# ASSIGNMENT No. 02

## Commercial Geography (1428) Renamed Associate degree of Commerce

# Spring, 2025

**Q.1 Do you agree that in Pakistan land is ploughed by wooden ploughs drawn by cattle, threshing is done by animals, winnowing is done by hand and farm products are consumed by the family? Explain your reason. (20)**

Modernized cattle farming practices have the potential to reshape Pakistan's agri economy, promising a wealth of job opportunities and sizable contribution to the GDP growth.

Additional Director of the Department of Livestock and Dairy Development Sialkot Dr. Inam Ali Athar said this while talking to WealthPK.

"We can bring about an economic revolution by promoting cattle farming; there are vast possibilities of cattle farming in the country, which can be utilized in every possible way," he said.

"Cattle breeders can get fat animals with more meat by mating non-breed and low-milking indigenous cows and foreign beef breeds, which will not only result in better milk production but also give quality meat," he said.

According to the Economic Survey of Pakistan (2022-23), the livestock sector has emerged as the largest contributor to agriculture, accounting for approximately 62.68 percent of the agriculture value added and 14.36 percent of the national GDP during FY2023.

Animal husbandry is a critical economic activity for rural dwellers in Pakistan. Over 8 million families engaged in livestock production, which accounts for 35 to 40 percent of their income. Dr Inam said, "We have to give importance to the livestock and agriculture sector in the development projects and ensure provision of development resources according to the share of this sector in the GDP. We need to develop this sector by reducing the cost of production and employing modern technology so that we can get better results."

He said the government was also providing loans to the farmers on easy terms through various financial institutions to purchase animals and livestock.

As part of efforts to increase awareness of cattle farming, farmers' fairs as well as modern literature are now being used to guide the people involved in this industry, Dr Inam added.

According to him, Pakistan has the potential to earn billions of dollars through cattle farming if it uses the right strategies in the long run.

**Contribution of Livestock in National Economy**

Livestock plays an important role in the economy of the country. Livestock sector contributed approximately 51.8 percent of the agriculture value added and 11.3 percent to national GDP during 2008-09. Gross value addition of livestock at current cost factor has increased from Rs. 1,052 billion (2007-08) to Rs. 1,287 billion (2008-09) showing an increase of 22.3 %. The value of livestock is 6.1% more than the combined value of major and minor crops. Government gives high priority to its development and is focused on private sector led development of livestock. Underpinning the importance of livestock, the government has placed livestock on national development agenda. It has formulated "Livestock Development Policy" and "Poultry Development Policy". Both policies are aimed at private sector led development of livestock with Government providing enabling environment. The

policies would provide a frame work for accelerated development of livestock (Source: Economic Survey of Pakistan 2008-09). To spearhead the development efforts through private sector, fully autonomous private sector-led, "Livestock and Dairy Development Board" and "Pakistan Dairy Development Company" have been established. These companies are serving as platform for investment in livestock sector. Apart from provincial Government programs, the federal government has substantially increased public sector investment in livestock sector and has initiated mega projects to the tune of Rs. 7.1 billion for strengthening livestock services for improved disease diagnosis & control; milk and meat production; breed improvement; animal husbandry and management practices in the country.

**Productivity of Animals in Pakistan**

Compared with other Countries Pakistan's huge animal population of 50 million suffers from low productivity compared to global players although it is quite reasonable in comparison to the rest of Asia. It is estimated that Pakistan has three times the animals that Germany has, but yields are one fifth of Germany's and one third of New Zealand's and USA produces 94.5 billion liters of milk annually through an animal base of a mere 3.4 million animals representing a significant loss in potential economic and social value.

**This low productivity has several causes:**

The main cause is imbalanced feeding; Pakistan faces shortages of fodder and water two-three times a year. In addition to shortages, feeding of animals is practiced according to the farmers experience and tradition, without any training or knowledge of ration formulation based on production levels. The buffalo in this sense is an easy animal and has relatively modest nutritional requirements. However, cattle require a balanced fodder containing appropriate amounts of concentrate and forage. This is important for efficient rumen digestion and metabolic balance. Technology driven fodder preservation systems (silage) are needed to ensure availability of feed despite seasonality issues. Unhygienic animal care is an additional issue. Smallholding farmers generally tie their animals within the house premises or in premises where animals cannot move freely. Sustainable agriculture training should be encouraged for a longterm rural vision.

**Organized Sector**

The processed milk sector of Pakistan contributes 0.43% to the GDP, and this is likely to grow in the coming years. Growing urbanization and globalization are changing lifestyles in Pakistan. Dairy as a sector has the ability to influence this change, and indeed the industry must change with changes in society, or it will stagnate. The processing sector can play a critical role in creating a consumer pool for itself in the new urbanized Pakistan.

**Farm Management**

Fans and sprinklers system should be installed in the animal barns to control the temperature during summer through soaking technique. Separate division in open coral should be created for various age categories of animals requiring special attention. Animals must be properly tagged to keep all the record like vaccination and insemination etc. Farm should be kept clean and good manure management that is integral part of dairy farming business as it has direct relation with productivity and health of animals. Farm yard manure and slurry is used for improvement of farm soil fertility. Farm should have the availability of 24 hrs electricity. Before entering into the farm, all vehicles must go through a chemical filled low depth pond to disinfect the vehicles coming into the farm. Herd management could be done through IT support that would help in managing the herd in the best possible manner regarding the individual milk records, vaccinations, inseminations feeding and breeding etc.

**Cows Availability**

The ideal herd should consist of 100% cows for the viability of a farm. The cows are comparatively high yielder as compared to buffaloes. Animal markets, Government and private livestock farms are

the main sources for purchasing milk animals. There are different contractors available in the markets that help locating the proper animals. These contractors work on commission basis and the commission rate charged may vary from 1-2% of the animal price. Preferably, the Australia and U.S.A are the best international markets for the purchase of cows.

**Feed of Cows**

Animals required dry matter and concentrate to increase productivity. Wheat straw is also used as dry roughage along with green fodder. It is observed that about 1 kg of total mix ration on dry matter is required for the production of 2 liters of milk. Feed formula will provide adequate energy according to energy and protein requirements of animal in production. Mineral Mixture is used as a feed supplement (magnesium, iron, sodium and salts). Mineral mixtures are good source of energy and increase the animal productivity to give milk. Fodders which are required as feed to animals are multi-cut oats, berseem, lucerne, Sorghum- Sudan grass hybrids, mott grass, sorghum, maize and millet have been developed.

**Q.2 Explain the following resources of Pakistan: (20)**

**i. Water Resources**

Pakistan is an arid country heavily dependent on annual glacier melts and monsoon rains. Remote Sensing provides large scale multidisciplinary information to monitor, sustainable use and management of water resources. Important areas of application are;

- **Surface energy balance and evapotranspiration**
- **Hydrological modeling**
- **Mapping of Surface water resources and irrigation networks**
- **Watershed modeling and integrated watershed management**
- **Ground water prospection**
- **Wetland ecosystem modeling**
- **Dam site selection**
- **Soil moisture estimation**

Pakistan, when a water-surplus nation, is presently a water shortfall country. The precipitation is neither adequate nor customary, to meet the developing necessities of water. Around 70% of the yearly precipitation happens in the long stretches of July to September. The surface water assets of Pakistan chiefly comprise streams of the Indus River and its feeders, which achieve 138 million sections of land feet (MAF) of water yearly. The Indus River alone gives 65% of the absolute waterway streams, while the portion of Jhelum and Chenab is 17 and 19% individually. The long periods of pinnacle stream are June to August during the rainstorm season. The stream during the Kharif (Summer) is 84% and during Rabi (Winter) season is 16%. The alluvial fields of Pakistan are honored with broad unconfined spring, with a capability of more than 50 MAF, which is being misused to a degree of around 38 MAF by more than 562,000 private and 10,000 public tubewells. In Balochistan (outside the Indus Basin), out of a complete accessible capability of about 0.9 MAF of groundwater, over 0.5 MAF are as of now being used, in this way leaving an equilibrium of about 0.4 MAF that can, in any case, be used, however, a few springs are now over misused.

The issue is duplicated by helpless administration and the board in the water area. While the laws overseeing water, they are regularly abused by nearby persuasive people with unlawful collaboration of administration. While the appropriation of the Public Water Strategy in 2018 has been a reason for idealism in Pakistan, it's unclear and some of the time opposing phrasing raise worries that the nation's water emergency will keep on deteriorating.

The more terrible province of Pakistan's water assets achieved global consideration in 2018 because of the notion that the nation could confront water shortage by 2025. Pakistan's two significant dams, the

Tarbela and Mangla Dams, both contacted or moved toward their dead stockpiling levels more than one time, showing further disturbing circumstances.

The significant wellsprings of water in Pakistan, are considered as precipitation, frigid overflow, waterways, and groundwater. In which around 60% of precipitation comes from storm drains, a critical extent is conveyed during winter (December to Spring) climate designs. Because of the different geology of Pakistan, precipitation will in general shift essentially from one district to another. A large part of the nation's land is parched or semi-bone-dry, with 3/4 of Pakistan getting under 250 millimeters of downpour each year and dry seasons are normal in numerous spaces.

In Sindh and Balochistan, genuine dry spell conditions have been brought about by an absence of downpour throughout the colder time of year and storm precipitation periods. An investigation by the Assembled Countries Advancement Program recommended that while more examination should be done on the effects of environmental change on precipitation in Pakistan, patterns throughout the last 25 to 50 years propose that precipitation has diminished in Balochistan and including waterfront regions despite the fact that it has expanded on normal in certain pieces of the country in Punjab and northern territories. The pace of snow soften has additionally been influenced by environmental change, making a more serious danger of flooding and outrageous water cycle change. Snowmelt and chilly overflow additionally contribute somewhere in the range of 30 and 40 percent and 30 to 35 percent of Indus waterway streams, individually, making their commitment fundamental to Pakistan's hydrological cycle.

The Indus Stream framework contains generally surface and groundwater assets of Pakistan. In 1950, surface water accessibility per capita was 5,260 cubic meters for each individual. By 2016, that had tumbled to near 1,000 m3, a pattern that is required to proceed. Groundwater extraction rates are additionally of extraordinary concern. In all areas of Pakistan at present concentrates around 60 cubic kilometers of water from its springs every year, which far surpasses supportable cutoff points. and water-scant (low water accessibility per capita). The circumstance is exacerbated by Pakistan's pace of water use – the fourth-most noteworthy on the planet – while its water power rate (the measure of water utilized per unit of Gross domestic product) is the most elevated on the planet. This proposes that Pakistan's economy is more water-serious than some others.

The Indus River System, accordingly, won't proceed with independence in horticultural creation. Because of huge measures of silt got by the taking care of waterways, the three significant repositories – Tarbela, Mangla, and Chashma – will lose their capacity limit, by 25% before the year's over 2010, which will additionally exasperate the water-accessibility circumstance. This paper assesses the current circumstance of water assets, present necessities, and future prerequisites, the difficulties forced and recommends short, medium, and long haul systems to adapt to the circumstance. The proposed momentary techniques incorporate beginning a mass-mindfulness crusade, the proliferation of high-productivity water system frameworks, changes in editing designs, recognizable proof of practical surface-water stockpiling locales and dams, and actuation of water-client associations. The medium-term methodologies propose offering need to the coating of distributaries, minors, and streams in saline groundwater territories, development of little dams and establishment of tubewells in fact possible zones, improving flood and drought forecasting techniques, and a lot more extensive use of conjunctive water-use approach and engendering of high-effectiveness water system frameworks. Institutional changes for better coordination and a more extensive detailing of a public water strategy are other need regions under the medium-term key arrangement. Long-term procedures remember the definition of an administrative system for groundwater reflection, development of huge stockpiling dams, better flood and dry season gauging instruments, and settling water-appropriation issues between areas. It is suggested that a National Commission on Water, upheld by a specialists board, be made to guide the detailing of the techniques and guarantee the execution of the procedures proposed. Presentation is fundamental for supporting personal satisfaction on earth. This limited product has an immediate bearing on practically all areas of the economy. In Pakistan, its significance is more than standard because of the agrarian idea of the economy. The portion of rural area in the Gross Domestic Product (GDP) of Pakistan is around 24 %. Since agribusiness is the significant client of water, thusly maintainability of farming relies upon the ideal and sufficient accessibility of water. The expanding pressing factors of populace and industrialization have effectively positioned more prominent requests on water, with an ever-increasing number and force of nearby and provincial

struggles over its accessibility and use. Generally, the high aridity list of the nation is adding further to the meaning of water informative exercises in Pakistan. However, when a water-surplus country with immense water assets of the Indus River System, Pakistan is presently a water-deficiency country. As of now, the yearly per capita water-accessibility in Pakistan is around 1,100 cubic meters (m3 ); under 1,000 m3, nations start encountering persistent water pressure (Population Action International, 1993). Table gives the correlation of per-capita water.

Surface Water-Resources Surface-water assets of Pakistan are principally founded on the progressions of the Indus River and its feeders. The Indus River has a complete length of 2900 kilometers (Km) and the seepage region is around 966,000 sq. Km. Five significant feeders joining its eastern side are Jhelum, Chenab, Ravi, Beas, and Sutlej; moreover, three minor feeders are the Soan, Harrow, and Siran, which channel in bumpy zones. Various little feeders additionally join the Indus towards its western side. The greatest of such feeders is River Kabul. Waterways in Pakistan have singular stream attributes, however, every one of them, for the most part, begins to ascend in the spring and late spring, with the rainstorm rains and snow softening on the mountains and have a consolidated pinnacle release in July and August. The streams are least during winters e.g., during the time frame November to February, mean month to month streams are just around one 10th of those in summer. Other than the significant waterways, there are various little streams and streams, which are just occasional with streams contingent upon downpour fall and convey for all intents and purposes no water throughout the cold weather months. also, convey basically no water throughout the cold weather months. The 77-year record of the Indus River (1922-23 to 1999-2000) demonstrates that the watersheds of the Indus River yield.

To deal with these degrees of water pressure and shortage much have as of late been made by the Pakistani Government about an overall absence of enormous dams and supplies in the country. While the group subsidizing techniques embraced by the public authority to construct new dams are ridiculous, the restricted capacity limit has likewise added to expanded water shortage. Pakistan has as long as 30 days of capacity limit, which not just restricts the measure of water accessible during the dry season, yet in addition adds to flooding during wet seasons, as there are not many dams to assimilate the overabundance of water. A lot of Pakistan's high water use originates from its to a great extent agrarian economy. Just about 70% of the populace is straightforwardly or by implication utilized in the farming area, which represents 26% of its total national output. Pakistani ranchers develop 21.2 million hectares of land, of which more than 80% is watered. Cultivating is overwhelmed by four water-serious yields: wheat, sugarcane, rice, and cotton. Accordingly, 93% of the water devoured in Pakistan is utilized for agribusiness (the worldwide normal is nearer to around 70%). While Pakistan's water system framework is huge, it is obsolete and ineffectively kept up. Specifically, quite a bit of Pakistan's farming is reliant on floodwater system techniques, which includes flooding fields utilizing channels or cylinder wells. A significant number of the streams that convey water from waterways for this technique for water system are not suitably lined, prompting further drainages of up to 40 percent.

Concentrated water system likewise has suggestions for Pakistan's groundwater supply, as an absence of dependable surface water has made ranchers progressively depend on groundwater. Of the water utilized for the water system, roughly half comes from springs, to some degree, since it isn't dependent upon occasional accessibility. While it is a helpful water source, an increment in siphoning is ongoing for many years has prompted a huge decrease in groundwater tables, particularly in Punjab and Sindh, where agribusiness is the broadest. Unchecked groundwater deliberation has added to the Indus Bowl spring turning into the second-generally focused on the planet, as indicated by an investigation led somewhere in the range of 2003 and 2013.

Alongside actual boundaries to water security, water governmental issues have additionally exacerbated the emergency. Because of frontier period water laws and an absence of genuine administration, Pakistan's water approaches have come to be overwhelmed by three primary factors: a reliance on progressively bygone laws and structures; a solid inclination for huge scope designing undertakings to tackle water issues (the new drive to construct two enormous dams, notwithstanding concerns, is a commonplace model); and approximately characterized water rights. Much of the time, land possession characterizes who has a privilege to water. Quite a bit of Pakistan's water framework is likewise in a helpless condition, Pakistan's water assets are overseen at a common level, representing another predicament for water executives. Between common questions have ruled the

discussion on water change. Albeit the 1991 Water Accord relieved some commonplace worries (by distributing water to territories dependent on a specific equation) the arrangement of execution, which is managed by the Indus Stream Framework Authority (IRSA), is missing and it is extremely unlikely to screen streams in case of a question. Reactions of the IRSA has expanded in the course of the most recent decade because of its powerlessness to deal with the requirements, all things considered, which has been brought about by the continuous decrease in water streams.

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### ii. Agricultural Resources

The Pakistan Development Review started at the Pakistan Institute of Development Economics as Economic Digest in 1958, The Pakistan Development Review (PDR) has been published by the Institute regularly since 1961, with only a short pause during 1971-72. For several decades now, it has been a refereed international journal of Economics and related social sciences. Redesigned and re-planned twice in the last two decade, the contents have tended to emphasise theoretical-cum-empirical contributions; the underlying commitment has been to strengthen the interest in the general areas of Economics and other social science fields. The journal is issued quarterly and, with a fair mix of topics, regularly contains original (theoretical and empirical) contributions to Economics, in general, and on Pakistan's socio-economic problems, in particular. Nearly every issue carries contributions by scholars from Pakistan and overseas. Currently, the following editors work regularly on the PDR: Dr Rashid Amjad Chaudhry (Editor) and Professor Aurangzeb A. Hashmi (Literary Editor). The Review's Editorial Board consists of thirty-six outstanding scholars in the field of Economics and various social science fields. They actively participate in refereeing the papers Publications and Research Information submitted to the Review for publication; they also render valuable advice on other related matters.

### Publisher Information

The Pakistan Institute of Development Economics was established at Karachi in 1957 and in 1964 accorded the status of an autonomous research organization by the Government of Pakistan. It is devoted to theoretical and empirical research in Development Economics in general and on Pakistan-related economic issues in particular. In addition to providing a firm academic basis to economic policy-making, its research also provides a window through which the outside world can view the nature and direction of economic research in Pakistan. Other social sciences, such as demography and anthropology and interdisciplinary studies increasingly define the widening scope of research that must be undertaken for proper economic policy and development to have sound underpinnings. Over the past 50 years PIDE has earned an international reputation and recognition for its research. Our faculty is rich and our advisory committee consists of world renowned economists such as Nobel Laureate Robert A. Mundell. PIDE is located at the Quaid-i-Azam University Campus in Islamabad, the capital of Pakistan. The campus rests against the backdrop of the Margalla hills on the Potohar Plateau, within a short distance of the remains of Taxila, which once housed the world's oldest university. Archaeological remains discovered in this area show that it has been a center of civilization for some 5,000 years. The Institute, neighbor to several other academic outfits situated in this historic and scenic part of the green foothills of the great South Asian mountain ranges, is the hub of economic and social science research in this part of the world.

It works in collaboration with Ministry of National Food Security and Research which is headed by a Federal Minister, Syed Fakhar Imam who is heading the ministry since April 2020. It is an apex agricultural research organization at the national level. Its main objective is to strengthen Pakistan's agricultural research system, comprising the federal and provincial components.[1]

In 2019, Pakistan was able to produce 20 new high-yielding, disease resistant and climate change-resilient wheat and maize (also called corn) varieties. This was achieved mainly due to the partnership between the International Maize and Wheat Improvement Center and the Pakistan Agricultural Research Council (PARC). USAID, the US development agency also supported this project.[2]

**Recent events**

In October 2019, World Food Day was observed at an event at the National Agricultural Research Centre (NARC) in Islamabad. This event was organized by the United Nations Food & Agriculture Organization, Pakistan's Ministry of National Food Security and Research, Pakistan Agricultural Research Council (PARC) and the World Food Programme (WFP). The theme for 2019 was – 'Our actions are our future: healthy diets for a zero hunger world'.

Pulses are the most important source of vegetable protein in Pakistan. They are cultivated on 7% of the total cropped area. Major pulses grown in the country are chickpea (Cicer arietinum L.), lentil (Lens culinaris Medik), mung bean (Vigna radiata L. Wilezek), black gram or mash (Vigna mungo L. Hepper) and khesari (Lathyrus sativus L.).

The total area under major pulses crops in Pakistan is about 1.5m hectares. Among these, chickpea is the major winter food legume and mung is the major summer legume. Chickpea occupies 74% of the total pulses area with 75% contribution to the total production, whereas mung bean occupies 15% of total pulses area contributing 16% to the total pulses production. The mash and lentil, each cultivated on less than 3% of the total pulses area and each of them contributes 2-3% to the total pulses production. To strengthen research and development activities at national level, Pakistan Agricultural Research Council has declared the following research institute as cooperative units for sugar and food legumes crops.

**Sugar Crops**

Sugar Crops Research Program, NARC, Islamabad
Sugar Crop Research Institute, Charsaddah Road, Mardan
Sugarcane Research Institute, AARI, Faisalabad
Agriculture Research Institute, Tandojam
Quaid-e-Awam Agricultural Research Institute, Larkana
ARI, Ratta Kulachi, D.I.Khan
National Sugar and Tropical Crops and Horticulture Research Institute, NSTHRI, Thatta

**Pulses**

Pulses Research Program, NARC, Islamabad
Pulses Research Institute, AARI, Faisalabad
Arid Zone Research Institute (AZRI) Bhakkar
Quaid-e-Awam Agriculture Research Institute, Larkana
Agriculture Research Station (ARS), Karak
Deptt. Of Agriculture, Muzaffarabad, AJK.
Agriculture Research Institute, Sariab Road, Quetta
Barani Agricultural Research Institute (BARI), Chakwal
Nuclear Institute for Agriculture & Biology (NIAB) Faisalabad
Pulses Research Station, Sahowali, Sialkot
Nuclear Institute for Agriculture (NIA), Tandojam

Nuclear Institute for Food and Agriculture (NIFA), Peshawar
Arid Zone Research Institute (AZRI) D.I.Khan

**Textile Industry in Pakistan**

A five-year textile policy unveiled on Wednesday offers about Rs87 billion cash subsidy to the textile and clothing sector to boost exports. It envisages plans to boost textile exports to $25 billion from the current $17.8 billion by 2014. The policy, approved by a special cabinet meeting presided over by Prime Minister Yousuf Raza Gilani, was announced by Textile Minister Rana Farooq Saeed Khan. The hefty package for the sector carries special duty-drawback rates, besides repayment of earlier research support, subsidy on long-term financing loan and development and other subsidies. The policy focuses on export promotion measures, instead of steps to increase production and revive the ailing industry. Without amending the rules of business, the government has issued two policies for the promotion of exports — the four-year trade policy announced in July focussed only on non-textile products. The textile policy does not mention any specific target for sub-sectors. There is also no mention of increasing production which has reached a saturation point and is producing low-quality products.
According to analysts, Pakistan's textile and clothing sector sells its products cheaper than Bangladesh in the international market. 'How come you expect foreign investment in a sector which produces low quality products?

**Q.3 Define transportation and telecommunication and also explain the means of transportation & its role in industry. (20)**

Transportation in Pakistan is extensive and varied but still in its developing stages. It serves a population of over 170 million people. Construction of new airports, roads, and railway provides jobs for many people.

The domestic transportation system was not well developed at independence. Railroads were the main means of transportation, but the network in West Pakistan had been constructed under the assumption that the area formed part of a larger subcontinental economic and political entity and was not suited to the needs of the new nation. Considerable development was necessary to improve links between Karachi, Pakistan's first capital and the country's principal port and commercial center, and Punjab, where Islamabad was established as the new administrative capital in 1962.

In the 1970s and 1980s, road and air networks grew considerably faster than did the railroads. Between FY 1978 and FY 1992, the volume of freight and the number of passengers carried by rail increased only slightly, whereas road-borne freight and the number of air passengers more than doubled. In 1994 transportation policy was aimed at shifting more of the traffic back to the rail system, with a long-term goal of a railto -road freight traffic ratio of 33:67 by 2000. However, it appears unlikely that this target will be met.

In June 1992, the road system covered 179,752 kilometers, of which asphalt roads made up 51.2 percent (see fig. 8). The number of motor vehicles more than doubled during the 1980s. Their number was estimated at nearly 2 million in 1992, including 932,000 motorcycles, 454,000 automobiles, 220,000 tractors, 157,000 trucks and vans, and 37,000 buses. In March 1992, the government approved a five-year Rs73 billion program of road construction and rehabilitation. This plan included building a four-lane 339-kilometer highway between Lahore and Islamabad, scheduled for completion in mid-1995. Road transport is mostly in the private sector, but some passenger and freight services are provided by public-sector corporations.

The railroad system is government owned and covers 8,775 kilometers (see fig. 9). In FY 1992 there were 753 locomotives and 34,851 freight wagons. The system usually runs at a loss. In mid-1992 the most profitable route, that between Lahore and Faisalabad, was privatized. It is expected that the government will attempt to privatize other rail routes, but the Lahore Faisalabad line was renationalized in September 1993 when the private operator failed to make a profit.

**Shipping capacity decreased**

Shipping capacity decreased in the 1980s. The merchant fleet, almost all operated by the Pakistan National Shipping Corporation (PNSC), consisted in 1992 of twenty-two vessels, down from fifty vessels in 1982. Approximately half the fleet is more than fifteen years old and is unsuited to present needs. The PNSC handled 2.74 million tons of cargo in the last six months of 1991, compared with 2.77 million tons during the corresponding period in 1990. In 1992, in line with its privatization policy, the government invited applications for setting up a private shipping sector and promised to operate the PNSC on a commercial basis.

There are two international ports--Karachi and Port Muhammad bin Qasim. In the early 1990s, Karachi handled the bulk of the traffic. During the nine months ending in March 1992, Karachi handled 14.7 million tons of cargo, of which 11.0 million tons were imports and 3.7 million tons exports. This was 4.2 percent more cargo than was handled during the corresponding period of 1990-91. Port Qasim, which is fifty-three kilometers south of Karachi, handled 5.8 million tons of cargo in the first nine months of FY 1992.

In early 1994, the major airline was the government-controlled Pakistan International Airlines (PIA). PIA had a fleet of forty-seven aircraft in March 1993, of which fifteen were wide-bodied Boeing 747s and A300-B4s. The PIA network includes forty-five international and thirty-five domestic airports. There are international airports at Karachi, Islamabad, Lahore, Peshawar, and Quetta. Several small private airlines began operating domestic routes in 1993. One of these carriers, Shaheen Air International, also operates international cargo routes and plans to provide international passenger service in 1994 or 1995.

### Domestic

Rail services in Pakistan are provided by the state-run Pakistan Railways, under the supervision of the Ministry of Railways. Pakistan Railways provides an important mode of transportation in Pakistan. It does large-scale movement of people and freight. The railway network is 8,163 kilometres (5,072 miles) long. Broad gauge is 7,718 kilometres (4,796 miles) of that. There are 293 kilometres (182 miles) of electrified track. The narrow gauge tracks form the remaining 445 kilometres (277 miles). Pakistan Railways also operate special trains for various occasions. The Freight Business Unit, with 12000 personnel, operates over 200 freight stations on the railway network. The FBU serves the Port of Karachi and Port Qasim as well as various other stations along the network. It moves agricultural, industrial and imported products such as wheat, coal, fertilizer, cement, and sugar. The freight rates structure is based on market trends in road transport which is the main competitor to rail transport.

### Metros

The Karachi Circular Railway opened in the early 1940s. It is the only functioning metro in Pakistan. In 1976, Karachi was going to begin work on an underground metro system, but plans were put on hold. The Lahore Metro also serves from Gagu Matta to Shahadara.

### International

Iran — A broad gauge railway line runs from Zahedan to Quetta. A standard gauge line is finished from Zahedan to Kerman in central Iran, linking with the rest of the Iranian rail network. On May 18, 2007, a MOU for rail cooperation was signed by Pakistan and Iran under which the line will be completed by December 2008. Now that the rail systems are linked up at Zahedan, there is a break-of-gauge between the Islamic Republic of Iran Railways standard gauge tracks and Pakistan Railways broad gauge.

Afghanistan — Currently there is no rail link to Afghanistan since no railway network is present in that country. However, Pakistan Rail has proposed to help build an Afghani Rail Network in three phases. The first phase will stretch from the Chaman to Spin Boldak in Afghanistan. The second phase will extend the line to Kandahar. The third phase will eventually connect to Herat. From there, the line will be extended to Khushka, Turkmenistan. The final phase would link 1,676 mm (5 ft 6 in) gauge with Central Asian 1,520 mm (4 ft $11^{7}/_{8}$ in) gauge. It is not clear where the break-of-gauge station will be. The proposed line will also connect the port town of Gwadar via Dalbadin and Taftan, connecting the port town to Central Asia.

China — There is no link with China. However, on February 28, 2007, contracts were awarded for feasibility studies on a proposed line from Havelian via the Khunjerab pass at 4,730 metres (15,520 feet) above sea level, to the Chinese railhead at Kashgar. That is a distance of about 750 kilometres (470 miles).

Turkey — An Istanbul-Tehran-Islamabad passenger rail service was proposed recently. On 14 August 2009, a container train service was launched by the Prime Minister of Pakistan Yousuf Raza Gilani between Islamabad and Istanbul. The first train carried 20 Intermodal containers with a capacity of around 750 t (738 long tons; 827 short tons). It will travel 6,500 km (4,000 mi) from Islamabad, through Tehran, Iran and on to Istanbul in two weeks' time. According to the Ministry of Railways (Pakistan) Ghulam Ahmad Bilour, after the trial of the container train service, a passenger train will be launched. There are also hopes the route will eventually provide a link to Europe and Central Asia, and carry passengers.

**Road**

### National Highways

During the 1990s, Pakistan began an ongoing project to rebuild all National Highways of Pakistan throughout the country to important financial, cargo and textile centers. The National Highway Authority (NHA) is responsible for the maintenance of all national highways in Pakistan.

- The Makran Coastal Highway follows the coast of Sindh and Balochistan provinces. It links the port cities of Karachi and Gwadar. Journey time has been reduced to six or seven hours with the construction of the new Coastal Highway. The highway was built as part of a plan to improve transport facilities in southern Balochistan.

- The Karakoram Highway is the highest paved international road in the world. It connects China with Pakistan across the Karakoram mountain range, through the Khunjerab Pass.

- The Grand Trunk Road (commonly abbreviated to GT Road) is one of South Asia's oldest and longest major roads. For several centuries, it has linked the eastern and western regions of South Asia. It runs from western Bengal, across north India, into Peshawar in Pakistan.

- The Silk Road is an extensive interconnected network of trade routes across Asia. It connects East, South, and Western Asia with the Mediterranean world, including North Africa and Europe. It passes through the mid section of Pakistan through the cities Peshawar, Taxila and Multan.

### Motorways

The construction of motorways began in the early 1990s. The idea was to build a world class road network and to reduce the load off the heavily used national highways throughout the country. The M2 motorway was the first motorway completed in 1998. It links the cities of Islamabad and Lahore. Many new motorways have opened up including the M1 motorway and M3 motorway.

- Total: 257,683 kilometres (160,117 miles)
  - Paved: 152,033 kilometres (94,469 miles) (including 339 km of expressways)
  - Unpaved: 105,650 kilometres (65,650 miles) (2001)
  - Vehicles on road: 4.2 million vehicles 250,000 commercial vehicles (2004 estimate)

**Telecommunication**

In 2008 Pakistan was the world's third-fastest growing telecommunications market. Pakistan's telecom infrastructure is improving dramatically with foreign and domestic investments into fixed-line and mobile networks; fiber systems are being constructed throughout the country to aid in network growth.. The major growth in mobile telephony was triggered by two steps taken by Prof. Atta-ur-Rahman FRS when he was Federal Minister of Science & technology. These were to introduce a "Calling

Party Pays" (CPP) regime under which no charges are paid by the call receiving party on mobile phone calls. The second was the launching of UFone as a government owned mobile phone company that competitive call rates that led to strong market competition. The impact of these two measures has been the expansion of mobile telephony form 0.3 million mobile phones in 2001 to 160 million mobile phones by 2018.

**The Telecommunications Ordinance**

The Telecommunications Ordinance of 1994 created the Pakistan Telecommunication Authority (PTA), Pakistan's first independent telecommunications regulator, and the Pakistan Telecommunication Company Ltd (PTCL), a state-owned monopoly. Due to a lack of competition, local telephone call rates were high and international call rates were even higher. During the 1990s, a call to United States cost $5 per minute (300PkRs per minute), which was not affordable for most of the population. In addition customer service was poor; fixing a problem might take 10 to 15 days. Despite this, consumers had to stick with PTCL, as they had no other options.

This prompted the government to take a series of actions to improve the service by opening the telecommunications market. This was critical, but required a fine balance because opening the market and preserving PTCL were both important for the government.

In July 2003 the government introduced a Deregulation Policy for the Telecommunication Sector,[5] which allowed and encouraged foreign companies to invest in the Pakistani telecommunications market.[3] The centerpiece of the deregulation was the establishment of two categories of basic services licenses: Local loop (LL), for fixed line telecommunication within the 14 PTCL regions, and Long-distance and International (LDI), for connectivity between regions." Two sets of criteria set by the regulatory authorities must be met before an operator is allowed to start operation: one for the issuance of a license and another for the maintenance of service quality. In 2006, Etisalat International Pakistan, a wholly owned subsidiary of Emirates Telecommunications Corporation, purchased a 26% stake in PTCL and assumed management control of the company.

Pakistan's telecommunications infrastructure includes: Microwave radio relay, coaxial cable, fiber-optic cable, cellular, and satellite networks. International links include: landing points for the SEA-ME-WE-3 and SEA-ME-WE-4 submarine cable systems (*AMK) that provide links to Asia, the Middle East, and Europe; 3 Intelsat satellite earth stations (1 Atlantic Ocean and 2 Indian Ocean); 3 operational international gateway exchanges (2 at Karachi and 1 at Islamabad); and microwave radio relay to neighboring countries.

**Perception survey**

LIRNEasia's Telecommunications Regulatory Environment (TRE) index summarizes stakeholders' perception of the regulatory and policy environment and provides insight into how conducive the environment is for further development and progress. The most recent survey was conducted in July 2008 in eight Asian countries, including Pakistan. The tool measured seven dimensions: (i) market entry; (ii) access to scarce resources; (iii) interconnection; (iv) tariff regulation; (v) anti-competitive practices; (vi) universal services; and (vii) quality of service; for the fixed, mobile, and broadband sectors. The survey found that in Pakistan the mobile sector was most active, followed by broadband; while the fixed-line sector remained somewhat static. The parameters that improved compared to the 2006 survey were: interconnection, tariff regulation, regulation of anti-competitive practices, and universal service obligation in the mobile sector; and market entry, interconnection, regulation of anti-competitive practices and universal service obligation in the fixed sector. Market entry received a low score in the mobile sector due to the perception that the cost of a new or renewal mobile license was prohibitive, thus posing a serious barrier to entry. However, this conclusion may have been incorrect, as the license fee, at least in the case of renewal by Mobilink GSM, was paid in installments over a period of three years. Thus, lack of complete information on the part of survey participants may have skewed the results.

**Q.4 i. Identify the means of Communication and describe its process. (20)**

Effective communication is the key to a successful organization. When messages are conveyed clearly, employees are able to better plan, organize, lead and control various aspects of the business. In addition to affecting employees, communication touches external elements of a business, such as customers, partners, suppliers and the media. It's important to understand the basic functions of verbal and written communication in business so you can use them to help your company reach its goals.

**Inform Employees About Job Functions**

One of the key functions of communication is to inform employees about job functions. When team members have a clear idea of what their role entails, and how it relates to the overall objectives of the business, they have more incentive to complete their tasks. When roles are not clearly defined, employees may be more likely to miss their targets because they don't know what is expected of them.

Feedback is also a key element of informational communication in business. Employees gain a better understanding of their performance when they receive frequent feedback from their managers. This helps employees to build on their skills, hone their strengths and fill in the gaps where weaknesses lie. Feedback can also come from customers and partners on products and services and business processes.

Examples of communication that is informative include job descriptions, company-wide targets and performance reviews. An everyday conversation between a manager and a team member about upcoming tasks is also an example of informative communication.

**Persuade Clients and Partners**

In business, communication is often used to persuade prospects, clients and partners to complete a transaction. Whether that's booking a consultation, completing a sale or signing a contract, persuasion is an important aspect of communication that businesses need to master.

Persuasive communication can be verbal, such as an elevator pitch to a new prospect over the phone, or written, such as an ad in a niche magazine for a new product. Persuasive information usually contains an emotional element, which helps the audience to relate to the business. In addition, persuasive communication needs to show the credibility of the company, and how it can help solve the problems the audience is facing.

When it comes to liaising with the media, a company's public-relations professionals use persuasive communication to present specific angles about the organization. This kind of communication can be used to create a certain image for the company or deal with poor publicity.

**Motivate Employees to Make Better Decisions**

Communication is often used strategically in organizations to help employees make better decisions about their day-to-day tasks and their long-term goals as they relate to the business. For example, communication regarding performance incentives can motivate employees to work more efficiently to hit their targets on time.

Motivational communication can also take the form of an employee handbook that specifies what kind of behavior is encouraged in the workplace and what kind of actions should be avoided. While communication can be used to control employees within the workplace, it's a good idea to enable employees to make their own decisions that not only benefit them, but also benefit the company.

**Socialize to Create Bonds**

The way an organization communicates is ingrained in the company's culture. Some companies value open and honest discussions between all levels of the organization, while others prefer communication coming down the chain of command. In either case, communication plays a critical role in helping employees to build bonds.

Socializing with colleagues, managers, clients and partners presents opportunities for people to find common ground and see each other past their job descriptions. When people are able to build relationships with those they work with, they are likely to perform more effectively on the job because they feel a sense of camaraderie and team spirit. Social communication can be verbal, such as a conversation in the lunch room about what took place over the weekend. It can also be written, such as thank-you notes or invitations for events.

**ii What are unique challenges to oral, written and nonverbal communication? (20)**

**Oral communication implies communication through mouth**. It includes individuals conversing with each other, be it direct conversation or telephonic conversation. Speeches, presentations, discussions are all forms of oral communication.

Oral communication is generally recommended when the communication matter is of temporary kind or where a direct interaction is required. Face to face communication (meetings, lectures, conferences, interviews, etc.) is significant so as to build a rapport and trust.

## Advantages of Oral Communication

- There is high level of understanding and transparency in oral communication as it is interpersonal.
- There is no element of rigidity in oral communication. There is flexibility for allowing changes in the decisions previously taken.
- The feedback is spontaneous in case of oral communication. Thus, decisions can be made quickly without any delay.
- Oral communication is not only time saving, but it also saves upon money and efforts.
- Oral communication is best in case of problem resolution. The conflicts, disputes and many issues/differences can be put to an end by talking them over.
- Oral communication is an essential for teamwork and group energy.
- Oral communication promotes a receptive and encouraging morale among organizational employees.
- Oral communication can be best used to transfer private and confidential information/matter.

## Disadvantages/Limitations of Oral Communication

- Relying only on oral communication may not be sufficient as business communication is formal and very organized.
- Oral communication is less authentic than written communication as they are informal and not as organized as written communication.
- Oral communication is time-saving as far as daily interactions are concerned, but in case of meetings, long speeches consume lot of time and are unproductive at times.
- Oral communications are not easy to maintain and thus they are unsteady.
- There may be misunderstandings as the information is not complete and may lack essentials.
- It requires attentiveness and great receptivity on part of the receivers/audience.
- Oral communication (such as speeches) is not frequently used as legal records except in investigation work.

**Q.5 Define national & International Trade and also describes their importance for boosting the Pakistan' economy. (20)**

Trade is categorized by two types of cash flows; exports (which bring in revenue for an economy), and imports (which cost an economy). Exports are products a host country sends to another country and charges a cost, whereas imports are when a host country receives another country's product and services at a cost. This flow of exports and imports is what determines the balance of payments.

Since the turn of this century, opening up economies has been greatly stressed. There are numerous benefits associated with it.

**Employment Generation**

Under international trade, employment greatly increases. An important example of this can be Pakistan under the China Pakistan Economic Corridor's (CPEC) Phase II which has positively contributed towards Pakistan's employment numbers. As the Chinese government invests in Pakistan's industries under key sectors such as energy, infrastructure, agriculture, and IT, more jobs are created for work.

This is because with greater exchange of money (investment) and expertise (skills acquisition) there is a greater chance of newer industries being set up which ultimately boosts local businesses. In this case more jobs are created and more people are hired.

**Innovation is incentivized with international trade**

International trade also creates competition amongst countries, incentivizing innovation. When two or more countries can produce the same product, such as mangoes, then the other countries will only trade with those countries that provide and deliver the same quality of mangoes, in an innovative manner.

Using the same example of mangoes, an innovative way of providing mangoes will primarily mean that it is properly processed and packaged. Premium-level packaging allows the fruit to remain as fresh as possible. However, another country can, for example, develop mango-based products for exporting. In this manner there is incentive to innovate as if the product's demand increases it helps increase the country's revenue through increased sales revenue.

**Economies of Scale & Greater Efficiency**

As a country expands its production to export, its innovative measures allow it to achieve greater efficiency that enables economies of scale. Economies of scale is a phenomenon that occurs when a company increases the scale of production or output, via increased efficiency, resulting in decreased costs. When a country experiences economies of scale, it means it's able to manufacture products or offer services efficiently and can explore new markets for expanding its export base. In this way, exports become cost-effective for the producing country.

**Variety of Goods & Services**

Importance of international trade: Helps create economies of scale. When a country imports, it enables its citizens access to a great number of goods and services, typically not found in that country. An example of this is South Asian mangoes easily available in markets of the Kingdom of Saudi Arabia. On any given day, citizens of the US have over 700 brands of cereal to choose from. It's the same way many people in Pakistan can order authentic internationally-renowned brands that do not have outlets here.

People no longer have to travel to a particular place to acquire taste or buy a product, everything is now easily available everywhere.

The same is true for services such as fast-food outlets like McDonald's, KFC, and Burger King. Moreover, financial services or freelance content writing services are also one of the most common examples of trade that are enabling people everywhere to live comfortably and have a wide range of options to choose from.
However, there is a counterargument to this as experts also question that when countries start to export goods and services rather than producing them on their own, they run the risk of leaving their own people unemployed.

Some experts even argue that this leaves little room for innovation and expansion in the home industries, and leaves economies too dependent on imports. This also disturbs balance of payment, and can adversely affect a country's foreign exchange reserves as well.

Despite this, international trade is important, and it is the government which helps regulate flows of exports and imports to maintain trade balance.

**How does Pakistan trade?**

Pakistan is largely an agro-based economy, therefore it mainly exports agricultural products, such as wheat, rice, vegetables and fruits, and pulses. International trade in Pakistan therefore comprises of exports of agricultural products, and imports of machinery and finished products. Being a major cotton producer, Pakistan exported USD 2.64 billion worth of cotton and cotton products throughout the world during Fiscal Year 2020-2021. Recently, Pakistan witnessed double-digit growth in exports to China, Germany, Netherlands, and Poland. Pakistan's exports to China have grown by more than 30 percent during this time to reach USD 2.33 billion as compared to USD 1.74 billion in the previous FY, marking an increase of USD 586 million. Similarly, exports to Australia have grown by 33 percent to reach USD 281 million in 2020-21.

These are promising figures for Pakistan as they signal economic activity during the pandemic, especially as much of the global economy has considerably shrank. This is primarily due to the industrial base expansion under CPEC which has not only created job opportunities but also introduced modern production methods to maximize output. Moreover, Pakistan has emerged as the biggest international market for freelancers (e.g. writers, graphic designers, web developers, etc.) which is also calculated as an exported service.

In the coming years, it is expected that Pakistan will emerge as a top destination for most of the South Asian region's agricultural produce, and IT-based services.