

a) PAKISTANI SOCIETY AND CULTURE-BROAD FEATURES

DEFINITION OF SOCIETY:- Large group of people living together in an organized way, making decisions about how to do things and sharing the work that needs to be done.

DEFINITION OF CULTURE: -

Culture is defined as the integrated pattern of human knowledge, belief and behavior. Culture thus defined, consists of languages, ideas, customs, taboos, codes, institutions, tools, techniques, work of arts, rituals, ceremonies and other related components.

CONTENTS AND CONTRIBUTING FACTORS OF PAKISTANI SOCIETY & CULTURE

The culture of Pakistan is multidimensional, which is developed through absorptions and merging with cultures that came into this land since ancient times. Evolution of these cultures however came winged with conquests and trade, where blood and gore mingled with creativity, music, art, literature and cuisine.

Later in 1947, fresh influxes moved in, at this time due to ideals and nationhood. The new immigrant culture is most apparent in urban areas particularly in Karachi. The second urban area is Lahore, where the culture developed by Mughals from Central Asia, Iran and Turkey flowered. This richness is constantly renewed by the local giants in poetry and literature like Allama Iqbal, Faiz and a number of luminaries that embellish the rich cultural heritage of the country.

Historically, Pakistan maintains a cultural heritage in dress, which comes from the Sasanian period. The prefix and suffix 'Shah' is used till today with great self-importance by Syed's of Pakistan as was used by pre-Islamic Sasanians to address their kings and other royalty.

After the conquest of Sindh by Mohammad Bin Qasim and the arrival of great Sufi saints and poets, the advent of Islam gave a vast dimension to the culture. Islam supplied Ethical formation to the culture that had already existed. Along with the march of a series of civilizations from Central Asia, Arabia, Iran and later the Mughals, our culture inherited an amazing richness of some of the greatest cultures that ever flourished in the world.

The main manifestation of our culture is revealed in music, literature, arts & crafts, architecture, in cuisine, in dresses and in fabulous folk heritage that reaches classical heights.

Arabs initially enriched our music with their variety of musical instruments. They loved and practiced music as Arab rulers patronized it and our people shared the Arab view on music despite religious circles who regarded cultivation of music as corrupt pleasure.

In Pakistan, melody of voice and instruments is exercised with great beauty and virtuosity in reciting Holy Quran and Naat. Of course, Qawwali is a tremendous

spiritual expression. Some schools of Sufi's have allowed music instruments centuries ago. In their school the harmony and synthesis of Arabian, Iranian, Central Asians and indigenous folk has given us the melody in the form of Ghazal, Geet and Pahari raag in classical music.

Hazrat Ameer Khusro's great and dominant place in our cultural heritage is most significant in music, poetry and language. He spent some of the most fruitful years of his life in the provinces that now comprise Pakistan. In that period, Hazrat Shah Abdul Latif Bhatai, the great Sufi of Sindh, created Sindhi Kafi and developed music with great magnificence.

There have been great poets in Pakistan – Shah Hussain, Baba Bulleh Shah, Baba Fareed, Hazrat Sachal Sarmast, Khushal Khan Khatak, Rehman Baba and Jam Durrak are some of them.

Pakistan is blessed with a school of calligraphy. There are at least 100 famous artists who excel in this art. The fantastic calligraphy in Fresco and Canvas, of our national artists like Sadeqain, Guljee and Nayyar Ahsan, adorn the public buildings of Pakistan and other world capitals.

The other significant aspect of our rich cultural heritage involves the gifted peoples of our provinces who produce the most beautiful arts & crafts in woodwork, wood carving, ivory damascene, in ceramics, hand-loom fabrics in silk & cotton, in gold & silver ornaments & jewellery, in carpets, in Bronze & Brass, in screen printing, in block printing and in Chundri.

Historical evidences are there that cotton handloom fabrics were exported from here thousands of years ago.

Pakistan is famous the world over for its cuisine, hospitality and friendship. Almost every capital in the world has Pakistani restaurants. There are many more never ending aspects of Pakistani culture.

b) Citizenship national and international

The concept of a citizen is an old one. It is the state of being native of a country and having rights and duties because of it.

Citizens have all of the rights granted to people in a given state. These are expressed in rules which specify what an individual may or may not do, and what the State may or may not do. They are usually defined in constitutions or other basic legislation. At a world level they are found in the Universal Declaration on Human Rights, one of the first links between the international system and the individual.

Citizens have responsibilities as well. They are expected to vote, pay taxes, obey the law, and perform voluntary public service like serving on juries. Some of these are codified in law, but most are part of the normal expectations of behavior. While international responsibilities are less clear than national ones, they increasingly involve expectations of behavior: as a tourist, one should not pollute or write graffiti on national monuments; one should recycle in the interest of a global good; one should not SPAM on the Internet.

Citizens also have authority. This is the central pillar in the architecture. Slaves may have rights and responsibilities, only citizens have authority over their governments. They provide legitimacy to most governments (absolute monarchies based on Divine Right aside), based on the principle of consent of the governed. They may change government leaders and may determine what constitutes the common good. This idea of legitimacy that was posited by Max Weber as the most effective and least expensive form of power underlies democratic government. Citizen authority has, until recently, extended only as far as the nation-state; it has not reached the international system except on delegation to representatives of states.

International Citizenship

There is an increasing need to construct citizenship about issues that are now dealt with globally, but it will be a new type of citizenship, limited in scope and segmented. It can be a new anchor for identity, displacing in some ways the identity built on the Nation-State. A citizen of the world would be one who senses an ability to influence global decisions and accepts behavior that is congruent with those decisions.

It would also include issues related to phenomena that cross national boundaries in such a way that they cannot be regulated by national action, such as global warming, pandemics like HIV/AIDS, bandwidths and stationary orbit slots. It would encompass issues where, because of technology, the porous nature of borders and the interdependence of the global economy that need international solutions, including examples like regulation of the internet, control of international financial transfers, prevention of trafficking in illicit drugs and adjudication of trade disputes based on international norms. Increasingly it involves international enforcement of universal human rights norms as reflected in the work of international tribunals. The environmental area is where the emergence of a world citizenship is beginning to be seen, in the concepts of civil society and global governance. There is no doubt that the process is made possible by the communications revolution. "The Internet does allow previously disenfranchised groups to communicate cheaply without geographic limitation.

It is possible for persons concerned with a given issue to exchange information easily and steadily. So, World citizenship is a new global paradigm of rights, responsibilities and authority.

c) Literacy and education in Pakistan

Education and training are as important as other sectors for the development of a country. The education system, which we inherited, was defective with respect to the needs of a developing independent system. The education system has continuously been under examination. Beginning with the first educational conference in November 1947, several expert bodies were formed to make thorough appraisal of the problems and needs of education in the country.

In December 1958, the commission of national education consisting of top educationalists of the country was set up. The commission, after making thorough investigations into the causes of educational problems, submitted its detailed report in August 1959.

On 26th March 1970, an education policy was announced. The implementation of the policy was estimated to cost Rs.829 crore in the public sector during the 4th plan period as compared to Rs.391 crore in the 3rd five-year plan. But the frequent changes in education policy resulted in failure of educational programs.

Mostly, the role of the private sector in developing education was selfish and profit oriented. The activities of private sector remained limited to big cities. Most of the feudal lords did not take interest in developing or improving teaching institutions functioning in villages. The development of primary education remained under the jurisdiction of local bodies or municipal committees, which suffered at the hands of bureaucrats.

In March 1972, the major step taken by the government was that all privately managed colleges and about 3700 schools in the Punjab and Sindh provinces were started to be nationalized to put an end to commercialization of education and exploitation of students and teachers by private managements.

In 1986, under the then prime minister's (Junejo) five points program, substantial emphasis was placed on primary education to attain the objective of mass literacy LAMEC (Literary and mass education Commission).

In December 1992, education policy for the next decade (1992-2002) was announced. According to the policy, by the year 2002, on an average 2.55% of G.N.P will be allocated for implementation of the policy.

On 27th March 1998, education policy 1998-2010 was announced in which the literacy rate was to be increased from the existing 31% to 70% by the year 2010. The government has decided to increase the education budget from 2.2% of G.N.P to 4% by the year 2003. According to the new education policy, 45,000 new primary and 20,000 Masjid schools would be established. In addition, 75,000 non-formal basic education schools would be set up during the first five years. Evening shifts in the existing 20,000 primary schools would also be introduced.

Education Policy 1998-2010

Objective of the policy was to evolve an integrated system of national education by bringing Deeni Madaris and modern schools closer to each stream in curriculum and the contents of education. Literacy rate at that time was about 39% which was to be raised to 55% during the first five years of the policy and to 70% by the year 2010.

Education Sector Reforms (ESR) 2002-2006

Education Sector Reforms emphasized improvement through the implementation of the national literacy guidelines/policy, to create awareness about improving literacy, institutionalizing literacy efforts through more efficient and effective organizational structure at all tiers of governments, and to ensure consistent implementation of national literacy curriculum and standards.

Perspective Development Plan 2001-2011: Objective / Targets

The Perspective Development Plan 2001-2011 in Education and Training encompasses the following objectives:

- Improvement of literacy rate
- Education for all (EFA)
- Improvement in participation rate at secondary level
- Introduction of technical education at secondary and post-secondary level
- Producing higher education graduates responsive to the socio-economic and technical needs of the country
- Quality education

Perspective Plan 2001-2015

In a country where highly talented manpower is available, quality control and research and development activities are almost non-existent, resulting in unimaginable brain drain which requires immediate attention of all concerned. To make optimal use of available highly educated manpower, infrastructure development of the R&D institutions need to be updated with state-of-the-art instruments. Separate allocations will be made for R&D during the Plan. Existing scholarship schemes will be continued. Split Ph.D. training in local universities/institutes in collaboration with foreign universities will be started. Libraries of educational institutions will be strengthened and their proper utilization will be ensured. Accessibility to modern literature, research based material and information technology will be provided to higher educational & research institutions.

Pakistan is among the 9 countries, which have been involved by UNESCO (United Nations Educational Scientific and Cultural Organization) in a major project for quality improvement in basic education. These countries are Pakistan, Bangladesh, Brazil, China, Egypt, India, Indonesia, Mexico and Nigeria, which concentrate about 75% of the world's illiterates.

d) State of Science and Technology in Pakistan A comparison with other countries with special reference to the Muslim world

The importance of technology lies in the benefits of technology on society. The positive effects of technology on society are many. The advancements in technology have revolutionized human life. It has provided a great impetus to the computer and the telecommunication industry. The developments in communication technology have made the world a smaller place.

It is now universally recognized that science and technology are the major agents of economic and socio-cultural development of a country. An extensive application of science and technology is required to solve the problems of diseases, illiteracy, energy, communications, industrial development and rational utilization of natural resources.

(PCSIR)

Pakistan Council of Scientific and Industrial Research (PCSIR)

was established in 1953. The PCSIR being the foremost industrial R & D organization is the largest producer of indigenous technologies in an organized fashion. The prime objective of setting up research establishments in various parts of the country is to undertake scientific research for the utilization of the indigenous raw materials and also on problems faced by the country's nascent industries. PCSIR has laboratory establishments in the federal and all the four provincial capitals. Trained manpower requirements of the industrial sector are met through two Centres in Karachi and Quetta, namely, Pak-Swiss Technical Centre for middle-level technicians, and the national Institute of Industrial Electronics & Engineering producing high quality graduates.

PCST

Pakistan Council for Science and Technology (PCST) is responsible to advise the Government on S&T policies and plans and suggest measures for the promotion, development and application of science and technology in the country. For seeking expert opinion and advice in different S&T areas the Council constitutes "Think Tanks / Expert Committees" as and when required.

PCRWR

The Pakistan Council of Research in Water Resources (PCRWR) was established in 1964, under a resolution and named as Irrigation, Drainage and Flood Control Research Council (IDFCRC) within the Ministry of Natural Resources. The Council was renamed as Pakistan Council of Research in Water Resources (PCRWR) in 1985. The PCRWR is an apex autonomous body established with the objective to conduct, organize, coordinate and promote research in all aspects of water resources. Since its inception, PCRWR has played its role as a national research organisation by undertaking and promoting applied as well as basic research in various disciplines of water sector, more specifically, irrigation, drainage, surface and groundwater management, groundwater recharge, watershed management, desertification control, rainwater harvesting, , water quality assessment and monitoring, and development of innovative water resource management, conservation and quality improvement technologies, etc.

Pakistan Science Foundation

Pakistan Science Foundation (PSF) is the apex body for promotion and funding of scientific and technological research and popularization of science in the country. PSF has two subsidiary organizations i.e. Pakistan Museum of Natural History (PMNH) and Pakistan Scientific and Technological Information Center (PASTIC).

Pakistan Atomic Energy commission (PAEC)

Pakistan Atomic Energy Commission is charged with promotion of research work on peaceful uses of atomic energy in the fields of agriculture, medicine and industry as well as in execution of projects involving nuclear power stations and generation of electricity. In pursuance of its programmes, following organizations have been established.

- 1) Pakistan Institute of Nuclear science & Technology (PINSTECH) 2) Atomic Energy Minerals centre

3) Atomic Energy Agricultural Research Centres.

4) Atomic Energy Medical Centres

5) Karachi Nuclear Power Plant (KANUPP)

6) Chashma Nuclear Power Plant (CHASHNUPP)

CWHR (Council for Works & Housing Research) aims at promoting and conducting quality research connected with buildings and building materials. The council's activities are presently concentrated on low cost housing using new building materials and innovative construction techniques, for example rice husks, ash cement, pre-cast lightweight cellular panels, pre-fabricated hollow slab roofs and ferro-cement hollow box roof slabs.

PCRET (Pakistan Council of Renewable Energy Technologies) has been established by merging National Institute of Silicon Technology (NIST) and Pakistan Council of Appropriate technologies. PCRET has been assigned responsibilities for research and development, dissemination, providing training, and to promote renewable energy technologies in the country. Main fields of the council are: 1) Photovoltaic (solar electricity) 2) solar thermal appliances (solar cooker, solar dryers, solar water heaters, solar desalination plants) 3) Micro Hydel 4) Wind Energy 5) Bio – energy (Bio-gas, Bio-oil, & other Bio-fuels) 6) Geo- Thermal Energy 7) Ocean Waves Energy.

PEC (Pakistan Engineering Council) is a statutory (created by law or rule) body constituted in 1976. It was established to regulate engineering profession in the country such that it shall function as a key driving force for achieving rapid and sustainable growth in all national economic and social fields. Its main statutory function includes registration of engineers, constructors / operators and accreditation (authorise) of engineering programmes run by universities / institutions, ensuring and managing of continuing professional development, assisting federal govt. as a think tank, establishing standards for engineering products & services besides safeguarding the interests of its members.

Communications: On 27th June 2005, a fault played havoc with our internet connections, which was detected in south of Karachi in SE-ME-WE-3 submarine cable (39000 KM, 39 landing points in 33 countries). This cable was the only link of Pakistan with the online world (The link was fully restored after 2 months). On 2nd Jan, 2006, the high capacity & high speed SE-ME-WE-4 link was inaugurated in Pakistan. SMW-4 has provided a reliable link to the world (20,000KM from Singapore to France, linking 16 countries). It has increased Pakistan's IT competitiveness through reliability, better security & high speed. Access to good and speedy broadband has opened a lot of opportunities for new business and for faster communications.

Pakistan won the GSM (Global system of mobile phones) country leadership award on 13th Feb. 2006. Pakistan was chosen as the most progressive economy in establishing a fast growing communication sector in the past three years. The award had been launched by GSMA (GSM Association) to recognize exceptional work in the field of mobile communications policy. The proportion of Pakistanis with a mobile phone had grown from 1% in the year 2000 to 13% in 2005, representing an increase from less than 2million to over 20 million customers in 2005. The mobile subscriber market in Pakistan has crossed the 100 million mark in February 2011 with millions more to follow.

Pakistan's 'first' advanced communications satellite PAKSAT-1R, as a part of Pakistan's Space Programme 2040, was launched on 11th Aug. 2011 on board China's Satellite Launch Vehicle from the Xichang Satellite Launch Centre in Sichuan province.

SUPARCO (Space & Upper Atmospheric Research Commission) was established to promote peaceful exploration of space science & technology. Besides initiating a programme of rocket launching & and establishing instrumentation & engineering laboratories, experiments in the ionosphere are conducted through ground stations located in Karachi and Islamabad.

Remote Sensing Applications Division is engaged in analysis of earth resources survey, satellite pictures for identifying mineral deposits, monitoring areas under water logging and salinity, determination of desertification and forestation.

Higher Education : HEC had approved Rs. 35 m for initiating a scheme to provide high speed international bandwidth to Universities connected with PERN (Pakistan Educational Research Network). Through this scheme the Universities connected with PERN would get at least 2MB of international bandwidth. Higher bandwidth on PERN would enable collective research through the use of internet & intranet resources & fast access to 56 universities of Pakistan.

Comparison with other countries with special reference to the Muslim World

Present age is an age of scientific innovations and technological advancement. In the knowledge based societies of the 21st century only those nations could take a lead which excels in science and technology.”Gilani 11-1-11. Muslim scholars were the pioneers in the field of science and medicine for 600 years. That glorious period of creative scientific activity ceased as the Islamic Ummah lost the intellectual (ability to think & understand in an intelligent way) leadership. While the collective Gross National Product of the all Muslim countries stood at \$1,200bn that of Germany alone is \$2,500bn and that of Japan \$5,500bn. One of the main reasons for this disparity was that none of the Muslim countries had ever paid any attention to educational and scientific development.

Muslim countries account for 70 percent of the world’s total energy resources. The Islamic world also claims 11 percent of global trade. Most Muslim countries have geostrategic importance as well as rich natural resources. Many economists and scholars freely admit that the world economy depends upon the Islamic world's oil and gas exports, in particular those of the Persian Gulf.

Despite enormous human and material resources, the Muslim world is still counted amongst the backward nations due to lack of scientific and technological advancement. Muslim countries are internally involved in conflicts and perceived by the outside world as terrorists.

OIC is a collection of 57 nations. Among them some countries are technologically more advanced in certain fields than others. For example, Malaysia is advanced in Electronics, Turkey in Telecommunication, Aviation, Pakistan in nuclear science, Middle Eastern and CIS countries in the field of petroleum and so on. If OIC countries share their knowledge and skill with one another, development will be optimum with low cost and less time.