**5. Risk Response Planning Risk**

Response typically involves decisions about which risks to prepare for and which to ignore and simply accept as potential threats. The main preparation for a risk is the development of a risk response plan. Such a plan includes contingency plans and logic charts detailing exactly what to do depending on particular events (Mallak, Kurstedt, and Patzak, 1997). For example, Iceland is frequently subjected to unexpected avalanches and has thus prepared a detailed response plan for such events, stating who is in charge, the tasks that various agencies are to do at particular times, and so on. Actually practicing those responses with dress rehearsals is particularly important if the risk is a potentially life‐or‐death emergency.

**Contingency Plan** A contingency plan is a backup for some emergency or unplanned event, often referred to colloquially as “plan B,” and there may also need to be a plan C and a plan D as well, for an even deeper emergency such as an oil spill in the gulf of Mexico, to give a wildly improbable example. The contingency plan includes who is in charge, what resources are available to the person, where backup facilities may be located, who will be supporting the person in charge and in what manner, and so on. In another example, when Hurricane Katrina hit Mississippi and New Orleans in August 2005, Melvin Wilson of Mississippi Power, a subsidiary of 1,250 employees, became “Director of Storm Logistics” for the duration. As a contingency, Mississippi Power subscribes to three weather forecasting services and in this case decided the most severe forecast was the right one. Wilson called for a retreat from the company’s high‐rise headquarters on the beach to a backup contingency office at a power plant 5 miles inland. By noon, the backup power plant flooded and lost power, which was not in the plan, and the cars in the parking lot were floating. A company security van made it through to take the storm team to a third option for a storm center—a service office in North Gulfport that had survived Hurricane Camille in 1969—there was no fourth option. The office was dry but without electricity or running water. The phone lines were down, and cell phones were useless but the company’s own 1,100 cell phones plus 500 extras to lend out had a unique radio function, and that worked. They were the only working communications for the first 72 hours on the gulf coast. The company’s worst‐case contingency plans had never imagined managing a repair crew of over 4,000 from outside. But Wilson became responsible for directing and supporting 11,000 repairmen from 24 states and Canada, feeding and housing them in 30 staging areas including six full‐service tent cities that housed 1,800 each. He had to find 5,000 trucks and 140,000 gallons of gasoline a day to help restore power to 195,000 customers. Within 12 days of the storm, power had been restored to all customers except a few thousand whose lines were too damaged to receive electricity. Clearly, Mississippi Power had not made contingency plans for such an extreme event, but the plans they had made, and the backups to those plans, were sufficient to give a smart team of emergency responders the chance to successfully handle this crisis.

**Logic Chart** Logic charts show the flow of activities once a backup plan is initiated. They force managers to think through the critical steps that will need to be accomplished in a crisis, and provide an overview of the response events and recovery operations. They include decisions, tasks, notifications, support needs, information flows, and other such activities. They are time independent and illustrate the many tasks as well as dependencies and interdependencies that emerge out of the initial response steps, such as: “If X has happened, do this; otherwise, do that.”

**6. Risk Monitoring and Control**

Like risk management planning, monitoring and control are tasks for the parent organization, as well as for the project. If the overall risk management group is not involved along with the project in performing the tasks of recording and maintaining records of what risks were identified, how they were analyzed and responded to, and what resulted from the responses, the records have a high probability of being lost forever when the project is completed (or abandoned). If records are lost or not easily available, the chance that other projects will “learn from the experiences of others” is very low.

It is the job of the risk management group to maintain records for how all projects deal with risks. The group, however, is not merely a passive record holder. It should be involved in the search for new risks, for developing new and better techniques of measuring and handling risk, and estimating the impact of risks on projects. Thus, the group should become an advisor to project risk management teams. It should provide an ongoing evaluation of current risk identification, measurement, analysis, and response techniques. Fundamentally, the group is devoted to the improvement of the organization’s risk management activities.

*Risk management consists of risk planning and identification, qualitative and quantitative risk analysis, risk response, and risk monitoring and control. We deal with risk primarily through such means as decision tables, simulation, and response, which entail identifying which risks will be prepared for and which will be ignored and simply accepted.*

In the next chapter, we use the project plan to develop a project budget. We discuss conflict surrounding the budgetary process. Then we deal with uncertainty, the project’s (and PM’s) constant companion.

**5. Lập kế hoạch ứng phó rủi ro**

Ứng phó rủi ro thường liên quan đến các quyết định về những rủi ro cần chuẩn bị và những gì cần bỏ qua và đơn giản chấp nhận là mối đe dọa tiềm ẩn. Sự chuẩn bị chính cho rủi ro là xây dựng kế hoạch ứng phó rủi ro. Một kế hoạch như vậy bao gồm các kế hoạch dự phòng và biểu đồ logic chi tiết chính xác những gì cần làm tùy thuộc vào các sự kiện cụ thể (Mallak, Kurstedt và Patzak, 1997). Ví dụ, Iceland thường xuyên phải chịu những trận tuyết lở bất ngờ và do đó đã chuẩn bị một kế hoạch ứng phó chi tiết cho những sự kiện như vậy, nêu rõ ai chịu trách nhiệm, những nhiệm vụ mà các cơ quan khác nhau phải làm vào những thời điểm cụ thể, v.v. Trên thực tế, việc thực hành những phản ứng đó bằng các buổi thử trang phục đặc biệt quan trọng nếu nguy cơ là một trường hợp khẩn cấp có thể xảy ra hoặc tử vong.

***Kế hoạch dự phòng*** Kế hoạch dự phòng là dự phòng cho một số trường hợp khẩn cấp hoặc không có kế hoạch, thường được gọi chung là kế hoạch B, và cũng có thể cần có kế hoạch C và kế hoạch D, đối với trường hợp khẩn cấp sâu hơn như sự cố tràn dầu ở vịnh Mexico, để đưa ra một ví dụ cực kỳ khó khả thi. Kế hoạch dự phòng bao gồm ai chịu trách nhiệm, nguồn lực nào có sẵn cho người đó, nơi có thể đặt cơ sở dự phòng, ai sẽ hỗ trợ người phụ trách và theo cách thức, v.v. *Trong một ví dụ khác*, khi cơn bão Katrina tấn công Mississippi và New Orleans vào tháng 8 năm 2005, Melvin Wilson của Mississippi Power, một công ty con gồm 1.250 nhân viên, đã trở thành Giám đốc của Storm Logistics. Như một sự tình cờ, Mississippi Power đăng ký ba dịch vụ dự báo thời tiết và trong trường hợp này đã quyết định dự báo nghiêm trọng nhất là đúng. Wilson kêu gọi một cuộc rút lui từ trụ sở cao tầng của công ty trên bãi biển với một văn phòng bất ngờ sao lưu tại một nhà máy điện 5 dặm nội địa. Đến trưa, nhà máy điện dự phòng bị ngập và mất điện, điều không nằm trong kế hoạch, và những chiếc xe trong bãi đậu xe đang trôi nổi. Một chiếc xe tải an ninh của công ty đã vượt qua để đưa đội bão đến một lựa chọn thứ ba cho một trung tâm bão bão, một văn phòng dịch vụ ở North Gulfport đã sống sót sau cơn bão Camille năm 1969, không có lựa chọn thứ tư. Văn phòng khô ráo nhưng không có điện hay nước máy. Các đường dây điện thoại bị hỏng và điện thoại di động thì vô dụng, nhưng 1.100 điện thoại di động của công ty cộng với 500 điện thoại bổ sung để cho mượn có chức năng radio độc đáo, và điều đó đã hoạt động. Họ là những liên lạc làm việc duy nhất trong 72 giờ đầu tiên trên bờ biển vịnh. Các kế hoạch dự phòng trường hợp xấu nhất của công ty chưa bao giờ tưởng tượng được việc quản lý một đội sửa chữa hơn 4.000 từ bên ngoài. Nhưng Wilson đã chịu trách nhiệm chỉ đạo và hỗ trợ 11.000 thợ sửa chữa từ 24 tiểu bang và Canada, cho họ ăn và ở trong 30 khu vực tổ chức, trong đó có sáu thành phố lều đầy đủ dịch vụ có 1.800 người. Ông đã phải tìm 5.000 xe tải và 140.000 gallon xăng mỗi ngày để giúp khôi phục điện cho 195.000 khách hàng. Trong vòng 12 ngày sau cơn bão, điện đã được khôi phục cho tất cả khách hàng ngoại trừ vài nghìn người có đường dây quá bị hỏng để nhận điện. Rõ ràng, Mississippi Power đã không đưa ra kế hoạch dự phòng cho một sự kiện cực đoan như vậy, nhưng các kế hoạch họ đã thực hiện và các bản sao lưu cho các kế hoạch đó, đủ để cung cấp cho một đội ứng phó khẩn cấp thông minh cơ hội xử lý thành công cuộc khủng hoảng này.

***Biểu đồ logic*** Biểu đồlogic hiển thị luồng hoạt động sau khi kế hoạch dự phòng được bắt đầu. Họ buộc các nhà quản lý phải suy nghĩ thông qua các bước quan trọng sẽ cần phải hoàn thành trong một cuộc khủng hoảng và cung cấp một cái nhìn tổng quan về các sự kiện ứng phó và các hoạt động phục hồi. Chúng bao gồm các quyết định, nhiệm vụ, thông báo, nhu cầu hỗ trợ, luồng thông tin và các hoạt động khác. Chúng độc lập về thời gian và minh họa cho nhiều nhiệm vụ cũng như sự phụ thuộc và phụ thuộc lẫn nhau xuất hiện trong các bước phản hồi ban đầu, chẳng hạn như: Chuyện Nếu X đã xảy ra, hãy làm điều này; nếu không, hãy làm điều đó

**6. Giám sát và kiểm soát rủi ro**

Giống như lập kế hoạch quản lý rủi ro, giám sát và kiểm soát là các nhiệm vụ cho tổ chức mẹ, cũng như cho dự án. Nếu nhóm quản lý rủi ro tổng thể không tham gia cùng với dự án trong việc thực hiện các nhiệm vụ ghi lại và duy trì hồ sơ về những rủi ro đã được xác định , cách chúng được phân tích và phản hồi, và kết quả từ các phản hồi, thì hồ sơ có xác suất cao bị mất mãi mãi khi dự án hoàn thành (hoặc bị bỏ rơi). Nếu hồ sơ bị mất hoặc không dễ dàng có sẵn, khả năng các dự án khác sẽ học được từ kinh nghiệm của những người khác là rất thấp.

Công việc của nhóm quản lý rủi ro là duy trì hồ sơ về cách tất cả các dự án xử lý rủi ro. Tuy nhiên, nhóm không chỉ đơn thuần là người giữ kỷ lục thụ động. Nó nên được tham gia vào việc tìm kiếm rủi ro mới, để phát triển các kỹ thuật mới và tốt hơn để đo lường và xử lý rủi ro, và ước tính tác động của rủi ro đối với các dự án. Vì vậy, nhóm nên trở thành cố vấn cho các nhóm quản lý rủi ro dự án. Nó sẽ cung cấp một đánh giá liên tục về các kỹ thuật nhận dạng, đo lường, phân tích và phản ứng rủi ro hiện tại. Về cơ bản, nhóm được dành cho việc cải thiện các hoạt động quản lý rủi ro của tổ chức.

*Quản lý rủi ro bao gồm lập kế hoạch và xác định rủi ro, phân tích rủi ro định tính và định lượng, ứng phó rủi ro và giám sát và kiểm soát rủi ro. Chúng tôi xử lý rủi ro chủ yếu thông qua các phương tiện như bảng quyết định, mô phỏng và phản hồi, đòi hỏi phải xác định rủi ro nào sẽ được chuẩn bị và sẽ được bỏ qua và chấp nhận đơn giản.*

The risk response planning involves determining ways to reduce or eliminate any threats to the project, and also the opportunities to increase their impact. Project managers should work to eliminate the threats before they occur. Similarly, the project managers should work to ensure that opportunities occur. Likewise, the project manager is also responsible to decrease the probability and impact of threats and increase the probability and impact of opportunities.

For the threats that cannot be mitigated, the project manager needs to have a robust contingency plan and also a response plan if contingencies do not work.

It is not required to eliminate all the risks of the project due to resource and time constraints. A project manager should review risk throughout the project. Planning for risks is iterative. Qualitative risk, quantitative risk, and risk response planning do not end ones you begin work on the project.

**Risk Response Strategies**

The choices of response strategies for THREATS include:

**AVOID:** Focus on eliminating the cause and thus, eliminating the threat.

**MITIGATE:**There are certain risks that cannot be eliminated. However, their impact can be reduced. This is termed as mitigation of risks.

**TRANSFER:**Transfer the risk to some other party. Insurance purchases, warranties, guarantees, etc are examples of risk transfers

**The choices of response strategies for OPPORTUNITIES include:**

**EXPLOIT:**Add work or change the project to make sure the opportunity occurs

**ENHANCE:** Increase the probability and positive impact of risk events

**SHARE:**Allocate ownership of opportunity to a third-party

**A response strategy for BOTH threats and opportunities:**

**ACCEPT:**Passive acceptance leaves action to be determined as needed, in case of a risk event. Active acceptance may involve contingency plans to be implemented if the risk occurs and allocation of time and cost reserves to the project. A decision to accept risk must be communicated to stakeholders.

**Whenever the project manager is responding to threats or opportunities:**

* Execution of strategies must be time-bound
* Effort selected must be appropriate to the severity of the risk
* A single response can be an act of multiple risk events
* A strategy can be selected not only by the project manager but also by the team, the stakeholders and experts

**Outputs Of Plan Risk Responses**

Risk register, project management plans and project documents need to be updated as outputs of Plan Risk Responses.

**Project Management Plan Updates**

Project Management Plan can be updated by new work activities/packages that could be added, removed, or assigned to different resources, thus, making planning an iterative process.

**Risk Register Updates**

* **Residual Risks:** There are risks that remain after completion of risk response planning. Residual risks are those risks that are accepted and contingency plans are developed.
* **Contingency plans:**They describe the specific actions that can be taken if the specific opportunity or threats occur.
* **Risk response owners:**Risks can be assigned to individuals who can develop risk responses and also who will implement risk responses if those opportunities or threats occur.
* **Secondary Risks:**These are those risks which may be created due to the implementation of current risk responses
* **Risk triggers:**The events that trigger the contingency response are risk triggers
* **Contracts:**The contracts issued to deal with risks should be noted in the risk register.
* **Fall back plans:**Specific actions that are taken if contingency plans (or risk response plans) are not effective
* **Reserves (contingency):**Reserves are necessary for both time and cost risk

**Monitor And Control Risks**

The list of actions involved in monitoring and controlling risks are:

* Determine the occurrences of risk triggers
* Identify and monitor residual risks
* Keep risk identification, analysis and monitoring an iterative process in the project
* Evaluate the effectiveness of risk response plan
* Risk status should be collected and communicated
* Monitor the rigor of risk management procedures
* Identify if additional risk responses need to be determined
* Recommend corrective actions
* Look for unexpected effects or consequences
* Update risk management and risk response plans
* Perform variance and trend analysis
* Use contingency reserves and adjust for approved changes

**WORKAROUNDS:**These are unplanned responses developed to deal with the occurrence of unanticipated events or problems on a project.

**RISK REASSESSMENTS:** The process of periodically reviewing the risk management plan and risk register and adjust the documentation as required is termed as risk reassessment.

**RISK AUDITS:**Risk audits helps the project manager prove that all the risks are identified, a plan of mitigation for each major risk is available and risk response owners are prepared to take action.

**RESERVE ANALYSIS:**While the work is being done, reserve analysis is simply checking to see how much reserve remains and how much might be needed.

**STATUS MEETINGS:**Risks should be a major point of discussion in all team (project status) meetings

**Outputs Of Monitor And Control Risks**

**The outputs are:**

* Risk register updates
* Change requests, recommended preventive and corrective actions
* Project management plan updates
* Project document updates
* Organizational process assets updates

Link:<https://www.greycampus.com/opencampus/project-management-professional/plan-risk-responses>

**How to Create a Risk Response Plan**

Project risk management is what separates good [project managers](http://www.projectengineer.net/how-to-become-a-project-manager/) from great ones. Even when everything has been planned and executed to perfection, an unexpected event can cause considerable duress on the project stakeholders and even cause the project to be considered a failure.

Risk management is a three step process:

1. Risk Identification
2. Risk Analysis
   * Qualitative Analysis
   * Quantitative Analysis
3. Develop Risk Response Plans

## **Risk Response Plan Example**

In the above risk register, Risk #2 is the most important risk, followed by Risk #1 and lastly Risk #3. The necessity of risk response plans is a judgment call dependent on the severity of the risks. Maybe none of the risks need a response plan. But most of the time it is prudent to include at least one. Let’s develop a risk response plan for Risk #2.

1. Determine trigger condition: What defines bad weather? Who decides it is bad enough?

***“Trigger Condition: The site foreman drives the haul road each morning and decides whether the haul road is safe for haul trucks”***

1. Decide which risk response type to use:  Avoid, transfer, mitigate, or accept.

***Mitigate by re-assigning the haul trucks to move other materials down the highway.***

1. Develop the response plan:  Utilize the checklist above. It must be:
   1. Cost effective
   2. Scaled to the magnitude of the risk
   3. Agreed upon by stakeholders
   4. Achievable.

***“The project manager will mitigate the impact of the lack of production by re-assigning the haul trucks to haul other materials that need to be moved but can be moved down the paved highway.”***

Note that this response falls into the category of risk mitigation, not avoidance, because there is no change to the project’s scope, schedule, or objectives. Avoidance would be creating a condition whereby the haul road does not have to be used anymore.

## **Risk Communication**

Communication during a crisis can be more important than the response itself.  Therefore, because the strength of the response to an unexpected event is often judged on communication, it is important that the risk register and response plans be communicated to the applicable stakeholders.

Because of this, the risk register and response plans should be communicated to the appropriate stakeholders in advance, i.e. during project planning.  Then, when an unexpected event occurs the stakeholders will not only be more supportive of the response, but the final judgment will be much more favorable.  The project manager will be off to a running start.

## When you Need a Risk Response Plan

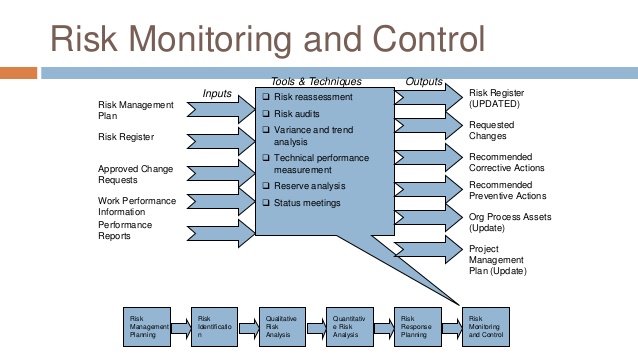
A proper risk management plan does ***not*** need to include response plans for all risks within the risk register.  The risk register contains all risks that are significant enough to warrant tracking and monitoring.  It is not feasible nor necessary to develop response plans for every one.

All risks fall within a continuum.  On the one extreme it does not affect the project enough to warrant tracking and monitoring.  In the middle, the event should be tracked and monitored but response plans do not need to be developed in advance.  And on the other extreme, the risk is substantial enough that a response plan needs to be developed.

Generally, risk response plans are required for risks that are high in both probability and impact.  For example, a nuclear power repair project might have response plans developed for radiation exposure events.

Link: <https://www.projectengineer.net/how-to-create-a-risk-response-plan/>

Link: <https://faculty.kfupm.edu.sa/CEM/alkhalil/PDF_CEM_516/L07%20Risk%20Monitoring%20&%20%20Control.pdf>



**PRESENTATIONS**

## **\*\*\*** Risk Consequences

1. ***Low Probability / Low Impact:***  These risks are low on the priority scale, and some of them can be removed from the risk register if there is little value in focusing on them any longer.
2. ***High Probability / Low Impact:***  These risks are essentially minor annoyances but their frequency means that actions should be taken to reduce their occurrence.
3. ***Low Probability / High Impact:*** These risks generally need to be analyzed to ensure they do not occur.  Any road blocks or potential trigger factors should be addressed during project planning to reduce their likelihood of occurrence to zero, or as close to zero as possible.  An example is the previously mentioned nuclear reactor maintenance project, where the chance of nuclear radiation leak is already low but it would be prudent to attempt to find and eliminate even the small potential trigger points.
4. ***High Probability / High Impact:***When these risks exist, they are usually known to the stakeholders and an integral part of the decision to initiate/fund the project.  An example is potential traffic impact risk on a large freeway paving project.  However, if the risk analysis step turns up one of these which is not necessarily known to the project sponsor(s) or stakeholders, communication is essential.  Usually these types of risks can pose serious, even existential, threats to the project, therefore they almost always require action on the part of the project manager during project planning to make sure stakeholders understand the project risks.

**V/ RISK RESPONSE**

**What is:** is the process of developing options, and determining actions to enhance opportunities and reduce threats to the project’s objectives. It follows the Qualitative Risk Analysis and Quantitative Risk Analysis processes. It includes the identification and assignment of one or more persons (the “risk response owner”) to take responsibility for each agreed-to and funded risk response. Risk Response Planning addresses the risks by their priority, inserting resources and activities into the budget, schedule, and project management plan, as needed.

The risk response planning involves determining ways to reduce or eliminate any threats to the project, and also the opportunities to increase their impact. Project managers should work to eliminate the threats before they occur. Similarly, the project managers should work to ensure that opportunities occur. Likewise, the project manager is also responsible to decrease the probability and impact of threats and increase the probability and impact of opportunities.

*Note:*

For the threats that cannot be mitigated, the project manager needs to have a robust contingency plan and also a response plan if contingencies do not work.

It is not required to eliminate all the risks of the project due to resource and time constraints. A project manager should review risk throughout the project. Planning for risks is iterative. Qualitative risk, quantitative risk, and risk response planning do not end ones you begin work on the project.

<https://www.projectengineer.net/how-to-create-a-risk-response-plan/>

The purpose of this process is to ensure that each of the identified risks on the Risk Register has appropriate actions or plans to mitigate or avoid a risk before it happens or to provide a response when a risk occurs and turns into a project issue.

When you Need a Risk Response Plan

A proper risk management plan does not need to include response plans for all risks within the risk register. The risk register contains all risks that are significant enough to warrant tracking and monitoring. It is not feasible nor necessary to develop response plans for every one.

All risks fall within a continuum. On the one extreme it does not affect the project enough to warrant tracking and monitoring. In the middle, the event should be tracked and monitored but response plans do not need to be developed in advance. And on the other extreme, the risk is substantial enough that a response plan needs to be developed.

Generally, risk response plans are required for risks that are high in both probability and impact. For example, a nuclear power repair project might have response plans developed for radiation exposure events.

## Parts of a Risk Response

* Cost effective relative to the significance of the risk
* Scaled to the magnitude of the risk
* Agreed upon by the applicable project stakeholders
* Achievable and realistic

## How to Response

**Negative Risk Response Strategies**

* Avoidance - The project plan is altered to avoid the identified risk.
* Mitigation - Effort is made to reduce the probability, impact, or both of an identified risk in the project before the risk event occurs.
* Transference - The risk is assigned to a third party, usually for a fee. The risk still exists, but the responsibility is deflected to the third party.

**Positive Risk Response Strategies**Tools and Techniques for Risk Response Planning; it’s important to know how to handle both positive and negative risk.

* Exploit - Used in conjunction with positive impacts where the host organization wants to ensure the positive risk definitely happens.
* Share - 3rd party partnerships that include forming risk-sharing partnerships, teams, special-purpose companies, or joint ventures, which can be established with the express purpose of managing opportunities.
* Enhance - Seeks to facilitate or strengthen the cause of the opportunity, and proactively targeting and reinforcing its trigger conditions, to potentially increase probability.

**VI/ MONITOR AND CONTROL**

**What is:** Risk monitoring and control is the process of identifying, analyzing, and planning for newly discovered risks and managing identified risks. Throughout the process, the risk owners track identified risks, reveal new risks, implement risk response plans, and gage the risk response plans effectiveness. The key point is throughout this phase constant monitoring and due diligence is key to the success.

<https://faculty.kfupm.edu.sa/CEM/alkhalil/PDF_CEM_516/L07%20Risk%20Monitoring%20&%20%20Control.pdf>

The list of actions involved in monitoring and controlling risks are:

* Determine the occurrences of risk triggers
* Identify and monitor residual risks
* Keep risk identification, analysis and monitoring an iterative process in the project
* Evaluate the effectiveness of risk response plan
* Risk status should be collected and communicated
* Monitor the rigor of risk management procedures
* Identify if additional risk responses need to be determined
* Recommend corrective actions
* Look for unexpected effects or consequences
* Update risk management and risk response plans
* Perform variance and trend analysis
* Use contingency reserves and adjust for approved changes

