

Q No 1

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Consider BRT - - - - -

Ans

Risk during construction associated with the technical aspect of the project

The following are points which are more suitable with the BRT peshawar condition from the above technical aspect

• 1) **Extended duration of construction**

It is evident that the longer the period of construction the greater is the probability of occurrence of hazards to which a project is exposed. Construction work on the peshawar metro bus project began in October 2017. A few month later the KP Government announced it would be completed in 6 months followed by another announcement of it was completion in

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one year later however three years have yet to be completed

## 2) Defective design:-

The BRT is when executed in October 2017 then it was from Chamkani to Hayatabad and after some time the design is extended to Karkhanu market and design was changing time to time after construction is going on. The designer have lack of knowledge and they didnot take measurement of buses at the station for passing the bus and repeatedly at several station it was constructed and again changes were made for the road and was design according to new design. At some curves of bridge there were less angles for the turning of buses and redesigned pillars and bridges were made

### 3) Mechanical and electrical break down :-

Site operation are becoming more dependent on plant and equipment the break down of which forms a major risk element. The driver of the equipment which was using was not of the quality and was defective time to time. The machinery was old and the risk of delaying the project occurs. During excavation phase the wires of ptcl and underground wire cable was cut off and the side electric transmission tower was change to the side of the road and was to difficult for people.

### • 4) Ground movement:-

Ground movement could take place from a number of causes including land slides frost heave, earth slips and ground pressure leading to collapse. In

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BRT project during excavation the underground road due to heavy rainfall the earth on the side of excavated area and slope near JB Tower slip down. The soil pressure and compacted again to bring it to the required condition.

### 5) Dangerous substance and item during construction and or commissioning

Dangerous substance and item during construction of BRT Peshawar is all occur due to improper planning and management of this project as nowadays the project is near to completion stage and suddenly the blunder is occurs, noticed at different station and flyover that buses cannot cross smoothly near station as well as at some points the buses not takes turns properly at curves mostly in flyovers so the bridge can be extended and so the

Project completion is delayed due to the problem. Now once again the road side near station and concrete safety wall at flyover along the curves are trimmed to increase the width so the buses can easily drive moved.

### • 6) Inadequate site management:-

The inadequate site management is due to poor supervision and lack of knowledge for the construction work. In BRT hayatabad building depot several times I have experienced that the work is under supervision of internee engineers or B.TEC or diploma holders due to which they always found delay in work progress. The high authority with not do their work properly and have a high percentage of money from contractors.

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• 7) Defective temporary works -  
The defective temporary works are seen in BRT work when the formwork was removed from the flyover then there was seen some empty hole due to poor filling and due to poor formwork its result's cracks. The remove crack by broken down the upper layer and make cement plaster again which they repeat for several time. It can be seen on sides of flyover near hayatabad police station.

8) Quality Control -

The control quality of material can lead the project to meet required design strength. In BRT peshawar quality control is such that the use of reinforcement is more than concrete. This may specified in design phase but due

Over reinforcement - the concrete cannot insert properly or the space b/w bars is less than aggregate size somewhere

⇒ How can we counter the risk associate with technical aspects -

The following are describe that how to counter or manage risk associated with technical aspects

→ Project risk management include the process concerned with the identifying analyzing and responding to project risk

→ It includes maximizing the result of positive event and minimizing the consequences of adverse event

→ Risk Identification:-

Determine which risk are likely to affect

the project and documenting the characteristic of each

• Risk Quantification

Evaluating risk and risk interaction to assess the range of possible project outcome

• Risk response development:- defining enhancement steps for opportunities and response to threats

• Risk Response Control:- Responding to changes in risk over the course of the project

→ The project of BRT is late or more expensive than its actual cost is because of

example  
→ 1 contractor 10000 2nd contractor 8000 .....

the chain goes and work is given to non professional team so work quality and time management is very poor



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• Initial stages of project there were no proper planning and no proper route selected where and what is present on site no one knows it so site environment became poor and every new day's there was a new problem so delay project

→ • Change of government and decision taken (M (KP))

→ • In short the BRT is not suitable in (KP) because the roads have lesser dimension and busy road and traffic is more after/before BRT. The RS from one to other stop is more so to my opinion lower class people cannot use BRT.

Q No 2

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Given : ID/9585200

if event occur, cost of loss will be 88275000 \$

Required :- Identify the risk level in matrix

Solutions-

$$ID = 15264$$

→ Step #1 :-

Annual probability of occurrence of hazardous event

$$= \frac{15264}{9585200} = 0.00159$$

→ Step #2 :-

Select likely hood category of Risk from Table 2.1

$$0.001 < 0.00159$$

which is < 0.01; so category is very unlikely

⇒ Step #3

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To select the category in 2.2 table for consequences category for a risk matrix in monetary amount (US\$)

from table 2.2

$$88275000 > 10,000,000$$

But

$$88275000 < 1,000,000,000$$

So, category is (significantly loss) is Right

⇒ Step #4 To find out the Risk level in risk matrix

so, fig # 2.1

put the value in 2.1 fig, so from given value show that

Risk is "low category"

