This reading aims to present the basic concepts of risk management as a basis for understanding the tools and techniques that will be presented throughout the course.

Risk management is a project management knowledge area, whose objective is to “increase the probability and/or impact of positive risks and to decrease the probability and/or impact of negative risks, in order to optimize the chances of Project success.”

Uncertain events that, if they occur, have a positive effect on one or more Project objectives are called positive risks or opportunities and uncertain events that, if they occur, have a negative effect on one or more Project objectives are called negative risks or threats.

Risks should not be confused with problems. A problem is a materialized risk, i.e., an event that is certain, has already happened, and is negatively affecting the achievement of the Project’s objectives. Problems are managed in a reactive manner and always involve a loss for the Project, while risks are managed proactively and may imply additional gains for the Project.

**BENEFITS OF RISK MANAGEMENT IN DEVELOPMENT PROJECTS**

The following benefits regarding risk management in development projects (RMDP) should be highlighted:

1. **It Improves Project Planning.** Risk management involves incorporating uncertainty into Project planning, i.e., recognizing that there are future events that may affect the achievement of expected results and impacts and including adjustments to address these uncertain events. Therefore, risk management helps strengthen Project planning and minimizes the need to make significant changes in the scope, cost, schedule (delays), and quality of Project deliverables during execution.

2. **It Strengthens the Design of the Project Execution System.** RMDP entails, among other things, identifying in advance whether there are any aspects of the environment or the organizations involved that may affect Project execution. This allows for making timely decisions on how to adapt the Project execution system to the peculiarities of the country/sector and of the organizations that will execute the operation.

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1 A knowledge area represents a complete set of concepts, terms, and activities that make up a professional area, a project management area, or an area of expertise. [...] Knowledge areas are: Project Integration Management, Project Scope Management, Project Schedule Management, Project Cost Management, Project Quality Management, Project Resource Management, Project Communications Management, Project Risk Management, Project Procurement Management, and Project Stakeholder Management. A Guide to the Project Management Body of Knowledge (PMBOK Guide) / Project Management Institute, Sixth Edition.

2 Taken from the definition of risk of the PMBOK Guide, Sixth Edition.

3 The Project’s management objectives are the scope, schedule, cost, and quality defined for the Project before starting project execution. They should not be confused with the Project’s development objectives. Development objectives are always scope or quality objectives and, therefore, are a subset of the management objectives.

3. **It Encourages the Efficient Use of Project Resources.** RMDP involves an early identification of Project resource needs or excesses, which allows for optimizing resource allocation during the operation’s life cycle. Preventive management strategies usually cost less than reactive management that is based on solving problems as they arise during execution. Therefore, allocating resources to risk management should also be considered an investment that has the potential to generate savings for the Project. Lastly, RMDP entails appropriately identifying and managing not only negative risks or threats, but also positive risks or opportunities. This generates greater value than had been originally planned, employing the same resources.

4. **It Improves Decision Making and Encourages Proactivity and Accountability Among Team Members.** Risk management provides better knowledge of the factors that may affect the achievement of the Project’s expected results and impacts, as well as their order of priority, which strengthens decision making. Risk management also encourages Project Team members to anticipate future events and decide who will be responsible for their management. This creates a work culture based on proactivity and accountability.

5. **It Increases Stakeholders’ Trust in the Project.**

   Transparent, timely, and effective communications regarding Project risks aligns the expectations of all stakeholders as of the Project’s inception. Preparing a response plan for possible contingencies also provides assurances and instills confidence regarding the achievement of the Project’s objectives.

**RISK MANAGEMENT PROCESSES**

Risk management has seven (7) processes, of which five (5) involve Planning, one (1) Execution, and one (1) Monitoring.

A. **Plan Risk Management.** It is the process of defining how to conduct risk management activities in a project.

B. **Identify Risks.** It is the process of determining which risks may affect the Project and documenting their characteristics.

C. **Perform Qualitative Risk Analysis.** It is the process of prioritizing risks for further analysis or response action by assessing and combining their probability of occurrence and impact.

D. **Perform Quantitative Risk Analysis.** It is the process that estimates the Project’s level of exposure to risk, by numerically analyzing the combined effect of identified risks on overall Project objectives.

E. **Plan Risk Responses.** It is the process of developing options and actions to improve opportunities and reduce threats to Project objectives.

F. **Implement Risk Responses.** It is the process of executing agreed-upon responses as planned.

G. **Monitor Risks.** It is the process that updates risk information to enable the Project team to make the right decisions.

Each of the risk management processes will be explained throughout this course, with the exception of quantitative analysis, since its use is limited in most development projects and it depends on computational analysis tools.

**PROCESS STRUCTURE**

A process is a set of interrelated or interacting activities that use inputs to deliver an intended result that may be tangible (products) or intangible (information).

Risk management processes transform input information through analysis tools and techniques to improve

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7 The PMBOK recommends preparing a Risk Management Plan for each project, which defines the methodology to be followed (data sources, tools, etc.), roles and responsibilities, timing of management processes throughout the project, risk categories, and the Probability and Impact Matrix, among others. However, so as to be able to compare risk management results among projects, the IDB chose to define the methodological framework and risk management procedures in several Guides (including this one) that are standardized and applied to all projects in the portfolio. Therefore, this planning process is not explicitly mentioned in the rest of the Guides because these Guides, as a whole, are a standard Risk Management Plan for the IDB’s portfolio.
Each risk management process takes information from the previous process, analyzes it, and transforms it, progressively improving the analysis of the uncertain event until sufficient information is available to make a decision. Each decision will, in turn, be the input of a new process of analysis, planning, action, and control.

This risk management is iterative and it is one of the critical success factors introduced below.

**RISK MANAGEMENT’S CRITICAL SUCCESS FACTORS**

To optimize a project’s chances of success, risk management processes must be carried out taking into account certain quality elements called critical success factors, among which we can highlight the following ten (10), which we will be focusing on throughout the course:

1. Risk management is intrinsically iterative
2. Risk management requires organizational
3. Risk identification must be thorough
4. Risk identification must have multiple perspectives
5. Risk statements must be complete
6. Risk analysis must be objective
7. Risk identification must explicitly disclose opportunities
8. Risk identification must be performed early
9. Risk management must be integrated into project management
10. Risk identification must be emergent

**MAIN POINTS OF THIS READING**

- A risk is not a problem but an uncertain event.
- A risk can have a positive or negative impact on the Project.
- Risk management comprises seven (7) management processes.
MAIN TERMS AND DEFINITIONS IN THIS READING

+ **Input.** Any item, whether internal or external to the project, which is required by a process before that process proceeds. It may be an output from a predecessor process.

+ **Objective.** A goal toward which work is to be directed, a strategic position to be attained, a purpose to be achieved, a result to be obtained, a product to be produced, or a service to be performed.

+ **Output.** A product, result, or service generated by a process. It may be an input to a successor process.

+ **Perform Quantitative Risk Analysis.** The process of numerically analyzing the effect of identified risks on overall project objectives.

+ **Process.** A systematic series of activities directed toward causing an end result such that one or more inputs will be acted upon to create one or more outputs.

+ **Product.** An artifact that is produced, is quantifiable, and can be either an end item in itself or a component item. Additional words for products are “material” and “goods.”

+ **Program.** Related projects, subsidiary programs, and program activities that are managed in a coordinated manner to obtain benefits not available from managing them individually.

+ **Project.** A temporary endeavor undertaken to create a unique product, service, or result.

+ **Project Life Cycle.** The series of phases that a project passes through from its start to its completion.

+ **Project Management.** The application of knowledge, skills, tools, and techniques to project activities to meet the project requirements.

+ **Project Management Knowledge Area.** An identified area of project management defined by its knowledge requirements and described in terms of its component processes, practices, inputs, outputs, tools, and techniques.

+ **Project Risk Management.** It includes the processes concerned with conducting risk management planning, as well as the identification, analysis, response planning, response implementation, and monitoring of risk on a project.

+ **Risk.** An uncertain event or condition that, if it occurs, has a positive or negative effect on one or more project objectives.

+ **Technique.** A systematic procedure defined and employed by one or more persons to perform one or more activities in order to generate a product or result or provide a service. It may use one or more tools.

+ **Tool.** Something tangible, such as a template or software program, used in performing an activity to produce a product or result.

*Reading created in-house, based on A Guide to the Project Management Body of Knowledge (PMBOK® Guide) / Project Management Institute, Sixth Edition.*