Background:

The separation in 1947 of British India into the Muslim state of Pakistan (with two sections west and east) and largely Hindu India was never satisfactorily resolved, and India and Pakistan fought two wars - in 1947-48 and 1965 - over the disputed Kashmir territory. A third war between these countries in 1971 - in which India capitalized on Islamabad's marginalization of Bengalis in Pakistani politics - resulted in East Pakistan becoming the separate nation of Bangladesh. In response to Indian nuclear weapons testing, Pakistan conducted its own tests in 1998. The dispute over the state of Kashmir is ongoing, but discussions and confidence-building measures have led to decreased tensions since 2002.

Geography

Geographic coordinates:

30 00 N, 70 00 E

Location:

Southern Asia, bordering the Arabian Sea, between India on the east and Iran and Afghanistan on the west and China in the north

Map references: Asia:

Total Area : 803,940 sq km
land: 778,720 sq km
water: 25,220 sq km

Area Comparative: slightly less than twice the size of California

Land boundaries:
total: 6,774 km
border countries: Afghanistan 2,430 km, China 523 km, India 2,912 km, Iran 909 km

Coastline:
1,046 km

Maritime claims:
territorial sea:
12 nm
contiguous zone:
24 nm
exclusive economic zone:
continental shelf:

200 nm or to the edge of the continental margin

Climate:
mostly hot, dry desert; temperate in northwest; arctic in north

Terrain:
flat Indus plain in east; mountains in north and northwest; Balochistan plateau in west

Elevation extremes:
lowest point: Indian Ocean 0 m
highest point: K2 (Mt. Godwin-Austen) 8,611 m

Natural resources:
land, extensive natural gas reserves, limited petroleum, poor quality coal, iron ore, copper, salt, limestone

Land use:
arable land: 24.44%
permanent crops: 0.84%, other: 74.72% (2005), Irrigated land: 182,300 sq km (2003)

Natural hazards:
frequent earthquakes, occasionally severe especially in north and west; flooding along the Indus after heavy rains (July and August)

Environment - current issues:
water pollution from raw sewage, industrial wastes, and agricultural runoff; limited natural fresh water resources; a majority of the population does not have access to potable water; deforestation; soil erosion; desertification

Environment - international agreements:
signed, but not ratified: Marine Life Conservation

Geography - note:
controls Khyber Pass and Bolan Pass, traditional invasion routes between Central Asia and the Indian Subcontinent

Government

Country name:
conventional long form: Islamic Republic of Pakistan
conventional short form: Pakistan
local long form: Jamhuryat Islami Pakistan
local short form: Pakistan
former: West Pakistan

Government type:
federal republic

Capital:
Islamabad
geographic coordinates: 33 42 N, 73 10 E

**time difference:**
UTC+5 (10 hours ahead of Washington, DC during Standard Time)

**Administrative divisions:**
4 provinces, 1 territory*, and 1 capital territory**; Balochistan, Federally Administered Tribal Areas*, Islamabad Capital Territory**, North-West Frontier Province, Punjab, Sindh

**note:** the Pakistani-administered portion of the disputed Jammu and Kashmir region consists of two administrative entities: Azad Kashmir and Northern Areas

**Independence:**
14 August 1947 (from UK)

National holiday:
Republic Day, 23 March (1956)

Constitution:

**Legal system:**
based on English common law with provisions to accommodate Pakistan's status as an Islamic state; accepts compulsory ICJ jurisdiction, with reservations

**Suffrage:**
18 years of age; universal; joint electorates and reserved parliamentary seats for women and non-Muslims

**Executive branch:**
ote: following a military takeover on 12 October 1999, Chief of Army Staff and Chairman of the Joint Chiefs of Staff Committee, General Pervez MUSHARRAF, suspended Pakistan's constitution and assumed the additional title of Chief Executive; on 12 May 2000, Pakistan's Supreme Court unanimously validated the October 1999 coup and granted MUSHARRAF executive and legislative authority for three years from the coup date; on 20 June 2001, MUSHARRAF named himself as president and was sworn in replacing Mohammad Rafiq TARAR; in a referendum held on 30 April 2002, MUSHARRAF's presidency was extended by five more years; on 1 January 2004, MUSHARRAF won a vote of confidence in the Senate, National Assembly, and four provincial assemblies

**chief of state:** President General Pervez MUSHARRAF (since 20 June 2001)

**head of government:** Prime Minister Shaukat AZIZ (since 28 August 2004)
cabinet: Cabinet appointed by the prime minister
elections: the president is elected by an electoral college drawn from the national parliament and provincial assemblies for a five-year term; note - Musharraf was last sworn in as President in November 2002; the prime minister is selected by the National Assembly (next elections to be held in late 2007)
election results: AZIZ elected by the National Assembly on 27 August 2004

**Legislative branch:**
bicameral Parliament or Majlis-e-Shoora consists of the Senate (100 seats; members
indirectly elected by provincial assemblies and the territories' representatives in the National
Assembly to serve six-year terms; half of the Senate's seats turn over every three years)
and the National Assembly (342 seats; 272 seats filled by popular vote; 60 seats reserved
for women; 10 seats reserved for non-Muslims; members serve five-year terms)
elections: Senate - last held in March 2006 (next to be held in March 2009); National
Assembly - last held 10 October 2002 (next to be held in 2007)
election results:
Senate results - percent of vote by party - NA; seats by party - PML 39, MMA 18, PPPP 9,
MQM 6, PML/N 4, PkMAP 3, PPP 3, ANP 2, BNP-Awami 1, BNP/M 1, JWP 1, PML/F 1,
independents 12; National Assembly results - percent of votes by party - NA; seats by party
- PML/Q 126, PPPP 81, MMA 63, PML/N 19, MQM 17, NA 16, PML/F 5, PML/J 3, PPP/S 2, BNP
1, JWP 1, MQM-H 1, PAT 1, PkMAP 1, PML/Z 1, PTI 1, independents 3
Judicial branch:
Supreme Court (justices appointed by the president); Federal Islamic or Shari'a Court
Political parties and leaders:
Awami National Party or ANP [Asfandyar Wali KHAN]; Balochistan National Party/Hayee
Group or BNP/H [Dr. Hayee BALUCH]; Baluch National Party/Awami or BNP/Awami
[Moheem Khan BALOCH]; Baluch National Party-Mengal or BNP/M [Sardar Ataullah
MENGAL]; Jamhoori Watan Party or JWP; Jamiat-al-Hadith or JAH [Sajid MIR]; Jamiat-i-
Islami or JI [Qazi Hussain AHMED]; Jamiat Ulema-i-Islam, Fazlur Rehman faction or JUI/F
[Fazlur REHMAN]; Jamiat Ulema-i-Islam, Sami ul-HAQ faction or JUI/S [Sami ul-HAQ];
Jamiat Ulema-i-Pakistan or JUP [Shah Faridul HAQ]; Muttahida Majlis-e-Amal or MMA [Qazi
Hussain AHMED]; Muttahida Qaumi Movement, or MQM [Altal HUSSAIN]; National Alliance
or NA [Ghulam Mustapha JATOI] (merged with PML); Pakhtun Khwa Milli Awami Party or
PkMAP [Mahmood Khan ACHAKZAI]; Pakistan Awami Tehrik or PAT [Tahir ul QADRI];
Pakistan Muslim League, Functional Group or PML/F [Pir PAGARO]; Pakistan Muslim League,
Nawaz Sharif faction or PML/N [Nawaz SHARIF]; Pakistan Muslim League or PML [Chaudhry
Shujaat HUSSAIN]; note - as of May 2004, the PML/Q changed its name to PML and
absorbed the PML/J, PML/Z, and NA; Pakistan People's Party or PPP [Aftab Ahmed Khan
SHERPAO]; Pakistan People's Party Parliamentarians or PPPP [Benazir BHUTTO]; Pakistan
Tehrik-e-Insaf or PTI [Imran KHAN]; Tehrik-i-Islami [Allama Sajid NAQVI]
note: political alliances in Pakistan can shift frequently
Political pressure groups and leaders:

People

Population:
165,803,560 (July 2006 est.)
Age structure:
0-14 years: 39% (male 33,293,428/female 31,434,314)
15-64 years: 56.9% (male 48,214,298/female 46,062,933)
65 years and over: 4.1% (male 3,256,065/female 3,542,522) (2006 est.)
Median age:
total: 19.8 years
male: 19.7 years
female: 20 years (2006 est.)
Population growth rate:
2.09% (2006 est.)
Birth rate:
29.74 births/1,000 population (2006 est.)
Death rate:
8.23 deaths/1,000 population (2006 est.)
Net migration rate:
-0.59 migrant(s)/1,000 population (2006 est.)
Sex ratio:
at birth: 1.05 male(s)/female
under 15 years: 1.06 male(s)/female
15-64 years: 1.05 male(s)/female
65 years and over: 0.92 male(s)/female
total population:
1.05 male(s)/female (2006 est.)
Infant mortality rate:
total: 70.45 deaths/1,000 live births
male: 70.84 deaths/1,000 live births
female: 70.04 deaths/1,000 live births (2006 est.)
Life expectancy at birth:
total population: 63.39 years
male: 62.4 years
female: 64.44 years (2006 est.)
Total fertility rate:
4 children born/woman (2006 est.)
HIV/AIDS - adult prevalence rate:
0.1% (2001 est.)
HIV/AIDS - people living with HIV/AIDS:
74,000 (2001 est.)
HIV/AIDS - deaths:
4,900 (2003 est.)
Major infectious diseases:
degree of risk: high
food or waterborne diseases:
bacterial diarrhea, hepatitis A and E, and typhoid fever
vectorborne diseases:
dengue fever, malaria, and cutaneous leishmaniasis are high risks depending on location
animal contact disease: rabies
note: highly pathogenic H5N1 avian influenza has been identified among birds in this
country or surrounding region; it poses a negligible risk with extremely rare cases possible among US citizens who have close contact with birds (2007)

**Nationality:**
noun: Pakistani(s)  
adjective: Pakistani

**Ethnic groups:**
Punjabi, Sindhi, Pashtun (Pathan), Baloch, Muhajir (immigrants from India at the time of partition and their descendants)

**Religions:**
Muslim 97% (Sunni 77%, Shi'a 20%), other (includes Christian and Hindu) 3%

**Languages:**
Punjabi 48%, Sindhi 12%, Siraiki (a Punjabi variant) 10%, Pashtu 8%, Urdu (official) 8%,  
Balochi 3%, Hindko 2%, Brahui 1%, English (official; lingua franca of Pakistani elite and most government ministries), Burushaski and other 8%

**Literacy:**
definition: age 15 and over can read and write  
total population: 48.7%  
  male: 61.7%  
  female: 35.2% (2004 est.)

**Economy**

**Economy - overview:**
Pakistan, an impoverished and underdeveloped country, has suffered from decades of internal political disputes, low levels of foreign investment, and a costly, ongoing confrontation with neighboring India. However, IMF-approved government policies, bolstered by generous foreign assistance and renewed access to global markets since 2001, have generated solid macroeconomic recovery the last five years. The government has made substantial macroeconomic reforms since 2000, most notably privatizing the banking sector. Poverty levels have decreased by 10 percent since 2001, and Islamabad has steadily raised development spending in recent years, including a 52-percent real increase in the budget allocation for development in fiscal year 2007, a necessary step toward reversing the broad underdevelopment of its social sector. The fiscal deficit - the result of chronically low tax collection and increased spending, including reconstruction costs from the October 2005 earthquake - appears manageable for now. GDP growth, spurred by gains in the industrial and service sectors, remained in the 6-8% range in 2004-06. Inflation remains the biggest threat to the economy, jumping to more than 9% in 2005 before easing to 7.9% in 2006. The central bank is pursuing tighter monetary policy - raising interest rates in 2006 - while trying to preserve growth. Foreign exchange reserves are bolstered by steady worker remittances, but a growing current account deficit - driven by a widening trade gap as import growth outstrips export expansion - could draw down reserves and dampen GDP growth in the medium term.

**GDP (purchasing power parity):**
$427.3 billion (2006 est.)
GDP (official exchange rate): $124 billion (2006 est.)
GDP - real growth rate: 6.5% (2006 est.)
GDP - per capita (PPP): $2,600 (2006 est.)
GDP - composition by sector:
  agriculture: 22%
  industry: 26%
  services: 52% (2006 est.)
Labor force: 48.29 million
note: extensive export of labor, mostly to the Middle East, and use of child labor (2006 est.)
Labor force - by occupation:
  agriculture: 42%
  industry: 20%
  services: 38% (2004 est.)
Unemployment rate: 6.5% plus substantial underemployment (2006 est.)
Population below poverty line: 24% (FY05/06 est.)
Household income or consumption by percentage share:
  lowest 10%: 4.1%
  highest 10%: 27.6% (FY96/97)
Distribution of family income - Gini index: 41 (FY98/99)
Inflation rate (consumer prices): 7.9% (2006 est.)
Investment (gross fixed): 15.6% of GDP (2006 est.)
Budget:
  revenues: $20.55 billion
  expenditures: $25.65 billion; including capital expenditures of $NA (2006 est.)
Public debt: 55% of GDP (2006 est.)
Agriculture - products:
cotton, wheat, rice, sugarcane, fruits, vegetables; milk, beef, mutton, eggs
Industries:
textiles and apparel, food processing, pharmaceuticals, construction materials, paper products, fertilizer, shrimp
Industrial production growth rate: 6% (2006 est.)
Electricity - production: 80.24 billion kWh (2004)
Electricity - consumption: 74.62 billion kWh (2004)
Electricity - exports: 0 kWh (2004)
Electricity - imports: 0 kWh (2004)
Oil - production: 63,000 bbl/day (2005 est.)
Oil - consumption: 324,000 bbl/day (2004 est.)
Oil - exports: NA bbl/day
Oil - imports: NA bbl/day
Oil - proved reserves: 358.9 million bbl (2006 est.)
Natural gas - production: 27.4 billion cu m (2004 est.)
Natural gas - consumption: 27.4 billion cu m (2004 est.)
Natural gas - exports: 0 cu m (2004 est.)
Natural gas - imports: 0 cu m (2004 est.)
Natural gas - proved reserves: 759.7 billion cu m (1 January 2005 est.)
Current account balance: $-5.486 billion (2006 est.)
Exports: $19.24 billion f.o.b. (2006 est.)
Exports - commodities: textiles (garments, bed linen, cotton cloth, yarn), rice, leather goods, sports goods, chemicals, manufactures, carpets and rugs
Exports - partners: US 24.8%, UAE 7.8%, Afghanistan 6.6%, UK 5.7%, Germany 4.5% (2005)
Imports: $26.79 billion f.o.b. (2006 est.)
Imports - commodities: petroleum, petroleum products, machinery, plastics, transportation equipment, edible oils, paper and paperboard, iron and steel, tea
Imports - partners: Saudi Arabia 11.1%, UAE 10.3%, China 9.2%, Japan 6.4%, US 6%, Kuwait 5%, Germany 4.5% (2005)
Reserves of foreign exchange and gold: $13.29 billion (2006 est.)
Debt - external: $42.38 billion (2006 est.)
Economic aid - recipient: $2.4 billion (FY01/02)
Currency (code): Pakistani rupee (PKR)
Exchange rates:
Fiscal year: 1 July - 30 June

Communications

Telephones - main lines in use: 5,162,798 (2006)
Telephone system: general assessment: the telecom infrastructure is improving dramatically with foreign and domestic investments into fixed-line and mobile networks; mobile cellular subscribership has skyrocketed, approaching 50 million in late 2006, up from only about 300,000 in 2000; fiber systems are being constructed throughout the country to aid in network growth; main line availability has risen only marginally over the same period and there are still difficulties getting main line service to rural areas.
domestic: microwave radio relay, coaxial cable, fiber-optic cable, cellular, and satellite networks
international: country code - 92; satellite earth stations - 3 Intelsat (1 Atlantic Ocean and 2 Indian Ocean); 3 operational international gateway exchanges (1 at Karachi and 2 at Islamabad); microwave radio relay to neighboring countries (2006)
Radio broadcast stations:
AM 31, FM 68, shortwave NA (2006)
Television broadcast stations:
20 (5 state-run channels and 15 privately-owned satellite channels) (2006)

Transportation

Airports:
139 (2006)

**Airports - with paved runways:**
total: 91
over 3,047 m: 14
2,438 to 3,047 m: 21
1,524 to 2,437 m: 33
914 to 1,523 m: 15
under 914 m: 8 (2006)

**Airports - with unpaved runways:**
total: 48
over 3,047 m: 1
1,524 to 2,437 m: 12
914 to 1,523 m: 12
under 914 m: 23 (2006)

**Heliports:**
18 (2006)

**Pipelines:**
gas 10,257 km; oil 2,001 km (2006)

**Railways:**
total: 8,163 km
**broad gauge:** 7,718 km 1.676-m gauge (293 km electrified)
**narrow gauge:** 445 km 1.000-m gauge (2004)

**Roadways:**
total: 258,340 km
paved: 167,146 km (including 711 km of expressways)

**Merchant marine:**
total: 16 ships (1000 GRT or over) 397,740 GRT/657,656 DWT
by type: bulk carrier 1, cargo 10, container 1, petroleum tanker 4
registered in other countries: 11 (Comoros 2, North Korea 3, Malta 1, Nigeria 1, Panama 3, Saint Vincent and the Grenadines 1) (2006)

**Ports and terminals:**
Karachi, Port Muhammad Bin Qasim

**Military**

**Military branches:**
Army (includes National Guard), Navy (includes Marines), Pakistan Air Force (Pakistan Fiza'ya) (2006)

**Military service age and obligation:**
16 years of age for voluntary military service; soldiers cannot be deployed for combat until age of 18; the Pakistani Air Force and Pakistani Navy have inducted their first female pilots and sailors (2006)

**Manpower available for military service:**
males age 16-49: 39,028,014
females age 16-49: 36,779,584 (2005 est.)

**Manpower fit for military service:**
males age 16-49: 29,428,747
females age 16-49: 28,391,887 (2005 est.)

**Manpower reaching military service age annually:**
males age 18-49: 1,969,055
females age 16-49: 1,849,254 (2005 est.)

Military expenditures - percent of GDP:
4.5% (2006 est.)

**Transnational Issues**

**Disputes - international:**
various talks and confidence-building measures cautiously have begun to defuse tensions over Kashmir, particularly since the October 2005 earthquake in the region; Kashmir nevertheless remains the site of the world's largest and most militarized territorial dispute with portions under the de facto administration of China (Aksai Chin), India (Jammu and Kashmir), and Pakistan (Azad Kashmir and Northern Areas); UN Military Observer Group in India and Pakistan (UNMOGIP) has maintained a small group of peacekeepers since 1949; India does not recognize Pakistan's ceding historic Kashmir lands to China in 1964; India and Pakistan have maintained their 2004 cease fire in Kashmir and initiated discussions on defusing the armed stand-off in the Siachen glacier region; Pakistan protests India's fencing the highly militarized Line of Control and construction of the Baglihar Dam on the Chenab River in Jammu and Kashmir, which is part of the larger dispute on water sharing of the Indus River and its tributaries; to defuse tensions and prepare for discussions on a maritime boundary, India and Pakistan seek technical resolution of the disputed boundary in Sir Creek estuary at the mouth of the Rann of Kutch in the Arabian Sea; Pakistani maps continue to show the Junagadh claim in India's Gujarat State; by 2005, Pakistan, with UN assistance, repatriated 2.3 million Afghan refugees leaving slightly less than a million, many of whom remain at their own choosing; Pakistan has proposed and Afghanistan protests construction of a fence and laying of mines along portions of their porous border; Pakistan has sent troops into remote tribal areas to monitor and control the border with Afghanistan and stem terrorist or other illegal activities

Refugees and internally displaced persons:
refugees (country of origin): 1,084,208 (Afghanistan)

**IDPs:**
undetermined (government strikes on Islamic militants in South Waziristan), 34,000 (October 2005 earthquake, most of those displaced returned to their home villages in the spring of 2006) (2006)

**Illicit drugs:**
opium poppy cultivation estimated to be 800 hectares in 2005 yielding a potential production of 4 metric tons of pure heroin; federal and provincial authorities continue to conduct anti-poppy campaigns that force eradication - fines and arrests will take place if the
ban on poppy cultivation is not observed; key transit point for Afghan drugs, including heroin, opium, morphine, and hashish, bound for Western markets, the Gulf States, and Africa; financial crimes related to drug trafficking, terrorism, corruption, and smuggling remain problems

**List Of News Papers In Pakistan**

**BALOCHI**
Nawai Watan, Quetta

**ENGLISH**
Balochnsitan Post, Quetta
Business Recorder, Karachi
Daily Mail, Islamabad
Daily Times, Lahore
Dawn, Karachi
The Frontier Post, Peshawar
Khyber Mail, Peshawar
The Nation, Lahore and Islamabad
Pakistan Observer, Islamabad
Pakistan Times, Islamabad
The News, Karachi, Lahore and Islamabad
The Star, Karachi
The Statesman, Islamabad

**PASHTO**
Daily Wahdat, Peshawar

**PUNJABI**
Sajjan, Lahore
Khabran, Lahore
Bhulekha, Lahore

**SRAIKI**
Kook, Karachi

**SINDHI**
Daily Kawish, Hyderabad
Daily Ibrat, Hyderabad
Daily Awami Awaz, Karachi
Daily Hilal Pakistan, Hyderabad
Daily Sindhu, Hyderabad
Daily Alakh, Hyderabad
Daily Tameer-e-Sindh, Hyderabad
Daily Koshish, Hyderabad
Daily Mehran, Hyderabad
Daily Sach, Hyderabad
Daily Sham, Hyderabad
Daily Safeer, Hyderabad

**URDU**
Aaj Daily, Peshawar, Islamabad and Abbottabad
Daily Al-Akhbar, Islamabad
Daily Ausaf, Islamabad
Daily Awam, Karachi
Daily Al-Qamar, Islamabad,
Daily Express, Karachi, Lahore, Islamabad, Peshawar, Multan, Faisalabad, Gujranwala,
Sargodha, Rahim Yar Khan and Sukkar
Daily Imroze, Karachi
Daily Islam, Karachi and Lahore
Daily Jang, Karachi and Lahore
Daily Mashriq, Peshawar
Daily Naya Zamana, Lahore
Daily Pakistan, Lahore
Daily Deen, Karachi and Lahore
Gujranwala Times, Gujranwala,
Daily Jasarat, Karachi
Daily Khabrain, Peshawar
Daily Millat, Lahore
Daily Nawa-i-Waqt, Lahore
Daily Ummat, Karachi

List Of Railway Trains In Pakistan

INTERNATIONAL

- Samjhauta Express
- Thar Express

NATION WIDE

1. Allama Iqbal Express
2. Awam Express
3. Baddar Express
4. Badin Express
5. Bahuddin Zakaria Express
6. Bahawalpur Express
7. Baluchistan Express
8. Bolan Mail
9. Buraq Express
10. Cargo Express
11. Chenab Express
12. Chiltan Express
13. Dachi Express
14. Express
15. Faisal Express
16. Faisalabad Express
17. Fareed Express
18. Fast
19. Fast Passenger
20. Gandhara Steam Safari (Rawalpindi - Landikotal)
21. Ghouri Express
22. Islamabad Non-Stop
23. Jaffar Express
24. Jinnah Express
25. Karachi Express
26. Karkoram Express
27. Khushhal Khan Khattak Express
28. Khyber Mail
29. Lahore Non-Stop
30. Lala Musa Express
31. Lasani Express
32. Malik Wal Express
33. Mari Indus Express
34. Mehr Express
35. Mehran Express
36. Mianwali Express (Lahore-Mianwali-Lahore)
37. Millat Express
38. Nishtar Express (Rawalpindi-Lahore-Karachi)
39. Musa Pak
40. Narowal Express
41. Night Coach
42. Pakpattan Express
43. Passenger
44. Qalander Express
45. Quetta Express
46. Rachna Express
47. Ravi Express
48. Rohi Express
49. Rohri Express
50. Sakhi Abbas Express
51. Sandal Express
52. Sargodha Express
53. Shah Lateef Express
54. Shah Rukne Alam Express
55. Shah Shams Express
56. Shalimar Express
57. Shuttle Train
58. Sir Syed Express (Rawalpindi-Karachi-Rawalpindi)
59. Subak Kharam Express
60. Subak Raftar Express
61. Sukkur Express
62. Supper Express
63. Tezgam
64. Thal Express
65. Tipu Sultan Express

**Islands In Pakistan**

**ASTOLA (AKA HAFT TALAR)**
Astola or Astola Island (also known as Haft Talar or seven hills) is a small, uninhabited island in the Arabian Sea, approximately twenty-five kilometres south of the Balochistan coast of Pakistan. The island lies about forty kilometres east-southeast of the port of Pasni, its altitude is 0-200 feet and the total area is approximately 4 km². The island is about four kilometres in length and one kilometre in width, with an isolated rock to the southeast which has broken away. There are caves on the south face cliffs. Astola is the only significant offshore island along the north coast of the Arabian Sea. The island is owned by the Balochistan Board of Revenue and administratively is part of the Pasni subdivision of the district of Gwadar. Between September and May of each year, Astola becomes a temporary base for mainland fishermen, to catch lobsters and oysters. From June to August, the island remains uninhabited by humans because of the rough sea and high tides. On one of the cliffs of the island, there is a small solar-operated beacon for the safety of passing vessels.

History

Nearchus (360-300 BCE), admiral of Alexander the Great, mentioned Astola island as Carnine Island, inhabited by the Ichthyophagoi (Fish eaters in Greek) where, according to Nearchus, even the mutton had a fishy taste. The Persian phrase Mahi khoran, (Fish eaters) has become the modern name of the coastal region of Makran.

On the island are the remains of an ancient Hindu temple of the goddess, Kali Devi. The island was also known as to Hindus as "Satadip". There is also a prayer yard built for the Muslim Sufi Pir Khawaja Khizr who according to mainland legends is said to rule over the oceans and is believed to visit the area occasionally and offer prayers there. The prayer yard is used by the fishermen during the fishing season.

Wild life

The isolated location of the island has helped maintain endemic life forms. The endangered Green turtle (Chelonia mydas) and possibly the Hawksbill turtle (Eretmochelys imbracata) nest on the beach at the foot of cliffs, and it is a very important area for endemic reptiles such as the viper Echis carinatus astolae. The island is maintaining the genetic and ecological diversity of the area. The island is reported to support a large number of breeding seabirds including Larus hemprichii and several species of terns. Avifauna includes: Ardeola cinerea, Egretta gularis, Pluvialis squatarola, Numenius arquata, Limosa limosa, Calidris minutus, Larus argentatus, Larus genei, Cursorius coromandelius, Galerida cristata, Oenanthe deserti, and Prinia spp. Feral cats originally introduced by fishermen to control the endemic rodent population pose an increasing threat to birds’ nesting and breeding sites. and as such maintains the genetic and ecological diversity of the area.

BHIT SHAH ISLAND

Baba Bhit Shah Island is the smallest neighborhood of Kiamari Town in Karachi, Sindh, Pakistan. It comprises three small fishing islands which in the centre of the harbour of Karachi.
There are several ethnic groups in Kiamari Town including Urdu speakers, Punjabis, Sindhis, Kashmiris, Seraikis, Pakhtuns, Balochs, Memons, Bohras, Ismailis. Over 99% of the population is Muslim. The population of Kiamari Town is estimated to be nearly one million.

There is another place named Bhit Shah located in the interior part of province of Sindh, Pakistan. Bhit Shah is the town where the shrine of Shah Abdul Latif Bhittai (1689-1752), the patron saint of Sindh.

**BUDDO ISLAND**

Buddo Island is a small island located in the Arabian Sea off the coast of Karachi, Sindh, Pakistan. Buddo Island is also known as Dingi by local fishermen. Buddo and Bundal Islands serve as a temporary port for local fishermen. They clean their nets and dry fish on these islands. The Bundal and Buddo Islands comprising 12,000 acres of land, are the assets of the Port Qasim Authority.

**BUNDAL ISLAND**

Bundal Island is a small island located in the Arabian Sea off the coast of Karachi, Sindh, Pakistan. Bundal, pronounced Bhandar by local fishermen, is a twin island of Buddo and lies to its West. On Bundal Island the tomb of Muslim sufi Yusuf Shah is located. The annual urs of 'Yusuf Shah' which attracts thousands of coastal people to the island. The island looked like a city during the urs. Churma and Buddo Islands are also located near Bundal Island. There is a dispute between the provincial government of Sindh and Karachi Port Trust on the ownership rights of 12,000 acres of land in these Islands.

**Development Project**

In September 2006, government of Pakistan gave a Dubai property firm, Emaar the go-ahead for a $43bn (£22.8bn) project to develop two island resorts in Bundal and Buddo Island. A bridge would be constructed at a cost of $50 million to link Karachi Defence Housing Society Phase-8 with Bundal and Buddo Islands. The islands are situated at a distance of 1.5km from Karachi Defence Phase-8. A major portion of one of the two islands has submerged beneath the sea and the land of Emaar Group would reclaim the land by using technology. According to initial plan, about 15,000 houses would be constructed and would be sold to public. On December 8th construction of the islands started.

**Controversy**

Many local NGOs, political parties and even Sindh Government have raised their voice about these development projects.

**CHURMA ISLAND (AKA CHURNA ISLAND)**

Churma Island or Churna Island is a small island located in the Arabian Sea off the coast of Karachi, Sindh, Pakistan. Churna is a tiny island with a big reputation embrace crystal clear water, extraordinary vistas, it’s a culmination of your search for the best Sport Fishing action in Pakistan with a plethora of choices excursions to our undersea world, scuba diving,
sailing around and snorkeling, The island of Churna is frequently visited by anglers (recreational fishermen) for fishing, this is one of the biggest and most active fishing spot in Pakistan. There is enough sea life which attracts anglers for Big Game Fishing all over Pakistan.

**CLIFTON OYSTER ROCKS**

Clifton Oyster Rocks is an island located near Karachi, Sindh, Pakistan.

**KHIPRIANWALA ISLAND**

Khiprianwala Island is a small island located in the Arabian Sea off the coast of Karachi, Sindh, Pakistan.

**MALAN ISLAND**

Malan Island is located in Arabian Sea 3 kilometres off the coast of Balochistan, Pakistan. It is an offshore mud volcano and rose out of the water overnight in March 1999.

**MANORA (AKA MANORO)**

Manora or Manoro is a small island (2.5 km²) located just south of the Port of Karachi, Sindh, Pakistan. The island is connected to the mainland by a 12 kilometre long causeway called the Sandspit. Manora and neighbouring islands form a protective barrier between Karachi harbour to the north and the Arabian Sea to the south. The western bay of the harbour contains endangered mangrove forests which border the Sandspit and Manora island. To the east is Karachi Bay and the beach towns of Kiamari and Clifton. The island is located at 24°48′00″N, 66°58′00″E (24.800000, 66.970000).

**History**

According to the British historian Eliot, parts of city of Karachi and the island of Manora at port of Karachi constituted the city of Debal. The island was the site of a small fort constructed in the eighteenth century when the port of Karachi traded with Oman and Bahrain. The fort was stormed by the British in 1839 because of the strategic location of Karachi. Although the fort is now buried beneath the naval base, the lighthouse is a visible reminder of the British presence having been built in 1889 to assist vessels approaching Karachi harbour.

The island of Manora has served for more than 50 years as the main base of the Pakistan Navy, with berths for naval vessels located along the eastern edge of the island. The island has been governed as a military cantonment despite being located so close to Karachi. The opening of the new Jinnah Naval Base at Ormara, 250 kilometres away, has meant that approximately half of the naval vessels have moved away from Manora.

**Tourism**
Manora is also a popular picnic spot because of the long sandy beaches along the southern edge of the island, which merge into the beaches of the Sandspit and then extend several kilometres to the beaches at Hawkesbay. At the southeastern end of Manora island is the tallest lighthouse (28 m or 91 feet high) in Pakistan. The island lies approximately 15-20 minutes by boat ride from mainland Karachi but there are no good hotels available for an overnight stay. For this and other reasons, the Government of Pakistan has been considering developing the island into a tourist destination. The island has been envisioned as an exotic location with natural landscapes such as the beaches and the mangrove forests, and secluded beauty with an upgrade for the lighthouse to add to the quaint feel of the island.

Development

Pakistan's Ministry for Ports and Shipping has just signed Memorandum of Understanding in 2006 with Dubai World and Emaar Properties for the redevelopment of Manora Island. As part of the development plans, the KPT and all Military establishments will vacate the island and hand it over to the the companies for development. The development, so to speak, will comprise of establishing high rise hotels and apartment buildings in the areas.

Gurdwaras In Pakistan

Gurdwaras are an essential part of Sikhism and form an important part of the history of Sikhism. The Punjab was only divided in 1947 when the separate nations of India and Pakistan were formed. Before this, the area covered by the two countries was one nation.

The following is a list of important places in Sikh history:

1. **Nankana Sahib** This is the most sacred Sikh place; the location of the birth of the Sikh founder, Guru Nanak.
2. **Gurdwara Janam Asthan, Nankana Sahib** - This site is ‘Janam Asthan’ meaning ‘Place of Birth’ and childhood home.
3. **Gurdwara Bal Lili, Nankana Sahib** - This site is connected with adventures of the early childhood of the Guru.
4. **Gurdwara Patti Sahib, Nankana Sahib** – ‘Patti’ means ‘Alphabet’ and is the site where Guru Nanak learnt the various different languages and particular the alphabet of these languages.
5. **Gurdwara Mall Ji Sahib, Nankana Sahib** - This site is connected with adventures of the early childhood of the Guru in particular the events link to the Cobra and Mehta Kalu
6. **Gurdwara Kiara Sahib, Nankana Sahib** - This site is where, as a youngster, Guru Nanak used to graze cattle. It is at a distance of about 1.5 Km from the Janam Asthan.
7. **Gurdwara Tambu Sahib, Nankana Sahib**
8. **Gurdwara Guru Hargobind Sahib, Nankana Sahib**
9. **Gurdwara Nihang Singhana, Nankana Sahib**
10. **Gurdwara Sachcha Sauda, Chuharkanana**
11. **Gurdwara Panja Sahib**, Hasan Abdal – This is the site where Guru Nanak Dev stopped the rock with his hand and the palm print is impressed on the rock.

12. **Gurdwara Pehli Patshahi**, Lahore

13. **Gurdwara Sri Nank Garh**, Lahore

14. **Baoli Sahib Sri Guru Amar Das**, Lahore (Roofed Well)

15. **Parkash Asthan Sri Guru Ram Das**, Lahore

16. **Gurdwara Diwan Khana**, Lahore

17. **Dharamshala Sri Guru Ramdas**, Lahore

18. **Gurdwara Baoli Sahib Guru Arjan Dev**, Lahore

19. **Gurdwara Bhai Budhu Da Awa**, Lahore

20. **Gurdwara Lal Khooh**, Lahore

21. **Gurdwara Dehra Sahib Sri Guru Arjan Dev**, Lahore

22. **Gurdwara Patshahi Chhevin**

23. **Gurdwara Patshahi Chhevin Muzang**

24. **Gurdwara Shikargarh Patshahi Chhevin**, Lahore

25. **Shahid Ganj Bhai Taru Singh**

26. **Gurdwara Shahid Ganj Sighnian**, Lahore

27. **Shahid Ganj Bhai Mani Singh**, Lahore

**Banks In Pakistan**

**Central Bank**

- State Bank of Pakistan

**Private Scheduled Banks**

- Allied Bank of Pakistan Limited, Karachi
- Arif Habib Rupali Bank Limited, Karachi
- Askari Commercial Bank Limited, Rawalpindi
- Atlas Bank Limited, Karachi
- Bank Al Habib, Karachi
- Bank Al-Falah Limited, Karachi
- Crescent Commercial Bank Limited, Karachi
- Dawood Bank Limited, Karachi
- Faysal Bank Limited, Karachi
- Habib Bank Limited, Karachi
- JS Bank
- KASB Bank Limited, Karachi
- Meezan Bank Limited, Karachi
- Metropolitan Bank Limited, Karachi
- Muslim Commercial Bank Limited (MCB), Islamabad
- Mybank Limited, Karachi
- NIB Bank Limited, Karachi
- PICIC Commercial Bank Limited, Karachi
- Prime Commercial Bank Limited, Lahore
- Saudi-Pak Commercial Bank Limited, Karachi
- SME Banks, Islamabad
- Soneri Bank Limited, Karachi
- Union Bank, Karachi
- United Bank Limited, Karachi

Foreign Banks
- Abn Amro Bank NV, Karachi.
- Albaraka Islamic Bank BSC(EC) Lahore
- American Express Bank Limited, Karachi
- Bank of Tokyo Mitsubishi Limited, Karachi
- Citibank NA, Karachi
- Deutsche Bank AG, Karachi
- Habib Bank AG Zurich, Karachi
- Hongkong and Shanghai Banking Corporation, Karachi
- Oman International Bank SOAG Karachi
- Rupali Bank Limited, Karachi
- Standard Chartered Bank Limited, Karachi

Nationalized Scheduled Banks
- First Women Bank Limited
- National Bank of Pakistan

Specialized Banks
- Industrial Development Bank
- Punjab Provincial Cooperative Bank
- SME Bank
- Zarai Taraqiati Bank (Agricultural Development Bank)

Development Financial Institutions
- Pakistan Industrial Credit and Investment Corp Limited, Karachi
- Pak Kuwait Investment Company Limited, Karachi
- Pak Libya Holding Company Limited, Karachi
- Pak-Oman Investment Company Limited, Karachi
- Saudi Pak Industrial And Agricultural Investment Company (Pvt) Limited Islamabad
- House Building Finance Corporation, Karachi
- Investment Corporation Of Pakistan, Karachi
- National Development Finance Corporation, Karachi
- Industrial Development Bank of Pakistan, Karachi
- Dubai Islamic Bank, Karachi

Investment Banks
- Al-Towfeek Investment Bank Limited
- Asset Investment Bank Limited
• Atlas Investment Bank Limited
• Crescent Investment Bank Limited
• Escorts Investment Bank Limited
• First International Investment Bank Limited
• Fidelity Investment Bank Limited
• Franklin Investment Bank Limited
• Islamic Investment Bank Limited
• Jahangir Siddiqui Investment Bank Limited
• Orix Investment Bank (Pakistan) Limited
• Prudential Investment Bank Limited
• Trust Investment Bank Limited

**Discount & Guarantee Houses**

• First Credit & Discount Corp Limited
• Prudential Discount & Guarantee House Limited
• National Discounting Services Limited
• Speedway Fordmetall (Pakistan) Limited

**Housing Finance Companies**

• Asian Housing Finance Limited
• Citibank Housing Finance Company Limited
• House Building Finance Corporation
• International Housing Finance Limited

**Venture Capital Companies**

• Pakistan Venture Capital Limited
• Pakistan Emerging Ventures Limited

**Micro Finance Banks**

• The First Micro Finance Bank Limited
• Khushali Bank
• Network Micro Finance Bank
• Pak Oman Micro Finance Bank
• Rozgar Micro Finance Bank, Karachi
• Tameer Microfinance Bank Limited

**Islamic Banks**

• First Dawood Islamic Bank
• Dubai Islamic Bank
• Meezan Bank
• Bank Alfalah
Glaciers of Pakistan

**Abruzzi Glacier**
Abruzzi Glacier is a glacier in the north of the Baltoro Kangri peak in the Northern Areas of Pakistan. The glacier joins the huge Baltoro Glacier (one of the largest glaciers outside polar region) that flows northwest in the beginning and then turns westward.

**Baltoro Glacier**
The Baltoro Glacier, at 57 kilometers long, is one of the longest glaciers outside of the Polar Regions. It is located in Baltistan, in the Northern Areas of Pakistan, and runs through part of the Karakoram mountain range. The Baltoro Muztagh lies to the north and east of the glacier, while the Masherbrum Mountains lie to the south. At 8,611 m (28,251 ft), K2 is the highest mountain in the region, and three others within 20 km top 8,000 m.

The glacier gives rise to the Shigar River, which is a tributary of the Indus River. Several large tributary glaciers feed the main Baltoro glacier, including the Godwin Austen Glacier, flowing south from K2; the Abruzzi and the various Gasherbrum Glaciers, flowing from the Gasherbrum group of peaks; the Vigne Glacier, flowing from Chogolisa, and the Yermandendu Glacier, flowing from Masherbrum. The confluence of the main Baltoro Glacier with the Godwin Austen Glacier is known as Concordia; this location and K2 base camp are popular trekking destinations.

The trough of this glacier is very wide and its central part is a vast snowfield. Small valley glaciers form icefalls where they meet the trunk glacier. The sidewalls vary from very steep to precipitous. The glacier has carved striations on the surrounding country rocks. Moving ice has formed depressions, which serve as basins for numerous glacial lakes. The glacier can be approached via the important Balti town of Skardu.

**Batura Glacier**
Batura Glacier (57km long) is one of the largest and longest glaciers outside the polar regions. It lies in the Gojal region of the Northern Areas of Pakistan, just north of Batura (7,795 m) and Passu (7,500 m) massifs. It flows west to east. The lower portions can be described as a grey sea of rocks and gravelly moraine, bordered by a few summer villages and pastures with herds of sheep, goats, cows and yaks and where roses and juniper trees are common.

**Biafo Glacier**
The Biafo Glacier is a 63 km long glacier in the Karakoram Mountains of the Northern Areas, Pakistan which meets the 49 km long Hispar Glacier at an altitude of 5,128m (16,824 feet) at Hispar La(Pass) to create the world's longest glacial system outside of the polar regions. This highway of ice connects two ancient mountain kingdoms, Nagar (immediately south of Hunza) in the west with Baltistan in the east. The traverse uses 51 of the Biafo Glacier's 63 km and all of the Hispar Glacier to form a 100 km glacial route.
The Biafo Glacier presents a trekker with several days of very strenuous, often hectic boulder hopping, with spectacular views throughout and Snow Lake near the high point. Snow Lake, consisting of parts of the upper Biafo Glacier and its tributary glacier Sim Gang, is one of the world's largest basins of snow or ice in the world outside of the polar regions, up to one mile in depth.

The Biafo Glacier is the world's third longest glacier outside of the polar regions, second only to the 70 km Siachen Glacier disputed between Pakistan and India and Tajikistan's 77 km long Fedchenko Glacier.

Campsites along the Biafo are located off of the glacier, adjacent to the lateral moraines and steep mountainsides. The first three (heading up from the last village before the glacier, the thousand-year-old Askole village) are beautiful sites with flowing water nearby. Mango and Namla, the first two campsites, are often covered in flowers and Namla has an amazing waterfall very near the camping area. Biantha, the third camp site, is often used as a rest day. A large green meadow, it has a few running streams near the camp and many places to spend the day rock climbing or rappelling.

Evidence of wildlife can be seen throughout the trek. The Ibex and the Markhor Mountain Goat can be found and the area is famous for brown bears and snow leopards, although sightings are rare.

**Biarchedi Glacier**

The Biarchedi Glacier is located on the northeast of Biarchedi Peak in Pakistan. It flows north into the Baltoro Glacier.

**Godwin-Austen Glacier**

The Godwin-Austen Glacier is located near K2 in the Northern Areas of Pakistan. Its confluence with the Baltoro Glacier is called Concordia and is one of the most favorite spots for trekking in Pakistan since it provides excellent views of four of the five eight-thousanders in Pakistan.

The glacier can be approached via the important Balti town of Skardu.

**Gondogoro Glacier**

Gondogoro Glacier or Gondoghoro Glacier is glacier near Concordia in the Northern Areas of Pakistan. It serves as an alternative means to reach Concordia; the confluence of Baltoro Glacier and Godwin-Austen Glacier.

**Hainablak Glacier**

Hainablak Glacier is a glacier near Trango Tower mountain in Baltistan, Northern Areas of Pakistan.

**Hispar Glacier**

Hispar Glacier is a 49 km. long glacier in the Karakoram Mountains of the (Northern Areas, Pakistan) which meets the 63 km. long Biafo Glacier at the Hispar La (Pass) at an altitude of 5,128m (16,824 feet) to create the world's longest glacial system outside of the polar regions. This 100 km. highway of ice connects two ancient mountain kingdoms, Nagar (immediately south of Hunza) in the west with Baltistan in the east. The extreme steepness
of the hillsides and strenuous nature of the boulder hopping on the lateral moraines and hillsides make this route's upper half the most difficult part of the Biafo - Hispar traverse. Only the Hispar La day includes walking on the Hispar Glacier. The crossing of four major tributary glaciers from the north is most taxing, and potentially high nullah crossings can be dangerous. The views of 7800 meter (25,600 foot) peaks and of the snow covered cliffs and mountains on the south side of the glacier are particularly impressive.

**Lonak Glacier**
Lonak Glacier is one of the three major glaciers of Sikhim, in the Himalaya range in Northern Areas of Pakistan.

**Miar Glacier**
Miar Glacier is a glacier that forms in the north of Miar Peak (6,824 m).

**Panmah Glacier**
Panmah Glacier is a glacier in the Northern Areas of Pakistan. It is included in the Central Karakoram National Park.

**Passu Glacier**
Passu Glacier forms in the east of the Passu Sar (Passu Peak).

**Rupal Glacier**
Rupal Glacier or Tashain Glacier is a glacier in the Great Himalaya subrange of Himalayas. It starts in the north of an unnamed 6,326 m high peak (35° 8'35.93"N 74°24'52.46"E) and flows northeast in the north of Laila Peak (Rupal Valley) and in the south of Nanga Parbat's many peaks. The melt water from the glacier forms Rupal River.

**Sarpo Laggo Glacier**
The Sarpo Laggo Glacier (Sarpo Laggo: young husband) is a glacier in the Northern Areas of Pakistan, in the Karakoram mountain range of the Himalayas.

**Shani Glacier**
Shani Glacier is a glacier in the north of Shani Peak (5,887 m) in Naltar Valley, Pakistan.

**Siachen Glacier**
The Siachen Glacier is located in the eastern Karakoram Range in the Himalaya Mountains, at approximately 35.5° N 77.0° E. It is the longest glacier in the Karakoram and second longest in the world's non-polar areas. It ranges from an altitude of 5753 m (18,875 ft.) above sea level at its source at Indira Col (pass) on the China border to its snout at 3620 m (11,875 ft.)

The Siachen Glacier lies south of the great watershed that separates Central Asia from the Indian subcontinent. The 70 km (43.5 mile) long Siachen glacier lies between the Saltoro Ridge line immediately to the west and the main Karakoram range to the east. The Saltoro Ridge originates in the north from the Sia Kangri peak on the China border in the Karakoram range. The crest of the Saltoro Ridge's altitudes range from 5450 to 7720 m (17,880 to 25,330 feet). The major passes on this ridge are, from north to south, Sia La at 5589 m (18,336 ft), Bilafond La at 5450 m (17,880 ft), and Gyong La at 5689 m (18,665 ft.)

**Conflict Zone**
The glacier is located in the disputed region of Kashmir in the Indian subcontinent. The average winter snowfall is 10.5 m (35 ft.) and temperatures can dip to minus 50 degrees celsius (minus 58 degrees fahrenheit). In spite of the severe climate, the word 'Siachen' ironically means 'the place of wild roses, a reference some people attribute to the abundance of Himalayan wildflowers found in the valleys below the glacier, but specifically refers to the thorny wild plants which grow on the rocky outcrops. The glacier is also the highest battleground on earth, where India and Pakistan have fought intermittently since April 13, 1984. Both countries maintain permanent military personnel in the region at a height of over 6,000 metres. The site is a prime example of mountain warfare. The glacier's melting waters are the main source of the Nubra River, which drains into the Shyok River. The Shyok in turn joins the Indus River. The glacier's melting waters are a major source of the river Indus, a vital water source. Global warming has had one of its worst impacts here in the Himalayas with the glaciers melting at an unprecedented rate. The volume of the glacier has been reduced by 35 percent over the last twenty years. One report blames military activity as much as global warming.

The conflict in Siachen stems from the confusion in the improperly demarcated territory on the map beyond the map coordinate known as NJ9842. The 1949 Karachi Agreement and the 1972 Simla Agreement did not clearly mention who controlled the glacier, merely stating that from the NJ9842 location the boundary would proceed "thence north to the glaciers." In the 1960's and 1970's, however, the United States Defense Mapping Agency (now National Geospatial-Intelligence Agency) began, with no legal justification or any boundary documentation, showing an international boundary on their maps available to the public and pilots as proceeding from NJ9842 east-northeast to the Karakoram Pass at 5534 m (18,136 ft.) on the China border. Numerous governmental and private cartographers and atlas producers followed suit. This resulted in cartographically "awarding" the entire 2700 square kilometers (1040 square miles) Siachen area to Pakistan. Indian government and military took note. Prior to 1984 neither India nor Pakistan had any permanent presence in the area.

**Fighting**

In the 1970s and early 1980s several mountaineering expeditions applied to Pakistan to climb high peaks in the Siachen area, and Pakistan granted them. This reinforced the Pakistani claim on the area, as these expeditions arrived on the glacier with a permit obtained from the Government of Pakistan. Once having become aware of this in about 1978, Colonel N. Kumar of the Indian Army mounted an Army expedition to Teram Kangri peaks (in the Siachen area on the China border and just east of a line drawn due north from NJ9842) as a counter-exercise. The first public mention of a possible conflict situation was an article by Joydeep Sircar in The Telegraph newspaper of Calcutta in 1982, reprinted as "Oropolitics" in the Alpine Journal, London, in 1984. India launched **Operation Meghdoot** (named after the divine cloud messenger in a Sanskrit play) on 13 April 1984 when the Kumaon Regiment of the Indian Army and the Indian Air Force went into the glacier region. Pakistan quickly responded with troop deployments and what followed was literally a race to the top. Within a few days, the Indians were in control over most of the area, as Pakistan was beaten to most of the Saltoro Ridge high ground by about a week. The two northern passes - Sia La and Bilfond La - were quickly secured by India. In his memoirs, current Pakistani president, General Pervez Musharraf states that Pakistan lost almost 2,331 Km2 (900 Mi2) of territory. TIME states that the Indian advance captured nearly 1,000 sq. mi. of territory claimed by Pakistan. Since then Pakistan has launched several attempts to displace the Indian forces, but with little success. The most well known was in 1987, when an attempt was made by Pakistan to dislodge India from the area. The
attack was led by Pervez Musharraf (later President of Pakistan) heading a newly formed elite SSG commando unit in the area. A special garrison with eight thousand troops was built at Khapalu. The immediate aim was to capture Bilafond La but after bitter fighting that included hand to hand combat, the Pakistanis were thrown back and the positions remained the same. The only Param Vir Chakra - India's highest gallantry award - to be awarded for combat in the Siachen area went to Naib Subedar Bana Singh (retired as Subedar Major/Honorary Captain), who assaulted and captured a Pakistani post in a daring daylight raid atop a 22,000 foot (6 700 m) peak, now named Bana Post. Further attempts to reclaim positions were launched by Pakistan in 1990, 1995, 1996 and even in early 1999, just prior to the Lahore Summit. The 1995 attack by Pakistan SSG was significant as it resulted in 40 casualties for Pakistan troops without any changes in the positions.

**Current situation**
The Indian Army controls all of the Siachen Glacier and the three main passes of the Saltoro Ridge immediately west of the glacier, Sia La, Bilafond La, and Gyong La, thus holding onto the tactical advantage of high ground. Gyong La (Pass) itself is at 35-10-29N, 77-04-15 E; that high point is controlled by India. The Pakistanis control the glacial valley just five kilometers southwest of Gyong La. The line where Indian and Pakistani troops are presently holding on to their respective posts is being increasingly referred to as the Actual Ground Position Line (AGPL).

The Pakistanis have been unable get up to the crest of the Saltoro Ridge, while the Indians cannot come down and abandon their strategic high posts. A ceasefire went into effect in 2003. Even before then, every year more soldiers were killed because of severe weather than enemy firing. The two sides have lost an estimated 2,000 personnel primarily due to frostbite, avalanches and other complications. Both nations have 150 manned outposts along the glacier, with some 3,000 troops each. Official figures for maintaining these outposts are put at ~$300 and ~$200 million for India and Pakistan respectively. India has built the world's highest helipad on this glacier at a place called Sonam, which is at 21,000 feet (6,400 m) above the sea level, to serve the area. India also installed the world's highest telephone booth on the glacier. Both sides have been wishing to disengage from the costly military outposts but after the Kargil War in 1999 where Pakistan sent infiltrators to occupy vacated Indian posts across the Line of Control, India has backed off from withdrawing in Siachen. India feels that Pakistan would resort to the same thing if Siachen Glacier is vacated without any official confirmation of its positions in the glacier.

During her tenure as Prime Minister of Pakistan, Ms Benazir Bhutto, visited the area west of Gyong La, making her the first premier from either side to get to the Siachen region. On June 12, 2005, Prime Minister Manmohan Singh became the first Indian Prime Minister to visit the area, calling for a peaceful resolution of the problem. In the previous year, the President of India, Abdul Kalam became the first head of state to visit the area. India based Jet Airways plans to open a chartered service to the glacier's nearest airlink, the Thoise airbase, mainly for military purposes. Pakistan's PIA flies tourists and trekkers daily to Skardu, which is the jumping off point for K2, the world's second highest point just 33 kilometers (20.5 miles) northwest of the Siachen area, although bad weather frequently grounds these scheduled flights.

**Trango Glacier**
Trango Glacier is a glacier near Trango Tower mountain in Baltistan, Northern Areas of Pakistan.

**Vigne Glacier**
Vigne Glacier is a glacier in the Northern Areas, Pakistan near Gondogoro Glacier and Baltoro Glacier.

**Rivers In Pakistan**

**Chenab River**
The Chenab River is formed by the confluence of the Chandra and Bhaga rivers at Tandi located in the upper Himalayas, in the Lahul and Spiti District of Himachal Pradesh, India. In its upper reaches it is also known as the Chandrabhaga. It flows through the Jammu region of Jammu and Kashmir into the plains of the Punjab, forming the boundary between the Rechna and Jech interfluves (Doabs in Persian). It is joined by the Jhelum River at Trimmu, and then by the Ravi River. It then merges with the Sutlej River near Uch Sharif to form the Panjnad ('Five Rivers'), which joins the Indus at Mithankot. The total length of the Chenab is approximately 960 kilometres. The waters of the Chenab are allocated to Pakistan under the terms of the Indus Waters Treaty.

The river was known to Indians in Vedic period as Ashkini or Iskmati and as Acesines to the Ancient Greeks. In 325 BC, Alexander the Great allegedly founded the town of Alexandria on the Indus (present day Uch Sharif or Mithankot Chacharan) at the confluence of the Indus and the combined stream of Punjab rivers (currently known as the Panjnad River).

The Chenab has the same place in the consciousness of the people of the Punjab, as, say the Rhine holds for the Germans, or the Danube for the Austrians and the Hungarians. It is the iconic river around which Punjabi consciousness revolves, and plays a prominent part in the tale of Heer Ranjha, the Punjabi national epic.

**Dasht River**

Dasht River is located in Gwadar District, Balochistan, Pakistan. Mirani Dam is being built on Dasht river to provide drinking water to Gwadar city.

**Dashtiari River**

Dashtiari River is located in Gwadar District, Balochistan, Pakistan.

**Gambila River**

Gambila River river, also called the Tochi River, is located in Bannu District, North-West Frontier Province, Pakistan.

It's source are the hills six miles south of the Sufed Koh, the source of the Kurram River, which it runs parallel too and finally joins.

The Gambila is an important river for the inhabitants of the Dawar valley, as it serves to irrigate a large area of land that it runs through. Particularly that belonging to the Bakkakhel Wazirs, and Miri and Barakzai Bannuchis.

**Ghaggar-Hakra River**

The Ghaggar-Hakra River is the (rainy) seasonal river in India and the Hakra River riverbed in Pakistan. It is often identified with the Vedic Sarasvati River, but it is disputed if all Rigvedic references to the Sarasvati River refer to this river. It is a dried out river which flow during rainy season only and used to flush out flood waters of Punjab.

Estimated period at which the river dried up range, very roughly, from 2500 to 2000 BC, with a further margin of error at either end of the date-range. This may be precise in geological terms, but for the Indus Valley Civilization (2800 to 1800 BC) it makes all the difference whether the river dried up in 2500 (its early phase) or 2000 (its late phase).
Similarly, for the Gandhara grave culture, often identified with the early influx of Indo-Aryans from ca. 1600 BC, it makes a great difference whether the river dried up a millennium earlier, or only a few generations ago, so that by contact with remnants of the IVC like the Cemetery H culture, legendary knowledge of the event may have been acquired.

The identification with the Sarasvati River is based the descriptions in Vedic texts (e.g. in the enumeration of the rivers in Rigveda 10.75.05, the order is Ganga, Yamuna, Sarasvati, Sutlej), and other geological and paleobotanical findings. This however, is disputed. The Victorian era scholar C.F. Oldham was the first to suggest that geological events had redirected the river, and to connect it to the lost Saraswati: "[it] was formerly the Sarasvati; that name is still known amongst the people, and the famous fortress of Sarsuti or Sarasvati was built upon its banks, nearly 100 miles below the present junction with the Ghaggar." (Oldham 1893: 51-52)

**Ghaggar River**

The Ghaggar is a seasonal river in India, flowing when water is available from monsoon rains. It originates in the Shivalik Hills of Himachal Pradesh and flows through Punjab and Haryana to Rajasthan; just southwest of Sirsa in Haryana and by the side of Tibi in Rajasthan, this seasonal river feeds two irrigation canals that extend into Rajasthan.

The present-day Sarasvati River originates in a submontane region (Ambala district) and joins the Ghaggar near Shatrana in PEPSU. Near Sadulgarh (Hanumangarh) the Naiwala channel, a dried out channel of the Sutlej, joins the Ghaggar. Near Suratgarh the Ghaggar is then joined by the dried up Drishadvati river.

The wide river bed of the Ghaggar suggest that the river once flowed full of water, and that it formerly continued through the entire region, in the presently dry channel of the Hakra River, possibly emptying into the Rann of Kutch. It supposedly dried up due to the capture of its tributaries by the Indus and Yamuna rivers, and the loss of rainfall in much of its catchment area due to deforestation and overgrazing. This is supposed to have happened at the latest in 1900 BCE, but perhaps much earlier.

Puri and Verma (1998) have argued that the present-day Tons River was the ancient upper part of the Sarasvati River, which would then had been fed with Himalayan glaciers. The terrain of this river contains pebbles of quartzite and metamorphic rocks, while the lower terraces in these valleys do not contain such rocks.

In India there are also various small or middle-sized rivers called Sarasvati or Saraswati. One of them flows from the west end of the Aravalli Range into the east end of the Rann of Kutch.

**Hakra River**

The Hakra is the dried-out channel of a river in Pakistan that until about 2000 BC - 1500 BC was the continuation of the Ghaggar River in India.

Many settlements of the Indus Valley Civilisation have been found along the Ghaggar and Hakra rivers.

**Indus Valley Civilization**
The river was also of great importance to the Indus Valley Civilization. Archaeologists have suggested that the drying up of this river may have been one of the causes for the decline of the Indus Valley Civilization.

Along the course of the Ghaggar-Hakra river are many archaeological sites of the Indus Valley Civilization; but not further south than the middle of Bahawalpur district. It could be that the permanent Sarasvati ended there, and its water only reached the sea in very wet rainy seasons. It may also have been affected by much of its water being taken for irrigation.

Over 600 sites of the Indus civilization have been discovered on the Hakra-Ghaggar river and its tributaries. In contrast to this, only 90 to 96 Indus Valley sites have been discovered on the Indus and its tributaries (about 36 sites on the Indus river itself.) V.N. Misra states that over 530 Harappan sites (of the more than 800 known sites, not including Degenerate Harappan or OCP) are located on the Hakra-Ghaggar. The other sites are mainly in Kutch-Saurashtra (nearly 200 sites), Yamuna Valley (nearly 70 Late Harappan sites) and in the Indus Valley/ Baluchistan (less than 100 sites).

Early Harappan sites are mostly situated on the middle Ghaggar-Hakra river bed, and some in the Indus Valley. Most of the Mature Harappan sites are located in the middle Ghaggar-Hakra river valley, and some on the Indus and in the Kutch-Saurashtra. However in the late Harappan period the number of late Harappan sites in the middle Hakra channel and in the Indus valley diminishes, while it expands in the upper Ghaggar-Sutlej channels and in Saurashtra. The abandonment of many sites on the Hakra-Ghaggar between the Harappan and the Late Harappan phase was probably due to the drying up of the Hakra-Ghaggar river.

Because most of the Indus Valley sites are actually located on the Hakra-Ghaggar river and its tributaries and not on the Indus river, some archaeologists have proposed to use the term "Indus Sarasvati Civilization" to refer to the Harappan culture.

In a survey conducted by M.R. Mughal between 1974 and 1977, over 400 sites were mapped along 300 miles of the Hakra river. The majority of these sites were dated to the fourth or third millennium BCE.

Painted Grey Ware sites (ca. 1000 BCE) have been found on the bed and not on the banks of the Ghaggar-Hakra river.

**The Ghaggar-Hakra and its ancient tributaries**

Satellite photography has shown that the Ghaggar-Hakra was indeed a large river that dried up probably between ca. 2500 to 2000 B.C. The dried out Hakra river bed is between three and ten kilometers wide. Recent research indicates that the Sutlej and possibly also the Yamuna once flowed into the Saraswati river bed. The Sutlej and Yamuna Rivers have changed their courses over the time.

Paleobotanical information also documents the aridity that developed after the drying up of the river. *(Gadgil and Thapar 1990 and references therein)*. The disappearance of the river may have been caused by earthquakes which may have led to the redirection of its tributaries. It has also been suggested that the loss of rainfall in much of its catchment area due to deforestation and overgrazing in what is now Pakistan may have also contributed to the drying up of the river.
The Ghaggar-Hakra and the Sutlej
There are no Harappan sites on the Sutlej in its present lower course, only in its upper course near the Siwaliks, and along the dried up channel of the ancient Sutlej, which indicates the Sutlej did flow into the Sarasvati at that period of time.

It has been shown by satellite imagery that at Ropar the Sutlej river suddenly flows away from the Ghaggar in a sharp turn. The beforehand narrow Ghaggar river bed itself is becoming suddenly wider at the conjunction where the Sutlej should have met the Ghaggar river. And there is a major paleochannel between the point where the Sutlej takes a sharp turn and where the Ghaggar river bed widens.

In later texts like the Mahabharata, the Rigvedic Sutudri ("swiftly flowing") is called Shatudri (Shatadru/Shatadhara), which means a river with 100 flows. The Sutlej (and the Beas and Ravi) have frequently changed their courses. The Sutlej has also probably sometimes flown into the Beas, and the combined stream sometimes in the Ghaggar River. The confluence of the Ghaggar and the Sutlej was downstream from the Kurukshetra region, where most Harappan sites are located.

The Ghaggar-Hakra and the Yamuna
There are also no Harappan sites on the present Yamuna river. There are however Painted Gray Ware (1000 - 600 BC) sites on the Yamuna channel, showing that the river must have flown in the present channel during this period. The distribution of the Painted Gray Ware sites in the Ghaggar river valley indicates that during this period the Ghaggar river was already partly dried up.

Scholars like Raikes (1968) and Suraj Bhan (1972, 1973, 1975, 1977) have shown that based on archaeological, geomorphic and sedimentological research the Yamuna may have flown into the Saraswati during Harappan times. There are several often dried out river beds (paleochannels) between the Sutlej and the Yamuna, some of them two to ten kilometres wide. They are not always visible on the ground because of excessive silting and encroachment by sand of the dried out river channels. The Yamuna may have flown into the Sarasvati through the Chautang or the Drisadvati channel, since many Harappan sites have been discovered on these dried out river beds.

Gilgit River
Gilgit River is a tributary of the Indus River, and flows past the town of Gilgit. It is located in the Northern Areas of Kashmir, Pakistan.

Gomal River
Gomal River is a river in Afghanistan and Pakistan, with its headwaters in the south-east of Ghazni.

The headwater springs of the Gomal's main leg come together close to the fort of Babakarkol in Katawaz, a district inhabited primarily by Kharoti and Suleiman Khel Pashtuns.

The Gomal's chief tributary is the Zhob River. Within Pakistan, Gomal river surrounds South Waziristan agency, forms the boundary between the North-West Frontier Province and Balochistan. The river passes then through the Damaanplain in Kulachi Tehsil and later on through Dera Ismail Khan Tehsil and then finally falls in river Indus.
Hub River
Hub River is located in Lasbela, Balochistan, Pakistan. It forms the provincial boundary between Sindh and Balochistan, west of Karachi. Hub Dam is a large water storage reservoir constructed in 1981 on the Hub River in the arid plains north of Karachi. The reservoir supplies water for irrigation in the Lasbella district of Balochistan and drinking water for the city of Karachi. It is an important staging and wintering area for an appreciable number of waterbirds and contains a variety of fish species which increase in abundance during periods of high water. The Mahseer (Tor putitora), an indigenous riverine fish found in the Hub River, grows up to 2m in length and provides for excellent angling. It is in Pakistan.

Hungol River
Hungol River or Hingol River is located in Makran, Balochistan, Pakistan.

The Hungol valley has fantastic scenery of towering cliffs, pinnacles and buttresses, the river winding between. Some 350 miles in length, the Hungol is Balochistan's longest river. Unlike most other streams in Balochistan which only flow during rare rains, the Hungol always has flowing water in it. The water is crystal-clear, reflecting the incredible blue of the sky. It makes for picture-postcard scenery. Hungol river and valley are located in Hungol National Park.

Hunza River
Hunza River is the principal river of Hunza, in the Northern Areas of Pakistan. It is formed by the confluence of the Klik and Khunjerab nalas (gorges) which are fed by glaciers. It is joined by the Gilgit River and the Naltar River before it flows into the Indus River.

The river cuts through the Karakoram range, flowing from north to south. The Karakoram Highway crosses the Hunza River near Hunza and Nagar valleys.

Indus River
Indus is the longest and most important river in Pakistan and one of the most important rivers on the Indian subcontinent. Originating in the Tibetan plateau in the vicinity of Lake Mansarover, the river runs a course through in Jammu and Kashmir and Northern Areas, flowing through the North in a southerly direction along the entire length of country, to merge into the Arabian Sea near Pakistan's port city Karachi. The total length of the river is 3200 km (1988 miles). The river has a total drainage area exceeding 450,000 square miles. The river's estimated annual flow stands at around 207 cubic kilometres. Beginning at the heights of the world with glaciers, the river feeds the ecosystem of temperate forests, plains and arid countryside. Together with the rivers Chenab, Ravi, Sutlej, Jhelum, Beas and the extinct Sarasvati River, the Indus forms the Sapta Sindhu ("Seven Rivers") delta in the Sindh province of Pakistan. It has 20 major tributaries.

The Indus provides the key water resources for the economy of Pakistan - especially the breadbasket of Punjab province, which accounts for most of the nation's agricultural production, and Sindh. It also supports many heavy industries and provides the main supply of potable water in Pakistan.

The ultimate source of the Indus is in Tibet; it begins at the confluence of the Sengge and Gar rivers that drain the Nganglong Kangri and Gangdise Shan mountain ranges. The Indus then flows northwest through Ladakh-Baltistan into Gilgit, just south of
the Karakoram range. The Shyok, Shigar and Gilgit streams carry glacial waters into the main river. It gradually bends to the south, coming out of the hills between Peshawar and Rawalpindi. The Indus passes gigantic gorges (15,000-17,000 feet) near the Nanga Parbat massif. It swiftly flows across Hazara, and is dammed at the Tarbela Reservoir. The Kabul River joins it near Attock. The remainder of its route to the sea is in plains of the Punjab and Sind, and the river becomes slow-flowing and highly braided. It is joined by Panjnad River at Mithankot. Beyond this confluence, the river, at one time, was named as Satnad River (sat = seven, nadi = river) as the river was now carrying the waters of Kabul River, Indus River and the five Punjab rivers. Passing by Jamshoro, it ends in a large delta to the east of Thatta.

The Indus is one of the few rivers in the world that exhibit a tidal bore. The Indus system is largely fed by the snows and glaciers of the Karakoram, Hindu Kush and Himalayan ranges of Tibet, Kashmir and Northern Areas of Pakistan. The flow of the river is also determined by the seasons - it diminishes greatly in the winter, while flooding its banks in the monsoon months from July to September. There is also evidence of a steady shift in the course of the river since prehistoric times - it deviated westwards from flowing into the Rann of Kutch. It is the Official and National River of Pakistan in Urdu as Qaumi Daryaa and Sindhi it is called Daryaa Badshah, The King River.

History
Paleolithic sites have been discovered in Pothohar, with the stone tools of the Soan Culture. In ancient Gandhara, evidence of cave dwellers dated 15,000 years ago has been discovered at Mardan.

The major cities of the Indus Valley Civilization (IVC), such as Harappa and Mohenjo Daro, date back to around 3300 BC, and represent some of the largest human habitations of the ancient world. The IVC was extended from Balochistan to Gujarat, with an upward reach to the darcon from east of River Jhelum to Rupar on the upper Sutlej. The coast settlements extended from Sutkagan Dor at Iranian border to Lothal in Gujarat. There is an Indus site on the Oxus river at Shortughai in northern Afghanistan (Kenoyer 1998:96), and the Indus site Alamgirpur at the Hindon river is located only 28 km from Delhi. To date, over 1,052 cities and settlements have been found, mainly in the general region of the Ghaggar-Hakra River and its tributaries. Among the settlements were the major urban centers of Harappa and Mohenjo-daro, as well as Lothal, Dholavira, Ganeriwala, and Rakigarhi. Only 90 to 96 of the over 800 known Indus Valley sites have been discovered on the Indus and its tributaries. The Sutlej, now a tributary of the Indus, in Harappan times flowed into the Ghaggar-Hakra River, in the watershed of which were more Harappan sites than along the Indus.

Some scholars believe that settlements of Gandhara grave culture of the early Indo-Aryans flourished in Gandhara from 1700 to 600 BCE, when Mohenjo Daro and Harappa had already been abandoned. However many modern researchers believe that the IVC was indeed an Aryan civilization. Researchers such as professor Egbert Richter Ushanas concerning the IVC seals has said, "All the seals are based on Vedas -- Rig Veda and Atharva Veda." The name Indus is a Latinization of Hindu, in turn the Iranian variant of Sindhu, the name of the Indus in the Rigveda. Sanskrit sindhu generically means "river, stream", probably from a root sidh "to go, move"; sindhu is attested 176 times in the Rigveda, 95 times in the plural, more often used in the generic meaning. Already in the Rigveda, notably in the later hymns, the meaning of the word is narrowed to refer to the Indus river in particular, for example in the list of rivers of the Nadi-stuti sukta. This resulted
in the anomaly of a river with masculine gender: all other Rigvedic rivers are female, not just grammatically, being imagined as goddesses and compared to cows and mares yielding milk and butter.

The Indus has formed a natural boundary between the Indian hinterland and its frontier with Afghanistan and Iran. It has been crossed by the armies of Alexander the Great - Greek forces retreated along the southern course of the river at the end of the Indian campaign. The Indus plains have also been under the domination of the Persian empire and the Kushan empire. The Muslim armies of Muhammad bin Qasim, Mahmud of Ghazni and Babur also crossed the river to strike into the inner regions of Gujarat, Punjab and Rajputana.

**Jhelum River**

Jehlum River or Jhelum River is the largest and most western of the five rivers of Punjab, and passes through Jhelum District. It is a tributary of the Indus River.

**History**

A photograph from 1900 shows a passenger traversing the river precariously seated in a small suspended cradle.

The river Jhelum was called Vitasta by the ancient Indians in the Vedic period and Hydaspes by the ancient Greeks. The Vitastā is mentioned as one of the major river by the holy scriptures of the Indo-Aryans—the Rigveda. It has been speculated that the Vitasta must have been one of the seven rivers (sapta-sindhu) mentioned so many times in the Rigveda. The name survives the a Kashmiri name for this river as Vyath.

The river was regarded as a god by the ancient Greeks, as were most mountains and streams; the poet Nonnus in the Dionysiaca (section 26, line 350) makes the Hydaspes a titan-descended god, the son of the sea-god Thaumas and the cloud-goddess Elektra. He was the brother of Iris, the goddess of the rainbow, and half-brother to the harpies, the *snatching* winds. Since the river is in a country foreign to the ancient Greeks, it is not clear whether they named the river after the god, or whether the god Hydaspes was named after the river.

Alexander the Great and his army crossed the Jhelum in 326 BC at the Battle of the Hydaspes where he defeated the Indian king, Porus. According to Arrian (*Anabasis, 29*), he built a city "on the spot whence he started to cross the river Hydaspes", which he named Bukephala (or Bucephala) to honour his famous horse Bukephalas which was buried in Jalalpur Sharif. It is thought that ancient Bukephala was near the site of modern Jhelum City. According to a historian of Gujrat district, Mansoor Behzad Butt, Bukephala was buried in Jalalpur Sharif, but the people of Mandi Bahauddin, a district close to Jhelum, believed that their tehsil Phalia was named after Bucephala, Alexander’s dead horse. They say that the name Phalia was the distortion of the word Bucephala. The waters of the Jhelum are allocated to Pakistan under the terms of the Indus Waters Treaty.

**Course**

The river Jhelum rises from north-eastern Jammu and Kashmir and is fed by glaciers, and then passes through the Srinagar district. At the city of Srinagar, the serpentine Jhelum, along with the lake Dal which lies in its course, presents a very picturesque site. The Kishenganga(Neelum)River, the largest tributary of the Jhelum, joins it near Muzaffarabad, as does the next largest, the Kunhar River of the Kaghan valley. It also connects with
Pakistan and Pakistan-held Kashmir on Kohala Bridge east of Circle Bakote. It is then joined by the Poonch river, and flows into the Mangala Dam reservoir in the district of Mirpur. The Jhelum enters the Punjab in the Jhelum District. From there, it flows through the plains of Pakistan's Punjab, forming the boundary between the Chaj and Sindh Sagar Doabs. It ends in a confluence with the Chenab at Trimmu in District Jhang. The Chenab merges with the Sutlej to form the Panjnad River which joins the Indus River at Mithankot.

### Dams and Barrages

- Mangla Dam, completed in 1967, is one of the largest earthfill dams in the world, with a storage capacity of 5.9 million acre-feet (7.3 km³)
- Rasul Barrage, constructed in 1967, has a maximum flow of 850,000 ft³/s (24,000 m³/s).
- Trimmu Barrage, constructed in 1939 at the confluence with the Chenab, has maximum discharge capacity of 645,000 ft³/s (18,000 m³/s).

### Canals

- The Upper Jhelum Canal runs from Mangla to the Chenab.
- The Rasul-Qadirabad Link Canal runs from the Rasul barrage to the Chenab.
- The Chashma-Jhelum Link Canal runs from the Chashma Barrage on the Indus River to the Jhelum river downstream of Rasul Barrage.

### Kabul River

Kabul River or Kabal River is a river that rises in the Sanglakh Range of Afghanistan, separated from the watershed of the Helmand by the Unai Pass. It is the main river in the eastern part of Afghanistan. It flows 700 km before joining the Indus River near Attock. It passes through the cities of Kabul, Chaharbagh, Jalalabad, and (flowing into Pakistan some 30 km north of the Khyber Pass) Nowshera. The major tributaries of the Kabul River are the Logar, Panjshir, Kunar and Alingar rivers.

The Kabul river itself is little more than a trickle for most of the year, but swells in summer due to melting snows. Its largest tributary is the Kunar, which starts out as the Mastuj River, flowing from the Chiantar glacier in Chitral, Pakistan and once it flows south into Afghanistan it is met by the Bashgal river flowing from Nurestan. The Kunar meets the Kabul near Jalalabad. In spite of the Kunar carrying more water than the Kabul, the river continues as the Kabul River after this confluence, mainly for the political and historical significance of the name.

This river is attested in the Rig Veda, the earliest scripture of Hinduism, under the name Kubhā (many of the rivers of Afghanistan are mentioned in the Rig Veda). The Sanskrit word later changed to Kābul.

### Swaan River

The Swaan River is the most important stream of the Pothohar region of Pakistan. It drains much of the water of Pothohar. It starts near a small village Bun in the foothills of Patriata and Murree. It provides water to Simlbee Dam, which is reservoir of water for Islamabad. Near Pharwala Fort it cuts through a high mountain range and that is a wonderful phenomenon of nature. The place is called Swan Cut. No stream can cut such a high mountain. It proves the Swaan was there before the formation of this range. And when the
mountain rose through millions of years, the stream continued its path by cutting the rising mountain. Ling stream, following a relatively long course though Lehtrar and Kahuta falls in the Swaan near Sihala.

Islamabad Highway crosses this stream near Sihala where famous bridge Cock Pull is constructed over it. Another famous, Lai stream joins this stream near Swaan Camp. After walking a tortuous path and creating a big curve, the stream reaches Kalabagh where it falls into the Indus river. This relatively small stream is more than 250 kilometers long. Due to its mountainous course and shallow bed, it is hardly used for irrigation purposes. For grinding wheat, you can find ancient types of flour mills near Chakian. Fishing is not possible in this stream as a profession. Rohu is the main species of fish in this stream.

Kundar River
Kundar River is located in Balochistan, Pakistan. The meltwater from the Sulaiman Mountains forms Kundar River and it flows through Balochistan and drains into Gomal River.

The two principal drainage channels of the Zhob district are the Zhob River and the Kundar River, both flow into the Gomal River. The general direction of the rivers is from Southwest to northeast. The Zhob River rises at Tsari Mehtaraza pass, the watershed a distance of about 400 kilometers. The broad plain of the Zhob River is occupied by the alluvial formation. The Kundar River rises from the central and highest point of the TobaKakar range, a few kilometers northeast of the Sakir. It constitutes boundary between Pakistan and Afghanistan territory for a considerable length. The other subsidiary rivers or streams are the Baskan, Chukhan, Sri Toi, Sawar, Surab, etc.

Kunhar River
Kunhar River is located in North-West Frontier Province, Pakistan. A main source of the river is Lulusar lake, nearly 48km from Naran Valley. Glaciers of Malka Parbat and Makra Peak and the waters of Saiful Muluk lake feed the river. The Kunhar flows through the entire Kaghan Valley through Jalkhand, Naran, Kaghan, Jared, Paras and Balakot, and joins the Jhelum River.

The Kunhar river trout is considered to be the best throughout the sub-continent

Kurram River
The Kurram River flows in the Kurrum Valley, stretching across the Afghan-Pakistani border west to east (crosses from the Paktia Province of Afghanistan into the Kohat border region of Pakistan) at 33°49′N 69°58′E, about 150 km west-to-south-west of the Khyber Pass.

The Kurram Agency is part of the Peshāwar Division of the Northwest Frontier Province. The Kurram River drains the southern flanks of the Safed Koh (Range), and enters the plains a north of Bannu, and joins the Indus River at 32°35′N 71°27′E near Isa Khel after a course of more than 320 km (200 miles). The district has an area of 3,310 km² (1,278 sq miles); pop. approx. 300,000. It lies between the Miranzai Valley and the Afghan border, and is inhabited by the Turis, a tribe of Turki and Parthian origin who are supposed to have subjugated the Bangash Pathans about six hundred years ago.

It is highly irrigated, well peopled, and crowded with small fortified villages, orchards and groves, to which a fine background is afforded by the dark pine forests and alpine snows of the Safed Koh. The beauty and climate of the valley attracted some of the Mogul emperors of Delhi, and the remains exist of a garden planted by Shah Jahan.
The Kurram River crosses the Afghan-Pakistan border about 80 km southwest of Jalalabad and in ancient times offered the most direct route to Kabul and Gardez. The route crossed the Peiwar Pass 3,439 m (11,283 ft) high, just over 20 km west of Parachinar, which was blocked by snow for several months of the year.

Formerly the Kurram Valley was under the government of Kabul, and every five or six years a military expedition was sent to collect the revenue, the soldiers living meanwhile at free quarters on the people. It was not until about 1848 that the Turis were brought directly under the control of Kabul, when a governor was appointed, who established himself in Kurram. The Turis, being Shiah Muslims, never liked the Afghan rule.

During the second Afghan War, when Sir Frederick Roberts advanced by way of the Kurram Valley and the Peiwar Kotal to Kabul, the Turis lent him every assistance in their power, and in consequence their independence was granted them in 1880.

The administration of the Kurram Valley was finally undertaken by the British government, at the request of the Turis themselves, in 1890. Technically it ranked, not as a British district, but as an agency or administered area.

Two expeditions in the Kurram Valley also require mention:

(1) The Kurram expedition of 1856 under Brigadier-General Sir Neville Chamberlain. The Turis on the first annexation of the Kohat district by the British had given much trouble. They had repeatedly leagued with other tribes to harry the Miranazai valley, harbouring fugitives, encouraging resistance, and frequently attacking Bangash and Khattak villages in the Kohat district. Accordingly, in 1856 a British force of 4,896 troops traversed their country, and the tribe entered into engagements for future good conduct.

(2) The Kohat-Kurram expedition of 5,897 under Colonel W. Hill. During the frontier risings of 1897 the inhabitants of the Kurram valley, chiefly the Massozai section of the Orakzais, were infected by the general excitement, and attacked the British camp at Sadda and other posts. A force of 14,230 British troops traversed the country, and the tribesmen were severely punished. In Lord Curzon's reorganization of the frontier in 1900-1901, the British troops were withdrawn from the forts in the Kurram Valley, and were replaced by the Kurram militia, reorganized in two battalions, and chiefly drawn from the Turi tribe.

In recent years the Kurram Valley has once again assumed a very strategic position and has been an area of intense military activity between the Taliban and American and allied forces.

**Lyari River**

Lyari River is located in Karachi, Sindh, Pakistan. Lyari River passes through the city of Karachi from north east to the center and drains into the Arabian Sea. Lyari river is one of the two rivers passing through Karachi and the other is Malir River.

**Malir River**

Malir River is located in Karachi, Sindh, Pakistan. Malir River passes through the city of Karachi from northeast to the centre and drains into the Arabian Sea. Malir river is one of the two rivers passing through Karachi and the other is Lyari River. It has two other little river help one is Thadho and other is Sukhan. In a rainy season this river flow with lot of water.
and millions of gallons of water waste in Arabian Sea. If the government becomes serious to this matter and construct a dam on this river, it will benefit the whole of Karachi a great deal.

**Panjkora**
The Panjkora River rises high in the Hindu Kush at lat. 35.45 and joins the Swat River near Chakdara, Malakand, NWFP, Pakistan. Its name is derived from the Persian for 'panj' (meaning 'five') and 'kora' (meaning 'river').

**Panjnad River**
Panjnad River (panj = five, nadi = river) is a river in Punjab, Pakistan. Panjnad River is formed by successive confluence of the five rivers of Punjab, namely Jhelum, Chenab, Ravi, Beas and Sutlej. Jhelum and Ravi join Chenab, Beas joins Sutlej, and then Sutlej and Chenab join to form Panjnad near Uch Sharif. The combined stream runs southwest for approximately 45 miles and joins Indus River at Mithankot. The Indus continues into the Arabian Sea. A dam on Panjnad has been erected; it provides irrigation channels for Punjab and Sind provinces south of the Sutlej and east of the Indus rivers.

Beyond the confluence of Indus and Panjnad rivers, the Indus river was known as Satnad (Sat = seven) carrying the waters of seven rivers including Indus river, Kabul river and the five rivers of Punjab.

**Ravi River**
The Ravi River is a river in India and Pakistan. It is one of the five rivers which give Punjab its name. The Ravi was known as Parusani or Iravati to Indians in Vedic times and Hydraotes to the Ancient Greeks. It originates in the Himalayas in the Chamba district of Himachal Pradesh following a north-westerly course. It turns to the south-west, near Dalhousie, and then cuts a gorge in the Dhaola Dhar range entering the Punjab plain near Madhopur. It then flows along the Indo-Pak border for some distance before entering Pakistan and joining the Chenab river. The total length of the river is about 720 km. The waters of the Ravi river are allocated to India under the Indus Waters Treaty between India and Pakistan. It is also called 'The river of Lahore' since that great city is located on its eastern bank. On its western bank is located the famous tomb of Jahangir.

**Rig Veda**
Part of the battle of the ten kings was fought on the Parushani river, which according to Yaska (nirukta 9.26) refers to the Iravati river (Ravi River) in the Punjab. Macdonell and Keith write that "the name [Parusni] is certainly that of the river later called Ravi (Iravati)"

**Shigar River**
Shigar River is located in Baltistan, Northern Areas, Pakistan. The Shigar River is formed from the melt water of the Baltoro Glacier and Biafo Glacier. The river is tributary to Indus River and meets the Indus in Skardu valley.

**Sutlej River**
Sutlej River (also known as Satluj), is the longest of the five rivers that flow through Indian Punjab in northern India. Its source is in Tibet near Mount Kailash and its terminus in Pakistani Punjab. It is the easternmost affluent of the Punjab, and it receives the Beas River in the state of Punjab, India and continues into Pakistan to join the Chenab River to form the Panjnad River, which further down its course joins the Indus River at Mithankot.
The Sutlej was known as *Shatadru* or *Suṭudri* to Indians in Vedic period and *Zaradros* or *Hesidros* to the Greeks, and *Sydrus* to the Romans. The waters of the river are allocated to India under the Indus Waters Treaty between India and Pakistan. At present, most of its water is diverted to irrigation canals and used up in India. The Bhakra-Nangal Dam is a huge multipurpose dam on the river.

There is substantial evidence to indicate that prior to 1700 B.C. the Sutlej was once an important tributary of the Sarasvati River, instead of the Indus River. It is believed that tectonic activity created elevation changes that redirected the Sutlej from southeast to southwest. Once flowing in its new westward direction, the river eventually joined the Beas river. As a result, the mighty Sarasvati River began to dry up, causing the desertification of Cholistan and Sindh, as well as the abandonment of numerous ancient human settlements along its banks.

A canal is being built between the Sutlej and Yamuna rivers, known as the SLY. **Swat River**

Swat River flows from Hindukush Mountains through Kalam valley and merges into Kabul River in peshawer valley Sarhad, Pakistan.

Swat River irrigates vast area of Swat District and contributes to fishing industry of the region. Saidu Group’s of teaching hospitals also located at the banks of Swat River. Malamjaba ski resort is about 10 miles away from the river. Ayub Bridge is one of the attractions for visitors. The scenery attracts many tourists from all over Pakistan during the summer.

It is said that Alexander the Great crossed the Swat River with part of his army and before turning south to subdue the locals at what are now Barikoot and Odeigram. Also, the banks of this river, which was earliest known as *Shrivastu*, later *Suvastu* and currently the present name, is the place of origin of the Shrivastava sub-clan of the Indo-Aryan Kayastha clan. Some 30 years ago, the water was fit for drinking even in Mingora (100 km downstream from Kalam), but now it is not safe even in Kalam. **Tochi river**

Tochi river is located in North Waziristan, Federally Administered Tribal Areas, Pakistan. Tochi river flows eastward, in North Waziristan, to join the Kurram River and the Indus. It surrounds Waziristan in the North while the Gomal River river surrounds South Waziristan.

It is also sometimes referred to as the Gambila River. **Zhob River**

Zhob River is located in Balochistan, Pakistan. The meltwater from the Sulaiman Mountains forms Zhob Rivers and it flows through Balochistan and drains into Gomal River. Zhob city is located on banks of Zhob river.

The two principal drainage channels of the Zhob district are the Zhob River and the Kundar River, both flow into the Gomal River. The general direction of the rivers is from Southwest to northeast. The Zhob River rises at Tsari Mehtarazai pass, the watershed a distance of about 400 kilometers. The broad plain of the Zhob River is occupied by the alluvial formation. The Kundar River rises from the central and highest point of the TobaKakar range, a few kilometers northeast of the Sakir. It constitutes boundary between Pakistan.
and Afghanistan territory for a considerable length. The other subsidiary rivers or streams are the Baskan, Chukhan, Sri Toi, Sawar, Surab, etc.

**Haro River**
Haro is the name of a river and its valley in the Abbottabad District, northern Pakistan, identified with the Rigvedic Arjikiya.

It is fed by four major tributaries, the Lora Haro, rising in the Muree Hills around Lora, the Stora Haro, rising in the Nahiagali Hills, the Neelan, rising in the Nara Hills, the Kunhad, draining the area of Siribang and Dubran. Minor tributaries include rivulets of Jab, Hally' Desera and Najafpur.

**Soan River**
Soan River is a river in Punjab, Pakistan.

**History of Soan River and Soan Culture**
The oldest evidence of human life (8,000 to 6,000 years ago) in Pakistan was found in the Soan River valley of Pothohar Plateau region of Punjab. This human activity, called Soan Culture, discovered in the form of pebble tools scattered long the river. In Peshawar Valley of ancient Gandhara, there is evidence of existence of Stone Age men found at Sanghao near Mardan. Stone tools and burnt bones dated 7,000 years were found near caves. Cave dwellers of middle Stone Age used quartz flakes tools.

**Soan Culture**
The Soan Culture is an extinct human culture, found along the Soan River valley in the Pothohar region of the Punjab. The oldest evidence of human life in South Asia was found in the Soan River valley. Along the river, in the Rawalpindi Division hundreds of man made tools can be found. These tools have been dated to 500,000 to 300,000 years ago.

On Adiyala and Khasala about 16 km (10 miles) from Rawalpindi terrace on the bend of the river hundreds of edged pebble tools were discovered. At Chauntrahand axes and cleavers were found. Due to the peculiarity of the tools to the valley archaeologists named this human activity the Soan Culture.

No human skeletons of this age have yet been found. In the Soan River Gorge many fossil bearing rocks are exposed on the surface. The 14 million year old fossils of gazelle, rhinoceros, crocodile, giraffe and rodents have been found there. Some of these fossils are in display at the Natural History Museum of Islamabad.

**Hispar River**
The Hispar River forms from the melt water of the Hispar Glacier- a 49 kilometer-long glacier in the Northern Areas of Pakistan's Karakoram Mountains. The Hispar Glacier and river both flow northwest, passing through Hispar, Hopar and Nagar (Nagir) villages until the confluence with the Hunza River in the Hunza Valley. Road conditions are spectacular at best, treacherous at worst. In August 2006, a bridge below Hispar village was condemned, and the Hunza River washed the road away at the confluence, eliminating all vehicular access to the entire valley for some months.

**Gujjar Nallah**
Gujjar Nallah is a stream in Karachi, Sindh, Pakistan. It passes through the city from northwest to the center and merges with Lyari River before draining into the Arabian Sea.

**The Indus River Delta**
The Indus River Delta occurs where the Indus River flows into the Arabian Sea in Sindh. The delta covers an area of about 16,000 square miles (41,440 km²), and is approximately 130 miles across where it meets the sea. Unlike many other deltas, the Indus River Delta consists of clay and other infertile soils, and is very swampy. The delta receives between 10 and 20 inches of rainfall in a normal year.

Pakistan's fifth largest city, Hyderabad, lies about 130 miles north of the mouths of the Indus. Towns are found throughout the delta, but there are no large cities on the delta south of Hyderabad. Karachi, Pakistan's largest city, lies west of the delta on the coast of the Arabian Sea.

Average temperatures for the delta region in July range from 70 - 85 °F, and 50 - 70 °F in January. The
Indus River Delta is an important region for migrating water birds, and is an area rich in freshwater fauna. Fish found in the delta include the Hilasa, Indus baril, Indus garua (a catfish), the giant snakehead, golden mahaseer and the Rita catfish.

**Kunar River**
The Kunar River (Kunar Rud) is about 480 km long, located in eastern Afghanistan and northwestern Pakistan. The Kunar river system is fed from melting glaciers and snow of the Hindu Kush mountains. The Lutkho River joins the Mastuj River just north of the important regional centre of Chitral in Pakistan and is then called the Chitrál River, before flowing south into the upper Kunar Valley in Afghanistan, where it is referred to as the Kunar River.

The Kunar River empties into the Kabul River just to the east of the city of Jalalabad in Afghanistan. The combined rivers then flow eastwards into Pakistan, joining the Indus River at the city of Attock.

Before the political division of Afghanistan and Pakistan divided the Kunar/Chitrál Valley, it formed an important trade route, being the easiest way to travel from the Pamir Mountains’ passes to the plains of the Indian subcontinent.

**Peche River**
Peche River is located in Afghanistan. Peche river system is fed from glaciers and snow. It includes the Kunar River, which rises in Nuristan province of Afghanistan, and the main Kunar River, which rises in the eastern Pamir Mountains before flowing through Chitral in Pakistan into the upper Kunar Valley in Afghanistan.

**Rupal River**
Rupal River rises from the melt water of Rupal Glacier in the south of the Nanga Parbat peak and flows northeast through the Rupal Valley and Tarashing.

**Neelum River**
Neelum is a river in Azad Kashmir, Pakistan.

**Shyok River**
The Shyok River is a river flowing through Ladakh and the disputed Northern Areas of Pakistan (Ghangche District). Shyok river (a tributary of the Indus) originates from the Rimo glacier, one of the tongues of Siachin glacier and and becomes very wide at the confluence with the Nubra river (a tributary of Shyok, originating from Siachin Glacier). The alignment of the Shyok river is very unusual, originating from the Rimo glacier it flows in a SE direction and at joining the Pangong range it takes a NW turn and flows parallel to its previous path. The Shyok flowing in a wide valley suddenly enters a narrow gorge after Chalunka and then joins the Indus at Skardu (Pakistan). The Nubra river originating from the Siachin glacier also behaves like the Shyok, before Tirit the SE flowing river takes a NW turn on meeting the river Shyok. The similarity in the courses of these two important rivers probably indicates a series of palaeo fault lines trending NW-SE in delimiting the upper courses of the rivers. The importance of the Indus and the Shyok rivers is in the deposition of a huge thickness of Quaternary sediments a treasure trove for geology researchers.