ANNEX 1 WHAT IS RISK?

Risk is the potential effect of uncertainty on project objectives.

Risk management has four essential parts to it: the risk assessment, which includes identification and analysis, or assessment of risks in a project, the subsequent action or response, and finally the evaluation of risks and responses. In other words, in order to manage the risks involved with any project, a risk assessment needs to be carried out to enable you to act on the finding.

The process of risk management is basically a structured way to think about risk and how to deal with it and can be broken down into the progression shown with communication at its core.
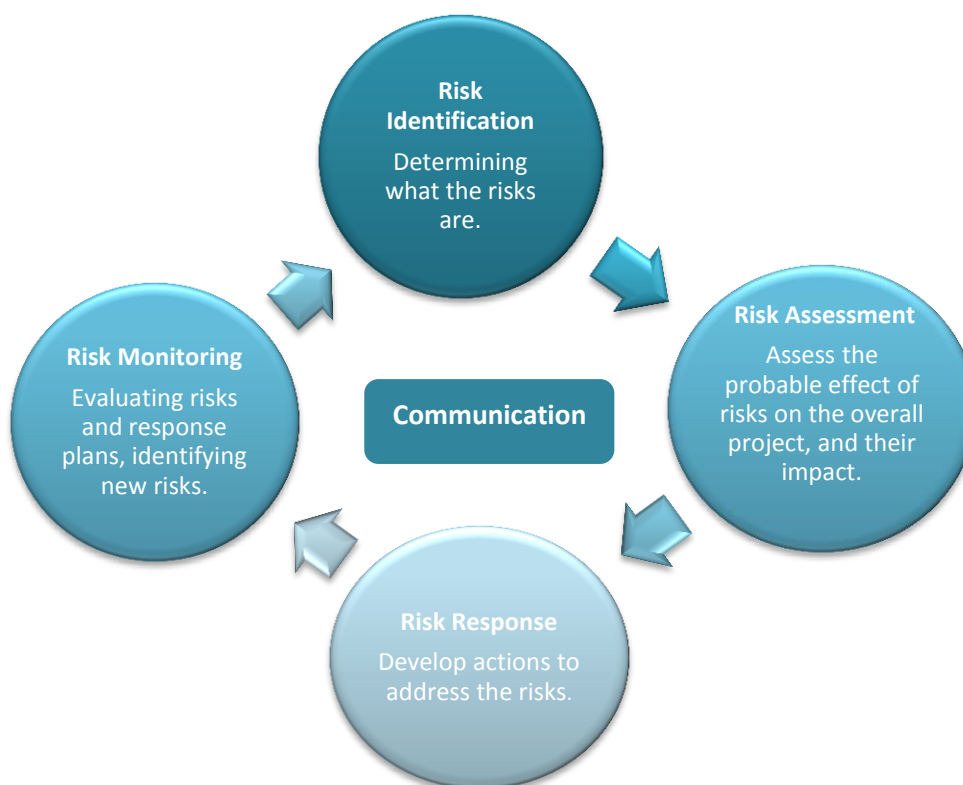

Figure 1: Risk Management Process

For any major project that is to be carried out, understanding the potential risks that might affect the project is an important factor in the initial design and set up. For some larger projects, loans and investments, risk management is complicated, but often even a simple exercise can be carried out to highlight areas of risk and enable better set and management.

Note: What is classed as a major project by the FPC should be decided and approved through the GA.

Below are some steps that can be followed to enable a very simple risk assessment to be done and integrated in to the management of a project.

Risk identification: - identifying and documenting all the risks that can affect the project

These can be either negative or positive. Negative risks can be potentially harmful to the project and will generally be avoided, whereas positive risks are those that are initiated because they might provide a potential opportunity, although this might also have the potential to fail.

Any risks that could affect the project either in a negative or positive way need to be identified and then ideally put into different categories for clarification.

Categories should not be too broad or specific, but appropriate to allow the risk to be identified with ease, they can be either external or internal factors that might have an effect on the project. The categories chosen should be unique to the project itself.

Once risk categories have been identified, specific risks need to be identified from each category. This should be done by the members of the FPC and other stakeholders through brainstorming sessions, focus group discussions or specific interviews e.g. If the project was to build a new school laboratory, it would be useful to interview the science teachers, or the local education officer.

Table 1. Examples of risk categories

Economic/financial	Exchange rate fluctuation
	Interest rates instability
	Market development adversely affect project
Organizational	Poor leadership
	Lack of communication
	No clarity of roles and responsibilities
	Clash of personalities
	Lack of qualified personnel
Technical/operational	Inadequate design and planning
	Unclear expectations
Political	Change of Government
	War
	Interference by politicians
Environmental	Natural disasters
Project management risk	Lack of planning
	Unrealistic schedules
	Delays in the approval of project documents

Each identified risk should be written in a way that describes what the cause of the risk is, what the risk is and what its impact might be on the project, so that appropriate responses can then be given. For example, due to there being no chemistry teacher at the school to advise, there is a risk that the laboratory will not have all the necessary design specifications and therefore the schools expectations will not be met.

The risk identification process needs to continue through the entire life of the project as it evolves over time. Initially risks might involve funding, while later on they might involve more operational aspects such as budgeting and scheduling.

> **Risk assessment**: - determining the probability that risks will occur, estimating their potential impact, and prioritizing risks

Having identified the risks, the next step is to quantify them by:

- Prioritising risks according to their probability and impact
- Identifying the risk tolerance; which risks are acceptable and which needs to be managed.

A risk map or matrix is usually used to help to assess the risks, using a scoring system to identify the likelihood of the risk occurring and the impact that it might have should it occur.

An example is given below of a simple system that could be used.

First define your scoring system, for example

Table 2 Probability of risk

Points	Probability of risk occurring	Definition
3	High	Expected to occur, more than even chance.
2	Medium	Quite possible that it will occur, even chance.
1	Low	Very unexpected and unlikely to occur.

Table 3 Impact significance

Points	Impact of risk	Definition
3	High	Impact can make a significant difference
2	Medium	Impact can make a difference
1	Low	Can have an impact but it is manageable.

Next assign each of your risks a probability and an impact and multiply them:

probability = 1; impact = 3; 3 x 1 = 3

Then add them into your risk matrix.

Table 4 Example of a Risk Matrix

	Probability		
		Low 1	Medium 2	High 3
Impact	**High 3**			

	Medium 2			
	Low 1			

Risk tolerance will have to be established, i.e. what needs to be actively managed, what will be monitored and what is below the tolerance levels.

In this case, where the probability is high and so is the impact, the score would be 9 and this would be considered a major risk and would need to be actively managed. Slightly less of a concern would be risks that were scored at 4 and 6, and these could be monitored and reviewed. Of even less concern would be risks that were assigned values of 1, 2 and 3.

> **Risk response:** - deciding what actions are needed to reduce or remove threats, particularly those with high-probability and high-impact.

If a risk is identified to be above the risk tolerance line, a response or a strategy is needed to address it. Any of the following options might be used as a way to respond to the risk.

Terminate/Avoid – Don't deal with the risk e.g. if the project area was decided to be insecure, then you might choose not to do it in that area.

Transfer – Share the risk by involving stakeholder or other party e.g. by taking out insurance to transfer the risk to the insurance company.

Treatment/Mitigation – Act to reduce the probability and/or impact of a potential risk e.g. adjust or revise certain activities.

Tolerate/Accept – If the risk is below the defined toleration level, you might choose not to take any action.

Once the risk response activities have been selected a risk management plan should be prepared to determine the ways in which the risk responses are put into action and to plan for adequate resources for the risk assessment.

For small projects the risk management plan might be as simple as a documented list of the risks that have been flagged or identified as needing to be actively managed. The list should be kept updated as the project develops.

For larger projects a risk register can be produced which will give much more details. An example is given below:

Table 5 Example risk register

Category	Risk	Current status	Probability	Impact	Score	Response	Who	When
Organizational	Lack of communication leads to mistrust	Actively monitored	2	2	4	Treatment – ensure that meetings take place regularly and minutes are communicated	FPC and FTO	All Year
Operational	Design might not be appropriate due to lack of technical expertise	Resolved	3	3	9	Treatment – consult with an expert from the local education department for technical expertise.	Project Manager	Q1

Risk monitoring: responding to risks as they occur and ensuring proper risk management procedures are being followed, as well as the continual identification of new risks

Regular risk reviews should be carried out throughout the life of the project to identify any new risks that might threaten the project, and also to ensure that the previously identified risks are being appropriately managed. The risk register is a good tool for this, and if developed at the onset of the project then it can be used throughout the project.