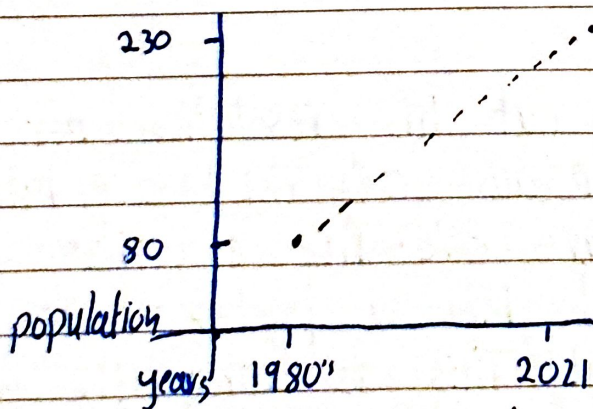


Q) Exuberant Population growth causes fast depletion of natural resources. Explain the statement in light of prevailing situation of Pakistan. Suggest remedies.

Short introduction. It should be of around 7-9 lines.

1) Introduction: The statement is a well established fact supported by evidence from various parts of the world. There is a strong correlation between population growth and faster depletion of resources, and same is the case in Pakistan's context:

2) Pakistan's population growth: Pakistan is witnessing a tremendous surge in its population. The world bank states that the population of Pakistan has risen from 80 million in 1980's to an enormous 230 million in 2021. This massive surge in the past four decades, indicates that soon the natural-resources of the country might not be able to cater to the needs of the increasingly population.



The figure shows the increase in population of Pakistan

3) Depletion of natural resources: The demand of natural resources goes up as the population

of a country rises. The situation is no different in Pakistan. This population proliferation has put an immense pressure on the country's dwindling resources. Following are some of the areas which have been hugely impacted by the population growth.

3.1) Water Crisis: In the last few decades, Pakistan went from a water abundant country to a water stressed country. One of the primary cause of this, is the massive increase in population. The water demand has surged with the increase in population, however the water resources remained static. The growth in population has now come to the point where the demand exceeds the supply, consequently implying that Pakistan is a water-scarce country, as also indicated by the U.N, which reports that demand of water by 2050, will rise upto 274 million acre feet (MAF), while the the supply would remain at 191 MAF.

Highlight the references.

3.2) Sue-gas reserves: The gas reserves are also failing to keep pace with the growing population. Pakistan has long been dependent on the sue-gas reserves situated in Balochistan to meet the gas demand of the country. However, the increasing population and thereby the increase in demand has put a strain on these reserves. The Sui Northern Gas Pipelines Limited (SNGPL), have also raised concerns on the depleting gas reserves and indicated that the country has consumed 66.6% of total gas reserves.

3.3) More demand of electricity: The demand of electricity has also elevated with the increase in population. The problem arises when electricity is produced by burning fossil fuels, which ultimately puts a strain on these natural resources, leading to their scarcity.

3.4) Increased deforestation: The food demand has also risen. The growing population means the demand of food has also increased. However, to meet this demand more area for agriculture is needed, which in turn leads to deforestation and overgrazing, causing soil erosion and further exacerbating the situation. Moreover, since the country already faces scarcity of fossil fuels in some parts, the locals rely heavily on burning wood for energy, ultimately causing deforestation.

Add more arguments.

4) Solutions: The deteriorating crisis and potential risk of suffering from the scarcity of natural resources, which is a predominant issue in the country, can be alleviated by enacting stern measures.

Use detailed and self-explanatory headings.

4.1) Encouraging family planning: There is little to no knowledge or awareness, among the people of Pakistan, particularly the ones residing in rural areas, about family planning. Family planning is long considered as an issue of Taboo in Pakistan, and this is why it is not commonly discussed. However, given the current surge in



Population growth, there is more need now than ever for the government to launch awareness campaigns aimed at disseminating family planning awareness and its significance, in an attempt to curb the growth rate.

4.2) Shift to renewable energy: Pakistan has long relied heavily on fossil fuels to generate energy i.e. electricity. However, the growing energy requirement of the country is depleting the reserves within. The government needs to focus on transitioning the energy production onto renewable methods, such as, solar, hydel etc. These renewable methods can take an immense load of the natural resources.

4.3) Initiate schemes that encourage BOT model of investment in the power sector: In order to curb the shortage of energy due to the growing demand, the government should launch schemes where local and foreign investors are invited to invest in the power sector of the country on the Build operate Transfer] BOT model. The government can give incentives such as free land, less taxes etc to attract more investors. This would help the country in enhancing its power sector and limit the dependency on natural resources such as oil and coal etc.

BOT Model

↓

From the day of investment till the production starts, only interest is paid.

↓

From the day ~~Production~~ begins
 Profit ratio: investor → 85%
 country → 15%

↓

When 50% of the time passes - Profit ratio
 investor → 50%
 country → 50%

↓

When the tenure is completed - Profit ratio:
 investor → ~~0%~~
 country → 100%

Figure: shows how the BOT model is operated.

4.4) Awareness and strict Policies pertaining to environmental degradation:

Practices such as deforestation and over-

grazing that harm the environment, are a by product of shortage of resources and unawareness. The government should initiate awareness campaigns that can educate the ~~local~~ about the consequences of environmental degradation. In addition, the government should also ~~impose~~ stricter policies prohibiting practices such as deforestation.

4.5) Allieviating water crisis: Water crisis, is one of very serious issues that Pakistan faces. The current demand of water, exceeds that of water reserves. This is a serious issue and requires a urgent attention of the government.

4.5.1) Take serious Action against India's illegal construction of rivers:

The Indus water Treaty was signed back in 1960, mediated by the World Bank itself. The treaty allocated exclusive rights to Pakistan using waters from western rivers of Indus system, namely Indus, Jhelum and Chenab, while India was given rights to use eastern rivers, Sutlej, Beas and Ravi. The treaty also prohibits India from constructing any storage dams on the rivers allocated to Pakistan. India, however is violating this treaty by constructing storage facilities

On these rivers, and thereby restricting their water flow in Pakistan. Pakistan should raise this issue on all international forums, ~~Particular~~ Particularly UN, and divert ~~their~~ attention to the repercussions ~~that~~ Pakistan is facing because of India's violation, primarily in the form of water scarcity.

4.5.2) Revamping the country's water system:

The government of Pakistan should take immediate measures to address the issue of water scarcity. Pakistan needs to work on constructing both large and small scale dams, in order to elevate the ~~storage~~ storage capacity. Additionally, the ~~government~~ government ought to revisit the distribution system through canals and improve it in a way that the water wastage is at minimal. Moreover, there is also a great need of state-of-the-art water treatment plants, that can remove impurities from water, rendering it safe for use. The government should also take initiatives to educate the local farmers and teach them modern farming techniques that prevent excessive wastage of water. Such steps will pave way for a water abundant Pakistan.

Date _____ 20 _____

completing Diamer-Bhasha Dam

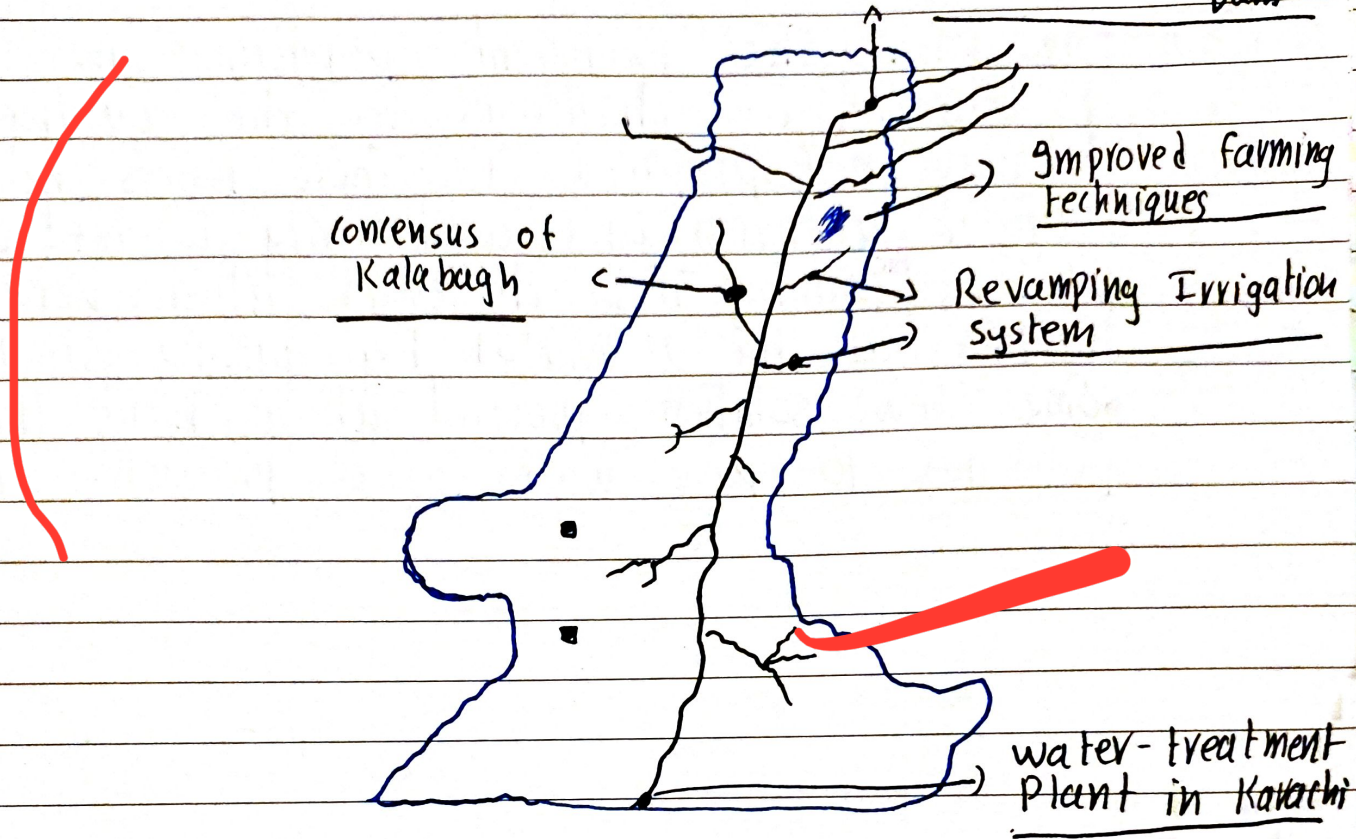


Figure: Comprehensive Road Map to overcome water crisis.

4.6) Supervised Urbanisation: Due to increasing population, the cities are expanding. There are constructions going on the periphery of cities. The rural areas are rapidly integrating in cities. ~~What~~ this does is that it diminishes land for agriculture, which in turn lowers the agricultural yield of the country, ultimately, exacerbating the food crisis. The government should impose strict policies to curb urbanisation. In addition, proper laws should be placed that prohibit construction on agrarian lands.

5) Conclusion: The exuberant population has generated a barrage of challenges to the country, that it was not prepared for. These issues need a urgent attention and could only be left at peril of ^{the} country. These challenges, albeit very daunting, can be allieviated by taking strict actions. The few solutions provided ~~above~~, have the potential to pave ~~way~~ for a prosperous Pakistan.

Improve the structure and presentation a bit.

Add more references

10/20