2 Risk Quantification

From the risks identified, each is quantified to determine the likelihood of each risk eventuating and its impact on the project and its environment. Each risk is prioritised according to likelihood and impact ratings. Low, medium and high priority risks are clearly marked for attention.

2.1 Likelihood

A relevant scoring system for measuring the 'likelihood' of the risk eventuating is as follows:

Title	Score	Description
Very Low	20	Highly unlikely to occur; however, still needs to be monitored as certain circumstances could result in this risk becoming more likely to occur during the project
Low	40	Unlikely to occur, based on current information, as the circumstances likely to trigger the risk are also unlikely to occur
Medium	60	Likely to occur as it is clear that the risk will probably eventuate
High	80	Very likely to occur, based on the circumstances of the project
Very High	100	Highly likely to occur as the circumstances which will cause this risk to eventuate are also very likely to be created

2.2 Impact

A relevant scoring system for measuring the 'impact' of the risk is as follows:

Title	Score	Description
Very Low	20	Insignificant impact on the project. It is not possible to measure the impact on the project as it is minimal
Low	40	Minor impact on the project, e.g. < 5% deviation in scope, scheduled end-date or project budget
High	80	Significant impact on the project, e.g. 10-25% deviation in scope, scheduled end-date or project budget
Very High	100	Major impact on the project, e.g. >25% deviation in scope, scheduled end-date or project budget

2.3 Priority

A priority for each risk can be presented by identifying the likelihood of the risk's eventuating and its impact on the project. Once the likelihood and impact scores have been allocated, the priority score should be calculated as follows:

- *Priority* equals the average *Likelihood* and *Impact* score
- This is calculated as *Priority = (Likelihood + Impact) / 2*

Given the above data, a rating score for the three risk categories can be established:

ID	Likelihood	Impact	Priority Score	Rating
1.1; 1.2;	20	40	30	**Low**
2.1; 2.2	80	80	80	**High**
3.1	20	40	30	**Low**
5.1; 5.2	40	100	70	**High**
6.1; 6.2	40	80	60	**Medium**
7.1; 7.3	20	80	50	**Medium**
8.1; 8.2; 8.3	20	100	60	**Medium**
9.1; 9.2; 9.3	40	100	70	**High**
10.1; 10.2	40	80	60	**Medium**
11.1; 11.2;11.3	40	80	60	**Medium**

Rating Legend:

Priority Score	Priority Rating	Colour
0 – 20	Very low	Blue
21 – 40	Low	Green
41 – 60	Medium	Yellow
61 – 80	High	Orange
81 – 100	Very High	Red

3 Risk Plan

A Risk Plan must now be created which includes a set of actions to be taken to avoid, transfer or mitigate each risk, based on the priority of the risk assigned.

3.1 Schedule

From the priority rating it is evident that two risks require immediate and continual attention given their status. Consequently, there needs to be:

- *preventative* actions to be taken to reduce the likelihood of the risk's occurring and
- *contingent* actions to be taken to reduce the impact should the risk eventuate

For each risk action identified, a resource needs to be assigned who is responsible for undertaking the action and a date within which the action must be completed. For example:

Rating	ID	Preventative Actions	Action Resource	Action Date	Contingent Actions	Action Resource	Action Date
High	2.1	Review the program to ensure that the positive outcomes provide further opportunities for all stakeholders concerned	Project Sponsor; Project Review Group; Project Manager; Project Office Manager	21.08.10*	Reconsider the requirements after the training has been introduced, Measure any deviation and align the differences to meet the requirements	Project Sponsor; Project Review Group	21.08.10*
High	5.1 5.2	Ensure that all communication and requirements planning; deliverables and scope is aligned with NGO and government legislation and policies and procedures	Project Sponsor; Project Review Group; Project Manager; Project Office Manager	21.08.10*	Reconsider the project's criteria before full implementation occurs. Qualify any deviation and re-adjust business case to include any other deliverables	Project Sponsor; Project Review Group	21.08.10*
High	9.1 9.2 9.3	Ensure that a stakeholder analysis has been undertaken; the communication plan is updated and an assignment responsibility matrix undertaken	Project Sponsor; Project Review Group; Project Manager; Project Office Manager	21.08.10*	Revisit the goals and objectives outlined by the organisation and relevant stakeholder groups to evaluate, treat and review project's objectives	Project Sponsor; Project Review Group	21.08.10*

*Subject to change

The above table should be completed for every risk identified. Higher priority risks should be assigned more comprehensive actions where possible and in consultation with all stakeholders concerned.

4 Risk Process

To ensure that the RMP is effective an understanding of its purpose, procedures and responsibilities is required. Documenting these is sound business practice.

4.1 Purpose

The purpose in developing a risk management plan is to ensure that the organisation's competitive position is not jeopardized and a thorough understanding of the organisation and its processes is obtained internally and where possible externally. This is essential for effective current and future decision making.

4.2 Procedures

The following procedure needs to be put in place as a standard operating procedure (SOP). Specific stakeholders (internal and external to the organisation) and assigned organisational members will govern and monitor this:

1.0 Establish the context – internal and external; defining the project and its environment
2.0 Identify the Risk(s) – what can happen, when and how? Further identification is required
3.0 Analyse the Risk(s) – what existing controls are available? What methods are to be employed (qualification & quantification methods & measures). Further analysis in the form of consequence & likelihood criteria to determine the level of risk is required.
4.0 Evaluate the Risk(s) – set priorities and establish criteria
5.0 Treat the Risk(s) – look at options and continual planning

4.3 Responsibilities

A RMP requires a communication plan to put in place. The plan must have strategic milestones and milestones' relating to SOP so as transparency is provided across the organisation's day to day running. Central to the Communication Plan is a responsibility assignment matrix (RAM). A RAM will be developed to assign responsibility to internal and external stakeholders and organisational members. The RAM will be developed in conjunction with strategic milestones so as stakeholders will receive information that is relevant to their role within the project. Milestones relating to SOP will be also given priority to ensure that organisational members can provide their feedback.

4.4 Relevant RMP documentation

1.0 Stakeholder Analysis – who needs what information; when they needs it and how it is to be provided
2.0 Communication Plan incorporating a RAM – supports the stakeholder analysis and ensures that milestones are being met. The communication plan must be the voice of the organisation as it will assist in updating the organisation's SOP on a regular basis.
3.0 Risk matrices – likelihood and consequence tables leading to impact and priority ratings for ALL risk categories
4.0 Risk Register – to document risk(s) and the steps required as preventive actions and procedures
5.0 Risk Treatment methods – a number of quantification measures are available. Relevant methods will be forwarded for approval on adoption of the RMP.

5 Appendix

Appendix 1.0

Category	Description	ID
Requirements	• The requirements specified do not match the customer's needs • The requirements specified are not measurable	1.1 1.2
Benefits	• The business benefits have not been identified • The final solution delivered does not achieve the required benefits	2.1 2.2
Schedule	• The schedule doesn't provide enough time to complete the project • The schedule doesn't list all of the activities and tasks required	3.1 3.2
Budget	• There is unaccounted expenditure on the project • There is no single resource accountable for recording budgeted spending	4.1 4.2
Deliverables	• The deliverables required by the project are not clearly defined • Clear quality criteria for each deliverable have not been defined	5.1 5.2
Scope	• The scope of the project is not clearly outlined • Project changes negatively impact on the project	6.1 6.2
Issues	• Project issues are not resolved within an appropriate timescale • Similar issues continually reappear throughout the project • Unresolved issues become new risks to the project	7.1 7.2 7.3
Alliances	• The expectations of delivery is not defined • Scope does not meet the expectations defined • Alliance issues negatively impact on the project	8.1 8.2 8.3
Acceptance	• The criteria for accepting project deliverables aren't clearly defined • Stakeholders do not accept the final deliverables of the project • The acceptance process leaves stakeholders dissatisfied	9.1 9.2 9.3
Communication	• Lack of controlled communication causes project issues • Key project stakeholders are 'left in the dark' about progress	10.1 10.2
Resource	• Staff allocated to the project are not suitably skilled / qualified • Insufficient equipment is available to undertake the project • There is a shortage of materials available when required	11.1 11.2 11.3
Technology	• Inadequate technology and service capabilities • Inadequate support capabilities • Others may adopt this project to achieve competitor advantages	12.1 12.2 12.3