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SUB=RISK &DISASTER MANAGEMENT IN CONSTRUCTION

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1. Difference between hazards and threats;

Sometimes, hazard and threat might be used interchangeably. Consider the example of a flock of birds flying close to an aircraft. This flock is both a hazard and a threat.

However, because the concept of a threat is vaguer than the concept of a hazard, a threat is not always a hazard. Consider the example of: migrating birds, which are a hazardous source but not an actual hazard, or fatigue, which is a contributing factor.

The takeaway here is that a hazard occurs (is “actualized”) when your operations interact with hazard sources. A threat is simply a generic way to describe danger, whether the danger has actualized or not.

2.RISK

In simple terms, risk is the possibility of something bad happening.[1] Risk involves uncertainty about the effects/implications of an activity with respect to something

that humans value (such as health, well-being, wealth, property or the environment), often focusing on negative, undesirable consequences.[2] Many different definitions have been proposed. The international standard definition of risk for common understanding in different applications is “effect of uncertainty on objectives”. [3]

Risk classification according to source;

- **Material and equipment risks:**
- Required hardware will not be delivered on time.
- Access to the development environment will be restricted.
- Equipment will fail.

Customer risks:

Customer risk is related to the customer's key success factors for the project. A project is not successful if the customer is not successful with the process. It can be sub-divided as follows:

Customer resources will not be made available as required. Customer staff will not reach decisions in a

timely manner. Deliverables will not be reviewed according to the schedule.

Scope risks:

- A lack of clarity in the scope definition will result in numerous scope creep.
- A lack of clarity in the scope definition will result in conflict in the customer about the scope.
- A lack of clearly defined acceptance criteria will cause delays in acceptance and sign-off.

Technological risks:

Technical risk arises from the capability of the technical solution to support the requirements of the customer. It can be categorized as follows as well:

- The technology will have technical or performance limitations that endanger the project.

- Technology components will not be easily integrated.

Delivery Risks:

Delivery risk is related to the ability of the complete team to deliver against the plan at the cost and schedules estimated, like;

- System response time will not be adequate.
- System capacity requirements will exceed available capacity.
- The system will fail to meet functional requirements. Unpredictable risks:
 - The office will be damaged by fire, flood, or other methods.

- A computer virus will infect the development environment or operational system.

Project management risks:

- The inexperience of the project manager will result in budget or schedule slippages.
- Management will deem this project to have a lower priority for resources and attention.
- The technology is unproved and will fail to meet customer and project requirements.

resource risks:

- Main staff may not be available.
- Key skill sets will not be available when needed.

- Key staff will be lost during the project.
- Subcontractors or vendors will below-perform and fail to meet the milestones.

Question 3;Security valunerabilities of

university campus.A security valunerability of univerty campus is define is a weakness in the security system eg in policy,procedure ,design or implementation,that might be exploited to cause horm or loss life, for students or faculty.for eg these security valunerability occure in the computer programe which the students data may not protected .

these valunerability also occure if security member in the campus are absent and some people can attack on the university.

3. How would you assess the performance of a transportation system of a city?

Accessibility is one of the most comprehensive ways to measure the performance of transportation systems. By considering how many valued destinations can be reached from specific origins, accessibility can reflect how land use and transportation systems work in tandem to connect people to opportunities.

As a result, higher levels of accessibility help metropolitan areas achieve broader objectives, whether reduced car use, increased social equity, or greater economic development. For example, greater accessibility is associated with higher employment rates² and land values.³ Boosting land values in turn provides an alternative and sustainable source of revenue for the transportation investments that help create accessibility in the first place.

From a social perspective, increased accessibility reduces the risks of exclusion⁵ and improves the quality of life of individuals.⁶ On the contrary, lack of affordable transportation options, namely to job opportunities, educational institutions, and social or cultural activities, can be an important barrier to social inclusion. This is especially the case for vulnerable populations who typically experience greater constraints in terms of travel costs and modal options. Furthermore, the lack of access to healthcare services, green amenities, and sport or leisure centers can have adverse impacts on individuals' health and well-being.

Finally, greater accessibility is associated with higher transit use and can help in reducing car use and the resulting greenhouse gas emissions.⁷ Given accessibility's extensive reach and varied impact on the built environment, it increasingly represents a central element in transportation planning efforts.

Yet even with such significant benefits confirmed by extensive academic research, little is known on the implementation of accessibility metrics in transportation practice. In fact, although transportation issues are increasingly framed in terms of access to opportunities,⁹ the implementation of accessibility in policy and practice is generally limited.¹⁰

To better understand the gap between research and practice, this report assesses how metropolitan areas and practitioners around the world have designed and implemented accessibility metrics, identifying barriers and best practices for expansion and improvement.

The core of the report is divided into two sections. The first section presents a critical assessment of how accessibility is incorporated into metropolitan transportation plans and translated into performance indicators around the world. This analysis seeks to identify best practices and provide guidelines on how to effectively use accessibility in planning documents. The second section presents the results of a survey on accessibility metrics conducted among land use and transportation practitioners around the world. The survey aimed at understanding the factors that foster and prevent the use of accessibility metrics by land use and transportation practitioners. This report **contributes** to a greater understanding of practical challenges and successes associated

with accessibility planning and is relevant to policymakers and transportation planners wishing to foster accessibility-based planning approaches.

In the most basic terms, accessibility can be understood as the ease of reaching destinations.¹¹ It is an inherently multidisciplinary concept, contingent on the spatial distribution of destinations (land use) and the ability to move from one place to another (transport).¹² The land use component is related to the spatial distribution of opportunities such as jobs, health services and retail stores. The transport component refers to the physical infrastructure specific to each mode of travel. In addition to transport and land use, accessibility also considers temporal components like opening hours of shops and services.¹³ Accessibility also can consider demographic characteristics such as income and car ownership. Finally, and still in nascent development, accessibility can consider monetary components like transportation pricing, value of land, and operating service and capital costs.¹⁴ While accessibility measurement can vary widely, policy-makers most commonly think of accessibility.

through the lens of location-based measures to comprehensively judge their land use and transport systems at the regional level.¹⁵ Location-based metrics typically account for the number of opportunities that can be reached from a

specific location, based on the travel costs to destinations using a specific mode.¹⁶ Travel costs are generally measured based on travel time or distance.¹⁷ Two location-based measures are commonly used in accessibility research. The first one is the gravity-based measure which discounts all opportunities based on their travel costs. In essence, gravity-based measures give preference for destinations that are closer. The second one is the cumulative-opportunity measure, which only counts the opportunities that are within a specific travel costs threshold. While gravity-based measures better reflect travel behavior—as it accounts for the travelers' perceptions of time—they are more complex to generate and more difficult to interpret and communicate.¹⁸ On the other hand, cumulative-opportunity measures are easy to generate and interpret. Furthermore, these measures are highly correlated with gravity-based measures¹⁹ and represent an adequate measure of regional accessibility.²⁰