Oil and Gas in Federal Systems

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Management of Oil and Gas Revenues in Pakistan

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The Forum of Federations is undertaking a study of the factors that affect the management of petroleum resources in federal systems, of which this draft paper is part. This paper is an informal document which publication is intended to provide reference material for the Conference on Oil and Gas in Federal Systems, organized by the World Bank, to further the dialogue on development and public finance issues that are common to federal and decentralized petroleum-producing countries. A revised version of this paper will be included in a publication by the Forum of Federations which is expected to be completed by June 2010. The manuscript of this paper has not been prepared in accordance with the procedures appropriate to formally edited texts. Some sources cited in this paper may be informal documents that are not readily available.

1. Overview

While Pakistan is a federal republic, its constitutional design is highly centralized and this feature was accentuated during the various periods of military rule. Since the return to democracy with the elections in 2008, real political federalism is showing some life, but its ultimate strength and form remains to be determined. Pakistan became an independent country on 14th August 1947, upon the partition of British India into two independent dominions of Pakistan and India. The country's formation was truly federal in that the people of most constituent provinces had elected for constituent assemblies in 1945-1946 in favour of creating Pakistan. In the case of Balochistan the Shahi Jirga, an assembly of the tribal notables, voted unanimously for Pakistan. In the North West Frontier Province (NWFP) people of the province voted unanimously for Pakistan in a referendum in 1947. Thus right from independence, Pakistan followed a federal system which was the creation of the constituent provinces. The original country included East and West Pakistan, which each became a province in 1955. East Pakistan split off to form Bangladesh in 1971, partly because of the system's failure to address its federal tensions stemming from the first military rule of Ayub Khan and demand for greater provincial autonomy by the political leadership of East Pakistan.

Today's Pakistan has a population of about 180 million. It is composed of four provinces, with very unequal populations: Punjab (57%), Sindh (22%), the North West Frontier Province (14%) and Balochistan (5%). In addition, there is the Federally Administered Tribal Area (2%) and the capital district of Islamabad (0.5 %). Each province has its own dominant language and distinct character; Urdu and English are the national and official languages respectively. The concentration of well over half the population in one province has been a continuing source of tension in the functioning of the federation. Land area and population of the CUs are given in the following table.

Land Areas & Population of CUs

Province	Land area		Population		Population density persons/sq km
	sq km	%	Millions	%	
Balochistan	347190	43.61	8.190	5.03	19
NWFP	74521	9.36	21.856	13.42	238
Punjab	205345	25.79	87.683	54.70	359
Sindh	140914	17.70	36.458	22.01	216
Pakistan	796096	100.00	159.090	100.00	166

The current constitution dates from 1973, though some of its key provisions were changed by edicts of the two military regimes. Pakistan's provinces rely overwhelmingly on the federal government for their finances and have limited constitutionally protected independence. There is a growing demand of greater provincial autonomy and a Parliamentary Committee is working on constitutional reforms that aim at enhancing provincial autonomy in political as well as fiscal aspects. Pakistan nominally follows the Westminster model of parliamentary democracy, but this was badly distorted by the military rulers who greatly strengthened the powers of the President. This too is being rebalanced with the return to democracy.

Fiscally, the federal government collects over 90 percent of revenues, though most of these are shared and a majority is now transferred to the provinces for administration. Every five years, a constitutionally established National Finance Commission is set up to review federal-provincial fiscal arrangements. The Seventh Commission announced award in December, 2009, that marks an historic step towards greater fiscal autonomy, which is bound to strengthen the framework of federalism in Pakistan.

Oil and gas have not been a central issue with the Federation of Pakistan. Although oil was discovered very early in 1915 in the northern Punjab, its volume remained limited. The petroleum industry had remained solely in the private sector before independence in 1947 and the pattern remained unchanged thereafter. Soon after independence Pakistan discovered major deposits of natural gas in Balochistan which were soon developed, laying the base for a gas-based energy economy. The country is largely gas-prone and natural gas now contributes nearly 50% to the primary energy mix. Indigenous production of oil is limited to about 20% of the oil consumed. Import of oil has been a serious burden on its economy especially the balance of payment position. All four provinces contribute to production of oil and gas but there is a great asymmetry in the share of production, with Sindh dominating both oil and gas production; Balochistan produces 20% of the country's gas, which makes the commodity very important for such a thinly populated province. Details of oil and gas production are given in the following table.

Oil and Gas Production (2008/2009)

Province	Oil		Gas	
	(Thousand barrels/day)	(Percentage of total)	(Million BTU/day)	(Percentage of total)
Balochistan	0.067	0.10	831255	20.91
NWFP	13.25	19.85	85366	2.15
Punjab	13.64	20.43	207670	5.22
Sindh	39.81	59.63	2851999	71.73
Pakistan	66.76	100.00	3976290	100.00

Longer-term, there is considerable additional potential, especially in Balochistan and the federally owned offshore. Ownership of petroleum on shore is implicitly with the provinces but they have almost no say regarding management control and the fiscal regime. Interestingly, however, in such a highly centralized federation, the provinces get all the benefits of oil and gas production that come in the form of the royalty, the excise duty on gas, and the gas development surcharge. Revenues from oil and gas form approximately 1% of the total provincial revenues of Punjab, 6% of NWFP, 14% of Sindh and 17% in case of Balochistan. At the country level these proceeds amount to about 3% of federal revenues and about one-third of one per cent of the national GDP. The recent NFC Award has rationalized the formula for distribution of gas development surcharge among the producing provinces. This has removed a longstanding contention in Balochistan. Details of oil and gas revenue are given in the following table.

Oil & gas Revenues (2009/2010) Billion Rupees

	Balochistan	NWFP	Punjab	Sindh	Pakistan
Royalty on crude oil	0	2469	1429	3915	7813
Royalty on natural gas	4443	2729	1214	18129	26515
GDS	5632	2159	1631	19915	29338
Excise duty on	1371	191	191	4545	6458

gas					
Total	11446	7548	4465	46504	70124
% of total revenues	17.0	6.6	1.0	14.2	3.0

2. *Historical and regional context of petroleum industry*

Pakistan has vast sedimentary basins with nearly 85% of land and continental shelf mass spread over 827,268 square kilometers. The major basin is known as the Indus basin that straddles across all the four provinces and most of the oil and gas discovered to-date is in this basin. The second, Balochistan basin, covers the Western part of Balochistan province and straddles across eastern Iran. No discovery of oil or gas has yet been made in Balochistan basin on either side in Pakistan or Iran. Details of areas under exploration and mining leases are shown in the following table.

Area Under Exploration & Mining Lease

Province	Under Exploration (sq km)	Under Mining and Development Lease (sq km)
Balochistan	66927	1176
NWFP	14363	468
Punjab	42084	1954
Sindh	68140	8269
Pakistan		
Onshore	191514	11867
Offshore	56107	

While Pakistan's first exploration well was drilled in 1866 in Punjab, in the region called Potohar, the first discovery of hydrocarbons in Potohar occurred nearly 50 years later in 1915 when oil was discovered at Khaur by Attock Oil Company. Three more oil discoveries were made in the region up to the time of independence of Pakistan, establishing a prolific petroleum system in the Potohar plateau. This early start of exploration and production in the region spawned a culture of petroleum skills, especially drilling crews, which has led to Pakistanis working at home and abroad, notably in the Persian Gulf countries.

Soon after the creation of Pakistan a number of gas fields were discovered notably one at Sui in Balochistan in 1952 by Pakistan Petroleum Limited (PPL), a local subsidiary of Burmah Oil. The Sui gas field was a major find with proven reserves of around 10 trillion cubic feet; it was developed within 3 years and the gas taken to Karachi by new pipelines over one thousand kilometers away. Sui gas worked as energy lifeline leading to industrialization in the port city of Karachi. Natural gas in Pakistan is generally known as sui gas because of the name of the pioneering field.

Additional gas fields were discovered in the 1950s at Zin and Uch in Balochistan; and Khairpur , Kandkot and Mazarani in Sindh. This further strengthened the impression that Pakistan geology was gas prone. The international petroleum companies were more interested in finding oil, which was more marketable in those days, so they left Pakistan in mass, largely for the Middle East, and petroleum exploration came to a stand still by 1960. This created a need for Pakistan to raise an indigenous exploration and production capability; national upstream oil company, the Oil & Gas Development Corporation (presently Oil & Gas Development Company Limited), was created in 1961 in the public sector. Interestingly, despite Pakistan's strong pro-US stance and military alliances during the Cold War, the OGDC was created through Soviet cooperation and aid. It started its exploration operations with Russian experts, equipment and materials and within five years made an oil discovery at Toot in 1967 in the Potohar region.

The OGDC and two indigenous foreign-owned upstream companies, Pakistan Oilfield Limited (POL) and Pakistan Petroleum Limited (PPL), continued exploration during the 1960s and early 1970s making a number of discoveries at Meyal in 1968, Dhodak in 1974 and Pirkoh gas field in 1978. These discoveries and the growing information on regional petroleum prospects brought Pakistan back on the international screen for foreign investment and a number of foreign companies took concession acreages in the Indus basin in Sindh. This led to the discovery of the second oil province in the southern Indus basin with the milestone discovery at Khaskeli in district Badin in Sindh in 1981. The southern Indus basin would later become the centre of exploration activity with numerous oil and gas discoveries so that eventually Sindh overtook Punjab in oil production and Balochistan in gas production, and became the leading province in oil and gas reserves. While Sindh's fast growth was due to its geology, accessibility and good infrastructure of oil and gas pipelines also contributed to it. Gas production in Balochistan remained nearly static because of poor local security in the areas that show greatest promise, especially in the Marri and Bugti agencies. A number of exploration licenses in these agencies are under force majeure for almost two decades.

The latter 1990s saw a major breakthrough when five major gas fields were discovered in the middle and southern Indus basin, adding nearly 50% to both gas reserves and production and giving a major boost to Pakistan's indigenous supply of primary energy.

Pakistan has managed to keep the oil production steady between sixty and seventy thousand barrels daily, while gas production has increased progressively at around 3.56% a year to about four billion cubic feet daily. Statistically the country has maintained an impressive ratio of geological success resulting in 213 discoveries of oil, gas and condensate out of 716 exploration wells drilled, giving an average success ratio twice the world average of 1:7. Although there has been a good success ratio, the problem has been with the size of discoveries, which average 41 million barrels of oil equivalent. Commercially, all discoveries are profitably producing, but the country remains critically energy deficient and relies heavily on imported crude oil and refined petroleum products. The United States Geological Survey in 2002 identified large undiscovered reserves of 19 trillion cubic feet of gas and a quarter of billion barrels of oil in the areas of Indus basin currently under exploration. This does not include potential in the frontier areas including the whole of Balochistan basin. Pakistan's current oil reserves represent 13 years of production, while its gas reserves represent 21 years. Longer-term potential is well beyond that, considering the potential of new discoveries in NWFP, FATA, offshore and Balochistan especially Marri and Bugti agencies.

The Government of Pakistan has regularly revised upstream petroleum policies since 1990, improving financial terms to attract greater foreign investment. The focus is on promoting exploration rather than extracting rent. The latest policy, announced in March 2009, went further in this regard.

Pakistan has a well defined continental shelf and one of the world's largest deltas created by the Indus River. Twelve offshore wells were drilled in 1950s but there was no hydrocarbons discovered. Thereafter, offshore exploration remained low. Only one well (Pakcan-1) drilled in 1990s produced some gas, but it was below the economic threshold for commercial production. The government introduced a production sharing model for offshore exploration in 1997 and has continually been improving incentives and these measures have been successful in achieving the current high level of offshore exploration activity.

Presently 20 operating companies are exploring onshore in 171 exploration licenses covering 191,514 square kilometers and 5 companies are operating 15 licenses offshore over 56,000 square kilometers. Pakistan urgently needs an offshore success to exploit the potential. A serious effort is currently underway and a number of companies have undertaken three-dimensional focused seismic surveys, identified interesting prospects and are about to start drilling. The ongoing war on terror is taking very serious toll on the security, economy and well being of Pakistan. It has affected upstream petroleum activity seriously. International companies that provide well-site services have moved expatriates out of Pakistan affecting the quality and some seismic and rig contractors have left the country. Exploration and production operations are stretched over large areas and the cost of providing security and protection has increased substantially. Petroleum consultants are hesitant to do field visits for consulting studies. The price Pakistan is paying for being the front-line state in war against terrorism is much larger than is generally visualized, which is especially so in upstream petroleum activity.

3. Federal system and constitutional provisions

Democracy in Pakistan has a checkered history and over half its sovereign life it remained under military rule. Successive military rulers made regressive changes in the constitution resulting in an anomalous power balance both within the federation and between the President and the Prime Minister.
The present constitution was adopted in 1973. The country went through catastrophic events at the end of two successive military rules from 1959 to 1971 resulting in its break-up and separation of its Eastern part as Bangladesh. Politicians of all shades and opinions came together to save what remained of Pakistan and unanimously passed the constitution in 1973. The 1973 Constitution provided a base for political federalism through a bicameral Parliament and federal parliamentary democracy, but it retained significant centralized controls reflecting the precarious state of the dismembered country. The federal government can appoint provincial Governors, approve the dissolution of provincial assemblies, approve caretaker provincial governments and give directions to the provinces. It appoints the chief secretary and police chief in the provinces. The federal government has a long list of exclusive powers and has paramountcy in relation to the many concurrent powers. The provinces have few exclusive powers but the residual powers notably are with the provinces. The Constitution provided for the concurrent powers to be transferred to the provinces after 10 years, but this never happened.

The Constitution suffered serious setbacks at the hands of two military dictators General Zia Ul Haq 1977-1988 and General Pervez Musharraf 1999-2008. They first suspended the Constitution and then changed it grossly with the thirteenth and seventeenth amendments. The latter drastically changed the framework by transferring important powers from the Prime Minister to the President, who was to be merely a ceremonial head of the state in the original Constitution. General Musharraf violated the Constitution for a second time in March 2007 by proclaiming a national emergency and sacking and putting under arrest the superior judiciary just as they were about to pronounce on his qualification for second term election while he was still in uniform. Musharraf is now off the scene but the country continues to suffer from constitutional anomalies and crises left by him. The judiciary has been restored under the pressure of a mass movement by lawyers and members of civil society and this offers a hope of a robust platform for interpreting the Constitution and rectifying contemptuous and anomalous provisions. One such example is the recent ruling by the Supreme Court that struck down the highly controversial National Reconciliation Ordinance as ultra vires; consequently, all those who were earlier let off the legal hook under this ordinance will have to face the courts. This development has been widely hailed by the people.

The federation has a pronounced asymmetry in population as well as land. Punjab is the most populous with about 58% of the total population. It sends largest number of representatives in the lower house of the Parliament and therefore wields greater control on government policies and decisions. Representation in the lower house is essentially by population, while the Senate gives equal representation to the four provinces (and lesser representation to the FATA and Federal Capital). However, this apparent "federal" element of the constitution is much weaker than it appears in that the Senate has no role to play on financial matters. The other provinces, and especially NWFP and Balochistan, have been feeling marginalized. Since the return of democracy, the development of Balochistan package and unequivocal support to the NWFP in mitigating the economic and social consequences of the war against terrorism have been designed to move the federal framework towards political and fiscal equalization. The province of Punjab has itself played an unprecedented and proactive role in meeting the aspirations of the other provinces, notably in the National Finance Commission Award, discussed below. This award will substantially change the negative optics of Punjab dominance in federal power play.

Another instrument of fiscal federalism, National Economic Council (NEC), is provided to review the overall economic conditions of the country and, for advising the federal and provincial governments, and to formulate plans in respect of financial, commercial, social and economic policies. It comprises of the Prime Minister as Chairperson and the provincial chief ministers as members among others.

Upstream petroleum functions are managed centrally by the federal government through the Ministry of Petroleum and Natural Resources. Up to about the year 2000, the Ministry used to obtain a no-objection certificate from the concerned provinces before signing exploration licenses on behalf of the President of Pakistan. This was to keep the provincial governments in the loop and to address environmental and security concerns. This practice was changed when a free acreage map was introduced to eliminate delays in the award of licenses. Provinces are now consulted in finalizing the free acreage map and thereafter the Ministry can award licenses without their no-objections. The Ministry follows a transparent and publicly advertised petroleum policy. The Constitution provides for the precedence of use of natural gas to the provinces in which the fields are situated. This provision is a safeguard against the transfer of natural resources from the provinces without extending the benefits of their use to the people of the producing provinces. This provision was ostensibly introduced to provide more gas to the people of Balochistan that produced most gas in the country in 1973. Although Balochistan is very sparsely populated with only about 19 persons per square kilometer, most major population centers are connected with gas pipelines. The consumption of gas in Balochistan is around 4% for its population of 5% and there is a growing trend for expanding the pipeline network.

3.1 Onshore
(a) Ownership and Jurisdiction

The Constitution is not explicit regarding the ownership of petroleum resources. Article 161(1) explicitly provides that federal excise duty and royalty on natural gas, of which are collected by the federal government, shall not form part of the Federal Consolidated Fund and shall be transferred to the provinces where the gas wellheads are located. These provisions implicitly confer benefits associated with ownership rights to the provinces but ownership and jurisdiction practically vest with the federal government. This lack of clarity on ownership has not been challenged by any of the stakeholders

The Federal Legislative List Part-I gives the power to tax oil and gas exclusively to the federal government and the Federal Legislative List Part-II gives administrative rights to the federal government. While nothing is said about ownership rights, it is abundantly clear that the federal government has jurisdiction to control, manage and regulate the exploration and production of mineral oil and gas and to fix and levy taxes on their production. There is a finer point, though, that for all entries in Part II of the Federal Legislative List, provinces have to be involved through the Council of Common Interests (CCI) in formulation of regulatory policies under Articles 153-155. Although meetings of the CCI have been very rare, the provision could give some leverage to the provinces in oil and gas management and a forum for resolution.

(b) Exploration and production regulatory regime

The Regulation of Mines and Oil-fields and Mineral Development (Government Control) Act 1948 provides for (i) applications for grant of petroleum licenses and mining leases, (ii) conditions for grant and renewal of the exploration licenses, (iii) conditions for refusal of grant or renewal of the exploration licenses, (iv) determination of the rates of royalties, rents and taxes to be paid by the licensees, (v) control of production, storage and distribution of mineral oil (and natural gas), (vi) fixation of the prices at which the mineral oils (and natural gas) may be bought and sold, (vi) ancillary and incidental matters. Petroleum Exploration & Production Rules 1949 provide detailed implementation of the above Act. New rules were later promulgated in 1986, 2001 and recently in 2009 incorporating provisions of new petroleum policies.

The jurisdiction for petroleum exploration, production, development, control and regulation is exercised by the federal government through the Policy Wing of the Ministry of Petroleum & Natural Resources, which has Director Generals for petroleum concessions, natural gas, oil and special projects; together they regulate the upstream petroleum sector. A relatively new autonomous body, the Oil & Gas Regulatory Authority, has been created to regulate the downstream prices of oil and gas to consumers; it holds public hearings of the stake-holders.

Every successive petroleum policy has provided for the stability of the licenses granted under earlier policies and conditions for opting into the new regimes. Onshore licenses are still based on the old concession-based regime that transferred the title of underground oil and gas to the upstream company; this limits the rent that the government can extract later during production. The rate of royalty on oil and gas has remained constant at 12.5% of the quantity sold at the prescribed wellhead prices since independence in 1947. Although Rules allow the payment of royalty in cash or kind, there is no precedent for payment of royalty in kind. The royalty is collected by the federal government and transferred straight to the provinces after deducting 2% collection charges (which are expected to be reduced to 1% in line with the demands of the provinces).

The 1991 Petroleum Policy introduced some provisions for community development social works, which have been enhanced in the 2009 Petroleum Policy. This provides for the welfare of the local people in the field of health, sanitation and education, but the operating mechanism leaves a lot to be desired and the provisions seldom translate into sustained benefits to the people. The new provisions also require the training of local manpower in petroleum skills.

Some political statements occasionally appear on ownership as well as the management of oil and gas exploration and production, but since all the fiscal benefits from petroleum production in the form of federal excise duty, royalty and the gas development surcharge are transferred straight to the provinces there is no major discontent and the regulatory regime remains well-established. The federal government could remove any discontent with the present regime by involving the provinces more closely in petroleum policy revisions.

Exploration licenses are granted either through bidding rounds for specific blocks or by unsolicited applications for open areas. In bidding rounds specific blocks are advertised along with publicly available data, reports, model concession agreements and terms of prevailing petroleum policy etc. The bidders are required to compete for the work program containing seismic surveys and number and depth of firm wells assessed in equivalent work units. The process has been made increasingly transparent. In a recent round, 53 blocks were offered and in the bid opening session in the presence of all the representatives the awards were announced on the basis of the highest number of equivalent work units for 41 blocks. Any operating E&P company with a track record is free to put an application for grant of exploration license over an area of open acreages. Within fifteen days the block is advertised and within a month of the deadline for bids the block is granted to the highest bidder. The public sector companies, OGDCL and PPL, have no precedence in the grant of exploration licenses and have to compete on equal terms with private sector applicants. Successful bidders are required to render bank guarantee for 25% of the value of the work committed before signing the agreements, which is less onerous than in the past. The country has been divided into three onshore zones and one offshore zone. The three onshore zones are rated respectively as high-risk and high-cost; medium-risk and high-cost; and low to medium risk and low to medium cost. In case of the high-risk onshore zone and the offshore (also high-risk) the first applicant can choose the right to match the highest bid. Figure-1 shows the zoning map and Figure-2 shows the oil and gas provinces discovered so far.

3.2 Offshore

Provincial territory ends at the coastline. Beyond that ownership and jurisdiction over lands, minerals and other things of value found offshore on the continental shelf, in territorial waters and within the exclusive economic zone vests explicitly with the federal government under Article 172 (2). In 1997 the government introduced a more flexible and attractive regime based on production sharing for offshore exploration and production. The latest Petroleum Policy 2009 has further improved the offshore incentives through royalty holiday, higher wellhead price of gas, improved recovery of investment costs and sale of oil and gas to third parties/countries, if not required in the country. The incentive slabs have been graduated with water depth and the best terms are offered for ultra deep water of 1500 meters or deeper. The exploration operations for seismic surveys and drilling are subject to a weather window extending from November to April every year and water becomes rough outside this window which effectively reduces the real term of the production sharing agreements.

4. Petroleum revenue arrangements in context of federal fiscal regime

Pakistan is highly centralized in revenue collection. Nearly 90% of provincial expenditures are met through federal transfers. Most federal revenues (89% of tax based and 66% of tax plus non tax based revenues) go into a pool which is divisible amongst the governments. From 1991 to 2006 the federal government's share in the divisible pool of taxes stood at 57.4% and then it reduced progressively to 53.5% in 2009. Presently, the country's total tax to GDP ratio is a very low at 10.7%, which means that governments have been chronically underfunded. The new targets aim at aggressively enhancing it to 14% by 2014-15. The federal divisible pool is thus projected to grow by nearly 18% every year. This would be crucial to the success of the new macroeconomic framework and all hopes are pinned on the transition from the sales tax to a value added tax being effective.

Every five years, a constitutionally mandated National Finance Commission is constituted to recommend on distribution of fiscal resources among the federal government and the four provinces. It is a nine-member Commission chaired by the federal minister of finance with two representatives from each province including provincial finance ministers. The award is made through consensus which allows equal opportunity to the stake holders to strike a balance. This is the principal instrument of fiscal federalism, but one that suffered repeated disruption under military rule so that only six of the five-yearly awards were made instead of twelve that should have been. All the awards were made during periods of civilian rule. The last award, the seventh, has been concluded on December 30, 2009 in an historic ceremony at the new port city of Gawadar in the province of Balochistan. It is a watershed award that addresses long standing concerns of the stakeholders and it has come about in an environment of harmony and consensus.

In the 7th NFC Award the federal government's share has been reduced to 44% in 2010-2011 and 43% beyond. This unprecedented reduction in the share of the federal government and the corresponding increase in the share of the provinces have effectively turned the vertical imbalance into an opportunity for fiscal equalization. Because the provinces have an acute asymmetry in revenue capacity, it would not be an appropriate policy just to decentralize the collection of taxes. The dynamics of horizontal fiscal equalization require a judicious redistribution of revenues collected by the federal government.

Petroleum revenue arrangements reflect petroleum exploration and production policy focus on investment by the private sector. The role of the public sector has been progressively reduced since 1991 Petroleum Policy. During that decade, the national exploration and production policy allowed a compulsory equity participation for the federal government in the form of a carried interest of 5% during the exploration phase with the option of up to 25% through full payment of past exploration costs. To remove a conflict of interest, the government created Government Holding (Private) Limited (GHPL) in 1997; it is a wholly public owned company that looks after the compulsory carried or paid interest. While this initiative was well received by private petroleum industry, the government moved in 2001 to grant a 100% working interest assignment to the private companies and to discontinue the compulsory carried or paid assignment. There is, however, an incentive to include an indigenous Pakistani petroleum company with a paid working interest for a minimum of 15%. This has not proven a limitation as there are numerous successful indigenous companies who bring considerable local advantage to an international joint venture. The petroleum industry has an effective association, the Pakistan Petroleum Exploratory & Production Companies Association (PPEPCA), which maintains close links with the government and is intensively involved in policy formulation.

A uniform rate of 12.5% of the oil and gas sold at the prescribed wellhead price constitutes the royalty share. It is paid in cash and the royalty amount is treated as an expense for tax purpose. There are generally no issues of transparency in calculating the royalty amounts as the production and sale data and prescribed wellhead price are regularly published. There has, however, been a longstanding issue of the low royalty amount paid to Balochistan for the giant Sui gas field. The problem started with the financial restructuring and special Gas Price Agreement with the producing company PPL in 1985, which protected the company's equity and return, while the government undertook responsibility for all future investments on field development and production. The government then started notifying the wellhead gas price at much lower amount essentially recovering operating costs, the return on fixed equity due to PPL, and some amount towards the gas development surcharge. The reduced wellhead price resulted in reduced royalty payments that led to a longstanding concern of the people and the government of Balochistan. As a result, the federal government progressively increased the wellhead price of Sui gas field to five times its earlier level; that enhanced the royalty amount but the issue of arrears claimed by the provincial government remained unsettled until recently. The National Finance Commission succeeded in resolving this issue of an iniquitous royalty as well as arrears. Provincial benefits from a single unit of gas production in the form of royalty and gas development surcharge have been equalized throughout the country by using the surcharge amount as a cushion. At the same time a decision has been taken to pay the arrears to Balochistan with a mark-up interest amounting to 120 billion rupees. This news was well received by the people and government of Balochistan and it is expected that the issue of Sui gas royalty has been resolved amicably for good.

The exploration and production companies are subject to a maximum 40% tax on corporate income after expensing out royalty and exploration losses. Most oil and gas producing companies invest their profits aggressively in exploration as they can offset the money lost in exploration against the tax liability. This increases their ability to undertake risky exploration but depresses the expected revenues to the federal government. A withholding tax is deducted at source by the companies on their procurement of goods and services and against the income tax of their staff and employees.

Pakistan does not levy any resource rent tax from oil and gas producers and it pays the international market price of oil and a specified price of natural gas at the wellhead, in contrast to some oil and gas countries which enhance their revenues with rent tax. Given the historical role of the private sector in oil and gas sector, the country has never pursued a policy of nationalization of oil and gas, and the Constitution permits private sector companies to hold title to underground reserves. The petroleum policies have had some provisions regarding sharing windfall benefits and the Petroleum Policy 2009 further increased the threshold for windfall benefits from natural gas to the benefit of the producers. The federal government also levies small area rents on petroleum properties; these are not assigned to the provinces, but this has not been an issue in that they total only one billion rupees per year.

Historically all essential goods imported by a licensee during the exploration phase were free of custom duty, while those imported during the production phase are subject to a nominal fee of 3%. The 2009 policy introduced a similar duty on the exploration phase, which the petroleum industry views as a regressive step for financial and operational reasons, such as hassle and delays in customs clearance.

The federal government levies a 16% General Sales Tax (GST) on all goods. The proceeds of GST are put in the Federal Consolidated Fund and form part of the federal divisible pool. It is the largest and most buoyant tax in the revenue basket. There is an expected move to change the GST to a VAT in the next fiscal year.

The Ministry charges a fee upfront at the time of a bid application and another fee for a development and production lease. More significantly, there is a schedule of production bonuses (US$ 600,000 to US$7 million based on the rate of production), which are required to be spent on projects for the welfare of the community in the vicinity of the producing facility. This relatively new policy is aimed at creating a local stake in the stability of production operations.

The Gas Development Surcharge (GDS) has been at the centre of a bitter controversy in Pakistan for about a decade. It is a federal development tax that was created for financing the development of infrastructure for the transmission and distribution of natural gas. It was also used as a cushion for consumer gas price adjustment and for balancing between gas utilities and independent gas utilization systems. From 1967 to 1990, most of the gas pipelines and related infrastructure had been developed and there appeared some redundancy in the surcharge. The National Finance Commission in its Award in 1990 made the annual proceeds of GDS distributable among the provinces in the ratio of their proportionate gas production. There are two geographically divided gas utilities. Sui Southern Gas Transmission Company Limited (SSGCL) provides gas in the southern provinces of Sindh and Balochistan. Sui Northern Gas Pipelines Company Limited (SNGPL) provides gas in the northern provinces of Punjab and NWFP. After the policy of distribution of the GDS among the provinces took effect in 1991, utilities started financing infrastructure projects through private borrowing against the 17 to 17.5 % regulated rate of return permitted on their new operating fixed assets. For large gas transmission projects in new areas the federal government provided specific grants. About 15 to

20 billion rupees has been distributed annually from the GDS account. Balochistan had been demanding a change in the distribution formula since the new NFC Award became due in 2002/2003. The Seventh NFC Award has resolved this issue in a landmark decision to the satisfaction of Balochistan government. The benefits to Balochistan under the new agreement will extend backward up to fiscal year 2002-3. In addition, all the past claims of Balochistan regarding under payments of gas dues from 1954, when the Sui gas field came on production, to date will be met for payment along with mark up amounting to 120 billion rupees. The new formula equalizes the combined rate of royalty and GDS per unit of gas production throughout the country. It also evens out the effect of different wellhead gas prices offered at different times through different petroleum policies. This has removed the hitherto bitterness on different wellhead gas price regimes which had resulted in unequal benefits to the provinces in the past.

Article 161(2) provides for the levy of excise duty at the wellhead of producing gas fields. The duty is collected by the federal government and transferred straight to the provinces. The duty is levied at a fixed rate of rupees 5.40 per million BTU and has not been revised since 1997. The Seventh NFC agreed to increase the rate to rupees 10.0 per million BTU, which is expected to raise about 3 billion rupees for the four provinces in the next fiscal year.

There is a downstream tax on use of refined petroleum products including compressed natural gas. The federal government charges a development levy on all petroleum products sold at petrol stations and pumps as a fixed amount per liter. This levy applies equally to the indigenous and imported petroleum products and does not constitute an upstream petroleum tax. The amount collected is also used as a cushion in petroleum products consumer prices and, therefore, it does not form part of the federal divisible pool. The provinces have been suggesting that either it be turned into a Federal Stabilization Fund to cushion the spikes in international oil price or be included in the federal divisible pool but there will be no change during the next five years.

There are no direct taxes or levies on oil and gas products on environmental grounds. In the last budget, the federal government had proposed levying carbon tax instead of the petroleum development levy. However, under serious criticism against the hasty step that came as a surprise during the budget debate in the Parliament, the federal government had to withdraw the proposal and reverted to the past practice of the petroleum development levy.

The Pakistan rupee is allowed to freely float against foreign currencies. The country follows a liberal foreign exchange control regime. All foreign companies are free to repatriate their profits abroad or invest further into any business in Pakistan.

Pakistan follows a Production Sharing Agreement (PSA) model for its offshore. The split for cost and profit oil/gas varies from 95% to 20% depending on the scale of production and the depth of water. The Ministry is now planning to introduce PSA for onshore licenses as well and is working on a model PSA agreement.

Pakistan has an efficient petroleum data management service. All historical seismic and well data have been digitized and made accessible through internet. Record of analysis of all vintage cores is presently being digitized. Besides, a Petroleum Information Service has been established through private-public partnership that issues monthly, quarterly and annual reports giving details of all ongoing petroleum exploration and production operations. These facilities are very helpful for new petroleum companies to assess investment opportunities.

The provinces receive revenues relating to oil and gas and net hydroelectricity profits through straight transfers. These revenues are not offset in the horizontal or vertical distribution of revenues from the joint pool so they are additional to shares established through NFC Award. This treatment of oil and gas revenues caused some concern during the unsuccessful Sixth NFC deliberations, when Punjab had advocated making these transfers also part of the distributable provincial pool. The other provinces had advanced the argument that the revenues received on account of depleting natural resources should not be offset in the equalization formulas. This viewpoint has been accepted and protected in the Seventh NFC Award.

5. Macro-economic challenges

Pakistan imports close to 30% of its primary energy requirement as crude oil and refined petroleum products. It has a limited export base and suffers from balance of payment constraints. The unprecedented oil price spike during 2007-2008 affected Pakistan's economy in a serious way as the energy import bill touched nearly 50% of total export earnings. In addition, the unsustainable consumer prices affected economic output and the industrial sector went into negative growth. This resulted in substantial reduction in revenue collection and consequently in the development outlays earlier provided in the budgets.

The current war on terrorism has seriously affected Pakistan's national security and economy. It is very expensive in human life and in economic and social costs. The unsustainable burden on its economy forced Pakistan to seek a bail out from the IMF. Investment has massively gone down reducing economic growth. The fall in the international oil price gave some relief to Pakistan's economy, but the IMF borrowing remains indispensable for providing crucial budgetary support and macroeconomic stability. However, it is obvious that unless there is massive economic and cash assistance to Pakistan from the peace seeking world, the war is not sustainable.

The growth of GDP during the current fiscal year is estimated to be about 3.2%. The dynamic Minister of Finance plans to increase it progressively to 6% in the next five years. The rate of inflation, currently about 10%, is planned to fall to 7% next year and 6% in 2011-12.

6. Environmental and Social Issues

All land as well as the entire continental shelf and all territorial waters extending up to the 200 nautical miles exclusive economic zone are open to petroleum exploration. There are no reservations or tribal exclusions. The Federally Administered Tribal Area (FATA) that covers a tribal belt along north western borders with Afghanistan has not yet been explored for oil and gas. There is an ongoing research at the Centre of Excellence in Geology in the University of Peshawar in the province of NWFP to study the potential of oil and gas deposits in the FATA region. Considering a number of recent oil and gas discoveries in the nearby Kohat and Tal blocks, the FATA could attract significant exploration investment as the security environment improves. Exploration activity could even catalyze peace in this war-torn and economically deprived region.

No exploration activity can be undertaken on land without official permission of the provincial departments of environment. Every field operation requires an initial environmental examination (IEE) and in environmentally sensitive areas a detailed environmental impact assessment (EIA) report. Work is not allowed to commence until the provincial governments accept the environmental studies or assessment and give a formal no objection certificate to proceed within the restrictions imposed by them to safeguard the environment.

As elsewhere in the world, environmental institutions, NGOs and society at large are active in conserving the environment. The particular case of exploration for oil and gas in the Kirthar National Park in Sindh came into sharp public focus; despite a very persuasive case by the petroleum company, it failed to secure the no-objection for field operations on environmental grounds and had to abandon the exploration program. Public participation in decisions relating to oil and gas exploration and exploitation, except for a small area inhabited by tribal agencies in Balochistan, is not a major issue given the long history of around 150 years of exploration operations in the country.

The courts in Pakistan have not imposed any limitation on oil and gas exploration and production and are accessible to the industry and public alike in case of infringement of their vested rights. The Chief Justice, upon his restoration, has put due focus on judicial reforms at all levels going down to the lower judiciary. This country is entering a new era of justice, strongly supported by public pressure, and this has brought about a new confidence in legal stability and rectitude. All businesses, especially the long-term petroleum industry, feel greatly reassured operating in the country.

Energy use in Pakistan does not contribute to climate change in any significant way due to an environmentally friendly primary (commercial) energy mix which comprises 48% natural gas, 11% hydroelectricity, 30% oil, about 2% nuclear and only 9% coal. This compares with a world average of 24% natural gas, 29% coal, 6.5% hydroelectricity, 35% oil, and about 5.5% nuclear. In fact Pakistan could qualify for major carbon credits from across the developed world for its role in very low carbon release per capita in the atmosphere. Nearly 40% of the energy consumed is derived from traditional sources of firewood as well as crop and animal waste. Although this reflects subsistence living, which is a serious human issue, it has little effect on climate change. The energy consumption per capita is one-fifth of the world average. Pakistan still does not produce electricity using coal. Environmental challenges in Pakistan are not at the level of climate change but of regional and local biodiversity and rare flora and fauna. The Environmental Protection Agency of Pakistan has mapped out effective strategies through global networking and together with provincial departments is maintaining an adequate control. Pro-activity of the civil society and networks of NGOs serve as an effective check on environmental abuse. But even then the petroleum industry with insatiable hunger for more reserves does end up seriously damaging the local habitat.

7. Transparency and accountability

Transparency International placed Pakistan at 46th most corrupt of 180 countries in their recent report. Although the Government has rejected the report, the lack of transparency in public decisions and public perception of large scale corruption have long been affecting governance at all levels. Incidence of corruption is especially endemic in procurement by government offices at federal, provincial and local levels. The scale of non-transparent procurement is often reported in national press especially in big companies like the OGDCL. But happily there has progressively come about an increasing measure of transparency in the award of petroleum licenses. Since 1991, licenses are awarded through open bids based on the program of work and financial commitment. In the latest policy in 2009, the bidding and award process has been rendered even more transparent, as described above. There may be some lack of transparency in other regulatory matters such as the extension of licenses but the process is becoming increasingly transparent.

No serious issues regarding a lack of transparency in determining provincial revenues related to oil and gas have made public waves. The production and sale volumes are transparently reported and cross-checked with the gas utilities and refineries. The wellhead price of gas is publicly set twice a year. The price of oil paid by the refineries is based on a price formula linked to a basket of Arabian crudes. All information relating to revenues, excise duties and royalty are publicly posted on relevant websites and through public offices. The Petroleum Information Service, a private-public set up, publishes production details regularly. An annual energy book is published by Hydrocarbon Development Institute of Pakistan (HDIP), an autonomous body of the Ministry of Petroleum, at the end of each fiscal year giving detailed statistics of the upstream as well as downstream petroleum industry. This book has emerged as a credible source of integrated petroleum information that has added further transparency to information relating to petroleum production, sale, use, prices etc. Another factor contributing to the transparency in petroleum revenues is that there are no integrated petroleum companies that produce, refine and market in a chain that could hide intermediate costs or profits.

There is a recent institutional reform that might help putting a check on corruption in public procurement. The Public Accounts Committee in Parliament is headed by the Leader of the Opposition in the National Assembly. The institutional position as well the clean reputation of the present incumbent has already set in motion a more effective process of accountability for public spending. Scores of serious lapses are being discovered and the offenders are being confronted. In this context, the stand by Supreme Court on the National Reconciliation Ordinance NRO should greatly strengthen the hands of the Public Accounts Committee to check the monster of corruption.

Pakistan does not have an effective debt management regime at the federal level. The provincial governments have no borrowing powers and the federal government underwrites all external or internal loans by the provinces. The provinces make essentially non-deficit budgets, which limits their options for development projects.

8. Discussion and conclusions

The historical legacy of private engagement in the petroleum sector and management by the Centre has created general acceptability of the federal control of petroleum resources in Pakistan. All the laws and rules made regarding management and the fiscal regime, both onshore and offshore, continue to implicitly accord the ownership to the federal government. Against that, the producing provinces have been designated the sole beneficiaries of petroleum revenues. To date, this ambiguity in ownership rights or implied duality has not been seriously challenged as such by the provinces. However, they have occasionally raised questions over individual decisions and there is a potential for such issues to erupt periodically as democratic politics and the confidence of the provinces grows.

One issue that sometimes reflects provincial concern is the rate of royalty. Provinces would like to raise the rate but the federal government is driven by considerations of keeping the overall financial package competitive with other countries. Better understanding through consultations should keep the provinces on board on this account. The weight of provincial and local demands will continue to center on employment and local uplift which is evident from the new provisions of the 2009 Petroleum Policy.

The most burning issue related to the revenues from petroleum production for Balochistan, which were depressed because of the low royalty for the Sui gas field and an unjust distribution of the gas development surcharge. Claims were frequently aired by Balochi provincial leaders for implied or deemed arrears going back to the start of gas production from Sui in 1954. During the hard- and high-handed Musharraf regime, this issue caused deep discontent in Balochistan. These complaints came into sharp focus with Balochistan's call for greater provincial autonomy in a constitutional democracy free of military interventions. The Seventh NFC Award addressed the deemed injustice in the distribution of gas development surcharge and issues associated with the amount of royalty for Balochistan, with special retroactive provisions back to 2002 only for that province. In addition, the federal government has agreed to pay all deemed arrears on this account going back to 1954 amounting to 120 billion rupees. The government has developed a far reaching Balochistan Package which contains substantial political, economic and administrative short- and long-term initiatives. As the people of Balochistan feel satisfied with the resolution of their longstanding concerns of past injustices, they are expected to be pro-active in facilitating exploration of oil and gas over very prospective areas, including the areas of concession licenses under force majeure. That will auger well for discovering more reserves of gas and oil, increasing production and the provincial revenues.

There was some excitement when production started in the NWFP in 2004 and since then a number of important discoveries have been made which will in due course make a significant addition to its current share of 3% of gas and 3% of oil production. With this development all four provinces produce hydrocarbons. NWFP is keen and curious to understand the whole chain of exploration and production regulation and activities and this might lead to a new focus on ownership and jurisdiction issues, but there is no economic reason so long as they are happy with the fiscal regime as all the fiscal benefits are passed on to it as straight transfers. The asymmetry in petroleum exploration activity cannot be ascribed to the differentials in treatment of the provinces. It is on account of relative prospects of geology, issues of security and cooperation of the local population. In fact, the federal guarantee is a major factor in attracting investment in the sector.

It is strange that provinces in Pakistan have to ask for greater autonomy, given that they had brought the federation about in the first place. But frequent and extended military interruptions stultified the development of the democratic process and removed the people and provinces from the decision-making loop. The framers of 1973 Constitution had provided for the Concurrent List to be dropped in 10 years, but it still remains effective and the hope for provincial autonomy remains unrealized. At the time of unanimous approval of the 1973 Constitution, the provinces had gone along with the expedient of a strong centre because of the shaky situation following Pakistan’s dismemberment, but they had put down a claim to growing autonomy as the federation gained stronger roots. It is because of the successive military rule by Zia-ul-haq and Musharraf that the goals enshrined in the Constitution have not materialized. Balochistan leaders always emphasized strong autonomy for the province for fear of losing their political and cultural identity in the face of provinces with much larger populations and economies. Although all the provinces are asking for long-term structural reforms in the Constitution, including that the provinces assume the powers on the Concurrent List, Balochistan is taking a leading position in this struggle. It is now becoming obvious that dreams of provincial autonomy inherent in the genesis of Pakistan and later enshrined in the Constitution may start unfolding into reality. The nation is anxiously waiting for the Parliamentary Committee to complete its deliberations on constitutional reform and to table its recommendations.

Upstream petroleum operations extend over large areas and individual investments span over decades. Exploration and production activities are, therefore, exposed to security threats. The prevailing backlash to Pakistan’s frontline role in the war against terrorism has affected upstream activity in multiple dimensions, increasing costs, depressing investment and making it harder to bring in high quality technical services. The latest bidding round in September 2009 had a poor response from new companies but the companies already exploring took 41 out of 53 blocks offered underscoring their continued interest in discovering oil and gas in the highly under-explored sedimentary basins of Pakistan. The ongoing oil and gas potential assessment study in FATA is a positive initiative, the start of oil and gas exploration and production there could create new economic stakes which could galvanize peace in the barren region devoid of economic opportunities.

Oil and gas sector has contributed in an important way to the shaping of the Pakistan’s model of federalism. At the time of political consensus on the draft 1973 Constitution, Balochistan and NWFP, both relatively more backward and poor, insisted on adding the provision for the straight transfer of excise duty and royalty on natural gas to the provinces in which gas fields were located. (In addition, net hydroelectricity profits were assigned to the provinces where the power plants were located in Article 161(1) & (2) respectively.) These provisions implicitly provide the benefits of ownership rights to the provinces for their natural resources. The straight transfers to the provinces do not come within the purview of the National Finance Award made by the NFC and are not offset against any other revenues distribution mechanism.

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Figure-1

PETROLEUM PROSPECTIVITY ZONES OF PAKISTAN

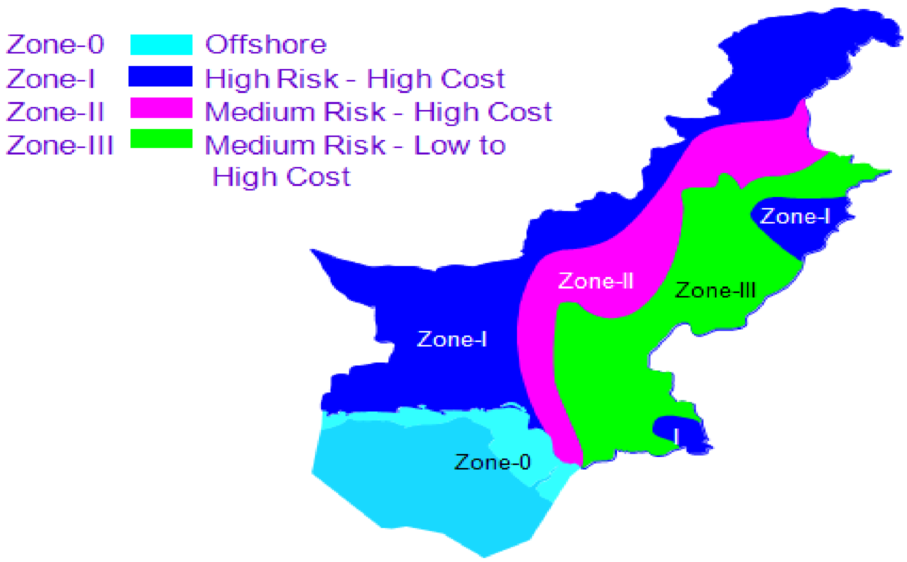
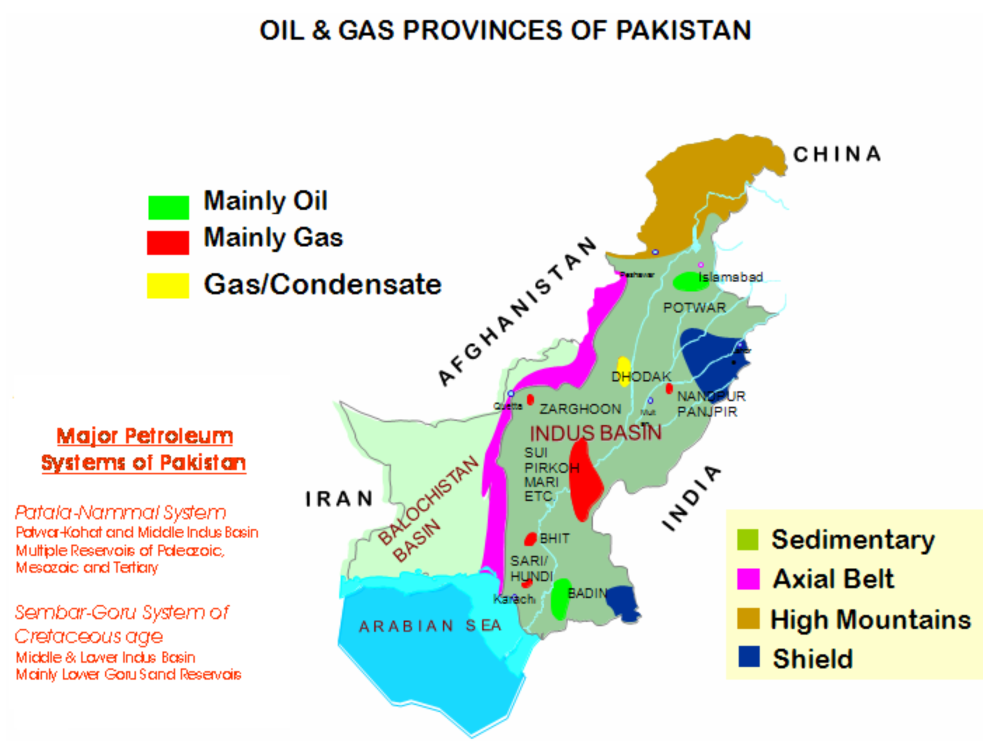


Figure 2



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