# Identification of the risk construction essay



Student already occupied the hostel blocks. The student complained to hostel management about excessive mudflow within the area. Heavy rain recently, the slope collapsed. Huge volume of soil covered and damaged about 20 motorcycles parked below the hill. There are three main parties in our case

# **Employer (hostel management)**

Client is the owner of the project he May be individual or a group of people, Such as someone wishing to build home. The work of client is to explain his need clearly and to pay on time. There may be two type of client government or private. In our case employer is hostel management and employee is contractor.

#### Contractor

The main contractor is the person who will have both communication and contract with employer He is the person who take all the risk and have responsibility of the entire project he Prepare design for employer, complete structure for the employer, Complete building in agreed time, cost and quantity, etc. In our case the work from contractor was completed and approved 8 months before so there was no contract any more.

#### **Students (User)**

Are the people who are using the project. In our case the user will be the Student already occupied the hostel blocks 8 months ago.

#### Identification of the risk

Identifying risk is one of the most important part so we can prepare for the future problem we can face. Risk is defined as the possibility of a loss or

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injury or the possibility of some disadvantages or destruction. System management engineer is concerned with the management of technical risk or the risk associated with the technical aspect of the system life cycle. Broadly speaking, there are two major categories of risk. Internal risk and technical risks. Internal risk are those which are within the control of the project office, external risk are beyond the control of the project office like in our case we cannot control natural disaster (landslide) but we can reduce the damages by creating retaining wall. In our case there are following riskLand slide = a land slide is something which is commonly find in slope area it may happen because of the poor upper layer of the soil. It can be manmade or natural. In our case it is manmade. Loss of property = a large amount of loss can happen because of land slide. Loss not on to hostel building but the building near hostel also can suffer a large amount of loss. Loss of life = A large amount of loos of life can happen because of land slide. So need to find a way to deal with it. General risk consider = there are several are of liability to watch when providing construction management service. It's the work of main contractor to follow rules and take up all the risk while construction. Cost estimate = the cost estimate is made by architect or contractor depending on the type of procurement method. This is the most common problem which arise in construction contract. While doing construction contract there is always risk of people calming so proper documentation should be there with every on to make claim. Jobsite safety = is the responsibility of the person who take the project. He need to make sure no accident happen by following safety rules.

# Safety and responsibilities

#### Risk Assessments

In this we need to determine the risk and find out way to reduce risk. This is one of the best way for safety because we will be prepare for the risk before the thing actually happen so it will reduce the damage. In our case the risk is of landslide which can again happen and this time it can destroy large amount of property and even life but this time we will be prepare for it we will create a retaining wall to stop land slide from happening, we will get first aid kit and prove and alternative way for people to escape in case of land slide.

# **Pre-Planning**

In this we pre – plan things which can happen in future and try to find out way to tackle the negative things which can happen like in our case we can suffer a life or property damage from land slide and the main reason for land slide was heavy rain which recently, made the slope collapse. In technical words it was the hydrostatic earth pressure which made the upper layer of soil weak because of it land slide happen so in our case for pre-planning we will put a retaining wall and provide a drainage system for it to reduce hydrostatic earth pressure and we will also plant trees, plants, etc. which will help to keep upper layer of soil strong because the root of tree will hold the soil which will make soil stronger and ovoid land slide.

#### **Pre-Start Checks**

In this we do a survey and test we check the things we are planning are the right things to do. Like in our case we are planning to put a retaining wall but

what kind of retaining wall we need we need to decide from soil test and by survey that what kind of retaining wall is being used by nearby building.

#### **Site Safety**

Site safety is the way in which we make our site safe for future and present. In our case we are making our site safer by using retaining wall it will help us to avoid land slide. Painting trees will help us to increase the strength of the upper layer of soil.

#### First Aid

Is one the most common thing which can work as life saver in bad situation.

In our case we will provide first aid kit.

# **General Safety Information**

In this we guide the user of building about what are the things they need to do in bad situation like land slide. In our case we told people about the first aid kit and that there is an alternative way If one of way get blocker and we even told them that they don't need to rush or get crazy in bad situation otherwise it will increase the risk.

# Liability

# Contractor (design team) can be sued by students or hostel management

Contractor (design team) (strict liability) is liable because an employee has duty to perform his work with reasonable care and skill (considering landslide and creating retaining wall) and that where he by his negligence cause his employ to be vicariously liable for his tort, he will be liable to his employer for the breach of contract. Defense for contractor is that Student already

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occupied the hostel blocks so the contractor work was finished 8 months before still this defect may be his fault so will fix things in less charges( half amount of money ). Another defense can be contributory negligence because if hostel management find out about the defect then need to tell contractor but they didn't so this mean hostel management was equally responsible for the mudflow.

# Hostel management can be sued by students.

Hostel management (strict liability) is liable because they approved the contract and agree that there is no defect and they moved in 8 months ago so the contract was finished 8 months ago so they cannot ask contractor to fix defeat for no cost. Another liability of hostel management is negligence the student complained to hostel management about excessive mudflow within the area but No visible action was taken because of that there was damage to student property (bikes). The students have a contract with hostel management so it is breach of contract because they damaged the property (bikes) of student on a parking lot. Defense for hostel management is that the employers (Client) are not liable for the tort of independent contractor, the work was done by contractor so they don't know about the defect till the time student told them.

# Migration strategies

There are three mitigation strategies before, after and during disaster

#### Before the disaster

Get a ground assessment of your propertyMinimize home hazards (plant ground cover on slopes, build retaining walls, and in mudflow areas, build channels or deflection walls to direct flow around buildings. {United States Search and Rescue Task Force January 2008})Recognize landslide warning signs: Doors/windows stick or jam for the first time, new cracks appear in plaster or foundations, outside walks, walls, or stairs pull away from buildings, underground utility lines break, bulging ground appears at base of a slope, ground slopes downward in one direction and may begin shifting in that direction under your feet; faint rumbling sound that increases in volume as landslide nears. (Office of Emergency Management April 17, 2009) & (Federal Emergency Management Agency)Make evacuation plans, planning at least two routes allowing for blocked and closed roads. Develop an emergency communication plan and ask an out-of-state relative or friend to serve as the family contact. Purchase land slide insurance.

#### **During the disaster**

Stay inside and get cover under a sturdy piece of furniture. If outdoors. Try to get out of path of mudflow. Run to nearest high ground in a direction away from path. If rocks and other debris are approaching, run for nearest shelter such as a group of trees or a building. If escape is not possible, curl into a tight ball and protect your head. (FEMA, American Red Cross April 10, 2007)Be cautious of sinkholes: Sinkholes occur when groundwater dissolves a vulnerable land surface such as limestone, causing the land surface to collapse from lack of support.

#### After the disaster

Stay away from slide area. Check for injured and trapped persons and give first aid where needed. Listen to battery-operated radios for emergency information. Remember flooding may occur after a mudflow or landslide.

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Check for damaged utility lines and report damage to the utility company.

Check the building foundation, chimney, and surrounding land for damage.

Replant damaged ground as soon as possible since erosion caused by loss of ground cover can lead to flash flooding (Princess Sona, 05/18/2011).

#### Recommendation

Life is more important than property. Risk management can help to reduce and manage the future risk. Planting trees and retaining wall can help to reduce the risk. Following safety and rule is recommended.

#### **Conclusion**

In bad situation even a small thing like first aid kit can help to save life.

Preparation for disaster which can happen in future can help to reduce life and property risk. Some natural disaster cannot be controlled by human.

Human can be the cause the cause of disaster. Landslide is not necessarily the natural disaster it can be manmade e. g. deforestation.