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**RISK MANAGEMENT CONCEPT AND ITS  
EFFECTIVENESS FOR A MILITARY ORGANIZATION**

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**Abstract:**

*Risk evaluation and its mitigation is very important aspect in resources management. It is more significant in Military environment due to scarce resources and less reaction time for switching over to new substitutes. Successful planning invariably includes strong risk management strategies. In Military set ups, precise and accurate decisions are mandatory because failure of campaign may cause vulnerable and even unrecoverable losses to nation and country. Leadership is not about glorious crowning acts rather it's about making right decisions, keeping all anticipated risks in view, especially when stakes are high and consequences really matter. Caring risks means guarding objectives, sailing smoothly with and through challenging obstacles and most significantly, projecting Military organization with safety, as its cultural asset. The aim is to help commanders to accurately assess risks in Military environment in an incremental and comprehensive way. c 2018. Created by Wing Commander Aurangzeb Sipra. Peer-review under responsibility of the DRESMARA, Brasov (Romania). Keywords: Mitigation, successful planning, accurate decisions, unrecoverable losses, consequences, challenging obstacles, cultural asset.*

*Key words: public health, management, human resources, hospital, mono-specialty*

## **1. Introduction**

A risk is the product of probability of an event happening and its consequences. To economists, risk is described as the survival of ambiguity about potential consequences. Risk is a probable future event that will prohibit the project from achieving its goals and objectives within cost, schedule and performance constraints. So risk may be defined more simply as, the effect of uncertainty on achievement of objectives. The impact can be either positive or negative. Risk management is a strategy to assess associated risks with activities or events and further planning for the worst-case scenario. Risk management makes managers more conversant into the project activities, improve decision making opportunities and facilitate them to achieve goal of the project. Identification of all material risks, followed by development, implementation and management of mitigation strategies, thus drive these risks down to acceptable levels, or retire these completely.

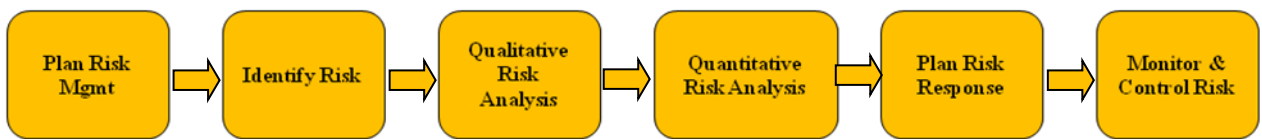
Operational Risk Management is a logic-based approach to decide correctly on human, material and environmental factors before, during, and after operations. Commanders thus become able to maximize operational capabilities, while minimizing risks. ORM increases mission effectiveness at all levels, while preserving resources. However, key to achieve this is to be pro-active. Risk Management means to have more information during planning phases that subsequently becomes a helping tool in designing the most appropriate strategy. However, there is drawback, like the feeling prevails that all risks have been

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considered and appropriately tackled. Scarcity of funds may also become an issue for the project due to spending resources to cover risks.

## **2. Risk Management Processes**

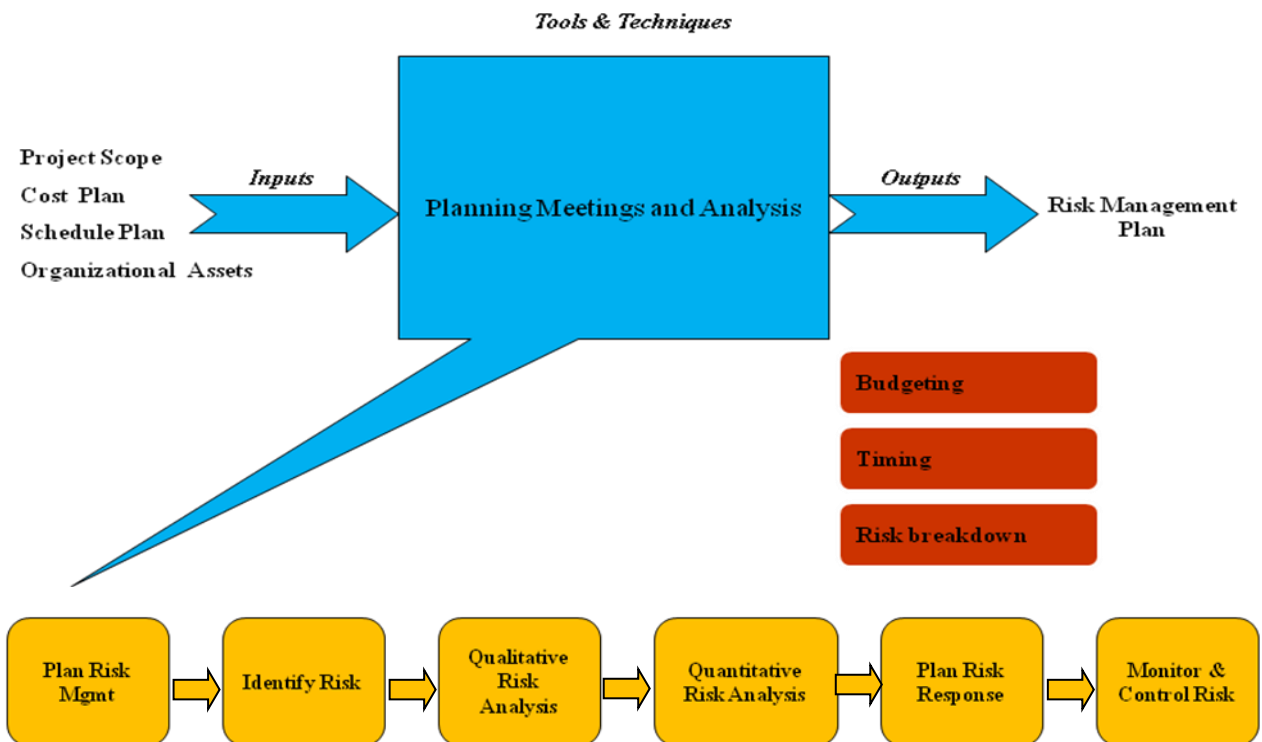
Pro-active risk management improves the success of a project or mission. First step in ORM is to identify the linked risks. Second step is to decide best tool to evaluate the impact of risks, either through qualitative or quantitative analysis. Next is to plan strategies followed by designing strong risk monitoring method. Modern risk analysis methodologies start with identification and evaluation of assets, followed by measurements of threats likely to occur with related vulnerabilities. Finally risk is estimated as combinations of identified assets, threats and vulnerabilities to propose appropriate countermeasure.



**Fig. 1**

### **2.1 Planning Risk Management**

In planning phase, project scope, organization might and available atmosphere are used as input. All these information are deliberated upon in meetings to decide an initial Risk Management Plan. The process focuses on available financial resources, anticipated timings and breakdown of different risks on the way.

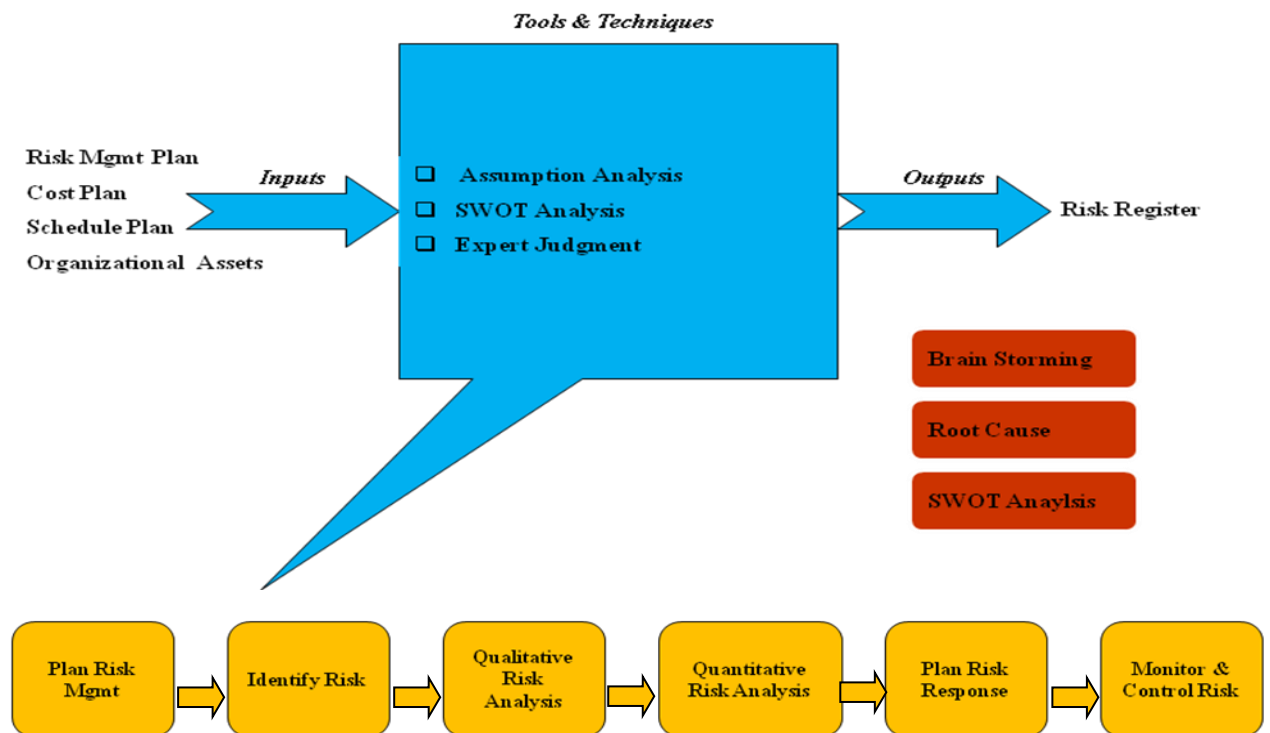


**Fig. 2**

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## **2.2 Identification of Anticipated Risks**

Identification of material risks is carried out to counter all possible events that, if they occur, will have negative impacts on the project's ability to achieve performance or outcome goals. Inadequate and delayed mitigation of risks will induce continuous high uncertainties related unknown schedule, cost and performance impacts, which may damage the goals and objectives of an organization. Risk identification is the most critical step of the Risk Management Process. In this process, initial risk management plan and organizational capabilities to counter possible threats, are evaluated. The key elements in this process are brainstorming, root causes of expected risks and SWOT analysis.

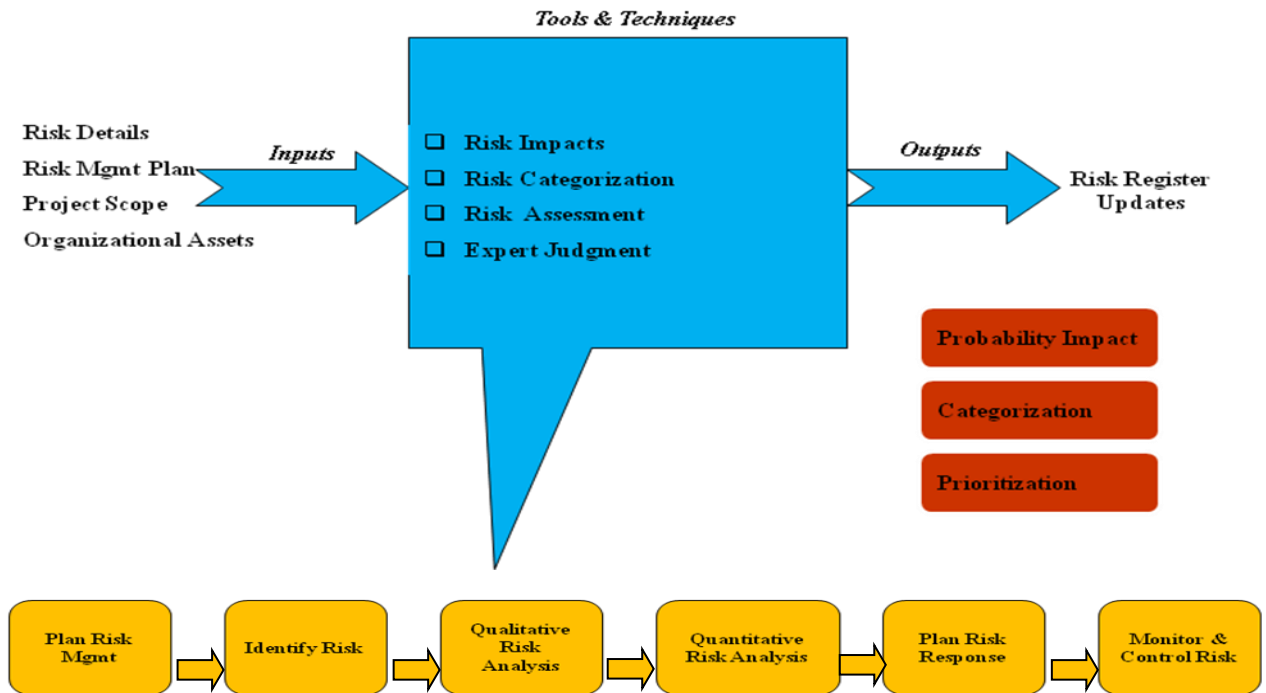


**Fig. 3**

## **2.3 Qualitative Risk Analysis**

Qualitative risk analysis provides the probability of a risk event occurring and the impact the risk will have, if it does occur. All risks have both probability and impact. Qualitative approach is usually opinion based. Results are registered in categories as “low”, “medium” and “high”. Since the outcomes of this analysis are dependent on the experience of the persons involved, therefore results achieved may be in-consistence and sometimes unsatisfactory. Key activities in this process are to ascertain probability of impact, categorization and prioritization of involved risks.

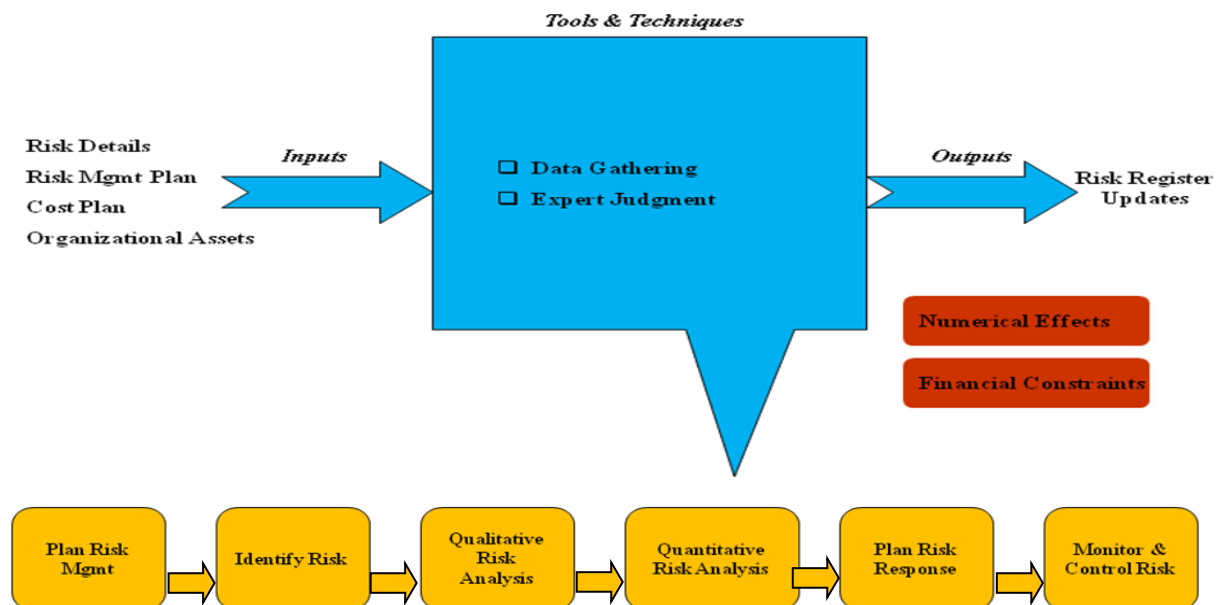
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**Fig. 4**

## **2.4 Quantitative Risk Analysis**

Quantitative approach presents risks in numerical terms. Anticipated monetary loss and its probability provide assessment of risks from the known values of assets and the levels of threats to, and vulnerabilities of, those assets. Measurement of risk can be made as a product of threat, vulnerability and asset value. In this process, risks financial effects are evaluated with project and risk management cost. Numerical effects of risks with reference to budgetary constraint are assessed.

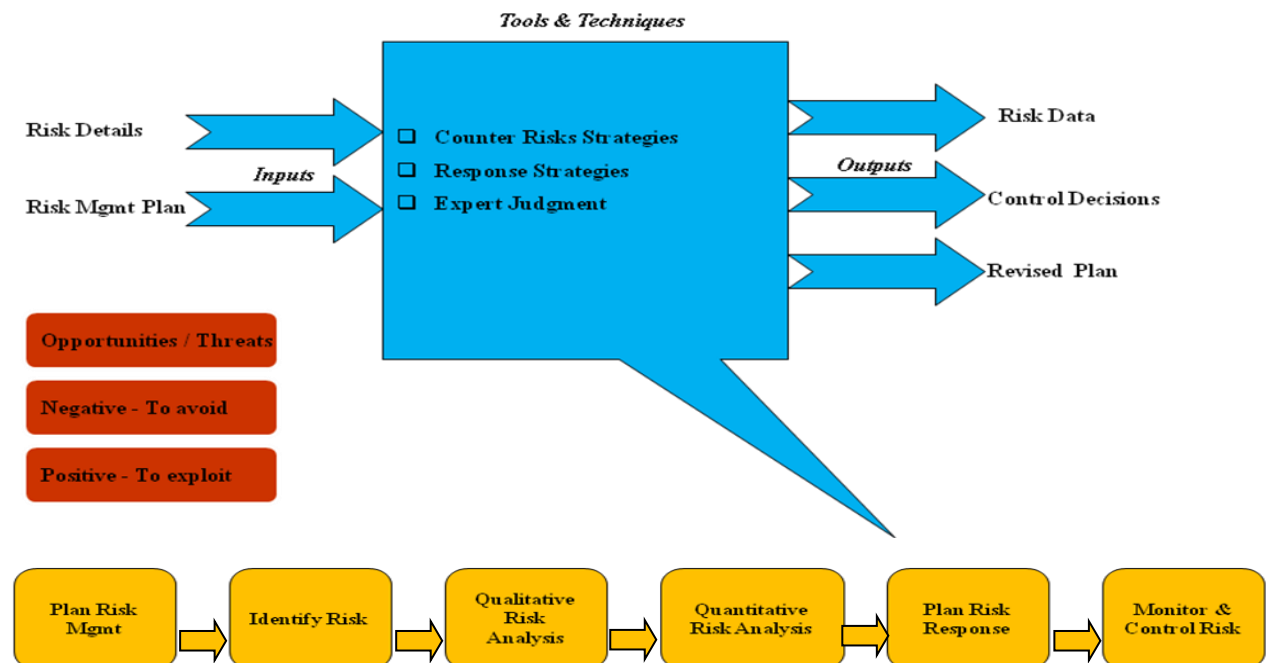


**Fig. 5**

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## **2.5 Planning Risk Response**

Risk handling is to choose a proper strategy for reducing the occurrence of risk events and amount of their negative impact. Research on risk handling is mostly opinion or case-based and, as such, it offers slight guidelines for making the decision. Risk handling plays a proactive role in balancing the negative impacts of project risks. In this process, opportunities and threats of risks are evaluated (to avoid negatives risks and to exploit positive risks).

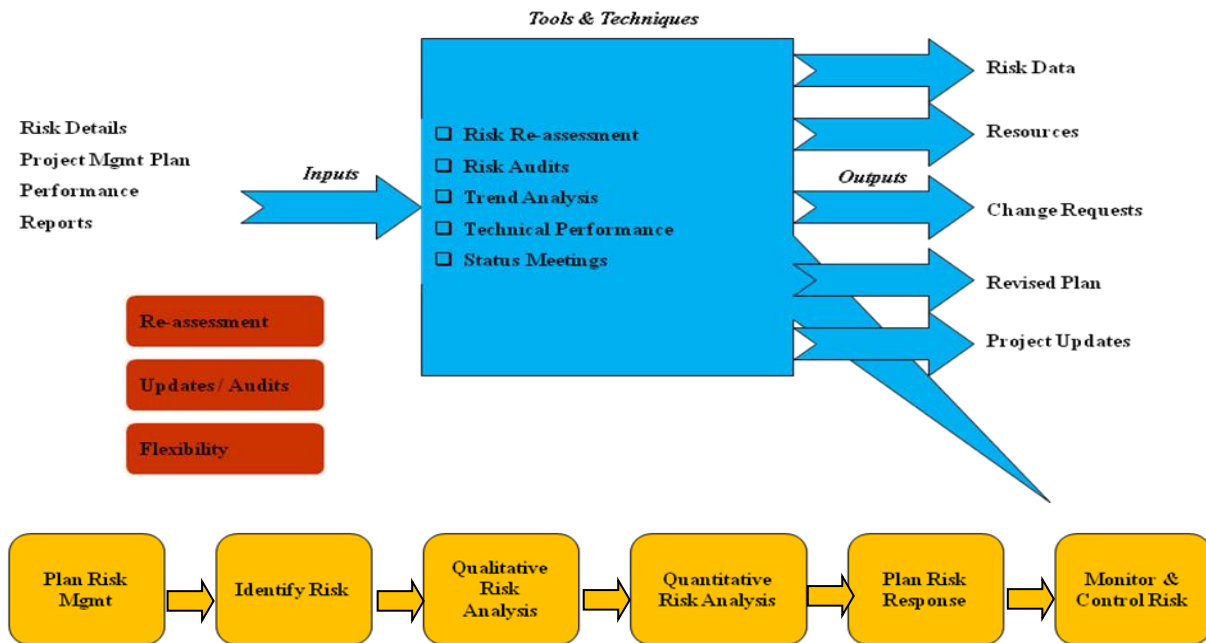


**Fig. 6**

## **2.6 Risk Monitoring**

Risk monitoring is process to keep track of the identified risk. It monitors residual risks and also identifies new risks, ensuring execution of risk plans and evaluation of their effectiveness. Risk monitoring is a continuous process for the life of project. The risks change as the project matures, new risks develop, or anticipated risks disappear. The purpose of risk monitoring is to find out whether risk responses have been implemented as planned. Whether, plans are as effective, as anticipated or not. This process also provides indications for choosing alternative strategies, implementing a contingency plan, taking corrective action, or re-planning the project. Re-assessment, audit and flexibility for re-planning are main consolidation features.

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**Fig. 7**

### **3. ORM Principles in a Military Organization**

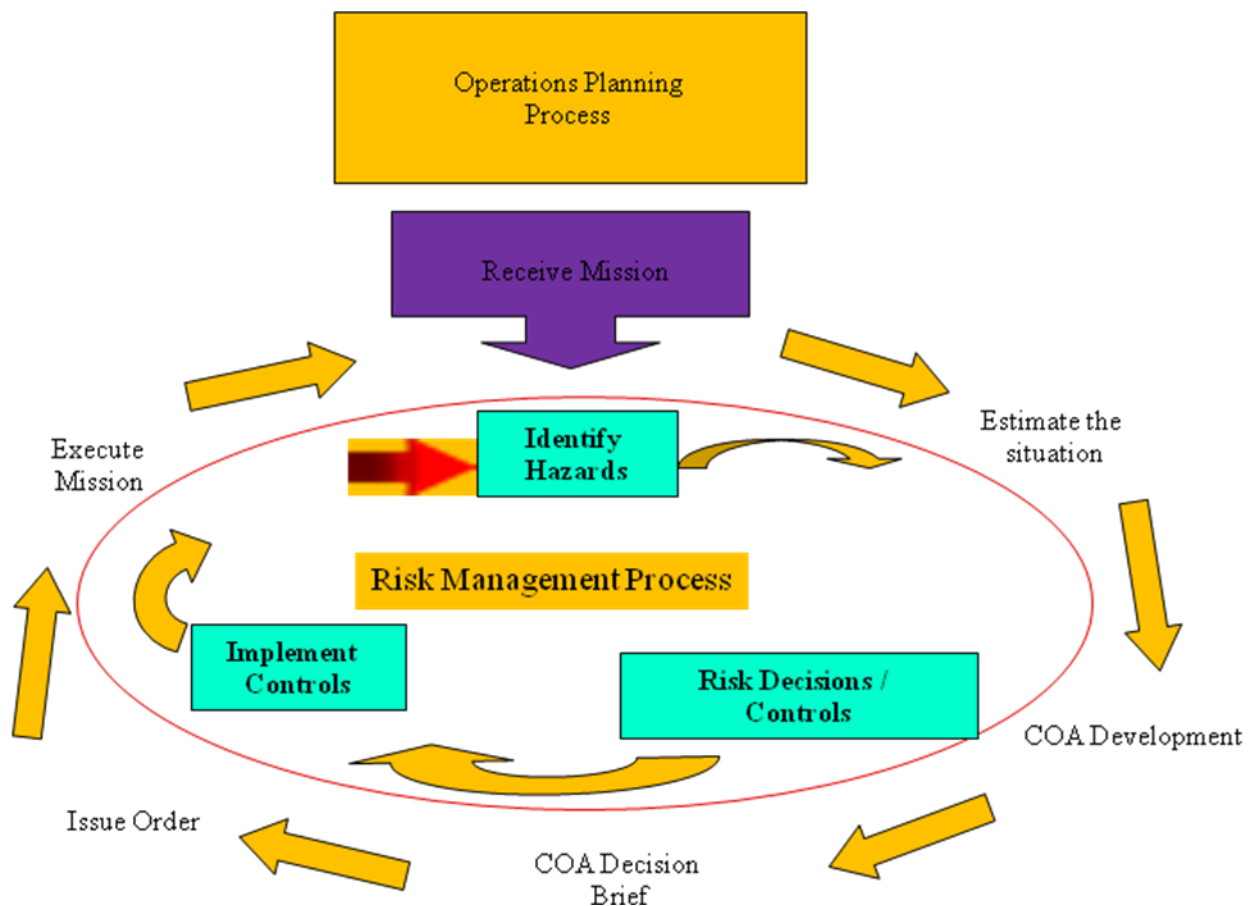
The management of all dimensions of risk is key for maximizing mission effectiveness and sustainability of readiness. ORM principles, techniques and tools are used to increase mission success, job performance and identify opportunities to expand mission capabilities in all areas and at all levels, thereby strengthening the Military war fighting posture. ORM strategy for a Military organization is pivoted on four important principles. First avoiding risks mean not to accept unnecessary risks. Unnecessary risk comes without a commensurate return in terms of real benefits or available opportunities. Combat missions and daily routines counter many risks. Most logical choices for accomplishing a mission are those that meet all mission requirements, while exposing personnel and resources to the lowest acceptable risk. Second due to severity of situations, the risk based decisions are to be taken at appropriate levels. Making risk decisions at the appropriate level establishes clear accountability. Those accountable for the success or failure of the mission are included in the risk decision process. Thirdly, risk decisions are only to be made, when expected results are of high significance and with ultimate benefiting results. All potential benefits should be compared to all potential costs. The process of weighing risks against opportunities and benefits helps to maximize unit capability. Even high risk missions may be undertaken when there is a well founded basis to believe that the sum of the benefits exceeds the sum of the costs. Lastly, is integration of ORM into planning and subsequently in execution phase. To effectively apply risk management, commanders may dedicate time and resources to integrate risk management principles into the planning processes.

### **4. Risk Management Strategy in Pakistan Air Force**

In Pakistan Air Force, risks are more easily accessed and managed in the planning stages of an operation. Decision cycle in the scenario of risky environment that is being in practice at PAF Headquarters deliberates certain measures. Once the mission is assigned to Air Force, situation is evaluated in which it has to be accomplished. A course of action for

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the operation is formulated. This course of action is placed at higher echelon for approval. Once the plan is approved, operational order is issued and subsequently mission is executed. All these actions are integrated under the risk management techniques for identification of risk and their subsequent control measures. However, mostly risk management assessments in PAF are based on past experiences and situational judgment.

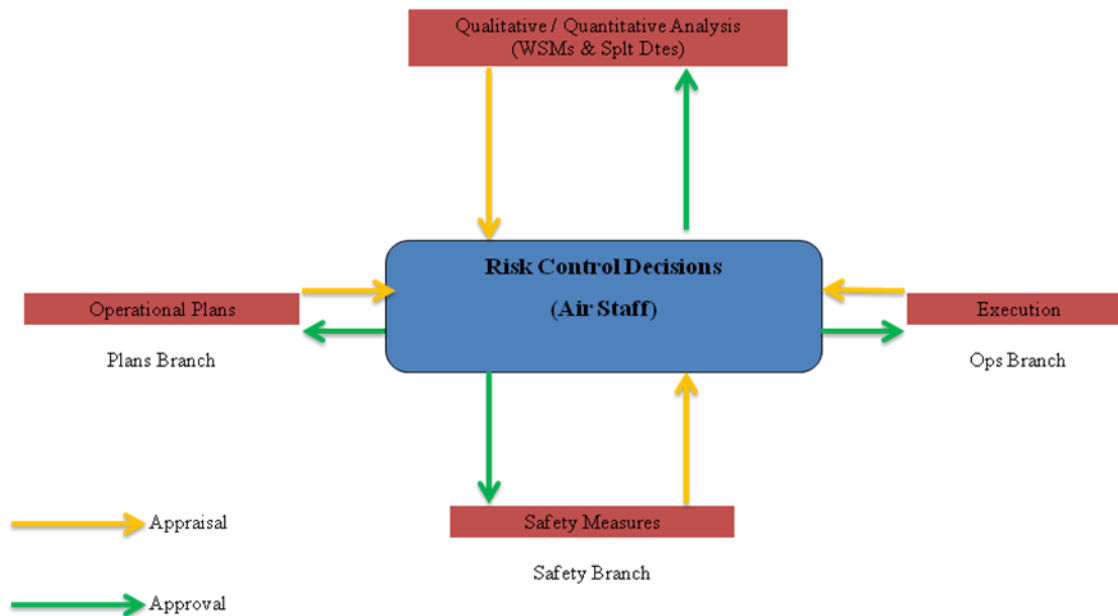


**Fig. 8**

### **4.1 Risk Management Execution in Pakistan Air Force**

At Pakistan Air Force Headquarters, operational plans are mostly formulated by Plans Branch. Qualitative and quantitative analysis of necessary preparation against planned missions are carried out by Weapon System Managers and execution of these plans comes under purview of Operations Branch, while safety measures and safety analysis is done by Safety Branch. All risk control decisions are taken by the higher echelon at Air Headquarters.

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**Fig. 9**

### **5. Risk Control Measures (Pakistan Air Force)**

In PAF, different types of control measures are in place to achieve safe operations. In all these measures, emphasis is given on designing and subsequently implementing flawless safety of operations through adequate control decisions. Different measures are appended as below:-

- 5.1 Aircraft occurrence report analysis
- 5.2 Unsatisfactory report analysis
- 5.3 Maintenance briefs and debriefs
- 5.4 Quality assurance program
- 5.5 Air Staff presentation
- 5.6 Operational preparedness review

### **6. Practical Examples on Risk Handling (Pakistan Air Force)**

Few practical examples are produced in succeeding paragraphs, which clearly elaborate the refined risk management strategies in PAF.

#### **6.1 Example 1**

Pakistan is located at a region which has great political, economic and strategic significance. It has been hub of activities of great powers for last thirty years. Its significance was further enhanced during cold war when it became ally of US containment policy for USSR and now the post cold war era has witnessed its significance particularly after the event of 9/11. In its neighbour's one world power Russia and the other emerging power china lies. Any alliance among world powers enhances its significance.



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years to enhance operational endurance. A massive storage infrastructure is planned to be constructed under next ten years to mitigate the risk completely.

### **6.3 Example 3**

One preoccupation of combat soldiers on war campaign has always been the good food. As it is very famously said that an army marches on its stomach. Supply of quality food to troops is a morale multiplier. The most important for morale of troops is to provide them with good food, adequate rest, medical care, efficient equipment and good welfare services. Realizing this aspect and in line of Pro-active Operations environment, PAF took certain control decisions. Pre-positioning concept of ration at bases is adopted. Now food requirement compatible to War Stamina is in place at operational bases. Additional sources of supply have been identified for replenishment support and details have been communicated to all stake holders. As an additional back up, contingency plans have also been designed for each PAF operational base.

### **7. Analysis**

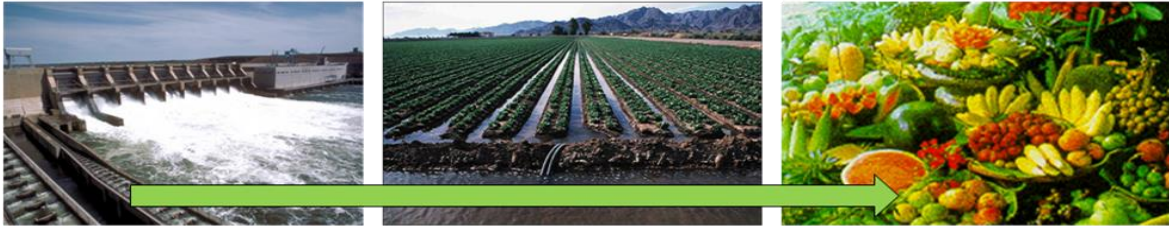
Risk management is vital for every organization, it is more relevant to a military set up as margin of error is limited and consequences are of high stake. Without caring risks, all plans are expected to either fail or the outcomes would not be there as anticipated. Pro-active strategy is always better than the reactive approach. ORM maximizes operational capabilities while minimizing risks. It enhances mission effectiveness at all levels while preserving assets and safeguarding resources. Investment on Risk management is quite cheap than the hidden damages, if risks are not properly taken care of. A good planned risk management strategy makes the organization prominent among competitors. Key to success is pro-active thinking.

### **8. Conclusion**

Risk management should not be something that is done to the organization but rather something that's done by the organization. The attitude and approach to risk management by leadership makes all the difference in how effective the program is and to what degree workforce provide input. Any organization that knows its strengths and corrects its weaknesses will be better prepared to handle the challenges of its existence and missions. Strong Risk Management is key to glory, as it provides clear line of action, efficient execution and success in operations. On the contrary, ignoring risks bring disaster, depletion and failure.

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**Strong risk management plan provides**



**Ignoring risks causes**



**Fig. 11**

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