

# Pakistan

*“A Nation on the Road to  
Progress and Advancement”*

# Pakistan - A Nation on the Road to Progress and Advancement





## Modern, Progressive, and Dynamic State

- World's 6<sup>th</sup> largest Nation - 165.8 Million Population
- Bigger than France + Germany ( 803,940 sq. kilometers – Area)
- 1,046 kilometers - Coastline
- World's third largest English Speaking Nation
- Five provinces (including Kashmir) + 3 territories



## A Nation on the Road to Progress and Advancement

- World's 5th largest democracy
- World's one of the fastest growing economy
- 6<sup>th</sup> largest standing armed forces – 0.7 Million strong
- 300 dailies, 400 weeklies and 700 periodicals (circulation of 10 million)
- GDP \$128.83 Billion. (GDP rate: 8.4%)
- 7<sup>th</sup> largest pool of scientists and engineers in the World.
- One of the Youngest Workforce (Average Age: 22 Years)



## PAKISTAN – SPLENDID HISTORY

- **Pakistan** – The Legacy of Majestic Mughal Empire
- **Pakistan** - The Land of the Oldest Civilization – Indus Valley
- **Pakistan** – The Land of the Oldest City of the World – Moenjodaro
- **Pakistan** The Land of the Mightiest Rivers in the World – Indus, Ravi, Jehlum, Chenab, Satluj, Kabul
- **Pakistan** 20 spoken languages – 66 dialects
- **PAKISTAN** (“P” from Punjab, “A” from Afghania, “K” from Kashmir, “S” from Sindh, “TAN” from Balochistan – Ch. Remat Ali)
- **PAKISTAN** – The word means “Land of Pure” OR “Sacred Country”



## PAKISTAN – THE LAND OF BEAUTY AND MAJESTY

- **Pakistan** – The Roof of the World, Five out of 14 highest peaks are in Pakistan (World's 2, 5, 12, 13, 16, 17 and 18)
- **Pakistan** – Some of the longest glaciers outside polar region are in Pakistan
- **Pakistan** – The Largest Salt Deposits – Khewra Mines
- **Pakistan** – One of the Largest reserves of Natural Gas
- One of the largest Bird Sanctuaries in the World – Haleji Lake
- World-class recognition in Textile, IT, Engineering Services, Automobile Parts
- One of the world's highest Railway Stations – Kan Mehtarzai, Quetta
- Road on the top of the world – Karakoram Highway (16,000 feet)



## PAKISTAN – THE HEAVEN ON EARTH

- **Pakistan** – The largest explored reserves of Coal at Thar.
- **Pakistan** - Agha Khan University, Karachi has recently been declared as 2nd best residence medical university of the world
- **Pakistan** – Largest network of water distribution canals in the world.
- **Pakistan** – Third Largest Producer of Milk
- **Pakistan** – Fifth Largest Producer of Dates
- **Pakistan** World Champion in Cricket, Hockey, Squash, Wrestling, Snooker
- World's second highest Railway Station – Kan Mehtarzai, Quetta



## PAKISTAN – THE MILITARY MIGHT

- 6th largest standing armed forces – 0.7 Million strong
- **Established Nuclear Power**
- JF17 Thunder (equivalent to F16) completely built in Pakistan
- **AGOSTA 90b submarines - completely built in Pakistan**
- **Al-Khalid Tank, completely built in Pakistan and having high standards as other modern tanks from the developing countries.**
- **Indigenously Developed Nuclear Weapon Carrying Missiles**





## PAKISTAN – THE WORLD LEADER

- 80 Million Cell phone Users
- Karachi Stock Exchange was the world's best performing stock market in 2005 & 2006 with a market capitalization of over 45 billion dollars.
- The availability of natural gas in 60% of house-holds via net-work of pipes
- **Largest net-work of man-made irrigation water-canals in the world**
- Complete Aircraft Rebuilding Complex in Kamra

# Pakistan: Technology Power

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- Heavy Forging Complex (HFC) has one the world's largest single-location forging facility, its clients include Honda, Toyota and Volvo amongst others.
- Atlas Honda with 0.75 M motorcycles a year is now one of the largest motorcycle manufacturer in the world.
- Pakistan is the 5<sup>th</sup> largest tractor manufacturer in the world.
- Pakistan is the 9<sup>th</sup> largest commercial vehicle manufacturer in the world.
- Suzuki, which makes many cars in Pakistan has decided to make Pakistan its manufacturing, export and research hub outside Japan.
- Hyundai Pakistan is set to become the global small car hub for the Korean giant and will produce latest cars in Pakistan.
- By 2010 Pakistan is set to supply half a million cars to Hyundai Korea, and Suzuki.
- Pakistan is the 9<sup>th</sup> largest commercial vehicle manufacturer in the world.

# Pakistan: Technology Power

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- Five of the world's major Automobile makers are obtaining components from Pakistan companies
- This business fetched Pakistan \$1.0 Billion in 2004, and will reach \$5 Billion by 2010.
- New emerging industries areas include, Mechatronics, Bio-Technology, Clinical Research and Pharmaceuticals.
- Carrier Air Conditioning Co, the American giant for Air Conditioning equipment is to set-up Research and Development Center in Pakistan
- Pakistan revenues from Information Technology Industry will reach \$ 5 billion in the year 2010.
- Many American companies have shown interest in opening software design Centers in Pakistan.

# Pakistan: Trade

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- Pakistan is one of the world's largest exporter of textiles and related products such as yarn and cotton.
- Garment exports are expected to increase from the current level of \$ 1.5 billion to \$ 5 billion by 2010.
- Pakistan is one of the world's largest Jewellery and precious gems exporter in the world, its exports were worth \$ 0.75 Billion in 2008.
- About 4 out of 10 precious stones sold anywhere in the world, pass through Pakistan.
- Mobile phones are growing by about 1.0Million a month. Long distance rates are down by two-thirds in five years and by 80% for data transmission
- Many US and European Giants Chains sources \$ 0.5 Billion worth of goods from Pakistan – Quarter of their apparel. It is expected to increase to \$ 2 Billion in the next couple of years.
- The country's foreign exchange reserves stand at an all-time high of \$16 Billion.

# Pakistan: Self-Reliance

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- Pakistan is among Seven countries that launch their own satellites .
- Pakistan's PAKSAT is among the world's largest domestic satellite communication systems.
- Pakistan is among only few countries that have **ADVANCED SPACE PROGRAM**. All of its satellites were indigenously manufactured.
- Pakistan is one of the countries which intends to put its national in Space.
- Pakistan is among the few countries in the World that have built its own Nuclear Power Station by its own indigenous technology.
- Pakistan is among the few countries in the World that have built its own Training Aircraft (Mashaq) by its own indigenous technology.
- It has also prepaid millions owed to the World Bank and Asian Development Bank.
- Pakistan is providing aid to 7 countries, writing-off their debt including Bosnia (20 Million US\$).

# Pakistan: Pharmaceuticals

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- The **Pakistani pharmaceutical** industry at \$ 1.4 billion and growing at 8% annually, is the 8th largest pharmaceutical industry in the world, and is expected to be worth \$2.0 billion by 2010.
- Its exports are over \$0.75 billion. Pakistan is among the top ten bulk drug makers and at home, the local industry has edged out the Multi-National companies.
- Trade of medicinal plants has crossed \$ 500M already.
- There are **40 biotechnology companies** in Pakistan, involved in the development and manufacture of genomic drugs, whose business is growing exponentially.

# Pakistan: Foreign Multi-National Companies

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## Top 5 American employers of Pakistanis:

<b>General Electric:</b>	: 2,600 employees
<b>Hewlett-Packard</b>	: 1,200 employees
<b>IBM</b>	: 2,500 employees
<b>American Express</b>	: 1,500 employees
<b>Dell</b>	: 2,200 employees

- It is estimated that there are 80,000 IT professionals in Pakistan as against 120,000 in Silicon Valley.



**William H. Gates, Chairman and Chief  
Software Architect Microsoft  
Corporation  
(b-1955):**

**“...Among the Asians, Pakistanis are the smartest people in  
the world in Information Technology.”**



# Pakistan: Technology Power

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- Over 50 Foreign Companies have plan to set up R&D facilities in Pakistan in the past five years. These include GE, Bell Labs, Du Pont, Daimler Chrysler, Eli Lilly, Intel, Monsanto, Texas Instruments, Caterpillar, Cummins, GM, Microsoft and IBM.
- Pakistan's telecom infrastructure between Karachi, Lahore and New York, provides one of the **largest bandwidth capacity in the world**.
- With more than 50 universities, 15 research institutions and 20 higher-education institutes, **Pakistan produces 20,000 engineering graduates** and another 10,000 technically trained graduates every year.
- Besides, another 0.1 million other graduates qualify out in Pakistan annually.
- **NED, UET- Lahore, NUST, GIK IST, LUMS, and FAST** are among **the top universities** from where many of the world's biggest consulting firms hire most.

# Pakistani Overseas Work Force – 7.5 Million

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■ United States of America	1.5 million
■ United Kingdom and Ireland	2.0 Million
■ Canada	500,000
■ Western Europe	1,000,000
■ Saudi Arabia	1,200,000
■ United Arab Emirates	300,000
■ Kuwait, Bahrain, Oman, Yemen	200,000
■ Australia, New Zealand	500,000



# Pakistan's Vision

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- ◆ Peace and Stability
- ◆ Development
- ◆ Self Reliance
- ◆ Economic Strength
- ◆ Advancement in Technology

# Pakistanis in the USA.



**Microsoft**

intel®



Statistics that show:

5% of doctors in the USA,  
6% of scientists in the USA,  
12% of NASA scientists,  
15% of Microsoft employees,  
13% of IBM employees,  
9% of INTEL scientists,  
12% of XEROX employees,

... are Pakistanis

- Of the 1.5M Pakistanis living in the USA, 1/5<sup>th</sup> of them live in the Silicon Valley.
- 15% of Silicon Valley start-ups are by Pakistanis.
- Pakistani students are the third largest in number among foreign students in USA.

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# Distinguished Pakistanis

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- **Nobel Prize in Physics, 1979 – Dr. Abdus Salam**
- **Designer and Architect of Sears Towers – Dr. Fazal ur Rahman**
- **Architect of Saudi Arabian Desalination Program – Arshad Hussain**
- **First Governor of Saudi Monetary Agency (SAMA)– Anwar Ali**
- **Author of Constitution of Malaysia – Fazal Qader**
- **Chief Advisor to Five Year Economic Plans, South Korea –Maboob ul Haque**
- **Founder of Int. Center for Theoretical Physics, Trieste, Italy – Dr. Abdus Salam**
- **Designer of World's Major RO Desalination Plants – Fayyaz Muddassir Mubeen**

# Distinguished Pakistanis

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- **For whom the US President sent his own aeroplane to receive him** – H.E  
Nawabzada Liaquat Ali Khan – Pakistan's first Prime Minister
- **First Commander-in-Chief, Zimbabwe Air Force** – Air Chief Marshal Dawood Pota
- **President of the United Nations and Judge of Int. Court of Justice** – Zafarullah Khan
- **World's Top Desalination Expert** – Fayyaz Muddassir Mubeen
- **Squash World Champions** – Hashim Khan, Roshan Khan, Azam Khan, Mohibullah  
Jehangir Khan, Jan Sher Khan, Qamar Zaman
- **Leader in Organic Chemistry** – Dr. Atta ur Rahman
- **Princess of Jordan** – Princess Sarwat Sultana (wife of Prince Hasan)
- **Developer of Indigenous Nuclear Technology in Pakistan** – Dr. Abdul Qadeer Khan

# Distinguished Pakistanis

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- **World's Cricket Legend** – Hanif Mohammad (499 in First Class, 334 in Test, Longest stay at the Wicket)
- **Director Int. Desalination Association (IDA)** – Fayyaz Muddassir Mubeen
- **Inventor in Microwave Technology** – Zafarul Azam (US Patent Approved)
- **MP in British parliament, originally** - Lord Nazeer Ahmed
- **Advisers to Saudi Civil Aviation Authority** – Saleem Moinee + Eng. Hyder Ali
- **Top World Class Hockey Players** – Islahuddin, Rashid Jr., Smaiullah
- **President World Squash Federation** – Jehangir Khan
- **Among ten top ten IT Investor** ----- Asad Jamal (e-Planet)

# Distinguished Pakistanis

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- **First Asian Governor General of British Commonwealth** - Mohammad Ali Jinnah
- **Poet of the East, Philosopher of the Nations** ----- Allama Mohammad Iqbal
- **Pakistani Admiral in British Navy** – Rear Admiral Amjad Hussain  
Appointed on 15 April 2006
- **Pakistani who Conquered Mount Everest** ----- Aman Ashraf
- **Pakistani Managing Director who got British Award** Malik (ICI-Pakistan MD)
- **Pakistani who designed Singapore Seaport** – Captain Jalal
- **Pakistani who gun down 5 enemy aircraft in single combat** Sq. Ldr M.M Alam
- **Pakistani, who was the first General Manager of “Arab News”** Mohammad Ali
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# Distinguished Pakistanis

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- **Nuclear Scientist, Chairman, National Engineering and Scientific Commission** - Samar Mubarkmand
- **Poet of the East, Philosopher of the Nations** ----- Allama Mohammad Iqbal
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- **Pakistani, who was the first General Manager of “Arab News”** - Mohammad Ali
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# Mohammad Ali Jinnah (1876-1948)

## The Founder of Pakistan

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*“I have no doubt that Pakistan will be a leading nation of the world very soon”*

*“Unity, Faith and Discipline, these are the rules you should follow and I assure you, nothing can prevent you to achieve the highest possible glory.”*

*“Peace is achieved by strength and steadfastness. Weaker nations would always be subjugated and Pakistan’s Strength is the Advancement in Technology.”*

*“Kashmir is the blood line of Pakistan and no country can give its blood line to its enemy.”*

# What others say about Pakistan

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*“Pakistan is a great country with honourable people. All people round the world are proud of Pakistan and its people”*

*Abdulhamid Al-Mansour, Director General SWCC, Saudi Arabia*

*“Unity, Faith and Discipline, these are the rules you should follow and I assure you, nothing can prevent you to achieve the highest possible glory.”*

*“Peace is achieved by strength and steadfastness. Weaker nations would always be subjugated and Our Strength is the Advancement in Technology.”*

*“Kashmir is the blood line of Pakistan and no country can give its blood line to its enemy.”*

## THE SOURCES AND REFERENCES

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- **Websites:** Google, Government of Pakistan, Info Please, CIA
- **Magazines:** Readers' Digest, Urdu Digest, Sayyara Digest, Hamsafar (PIA)
- **Personal Communication:** Many

# THE AUTHOR

- FSc. from D.J Science College, B.E (Mech. Eng) from NED, MS (Mech. Eng.) from University of Petroleum & Minerals, Post Graduate Diploma from ICTP, Trieste, Italy
- Specialization in Desalination
- Worked first as a Lecurer in NED - Mech. Eng. Dept. and then as an Associate Professor again in 2000 for 3 years
- Assistant Operation Engineer in KESC
- Design Engineer in desalination for many years in Saudi Arabia, South Korea, Singapore, Dubai and USA (Carlsbad and Huntington Beach) RO Desalination Plants
- Designed many major SWRO Desalination Plants of the Middle East
- Author of Two Books; Desalination by Question & Answers and Desalination Design Manual
- Founded Pakistan Desalination Association (PakDA) in 1994
- Became the Director of International Desalination Association (IDA) – World’s prime body on desalination
- Twice nominated for Sitara-i-Imtiaz by Pakistan Embassy Riyadh and Ministry of Science & Technology, however, the award is still awaited.
- Supervised ASTM Sponsored RO Glossary
- Worked in SWCC, SAVOLA, Saudi BEMCO, SABIC and ACWA POWER in Saudi Arabia.
- 36 Research Papers on Desalination in International Journals.
- **Pakistan’s Quiz Champion (Brain of Pakistan)**
- For more information go to [www.google.com](http://www.google.com) and search for “Fayyaz Muddassir Mubeen”

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