males in rural areas and 18 percentage points in urban. This is illustrated in Figure 6.2.5.

³⁴ Annual Status of Education Report, 2011.

Figure 6.2.5: Net enrollment rate, age groups 5–9 and 6–10, 2011 (Percent)



Source: PSLM 2010/11

Income inequities

6.45 Children from better-off households enroll at a higher rate at the primary level than do those from households with lower incomes. This is likely to be a function of culture, where better-off households are more likely to appreciate the benefits of education, and where children are more likely to be exposed to an educated milieu. It could also be a function of opportunity cost, in that income possibly forgone (plus the expenditure on uniforms, transport, etc.) by a child going to school instead of working is likely to weigh more heavily in the decision of a poorer household than of one that is better off. Table 6.2.2 shows the primary Gross Enrollment Rate (GER) for various income quintiles. It shows that over most of the distribution the GER rises with the income level (quintile 5 is the highest), although the results for the fourth quintile appear to be anomalous.

Table 6.2.2: Primary GER by Income Quintile, 2008

	Urban			Rural		
	Male	Female	Both	Male	Female	Both
Balochistan	107	88	98	83	50	68
Ist Quintile	85	68	76	74	46	61
2 nd Quintile	94	88	92	82	52	70
3 rd Quintile	113	104	108	93	50	70
4 th Quintile	144	96	121	152	81	121
5 th Quintile	125	91	114	73	58	66

Source: PSLM 2007/08.

6.46 The same positive association between income and GER appears at higher levels of schooling. Table 6.2.3 shows the relationship between the GER for secondary schools and the distribution of incomes. Once again, higher secondary enrollment is correlated with higher incomes.

6.47 Taking the results of primary and secondary enrollment together would suggest that the inequities in enrollment could very well contribute to a perpetuation of income inequalities in the future by biasing the provision of education towards the already better-off groups.

Table 6.2.3: Secondary GER by Income Quintiles, 2008

	Urban			Rural		
	Male	Female	Both	Male	Female	Both
Balochistan	69	50	61	39	6	23
Ist Quintile	21	24	23	28	1	15
2 nd Quintile	77	15	48	37	12	24
3 rd Quintile	59	30	47	58	11	37
4 th Quintile	111	59	83	54	0	26
5 th Quintile	120	220	154	126	23	67

Source: PSLM 2007/08

6.48 *Intra-provincial inequities:* Balochistan's education system is marked by large differences between facilities and human resource provided in different districts and within districts. The inequities are reflected in poor education outcomes for example, a GER of 8 percent for female enrolment in Musa Khel, and 3 percent in Dera Bugti.

Quality

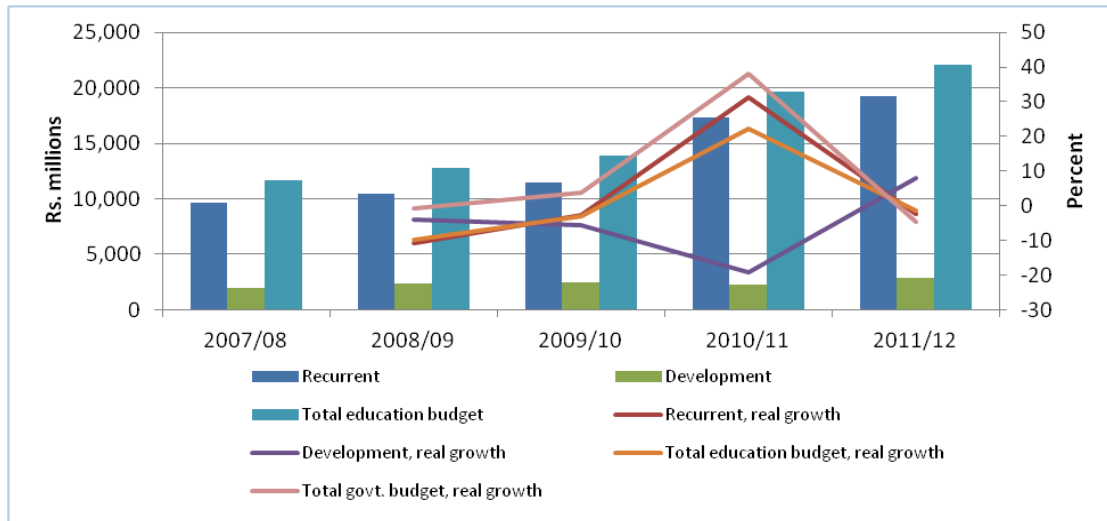
6.49 The quality indicators for Balochistan are also very low. Learning levels assessed in a sample of 375 government rural schools across 15 districts of Balochistan presented a dismal picture: only 31.5 percent of children in Grade 3 could read a sentence in Urdu and only 15.6 percent of children in Grade 4 could do a division at a Grade 2 competency level.³⁵ The majority of the schools are single-teacher schools; teachers have very little preparation to effectively manage multi-grade teaching. Recruitment practices are weak and there is a shortage of subject specialists, especially in mathematics and science. Accountability and management practices to ensure quality are affected by the same set of problems as have been discussed for access and equity.

Financial allocations

6.50 The government has increased budgetary expenditures on education since 2008/09 (see Figure 6.2.6). In nominal terms, the total education budget has doubled between 2007/08 and 2011/12. Most of the increase has been in the current expenditures, which have not only more than doubled in absolute terms, but also have increased as a share of the education budget from 83 percent in 2007/08 to 87 percent in 2011/12. This largely reflects higher spending on salaries. However, development expenditure on education—although increasing in absolute amounts—dropped as a percentage of the education budget from 17 percent to 13 percent between these two dates.

³⁵ Annual Status of Education Report (ASER) 2011, Pakistan.

Figure 6.2.6: Budget spending on education, 2007/08–2011/12.

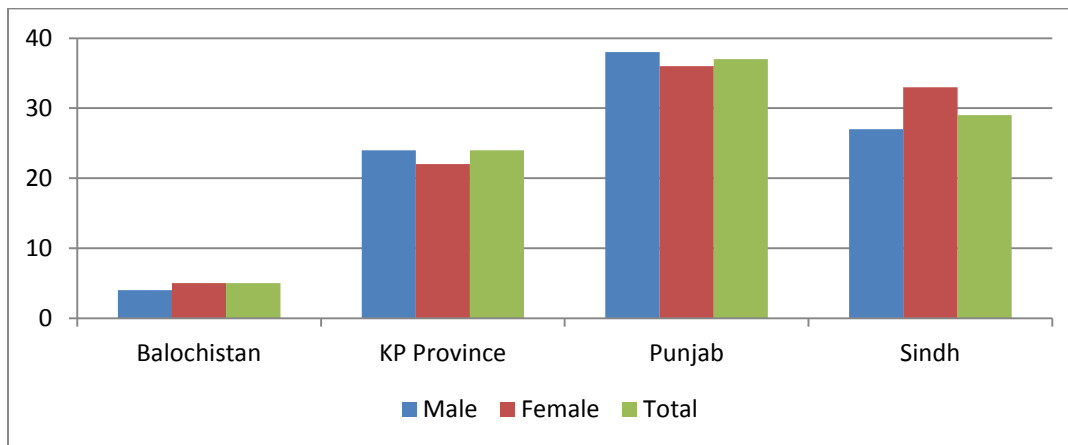


Source: Government of Balochistan.

Scarcity of private sector schools

6.51 Balochistan differs from the other provinces in that it has very few private sector schools, and consequently a very small number of students are enrolled in private institutions, especially at the primary level. See Figure 6.2.7.

**Figure 6.2.7: Primary level enrollment in private schools, 2011
(Percent of total primary enrollment)**



Source: PSLM 2010/11.

6.52 The paucity of private schools has two main consequences. First, it keeps the number of schools lower than it would have been with the presence of a vibrant private sector. It also limits educational choices for parents. Second, the absence of competition for public sector schools releases the pressure on them to improve quality.

6.53 This is not to say that all private sector schools are necessarily better than those in the public sector. A spurt in the opening of private sector schools is a recent phenomenon in Balochistan, and a careful study of their results vis-à-vis those of public sector schools has not yet been undertaken. However, the evidence from studies in other areas tends to show that, by and large, private sector schools produce better educational outcomes than do public schools.

6.54 The main reason for the difference appears to lie in the greater accountability of teachers to produce satisfactory results in private sector schools. A large-scale study of schools in the Punjab—Learning and Educational Achievement in Punjab Schools (LEAPS)—found that students in Grade 3 in public sector schools were typically 1½–2½ years behind those in private schools. After analyzing various factors that might account for this difference, the study found that only one was statistically significant—the headmaster in a private school had the authority to quickly dismiss a teacher who was not producing satisfactory results. On the other hand, the headmaster in a public sector school was constrained by rigid civil service rules and had to follow very time-consuming and cumbersome procedures before such a change could be effected, indeed, if at all it could be effected. It is not surprising that many headmasters in public sector schools did not wish to add to their burden by loading on these additional procedures, and so simply followed the line of least resistance and let sleeping dogs lie. It is not unlikely that similar forces would be at work in Balochistan's educational system.

6.55 *Paucity of middle and high schools:* The National Education Management Information System in its 2009/10 report put the number of middle schools in Baluchistan at 953 and that of high schools at 594. Of these numbers, there were only 363 middle schools and 137 high schools for girls. The great paucity of middle and high schools, especially for girls, points to the challenge that the province faces in being able to transfer students to higher education or to train a sufficient number of teachers. The particular difficulty in expanding education for girls needs no comment.

6.56 *Poor educational outcomes:* Recent reports have highlighted the poor quality of educational outcomes in Balochistan. In common with weaknesses in the other provinces, the investigators found a predominance of rote learning and an absence of critical thinking. It appears that over the last several years, the focus on expanding numbers in the education system has diluted the emphasis on quality.

6.57 This is a matter of particular concern to Balochistan, because the province contains immense natural resources but has a very small population. If the citizens of Balochistan are to take the lead in developing the potential of their province, they must develop the human resources of the province in a manner that quality compensates for lack of quantity. The quality of education, therefore, is perhaps of even greater concern to Balochistan than it would be to the other provinces of Pakistan.

6.58 *Low access to tertiary education:* While tertiary education is not considered a right by the Constitution of Pakistan, there is no doubt that access to high quality, relevant tertiary education is critical to enhance human capital and drive economic growth. Balochistan houses only 8 Higher Education Institutions (HEIs) and Degree Awarding Institutions (DAIs), of which 2 are private. Tertiary education is provided by these institutions, as well as 64 affiliated colleges (of

which half are private), and 10 sub-campuses.³⁶ As expected, PSLM 2010/11 data shows that only 4.92 percent of the college age population (17–23 years) is enrolled in tertiary education, compared with the national GER of 7.19 percent. The tertiary GER increases for higher income quintiles, as can be seen in the table below. The GER for females is half that of males, in line with gender disparities at all levels of schooling in Balochistan. The GER for urban areas is much higher than that for rural areas, reflecting the fact that most HEIs are present in urban areas.

6.59 The challenges faced by the tertiary education subsector in Balochistan are the same as those across all provinces: low enrolment rates, a lack of qualified faculty, outdated curricula, inadequate teaching, library and lab facilities, governance and management issues—all compounded by resource constraints on the subsector (see Table 6.2.4). These challenges are perhaps even more pronounced in Balochistan, given that the volatile security situation renders teaching positions in Balochistan unattractive. The market demand for tertiary education graduates is low in an already sluggish economy, especially given the low level of quality and market relevance of learning/research, resulting in the unemployment of a large group of youth. While the Higher Education Commission has undertaken ambitious reforms to improve access, quality and relevance issues, these reforms are limited to universities and do not extend to the affiliated college subsector.

Table 6.2.4: Tertiary Gross Enrolment Rates: Pakistan and Balochistan, 2010

	Balochistan	Pakistan
GER Tertiary	4.92	7.19
Quintile 1	0.27	0.59
Quintile 2	1.05	1.62
Quintile 3	3.67	3.54
Quintile 4	11.02	6.97
Quintile 5	18.88	18.43
Urban	12.33	12.64
Rural	2.04	3.96
Male	7.06	8.43
Female	2.39	5.89

Source: PSLM 2010/11.

6.2.2 The response

6.60 As discussed above, the education challenges faced by the province are huge and multi-faceted. The weak governance infrastructure, low financial resource base, and the conflict in the area requires an approach that considers a wide-array of options that are specific to the context. The Government of Balochistan's departments of Planning and of Education have taken the lead in putting forward detailed recommendations for the reform and development of the education sector.

6.61 The key elements that would lead to a meaningful reform of the education sector would comprise the following.

Increase budgetary resources for education, especially on development

6.62 The new NFC award vastly increases the financial resources for each province; that to Balochistan has enabled the province's budgetary expenditures to triple between 2009/10 and 2011/12. Balochistan's expenditures on education have also increased substantially, but they have not kept pace with the increase in overall expenditures. Moreover, the bulk of the

³⁶ Data from 2010/11; HEC website.

expenditure increase has been devoted to salaries; the share of development expenditure in total education spending, in fact, dropped from 14 percent in 2004/05 to 8 percent in 2009/10, and in absolute terms developments spending increased only from Rs 841 million to Rs 971 million between the two dates. In real terms, there was a decline.

6.63 This is a serious cause for concern. The discussion of the challenges pointed out that some of the gravest were the insufficient number of schools and the poor state of their infrastructure. Dealing with these problems will require substantial increases in development spending, and the priority given to education in the budget will have to be raised.

6.64 More than 50 years ago, the Commission on National Education made some pertinent comments on the matter of financial allocations for education that are still relevant today: "It is stated that because we are poor we cannot afford an extensive educational program.... But to argue that we are too poor to support education is to argue that we must always be poor.... The plain fact of the matter is that because we are poor we must make the extra sacrifice to promote an educational system that offers us the hope of being less poor in the future."³⁷ Developing Balochistan's educational system will require a great deal of action on both the "software" of development (institutions, incentives, stipends, governance, and so on) as well as on the "hardware" (school buildings and physical facilities, books, furniture, etc.) and the province must be prepared to make the effort that is required.³⁸

Increase enrollment, especially of girls in rural areas

6.65 The earlier discussion highlighted the huge differences between the enrollment rates of males and females. If all of Balochistan's citizens are to have access to a better quality of life, then the province will have to make a much greater effort to extend education, especially in rural areas, and even more particularly to girls. This is a matter of both equity and efficiency—equity, because to exclude substantial numbers of citizens from education is to deny them the opportunity of leading a better life; efficiency, because to exclude large numbers (currently around 40 percent) of children from the education system is to produce a labor force that would be incapable of helping Balochistan realize its economic goals.

6.66 The biggest gender gap in education occurs in rural areas. A major reason for the rural gap is differential access to schools within the community—in 2010, boys' primary schools in

³⁷ Commission on National Education (1960), *Report*, p. 332.

³⁸ It may be of interest to see the scale of sacrifice that governments and private households in the East Asian "tiger" countries, for example, Korea, put in to fund their education systems. That country has made a spectacular rise from deep poverty to widespread prosperity within the space of a single generation. Korea's literacy rate has been 100 percent for the last 25 years or so, and much of the spending that makes Korean education so good comes from private, not public, sources. The government spends a little under 5 percent of GDP on education, which is slightly below the OECD average. Families add an extra 2.8 percent of GDP on top of that, which is the highest rate among the OECD countries. Moreover, families spend an estimated 8 percent of their household budgets on after-hours programs for each child. This last figure gives some measure of the sacrifices that families make for education—if a family has three children, for example, their after-school activities alone could consume a quarter of the household budget. The ratio of private to public spending on education increases as one goes up the education ladder—at universities, family spending is three times that of the state. The result is that Korea spends a larger share of its GDP on tertiary education than any rich country other than America. The lesson for Pakistan and Balochistan is that quality education is not a free lunch; from private or public sources it extracts a substantial financial commitment.

rural areas were 2½ times the number of girls' schools (5911 versus 2250). For high schools, the situation was much worse—for each girl's school, there were 6½ schools for boys. These figures underscore the extent of the gender gap and give an idea of the scale of effort that will be required to bridge it. The mores of a conservative society, as well as security concerns, put restrictions on female mobility; hence the lack of girls' schools is a major reason for the much lower female enrollment.

6.67 Increasing access should however not be seen only as an expansion of the government school infrastructure. Lessons learnt from government-community partnerships that have proven successful in past projects need to be applied to mainstream government schools and education system, thereby ensuring functionality of the school system.

Put more emphasis on improving quality

6.68 Balochistan contains nearly 45 percent of the land area of Pakistan, more than 70 percent of the country's coastline, 100 percent of the gold and copper reserves, substantial proportions of the country's deposits of coal and natural gas, and significant amounts of other minerals (marble, granite, etc.). It is important that the major beneficiaries from the development of these resources should be the people of Balochistan.

6.69 However, the population of Balochistan is only about 8 million, about 45 percent of whom are either too young or too old to be working. This leaves a very small potential pool for the labor force, which becomes drastically smaller if social norms or lack of education eliminate many of the women from this pool. A very small labor force, especially if two-thirds of it is illiterate (as it is currently), will not be able to develop the potential of Balochistan and provide the benefits that are due to its people. The strategy for Balochistan should therefore be to expand education and to stress quality; this will increase productivity (which would help to overcome some of the constraints imposed by the small size of the labor force) and also ensure that the highest rewards from the development of the province go to the people of the province.

6.70 It is encouraging that the Balochistan government is developing an action plan that focuses on quality and standards as a critical issue. The plan focuses on five factors: teachers, textbooks, assessments, curriculum, and school environment. It is even more encouraging that the action plan approaches quality issues from a perspective of output rather than input. It is important that this plan be funded and implemented with all speed.

Improve governance, especially relating to absenteeism and teaching quality

6.71 A number of weaknesses in governance must be addressed to improve educational outcomes. Virtually every report on the state of education in Balochistan concludes that the quality of teaching is one of the weakest links in the system. However, the problem is not simply the poor quality of teaching; very often, the teacher is not even present at the school.

6.72 The latter arises because of weak supervision and the lack of accountability. A district supervisory officer generally has to supervise 100 to 150 schools. In view of the large distances between schools and the inadequate funds allocated for field visits, the supervision in many cases is only sporadic. A survey of 100 schools across five districts reported that one-third of all primary schools had not been visited by supervisor or education department official for more

than a year. Moreover, many of the teachers have been appointed for political reasons and therefore it is difficult for a district supervisory officer to take action against them even if they are found to be remiss in their duties.

6.73 The province will have to recruit more teachers, on merit and need-based criteria, and to provide better training. Because of the paucity of teachers, many schools have only a single teacher working across a number of classes. Most of these teachers have not been trained to deal with teaching in a multi-class environment. They therefore tend to fall back on formulaic or rote-teaching. Investment in improving the quality of educational outcomes will have to begin with investment in teacher training, in ensuring accountability, and in strengthening governance.

Tertiary education

6.74 Improvements in the quality and relevance of tertiary education to improve the employability of its graduates and the use of its research are critical. Quality improvements are especially important in the affiliated college subsector, which is currently much neglected and does not fall under the umbrella of reforms led by the HEC. Resource constraints to the subsector must be addressed by efficiency improvements, as well as exploring means of revenue diversification.

6.3 Social Safety Net Programs

6.75 Much of the foregoing discussion has focused on the contribution of the social sectors to increasing productivity and boosting economic growth. However, social programs cannot only be about contributions to economic growth. There will always be people who, for reasons of poor health, remote location, or sheer bad luck, are not be able to participate commensurately in the economic growth of the province. It is important to create mechanisms that provide a measure of protection to these unfortunates; even in its quest for economic efficiency, a humane society must take measures to temper the wind to the shorn lamb.

6.76 These measures are particularly important in Balochistan, because the province not only exhibits a high degree of poverty, but is also more vulnerable to external shocks, such as increases in world food prices. A recent World Bank report assessed the impact of the 2008 world food crisis on the different provinces of Pakistan, using the concept of “compensating variation” (the additional expenditure needed to maintain household welfare at the pre-crisis level) to document the impact of the food price crisis.³⁹ It found that households in Balochistan were the most adversely affected; for example, the compensating variation for households in the Punjab was estimated at 37 percent of total household expenditure, while in Balochistan it was 54 percent.

6.77 In view of the level of poverty and the degree of vulnerability, Balochistan requires attention to the provision of a strong social protection safety net. This is especially important because, as the World Bank report emphasized, if the former main safety net programs—Zakat and Bait-ul-Maal— were devolved to the provinces, Balochistan would be the province facing the greatest difficulty in maintaining the scope of the programs.

³⁹ World Bank, Pakistan: *Towards an Integrated National Safety Net System*, Washington, DC, 2012.

Chapter 7 DRIVERS OF GROWTH: LOCATIONAL ASSETS

7.1 In addition to mineral, energy, and agricultural resources, Balochistan also possesses advantages that derive from its location. These locational advantages are potentially very valuable, although their fullest development is likely to occur in the medium to long-term. This is because the development of these resources would not only require a substantial amount of investment, but also because reaping the full benefits depends not only on the actions of the Government of Balochistan, but also crucially on the evolution of Pakistan's foreign policy and the country's external relations.

7.2 The new growth strategy for the country estimates that Pakistan must accelerate its growth rate to about 7 percent a year in order to create a sufficient number of jobs for the rapidly growing labor force. Moreover, the growth needs to be geographically balanced so that it can be sustained politically for a prolonged period. This requires, among other things, tapping into lucrative markets outside the borders into neighborhoods that are either growing quickly, or have the potential to do so, or can provide Pakistan with the resources that it needs. Seeking such "growth vents" will require recreating some of the area's historical trade routes.⁴⁰

7.1 Balochistan's Regional Location

7.3 Over time, the historical trade routes changed, largely because of political developments. The routes from Lahore to lands in the West were cut off with the coming of the British, and from the East soon after 1947 because of continuing tension between India and Pakistan. Imperial rivalry between Russia and Britain cut off another important trade node, Peshawar, from its northern markets and of course after 1947 poor relations between India and Pakistan. Hemmed in by the colonial borders on the one hand and poor relations with India on the other, Pakistan's policymakers tried to reorient the country's trade patterns in a mainly North-South direction (along the Indus Valley). This largely left Balochistan out of the picture, although a route (road and rail) did spike out and link Quetta with the North-South corridor. However, the absence of strong links to the North and the West meant that Quetta, and indeed Balochistan, could hardly be seen as a trading hub.

7.4 As recently as the 1980s, it did not much matter that the old East-West trade routes had largely been abandoned. China, and western China in particular (the area that abuts Pakistan) was economically stagnant or growing only very slowly, while India's growth rate rarely rose above 3 percent a year, significantly less than that of Pakistan. It did not appear that the absence of trade links with these countries posed a severe constraint to Pakistan's development.

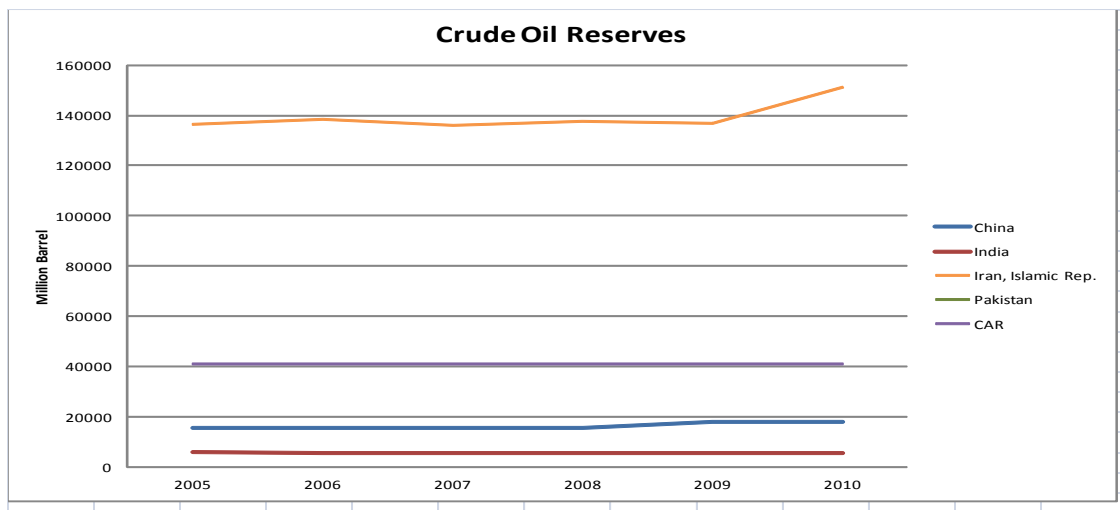
7.5 Now, however, the picture has changed dramatically. Since the early 1980s, China has been growing at rates of 10 percent per annum, while its policy of regional restructuring to deepen growth beyond the Pacific coast to Western China brings a potentially vibrant market to Pakistan's border. Moreover, especially given the political and diplomatic links between the two countries, some of China's huge pool of savings could be attracted to invest in Pakistan.

⁴⁰ This chapter draws extensively on Ijaz Nabi, "Pakistan's Quest for a New Growth Vent: Lessons from History", *Lahore Journal of Economics* (forthcoming).

7.6 To Pakistan’s East, India has shrugged off its earlier slumber and is on an impressive growth trajectory of 7–8 percent a year. Moreover, the continuing improvement in Pakistan’s relations with India, including the recent grant to that country of a most-favored-nation status, increases the potential for economic cooperation between the two neighbors. In short, Pakistan’s borders are touched by two economies comprising a billion-plus people, high savings rates, and a fast-rising middle class with increasing consumption expectations; it is up to the country to make the best use of the potential that this offers.

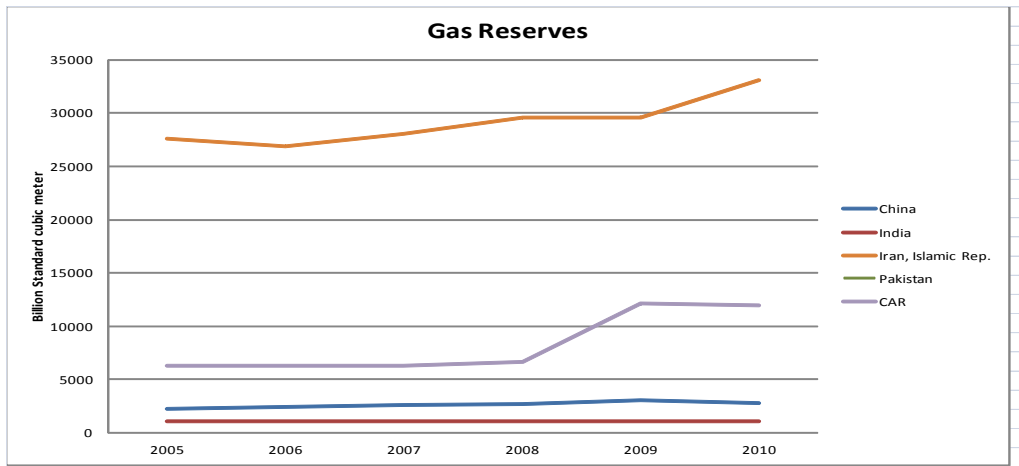
7.7 To the west of Pakistan, sharing a substantial border with Balochistan, lies Iran with its oil and gas reserves. To the north of Iran are the Central Asian Republics (Turkmenistan, Uzbekistan, Kazakhstan, Kyrgyzstan, and Tajikistan). These countries are rich in natural resources, but could not trade freely in these because they were compelled to sell them to the Soviet Union at artificially low prices. Figures 7.1–7.3 below show the size of crude oil, gas, and currency reserves of the Central Asian Republics.

**Figure 7.1: Crude oil reserves in countries on Pakistan’s borders, 2010
(million barrels)**



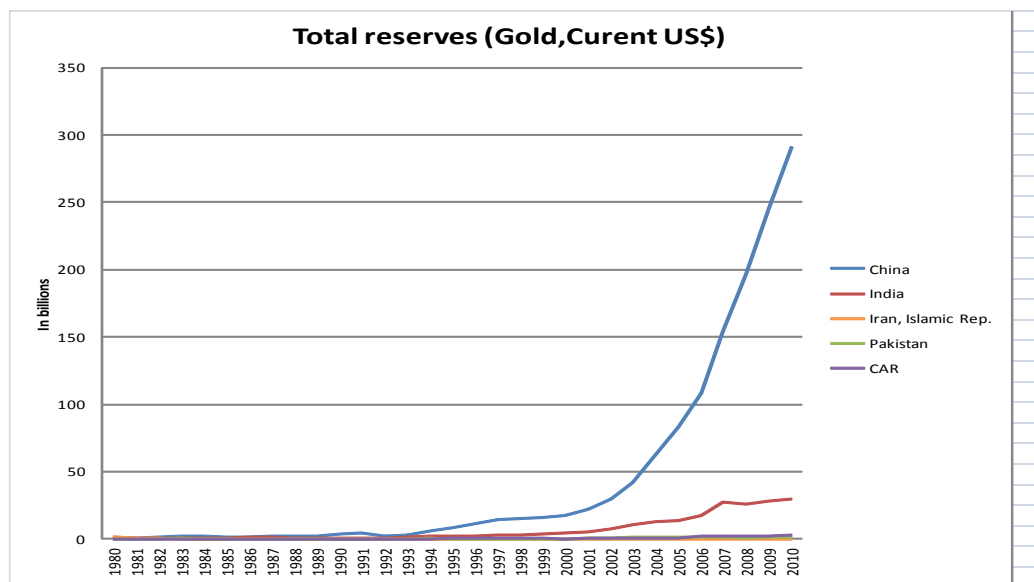
Source: Nabi (2012).

**Figure 7.2: Gas reserves in countries on Pakistan’s borders, 2010
(billion standard cubic meters)**



Source: Nabi (2012).

**Figure 7.3 International reserves accumulation in countries on Pakistan’s borders, 1980–2010
(gold and current US dollars)**



Source: Nabi (2012).

7.8 The potential that recent developments offer to Pakistan in the shape of increased trade, access to natural resources, movements of workers and flows of investment will require a continuing evolution of Pakistan's foreign policy in a direction that it already appears to have taken, for example, the recent agreement to grant most-favored-nation status to India in the matter of trade, the understandings on permitting Pakistani businessman to invest in India, and the discussions on easing travel and visa requirements between the two countries. Realization of the potential will also require peace in Afghanistan. Such matters lie largely outside the control of the Government of Balochistan, but it can engage with the federal government to support an agenda that furthers the province's interests.

7.9 Balochistan will be central to Pakistan becoming a regional hub for trade in goods and energy. The province's strategic location makes it pivotal both for the East-West as well as for the North-South trade routes. The historical trade route linking markets in Indian Gujarat, Upper Sind and Iran traverses Balochistan. The trade route to Kandahar in Afghanistan and beyond to Central Asia also traverses Balochistan. Thus peace in Balochistan and upgrading of infrastructure and transport networks along the East-West routes will have to be priority both for Balochistan's development as well as for Pakistan's overall economic growth.

7.10 Balochistan also offers potential prospects of economic benefits in terms of a second North-South trade corridor. These arise from the province's 750 kilometer location on the Makran coast on the Arabian Sea and the Indian Ocean. Some commentators have waxed eloquent on the subject, for example, one writes that: "some 90 percent of inter-continental trade and two-thirds of all petroleum supplies travel by sea. Globalization relies ultimately on shipping containers, and the India Ocean accounts for one-half of all the world's container traffic. Moreover, the Indian Ocean rim land from the Middle East to the Pacific accounts for 70 percent of the traffic of petroleum products for the entire world. Indian Ocean tanker routes between the Persian Gulf and South and East Asia are becoming clogged, as hundreds of millions of Indians and Chinese join the global middle class, necessitating vast consumption of oil."⁴¹

7.11 The foregoing writer is not alone in his enthusiasm; consider the comments of an Indian analyst: "Imagine now a bustling deepwater port with refueling and docking facilities at the extreme Southwestern tip of Pakistan, more a part of the Middle East than of the Indian Sub-continent, equipped with highway and oil and natural gas pipelines that extend northeast all the way through Pakistan—cutting through some of the highest mountains in the world, the Karakorams—into China itself, from where more roads and pipelines connect the flow of consumer goods and hydrocarbons to China's middle class fleshpots farther east."⁴² Other writers have emphasized the strategic aspect of Gwadar's location—the pipelines would also be used to develop China's Muslim far west; in this way, Gwadar looks poised to cement Pakistani and Chinese strategic interests.⁴³

⁴¹ Robert D. Kaplan, *Monsoon*, Random House, New York, 2011.

⁴² B. Raman, "Hambantota and Gwadar—an Update," Institute of Topical Studies, Chennai, India, 2009.

⁴³ Robert G Wirsing, "Baloch Nationalism and the Geopolitics of Energy Resources: The Changing Context of Separatism in Pakistan." Strategic Studies Institute, U.S. Army War College, Carlisle, PA, April 17, 2008.

7.12 While the present report recognizes the potential of Gwadar, its assessment of the pace at which this potential is likely to be realized is more cautious than that of the commentators quoted above. Moreover, the report recognizes that in order to fully achieve this potential, a considerable amount of investment in supporting and ancillary infrastructure and in human resource development has to be undertaken (see below).

7.13 Both Pakistan and Balochistan have much to gain from a joint strategy of economic growth based on regional trade. This requires strengthening the relationship of mutual dependence and trust. To that end, the 18th amendment of the constitution and the supporting 7th award of the National Finance Commission in 2010 were important steps. The constitutional amendment virtually eliminated the concurrent list and transferred most of the responsibility for economic development to the provinces. To back this up financially, the 7th NFC award has reduced the federal share of the pool of resources and substantially increased Balochistan's share. This follows from the greater weight to underdevelopment and thin population density (that increases the cost of service delivery) in the distribution formula. In turn, Balochistan needs to develop the capacity to utilize the additional resources more effectively. The NFC award presents opportunities to that end. National investment priorities to promote regional trade could be dovetailed with complementary Balochistan investments via the provincial Annual Development Plan to implement a comprehensive strategy for upgrading infrastructure that supports a larger volume of regional trade.

7.2 The Role of Gwadar Port

7.14 Over the past several years, there has been a significant investment in the coastal region of Balochistan, particularly for the development of ports. If these ports can act as growth nodes for the regional economy, they could create a substantial benefit for the province. However, one must recognize that these ports will compete with others in the country and the region, and thus the precise rationale for each of them should be clearly spelled out and the benefits realistically calculated

7.15 The port of Gwadar was envisaged as a catalyst to aid the rapid development of Balochistan. Its success was predicated on a number of assumptions, chiefly that it would play an important role in transit of goods to Afghanistan and the Central Asian republics, and in transshipment. For a variety of reasons, it has not lived up to these aspirations and may not be able to do so even in the medium term—the challenge is the greater competitiveness of other ports in the area.

7.16 A recent study suggests a different strategy and recommends a number of measures to attract traffic, but cautions that they are likely to be effective only in the medium to long-term.⁴⁴ The strategy proposed is for Gwadar to rely for its growth not on expectations of transit or transshipment cargo, but to focus on Pakistan's domestic trade. The argument is that capacity in the country's two main ports—Karachi and Port Qasim—will increasingly be unable to efficiently handle the growth in traffic and that the potential for growth in their capacity is limited; this would provide Gwadar the opportunity to step in and fill the breach.

⁴⁴ Edward Laing, Amer Z. Durrani, and Farooque Chaudhry, "Getting the Gwadar Port Going?"

7.17 The study underlines the point that the port may have a potential in this direction, but realizing the potential will require a combination of investment and policies, all of which will take time. This is all the more reason for the Government of Balochistan to start incorporating in its medium-term thinking a specific strategy to get the port going. The authors of the study referred to in this section argue that the following measures should be adopted.

- Restrictions on land speculation which has increased land prices in the area. All land around the coastal belt, at least 50 km on both sides of Gwadar Port could be requisitioned. Land to prospective industrialists could be provided on long leases and peppercorn rents, with attractive incentives. Periods for setting up industries should be fixed, and law and order should be guaranteed;
- Construction of transport links to possible markets (road, rail and pipelines). This is essential;
- Making Gwadar the home port for the Pakistan National Shipping Corporation, shifting the head office and associated concerns to the new port;
- Diversion of government bulk traffic, e.g., coal and grains, to Gwadar where possible and offsetting the extra transport costs to the extent possible via reductions in port tariffs;
- Shifting of activities which do not depend on highly competitive transport costs from the Karachi area to Gwadar. Also repair facilities for the tugs and other vessels operated by the other ports, and emergency reserve stocks of fuel or other essential items, in case of conflict, might be shifted to Gwadar;
- Large discounts on port tariffs (as at Chahbahar);
- Negotiation with China over possible oil and petrochemicals investments;
- Monitoring industrial developments to identify production plants that could be located at Gwadar. For example, the government is planning a massive increase in coal-based power plants, and much of the coal will have to be imported by sea. It should be noted that Qasim's traffic was pump-primed via the location of a steel plant there;
- Development of Port Free Zone Area (warehousing, assembly plants, and value added exports) coupled with some of the above recommendations;
- Facilitating PSA in getting one of the major shipping lines to locate its hub in Gwadar.

Chapter 8 DRIVERS OF GROWTH — FINANCE FOR DEVELOPMENT

8.1 Owing to a favorable NFC Award, Balochistan seems to be coming out of an acute fiscal crisis, which had impacted the finances and the development of the province. The fiscal crisis was an outcome of province's heavy reliance on federal transfers, especially of gas-related levies,⁴⁵ which dropped from a high of 5.8 percent of provincial GDP in 2001/02 to only 1.9 percent by 2008/09. Mainly because of this decline in gas-related transfers, provincial fiscal resources declined from about 15 percent of provincial GDP in 2000/01 to less than 10 percent by 2008/09 (see Table 8.1). During this period, the overall revenue of the province grew by only 10 percent p.a. with growth in provincial own-source revenue (at 14 percent p.a.) outpacing the growth in federal revenue transfer (8 percent p.a.). With expenditure liabilities increasing sharply, this decline in revenue caused a steep deterioration in provincial finances, and the province (which used to have a fiscal surplus) ran large fiscal deficits, thereby accumulating debt, mainly foreign debt. While most of the foreign debt is concessional, and by helping the province to retire the more expensive federal debt creates some additional fiscal space, the short term debt, especially the one that the province owes to the State Bank of Pakistan, has been expensive and feeds back into the fiscal deficit.

8.2 The provincial resource position improved significantly with the Seventh NFC Award, which not only increased the overall share of provinces in the pool of federally collected revenue, but has also increased the share of Balochistan within the provincial share (see Box 8.1). As a result, federal revenue transfers to Balochistan increased by 186 percent. However, as grants from federal governments were discontinued, provincial own-source revenue (inclusive of grants) declined by 40 percent. Overall, there was an 83 percent increase in total revenue of the province.

8.3 Provincial own-revenue collection comprises only a small, and declining, portion of the overall revenue resources of the province. The province's own-revenue mobilization is less than 5 percent of its total revenue. This not only indicates the weakness of the provincial economy, but also the lack of political will and the capacity for additional revenue mobilization. However, in view of the meagerness of this revenue head, even a substantial increase in provincial own-revenue will not lead to any major improvement in provincial finances. Hence, the onus of fiscal management will remain on prudent expenditure management.

8.4 Balochistan has very large expenditure needs. As geographically the largest and most backward province in the country, it has a pressing need to substantially increase public investment in physical infrastructure and social services. Discharging the medium-term debt owed to the SBP can provide significant savings on debt servicing that the province is making to the SBP every month. On these bases, there were expectations that after the windfall of the new NFC Award, the provincial development expenditure would show a sizeable increase, and in addition, the province would show a healthy fiscal surplus.

⁴⁵ These include, gas development surcharge (GDS), excise duty on natural gas and royalty on natural gas.

Box 8.1: The Seventh NFC Award

The Seventh NFC Award raised the share of provinces in the divisible pool of federally collected taxes from 46.25 percent to 56 percent (to now 57.5 percent). However, under the Sixth NFC Award, the provinces also used to get additional revenue collected from the 1997 increase in rate of GST from 12.5 percent to 15 percent. Under the new NFC Award, this additional transfer of GST revenue has been withdrawn. In addition, the size of divisible pool has been somewhat expanded by reducing the collection charges retained by the federal government from an average of 5.2 percent to only 1 percent. For horizontal distribution of revenue among provinces, the Seventh NFC Award moved away from the past practice of using population share as the sole criteria and has included other factors such as poverty/backwardness, tax collection and geographical size (along with population shares) into the formula. The new Award has made a specific attempt to cater to the needs of the two smaller provinces. Over the last few years, natural gas related revenue transfers, especially to Balochistan, have declined substantially, leaving a huge resource gap in the provincial budget. To cover this gap, the new Award increased the share of Balochistan in federal revenue transfers from 7.2 percent to 9.1 percent. The shares of all other provinces have been reduced. Nonetheless, to help the KP province cover the cost imposed by the “war on terror”, one percent of gross revenue from the divisible pool will be provided to the province as direct transfer. On the other hand, like the revenue transfer from the increased rate of GST, all federal grants and subventions have been discontinued and rolled into the divisible pool. Overall, the new Award transfers significantly higher level of fiscal resources to the provinces.

8.5 While the province did show a surplus of Rs 14 billion (1.9 percent of PGDP) in 2010/11, the size of development spending remained virtually unchanged since 2007/08. In contrast, the recurrent expenditure increased by 39 percent p.a. during the same period. Employees-related expenditure increased at an astounding rate of 64 percent p.a. This was partly an outcome of large increase in employees’ salary announced by the federal government and partly because of increase in employment in the provincial government. On the positive side, the O&M recurrent expenditure of the province increased by 48 percent a year.

8.6 While the provincial government expenditure increased rapidly, the provincial government has decided to do away with the 2001 devolution plan and has almost completely provincialized all the functions devolved to district governments. Although on paper the district governments exist, they are run by provincial government officers and are provided funding from the provincial budget. As such, the role of MPAs in the execution of the budget has increased substantially. The implied politicization of fiscal decisions has enhanced concerns about whether the additional fiscal resources that have become available to the provincial government would be utilized in the most efficient and prudent manner.

**Table 8.1: Summary Fiscal Accounts, 2000/01–2010/11
(percent of provincial GDP)**

	2000/01 Actual	2001/02 Actual	2002/03 Actual	2003/04 Actual	2004/05 Actual	2005/06 Actual	2006/07 Actual	2007/08 Actual	2008/09 Actual	2009/10 Actual	2010/11 P. Actual
Total Revenues	14.9	14.8	14.2	12.7	12.7	12.5	13.9	11.6	9.9	11.3	16.8
Tax and Non-Tax Transfers	9.6	9.9	9.2	7.7	7.1	7.2	9.2	6.8	5.4	5.8	13.5
Provincial Revenues	5.3	4.8	4.9	5.0	5.5	5.4	4.7	4.8	4.5	5.5	3.3
Tax Revenues	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.2	0.2	0.2
Non-Tax Revenues	4.9	4.5	4.6	4.5	5.1	5.0	4.4	4.5	4.3	5.3	3.1
Total Expenditure	13.2	13.7	16.6	16.8	18.6	15.6	15.4	14.2	12.5	11.4	14.9
Current Expenditures	10.5	11.9	12.6	11.0	13.8	9.8	8.8	8.2	7.9	7.4	11.6
General Administration	1.5	1.7	1.2	1.2	1.1	1.0	1.0	1.0	1.3	1.1	1.5
Law & Order	1.1	1.3	1.4	1.4	1.3	1.6	1.4	1.4	1.2	1.3	1.5
Social Services	3.5	3.5	3.7	3.7	3.5	3.7	3.5	3.1	2.9	2.9	3.7
Economic Services	1.3	1.2	2.2	2.1	2.1	2.3	1.8	1.8	1.6	1.5	1.1
Community Services	1.2	1.2	1.3	1.2	1.2	1.1	1.0	0.8	0.7	0.6	0.8
Subsidies	0.0	1.0	0.9	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.3
Debt Servicing	1.9	1.9	1.8	1.2	0.8	0.9	0.5	0.6	0.2	0.0	0.7
Others	0.0	0.0	0.0	0.0	3.8	0.0	0.0	0.1	0.0	0.0	1.9
Development Expenditure	2.7	1.9	4.0	5.9	4.8	5.8	6.6	6.0	4.6	4.0	3.3
Revenue Surplus (+)/Deficit(-)	4.4	2.9	1.6	1.7	-1.1	2.7	5.1	3.5	2.0	3.9	5.2
Fiscal Deficit	1.7	1.0	-2.5	-4.1	-6.0	-3.1	-1.5	-2.5	-2.6	-0.1	1.9

Source: Government of Balochistan Budget documents, various years.

ANNEX I: RESULTS MATRIX

Growth	Human Development	Economic Governance
<i>Improved environment for private sector development & investment (e.g. improve access to finance and encourage women entrepreneurship)</i>	<i>Increased and improved access to education (more schools, especially in rural areas. Better access to education for girls (more girls' schools to reduce distance to travel. Better protection [e.g. boundary walls]. Better hygiene facilities [e.g. toilets])</i>	<i>Strengthened government institutions (Merit-based recruitment. Reduced turnover of officers)</i>
<i>Increased and better skilled labor force</i>	<i>Increased incentives to retain skilled professionals in the province (e.g. more training opportunities, merit-based pay, reduced turnover)</i>	<i>Increased effectiveness and management of public resources (Better water management. Attention to increasing province's own-revenues)</i>
<i>Upgraded infrastructure for better access (e.g. improve roads network; Gwadar port fully operational; reconstruction/building of links to Gwadar)</i>	<i>Improved student learning (e.g. more training for teachers; stipends for students, especially girls, to retain students in the education system)</i>	<i>Improved transparency and accountability of public services (Regular surveys to ascertain citizen satisfaction and to identify major problem areas; more transport funds for monitoring performance in remote areas)</i>
<i>Increased productivity of livestock, agriculture and fisheries sectors (e.g. introduce clear regulations for market facilities; veterinary inspections, etc.)</i>	<i>Developed higher education and vocation training (Partnership with private sector to ensure training is consonant with market needs)</i>	<i>Revised institutional arrangements to enhance women empowerment and participation in the labor-force</i>
<i>Better electrification (incl. alternative energy resources) (e.g. manage electricity subsidies, and feasibility study for introduction of renewable energy sources)</i>	<i>Improved health and social services (More female health personnel. Explore use of mobile clinics to deliver services to where people live)</i>	<i>Improved economic planning, monitoring and evaluation (Regular updating of economic data [e.g., GDP accounts, cost of doing business indicators to benchmark against other provinces])</i>

ANNEX II: BALOCHISTAN DEVELOPMENT NEEDS AND PROSPECTS CONSULTATIONS WITH STAKEHOLDERS⁴⁶

Process Summary

1. The Government of Balochistan through the Multi Donor Trust Fund (MDTF) requested that a needs' assessment be carried out by the World Bank to give an overall picture of the current situation and identify key development challenges in the province. To ensure ownership and full engagement a series of stakeholder meetings and consultations were conducted with key actors in Balochistan to seek their views during the preparation of this report. This involvement and interaction with a wide variety of stakeholders, including representatives of Government, legislators, non-government actors, private sector, and academia set the stage for widening the dialogue and for better understanding the challenges faced by Balochistan.

2. A total of three meetings were held in the period since the Government made the request and they were all chaired by the Country Director for Pakistan. The first of these consultations was organized on January 30, 2012 at the World Bank office in Islamabad with Government officials and Bank Staff. During this first meeting the government representatives articulated their views of the situation and identified the sectors for which they need more detailed analysis in the proposed study: health, water (including hydro-power), agriculture (and its sub-sectors, including fisheries), and energy (mostly focusing on alternative sources of energy). The Government representatives also informed the participants about their plans to prepare a Comprehensive Development Strategy for Balochistan by the end of 2012 or early 2013. Thus the meeting decided that the end product would not be a development plan, but it will provide recommendations and would be helpful to the Government to develop its own strategy.

3. The second session was held on February 9, 2012 in Islamabad between Parliamentarians from Balochistan and Bank staff. It was the first such meeting and the legislators appreciated the opportunity of directly interacting with Bank staff and share their vision for the future of the province. Parliamentarians also discussed the current Bank involvement in Balochistan and expressed their gratitude for the support to the province.

4. The third event was a one-day meeting in Quetta on May 10th, 2012 with a wide range of stakeholders jointly organized by the Government of Balochistan and the World Bank. The principal objectives of were to understand stakeholders' development perspectives for Balochistan, to share insight into key development challenges and potential opportunities and lastly, agreeing on strategic directions for carrying on the dialogue. The event benefited from the participation of several key actors, Chief Secretary of Balochistan Government, a former Member Provincial Assembly and Chairman Pakistan Senate, and other high level officials. The Bank presented some of the key findings of the draft report on Balochistan which set the stage for the open discussion.

⁴⁶ Prepared by Mehnaz Aziz, Lead Facilitator.

5. All three consultations formed a continuous process of engagement and dialogue that gradually augmented the sense of ownership and inclusion of representatives from different walks of life in Balochistan. This was observable in the way in which the dialogue evolved over the period. In all three sessions of consultations, there was a broad convergence on areas prioritized as needing urgent attention. This convergence is especially important for international donor organizations to gain insight into where they may be able to make successful interventions. As the consultations progressed, the participants presented increasingly concrete and contextualized suggestions on the implementation of development initiatives in priority areas.

Highlighted Issues

6. One of the most commonly identified issues was the deteriorating **law and order** situation. Several reasons were pointed out as the cause of the deterioration of the law and order situation. These included ethnic and tribal disputes, insurgencies and terrorism. Increased kidnappings and disappearances were seen as having a particularly detrimental effect on developmental efforts as both national and international agencies and staff involved in development were being targeted and felt threatened. The poor training, mobilization and equipment of the police force was seen as a big hurdle to a better law and order situation. The uncertain situation has had an adverse impact on national and international development agencies working in the province.

7. Another concern considered high priority was the problem of **water scarcity and management of the water resources** in Balochistan. A large proportion of participants in all three consultations pointed out the acute shortage of water in the province and the negative consequences of this water shortage. With the underground water levels being depleted and the extraordinarily high reliance on rainwater, the urgent need to develop surface water resources was stressed. Its negative impacts of water shortage on agriculture and the associated high costs of service delivery as a result of geographic limitations require that storage facilities like dams be built. However, instead of just funnelling funds into one aspect of the water problem, it was also suggested that initiatives like a consumer strategy for drinking water, the collection of baseline data, watershed management, water utilization awareness programmes, and water treatment plants would support and strengthen development interventions. With high rural-urban migration taking place from rural Balochistan to Quetta, it was also stressed that global urban water management tactics be employed in the city, and options such as salt treatment plants for drinking water were considered. The Bank's engagement in water sector was acknowledged and appreciated.

8. **Governance and service delivery** was another area of concern. It was emphasized that different strategies need to be developed for urban and rural areas in partnership with NGOs working in the field, based on global best practices. The necessity of a functional framework for implementation was repeatedly stressed. Government capacity and its present performance in terms of monitoring its own performance was questioned by many, including those in government, and it was recognized that the World Bank with its expertise of global best practices in governance could play a crucial role in improving government capacity. Depoliticization of government institutions was also stressed. At the same time, it was emphasized that efficient

monitoring systems be kept in place to ensure that developmental funding by the World Bank and other agencies are spent the way they are intended to, with both the government of Balochistan and the World Bank playing their part in monitoring this mechanism. In addition to having accelerated service delivery mechanisms, efforts need to be integrated to avoid duplicity and wastage of resources. Effective performance-based management needs to be undertaken of sectors/line departments.

9. **Unemployment and poverty** were termed as being rampant, aggravated further by the poor security and economic situation. It was underscored that investments must be made within labor-intensive industries to absorb the unemployed. Vocational training institutes need to be expanded so that they can train the unemployed with the relevant skills and techniques that they need to find work. The role of these institutes was termed as detrimental in ensuring the success of future labor. The youth need to be invested in through higher education to groom a skilled labor force in Balochistan. In terms of efforts for alleviation of poverty, it was underscored that there is no proper plan for collecting tax from the rich and that there needs to be some mechanism for progressive taxation to ensure re-distribution of income throughout Balochistan, and throughout Pakistan for that matter.

10. The unemployment issue is seen as directly related to a weak **education** system. The disparity between Balochistan and other provinces in terms of school enrolment rates and literacy especially with respect to girls was emphasized. Access to even primary education is very limited in the province, which is mostly due to low investments in infrastructure and facilities. Huge investments are also needed in human resources. In terms of female access to higher education both as students and teachers, the need for female hostels was emphasized. In general, measures needed on both a macro and micro level were identified as providing necessary infrastructure, improving access, human resource development, and involving the private sector in the education sector in Balochistan.

11. The participants saw the **health** sector of Balochistan as being in a particularly deplorable state. The need for hospitals in every district in Balochistan was stressed. A blatant example in that respect is limited availability of vaccinations, particularly for Hepatitis and Tuberculosis and their poorly managed distribution and administration. It was acknowledged that the health sector is in urgent need of reform.

12. Participants were of the opinion that the **livestock and dairy sector** which provides a significant contribution to the provincial economy, could play a vital role in poverty alleviation, however the needs of the livestock/agriculture and the sub-sectors have never been properly assessed. The policy-level neglect of the **fisheries** sector, which provides livelihood to a majority of the coastal population of Balochistan and has the potential of being a large contributor to the national GDP, was pointed out. The need for a coordination mechanism amongst the various organizations and actors involved in the fisheries sector, such as the BCDA, Fisheries Department and Pasni Fish Harbor was emphasized. Support was also expressed for investing in disaster management systems for the Province. The Bank was also asked that sectoral analyses be divided into production and service delivery components, focusing on practical, deliverable outcomes in conjunction with work being done by other donor organizations. A synergized approach was preferred for its effectiveness.

13. Balochistan's **infrastructure** was cited as collapsing with road and rail linkages not being maintained for over a decade. The Gwadar port was mentioned quite often as having a tremendous earning potential, but at the same time the need to handle it prudently was also emphasized.

14. In terms of human development, Balochistan with the lowest Human Development Index (HDI) in the country, needs to economically empower **women** through entrepreneurship training and trade initiatives by creating an enabling environment that allows women to sell their products in the open market at competitive rates. Given the local talent, this needs to be fostered by creating opportunities. It was stressed that investing in women is investing in the future of Balochistan.

15. Similar to the rest of the country, Balochistan continues to face an **energy crisis** with little to no signs of abating unless drastic measures are adopted. Fortunately, given the availability of substantial amounts of coal and gas reserves in the province, electricity can be generated and excess can be exported nationally as well as to neighbouring countries. In terms of renewable energy, alternative means of energy need to be identified and the use of wind and solar energy can be used as a cheap and clean alternative to traditional forms of energy. The availability of a one-time Grant to the Government of Balochistan was suggested as a way to avert the current energy crisis.

16. There was concern that although Balochistan is rich in natural resources, it is also subject to **natural calamities**, which affects the development progress of the province as a whole. To address this, there needs to be Disaster and Environment Management Systems and the World Bank can assist the Government of Balochistan with this. There was agreement that if other countries would want to access natural resources in Balochistan, there would need to be an Access Policy that would clearly identify roles and responsibilities and more importantly, ensure transparency.

17. The rapid effect of **climate change** was considered to be central to the issues of water management, energy, food security and natural disasters. There was consensus that Balochistan was ill equipped to deal with and address climate change and looked towards the World Bank assistance in disaster risk reduction, and possibly in environmental management.

18. Balochistan is also seen as an important player in **regional trade and integration** and critical for the future of Pakistan. Gwadar port could be fully operationalized and transit facilities be established. The geographical importance of Balochistan was underscored and regional cooperation with Afghanistan and Middle Eastern countries could provide opportunities for setting up Free Trade Zones (FTZ).

19. A **development strategy for Balochistan** was discussed and the participants in all three meetings felt that a stereotyped development approach would not be applicable to the province and what was needed was a targeted development strategy with participatory methodologies to effectively engage with the beneficiaries. Coupled with such efforts, policies must be made at multiple levels simultaneously to ensure consistency and synergy. It was pointed out that a

development strategy requires identification of all prevailing issues and that the real focus on policy in Pakistan was missing for some time and that interventions alone lead to unintended consequences in the absence of an implementation framework. The approach to be adopted by the Government and its development partners needs to be focused on policy formulation and implementation by sharing ideas and global best practices. There must be provincial ownership if development is to remain sustainable along with an enabling environment and a relationship between the political leadership and social mobilizers. Any World Bank initiatives and efforts in Balochistan would need to be synergized along with a change in attitude and aptitude of the people of Balochistan. For utilization of World Bank funds, it was demanded that fool proof arrangements be put in place that funds are used for their intended objectives. Additionally, all projects should be carefully evaluated vis-a-vis funds released by the Federal and Provincial Governments. Participants were assured that Parliamentarians would champion this development strategy in bringing about a positive change and viewed the World Bank as a trusting and supportive partner in this process. The need for having a detailed development strategy working in parallel with development partners was emphasized as including substantial investment in the education sector (primary, secondary and higher education), better WATSAN (Water and Sanitation) facilities for improving health by strengthening DHOs (District Health Officers) and lastly, undertaking enhanced communication efforts.

20. The discussions, particularly the meeting in Quetta, were termed ‘outstanding’ on various issues upon which there was convergence. The series of meetings is not only the start of a dialogue to facilitate permanent solutions to bring peace and prosperity to Balochistan, but also the beginning of a shared vision for Balochistan’s development and the need to move towards a ‘forward’ defining narrative. Communicating with the people of Balochistan is vital so that they may be made aware of the vast potentials of their province. Additionally, development funding has enormous potential and the private sector should be attracted for mobilization of funds. The role of the Government as the initiator can be altered to that of a facilitator to assist private sector and donor participation in furthering the development process in Balochistan.

21. A proposal was made for organizing a Balochistan Development Forum (BDF) and thus continue the process of engagement towards a collaborative future.

Concluding Note

22. This series of consultations succeeded in beginning not just a few instances of engagement but a *process* whereby a sustained dialogue and a consistent effort to include, engage, and collaborate will be an essential part of development in the Province. Though a vast array of scholarship exists on the subject of development, there are no formulae on what makes development interventions work in some places and fail in others. Interventions have to be tailored to the context in which they are implemented. Allowing these efforts to work through and not outside of existing systems expedites their implementation, and helps partner organizations decipher why certain measures may or may not work in the region. Once inroads have been made through existing systems, gradually resolving the shortcomings of these systems becomes easier. It is important to keep the process of consultations and building ownership of development initiatives amongst representatives from Balochistan in synergy with development interventions in such a way that each is consistently informed by the other.

23. The process of consultations set an encouraging precedent for the Government of Balochistan for future collaborative endeavours with the Bank. It was accentuated that there need to be more forums for the exchange of views on Balochistan; it is essential to take the rural population of this province into confidence and all measures and initiatives undertaken must be transparent so that the people know that something is actually being done.

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