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SEC: A

ARCHITECTURE AND TOWN PLANNING

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Q1: Point out slums in Peshawar. What steps would you recommend to improve the livelihood of people living in these slums? While suggesting slum improvements keep the current economic and political situation of the government in mind as well as pay careful attention to the context?

Answer:

Introduction:

Peshawar is the capital of the Pakistani province of Khyber Pakhtunkhwa and its largest city. It is the sixth-largest in Pakistan. Peshawar is also the largest Pashtun-majority city in Pakistan. Situated in the broad Valley of Peshawar near the eastern end of the historic Khyber Pass, close to the border with Afghanistan, Peshawar's recorded history dates back to at least 539 BCE, making it the oldest city in Pakistan and one of the oldest cities in South Asia.

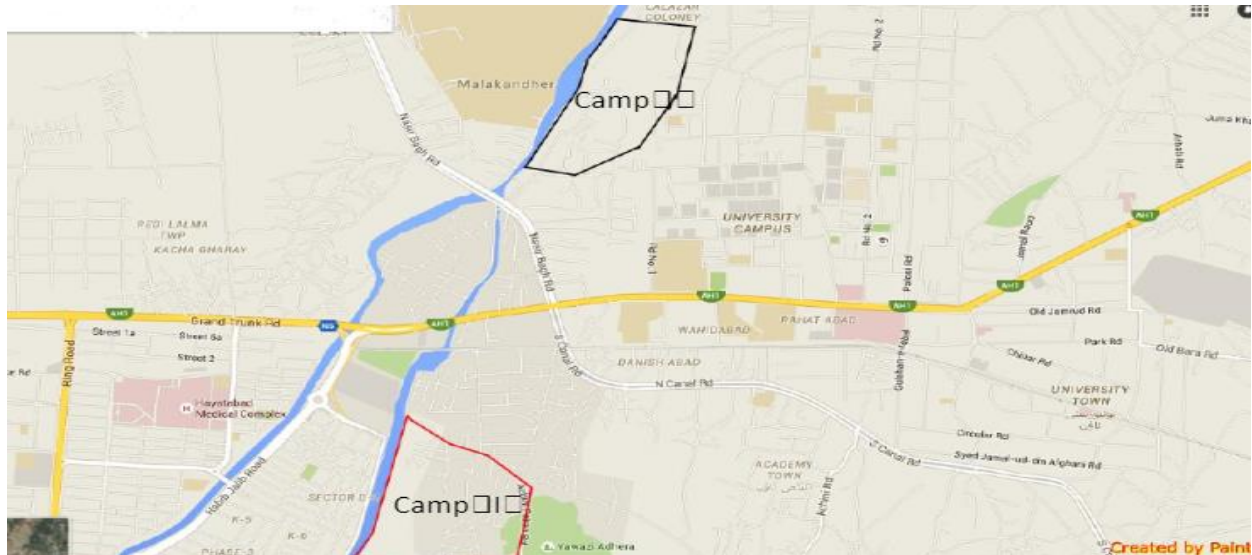
The city of Peshawar has received a bulk of population from various part of Khyber Pakhtunkhwa and toward over population. Low income families have accommodated their selves in the surrounding areas of the city in the form of slums. These include Gharib Abad (camp I) and Gujar camp (Camp II). This has got negative effects on the surrounding as well as on their health. To identify such problems various researchers have suggested various mitigation measures for various environment and health related problems. Such as sanitation, solid waste management, health care, safe water supply etc. Besides, they must have proper access to education, health facilities, transports and other welfare opportunities. Peshawar City is the largest city of Khyber Pakhtunkhwa with 2.02 million populations. Peshawar city district is also the most urbanized district of Khyber Pakhtunkhwa province. The urban population in Peshawar district was 0.98 million (48.69 %) while the rural population in Peshawar District was 1.04 million (51.31 %) according to 1998 census. The total area of the district is 1257 kilometers square. Being as a major business center, most of the people from the surrounding

districts are shifting for jobs, education and health. In 1981 the total population was 1.113 million. This population exceeds 3.6 million in 2014 (Bureau of Statistics, Khyber Pakhtunkhwa)

Problem Statement:

The living conditions in the unplanned slums in the surroundings of Peshawar City may be very unhygienic and congested. It is therefore required to study the present condition of water, Sanitation and hygiene. If these problems were not identified or ignored, it is expected that these problems will be aggravated further and may results health and other environmental problems. Most of the dwellers in these slums are poor and migrants. These People are compelled to live in these areas and may not be in position to afford basic facilities like cleanwater, proper sanitation and other infrastructure facilities & municipal services.

Map Of Slumps In Peshawar:



Methods and Techniques:

1. Criteria for Slums identification:

The criteria for selecting the slums areas is the homogenous nature of socio-economic conditions in the house holds in addition to the poor or non-availability of infrastructure and basic facilities in the neighborhood. So slums areas having similarity in the domestic environment and also having similar local environmental problems. for example 4 lack of drainage system, no solid waste management system, unpaved streets, congested housing and dwellings and poor hygienic conditions.

2. Survey Preliminary survey:

To identify different slum area in the surroundings of Peshawar City District, a preliminary survey was conducted. Two different slums areas (Gharib Abad Camp I and II) were identified and selected from the slums areas.

Slums improvements:

Economic situation:

Peshawar's economic importance has historically been linked to its privileged position at the entrance to the Khyber Pass the ancient travel route by which most trade between Central Asia and the Indian Subcontinent passed. Peshawar's economy also benefited from tourism in the mid-20th century, as the city formed a crucial part of the Hippie trail.

Peshawar's estimated monthly per capita income was Rs55,246 in 2015, compared to Rs117,924 in Islamabad, and Rs66,359 in Karachi. Peshawar's surrounding region is also relatively poor Khyber Pakhtunkhwa's cities on average have an urban per capita income that is 20% less than Pakistan's national average for urban residents.

Peshawar was noted by the World Bank in 2014 to be at the helm of a nationwide movement to create an ecosystem for entrepreneurship, freelance jobs, and technology. The city has been host to the World Bank assisted Digital Youth Summit an annual event to connect the city and province's youths to opportunities in the digital economy. The 2017 event hosted 100 speakers including several international speakers, and approximately 3,000 delegates in attendance.

Open Spaces:

There is no open space planning in any of the surveyed slums. Instead, the spaces used by residents are situated at an average distance of eight kilometres. These long distances prevent the residents from utilizing these spaces. Instead, play grounds are created by children by converting unused spaces which belong to other persons as their recreation grounds.

Education:

Based on the population demographic of the surveyed slums, 42% of the schoolaged boys attend school as compared to only 22% girls attending school⁹. This figure predominantly reflects primary level of education, as majority of the slum children do not make it past this level. The average distance to an education institution was reported as 3.5 km, while the average household monthly expenditure incurred on education is Rs. 1,450. 57% reported distance and transportation, while 30% cited high schooling fees as major impediments in educating their children.

Skills and Employment:

The income generating skills known to the population of the surveyed slums can be generally divided into seven categories, namely services, business management, artisanship, construction work, unskilled labour, highly skilled work, and agriculture.

Health:

Due to high population densities and absence of proper hygiene and sanitation mechanisms, the surveyed slums are prone to high incidence of diseases and health related problems. Of the interviewed households, 74% reported occurrence of various diseases during the last three months. When seeking medical assistance, 84% of the residents seek public health facilities, especially large government hospitals such as Khyber Teaching Hospital and Sherpao Hospital, while 30% also use private facilities. The average cost per visit to a health facility for 85% respondents ranges from Rs. 10 to Rs. 100. While the remaining 15% pay as high as Rs. 500 and above, mostly representing the cost of visiting private clinics.

Housing:

The estimated number of housing units varies from slum to slum. Amongst the surveyed slums, Tajabad had the most (2,000) and Gujjar Camp having the least number (400 to 500) houses.

Most of the plots are sized between three and eight marlas.

Political situation:

The illegal nature of slum residences can provide an opportunity for political contracting and patronage as slum households are likely to require high levels of protection from the law. This protection can be provided by local politicians in exchange for guaranteed

votes in the election. Thus an exchange relationship can be established where the slum dwellers offer votes in return for legal protection and access to public resources. The terms of the exchange would depend on the relative bargaining power of each party. While households with relatively strong bargaining power should be able to extract public investment from the exchange, those with a weaker standing may get little other than protection from eviction.

Q2: Explain the structure and pattern of Islamabad Master Plan. Also mention what could have been done during the planning stage to make this master plan better or mention what was done wrong while planning Islamabad by criticizing it?

Answer:

Introduction:

Islamabad is one of the examples of modern urban planning undertaken shortly after the formation of the new state of Pakistan to serve as its capital city. The Master Plan for Islamabad was prepared in 1960 by considering Islamabad as a part of a large metropolitan area by integrating the city of Rawalpindi as a twin city. These two cities were considered highly dependent to each other in overall urban development. However, the original Master Plan covering the city of Rawalpindi was not put into practice. In fact, different planning and institutional arrangement was set up to develop urban areas in twin cities.

From the last two decades, the economic growth of twin cities accelerated due to development of private housing schemes. However, physically integrated but institutionally disintegrated cities could not match the pace of rapid urban development. The purpose of the paper is to identify different kind of disintegrated areas responsible to create barriers for rapid private housing development in Islamabad and Rawalpindi. The focus of the paper is identifying the weakness of institutional arrangement for both cities to generate discussion. The paper will start with the planning concept of the original Master Plan of Islamabad in 1960s. Then, the research will describe to what extent twin cities were successful for implementing these concepts.

THE MASTER PLAN, 1960:

After independence in 1947, Pakistan realized the need of capital city to serve the new state. Then, Islamabad, a new capital of Pakistan was conceived in 1959, planned from

1959 to 1963 by a Greek architect-planner C. A. Doxiadis, and started implementation in 1961.

The important characteristics considered for planning of Islamabad at that time were as follows:

1. Site Selection:

The site was selected by a process of scientific search tempered by political considerations (Botka 1995). The centre of gravity, network connection such as existing Grand Truck (GT) Road and proposed United Nations Trans-Asian Highway and topographical conditions such as a foothill of Himalayas from 1600-1900 ft. above sea level was considered the main factors for selecting site for Islamabad. Additionally, site was selected by its close proximity to the existing urban area of Rawalpindi. Rawalpindi helped in the development of Islamabad by providing the access to existing transport network, supplying labour for the development and accommodating early inhabitants and offices for Islamabad.

2. Dynapolis:

The original Master Plan of Metropolitan Islamabad was based on the principles of the dynamic metropolis comprised of Islamabad, Rawalpindi and National Park. It was proposed that Islamabad and Rawalpindi will expand dynamically towards southwest along with their centre cores with least possible adverse effects in traffic. It was proposed that all three component of Metropolitan area will be connected by four major highways (1200 ft. wide), Muree Highway (now Kashmir Highway), Islamabad Highway, Soan Highway and Capital Highway, meeting at right angles. Among these four highways, only two highways (Kashmir and Islamabad) were built till now. Doxiadis argued that Islamabad could be differentiate from liner city in term of absence of size, dynamic in nature and its growth in uni direction. Stephenson argued that the size of Islamabad was not mentioned in the original plan because urban dynapolis allow the city to develop according to the requirement.

3. Grid-Iron Pattern:

The city was conceived into grid-iron patterns developed into 2 kilometres by 2 kilometres sectors segregated by the hierarchy of wide principal roads (600 ft.) comprising Islamabad and Rawalpindi area. The sectors were used for distinct land

uses such as residential, educational, commercial and administrative. Pott (1964) shows his disappointment on the rigid grid-iron pattern and straight highways.

4. Transport Network:

The grid-iron pattern of sectors was served by a hierarchically structured road network comprising a width of 1200, 600 and 300 feet intersecting at right angles. Moreover, collector and local roads were proposed to serve the community. Botka (1995) argued that wide is a strong identifying feature of Islamabad. He explained that such a hierarchy and width is best suitable for future traffic growth and high speed traffic movement. That is a reason why revision of Master Plan dismissed the argument of its over-dimensioned. In fact, revisions increased the width of right-of-way of the Capital Highway from 1200 to 1800 ft. Doxiadis planned Islamabad by perceiving high automobile per capita ratio. That's why a wide street was proposed along with 50-100 yard green strips. In reality, Islamabad could not get motorisation for which the city was planned. The other justification for wide highways was its use for future utility corridors such as water, high tension electricity line and gas pipelines.

5. Economic Justification:

There are many opponents of the creation of Islamabad on a fact that Pakistan cannot afford such a luxury that argued that a country which has so few natural resources of wealth and where 80 per cent of the population are illiterate, huge expenditure on Islamabad was unnecessary. Meier explained that Islamabad drain so much capital from the economy of the whole country. Islamabad is more economical rather than investing on Karachi for functional use as a capital. He justified his approach by calculating per square ft. expenditure for creation of Islamabad and for existing capital of Karachi. Additionally, Doxiadis had designed Islamabad in such a way that Pakistan could afford this city by proposing a labour-intensive approach for construction. However, Meier found that this approach slowed the pace of construction for Islamabad as big construction machinery was banned. Similarly, it was argued that new capital of Pakistan should represent all culture and social groups in Pakistan.

6. Institutional Arrangements:

To implement the Master Plan, the National Capital Commission was dissolved and replaced by the Capital Development Authority (CDA) in 1960. CDA was assigned a strong power to plan, implement and control the development of national capital and its wider area of influence. Taylor found that only one qualified architect-

planner, one architect and one town planner from Pakistan was recruited in the early days of Islamabad. All other works were completed by foreign architects and planners. In fact, there was a clear lack of capacity at the early stage to deal with metropolitan planning for Islamabad.

Current Sector Division:

- Series A, B, and C are still underdeveloped.
- The D series has seven sectors (D-11 to D-17) of which only sector D-12 is completely developed. This series is located at the foot of Margalla Hills.
- E Sectors are named from E-7 to E-17. Many foreigners and diplomatic personnel are housed in these sectors. Sectors E-8 and E-9 contain the campuses of Bahria University, Air University, and the National Defence University.
- The F and G series contain the most developed sectors. F series contains sectors F-5 to F-17; some sectors are still under-developed. F-5 is an important sector for the software industry in Islamabad, as the two software technology parks are located here.
- The entire F-9 sector is covered with Fatima Jinnah Park. The Centaurus complex is a major landmark of the F-8 sector.
- G sectors are numbered G-5 through G-17. Some important places include the Jinnah Convention Centre and Serena Hotel in G-5, the Red Mosque in G-6, the Pakistan Institute of Medical Sciences, the largest medical complex in the capital, located in G-8, and the Karachi Company shopping center in G-9.
- The H sectors are numbered H-8 through H-17. The H sectors are mostly dedicated to educational and health institutions. National University of Sciences and Technology covers a major portion of sector H-12.
- The I sectors are numbered from I-8 to I-18. With the exception of I-8, which is a well-developed residential area, these sectors are primarily part of the industrial zone. Currently two sub-sectors of I-9 and one sub-sector of I-10 are used as industrial areas. Zone III consists primarily of the Margalla Hills and Margalla Hills National Park. Rawal Lake is in this zone. Zone IV and V consist of Islamabad Park, and rural areas of the city. The Soan River flows into the city through Zone V.

BAHRIA TOWN:

After the 45 years of original Master Plan of Islamabad, it is well recognized that planning failed to cater the housing needs of large proportion of population (UNDP 2002). It has now become well established that the public sectors have been unable to meet the

growing demand of the population. The attempts from the public sector can only be accessible for small proportion of population. Therefore, it is recognized that at least two Zones should be reserved for private sector to meet the growing demand for housing provision. Under the ICT Zoning Regulation 1992, Zone 2 and 5 was reserved for private housing development in Islamabad. In Zone 2, private sector will be allowed to acquire land and develop residential schemes in accordance with the rigid grid-iron pattern residential sectors planned in Zone 1. However, in Zone 5, private sector can develop housing scheme according to the acquired area of any shape. But, the area should not be less than 100 acres in total. CDA is responsible for the approval of the detailed lay-out plan according to their specified standards. The developer is responsible to provide independent accesses and roads, water supply and primary sewerage treatment systems to their housing scheme.

Drawback In Master Plan:

Islamabad is one of the instances of present day urban arranging attempted not long after the arrangement of the new province of Pakistan to fill in as its capital city. The Master Plan for Islamabad was set up in 1960 by thinking about Islamabad as a piece of a huge metropolitan region by coordinating the city of Rawalpindi as a twin city. These two urban communities were viewed as exceptionally ward to one another in general urban turn of events. In any case, the first Master Plan covering the city of Rawalpindi was not incorporated. Truth be told, distinctive arranging and institutional game plan was set up to create urban zones in twin urban communities. This breaking down caused parcel of issue, among them urban vehicle and lodging are the most eminent one.

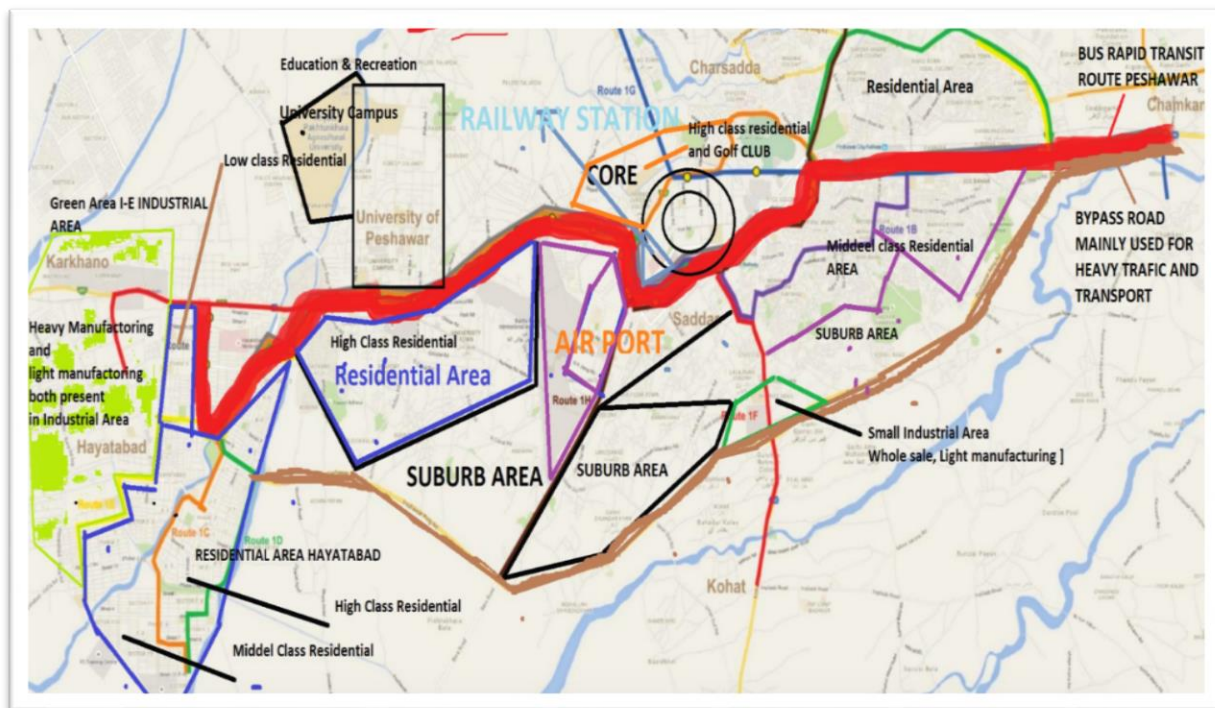
Conclusion:

The implementation of the Master Plans for Islamabad and Rawalpindi prepared by C.A. Doxiadis in 1960, presents a complex picture of achievement and failure. The original Master Plan for Islamabad was based on outstanding urban design by considering whole metropolitan area. The plan was a rigid as well as flexible in nature and well implemented in the new urban areas of Islamabad. However, the plan fails to accommodate existing urban area of Rawalpindi. CDA implement the plan easily in vacant areas but fails to implement the plan where complex situation arise with Rawalpindi. The decision for building Islamabad close to the existing city of Rawalpindi was a very wise one. Similarly to incorporate the urban area of Rawalpindi in the Master Plan for Islamabad is relevant today as well. These decisions immediately helped Islamabad to better start. However, due to absence of proper institutional arrangement, original Master Plan has become weak and problems were appeared.

Q3: Which Land use model best represents Peshawar (i.e. Concentric Zone Model, Sector Model or Multiple Nuclei Model). After identifying Model Type, mark (sketch) all the zones (i.e. CBD, Residential, Industrial etc.) on the map as discussed in the model. Additionally, explain the form of Peshawar city.

NOTE: You can use Peshawar map attached below or Google Map to study and understand the Layout of Peshawar. Print the Map on A4 page and sketch all zones of Land use Model on it. Or you can use paint tool or any other image editing tool to mark zones.

ANSWER:



SECTOR MODEL

- CORE (CIRCLES) is the heart of Peshawar Connecting Different Areas Present almost at middle of Peshawar which is most important area as the Military Setup, high court,

military school/college airport, railway station and every type of residential areas are near to it.

- RED Bold line shows Route of Bus Rapid Transit Touching Every main part i-e Residential areas, Sadler, Railway Station, Airport, Universities and Industrial Area etc.
- The most Developed area having 5 phases present near industrial area is also accessed by different routes.
- Educational and Recreation area having Peshawar, agricultural, engineering university and colleges etc are easily accessible by Bus Rapid Transit which will start in near future and also By road.
- Whereas Brown Line is used for Transport/ Heavy Traffic i-e Peshawar ring Road/ Bypass Road.
- Analysing the above picture we can easily relate to sector model.