

Review Sistem Manajemen Keselamatan dan Keamanan Transportasi Udara untuk Menuju *Zero Accident*

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Focus Group Discussion

Review Sistem Keselamatan dan Keamanan Moda Laut dan Udara Menuju Transportasi Maju
Badan Kebijakan Transportasi, Kementerian Perhubungan, 15 November 2022



Safety Management System



4 Pillars 12 Elements

1. Management Commitment
2. Safety Accountability and Responsibilities
3. Appointment of Key Safety Personnel
4. Coordination of Emergency Response Planning
5. SMS Documentation

Safety Policy and Objectives

Safety Risk Management

Safety Assurance

6. Hazard Identification
7. Safety Risk Assessment and Mitigation

Safety Promotions

8. Training and Education
9. Safety Communication

10. Safety Performance Monitoring and Measurement
11. Management of Change
12. Continuous Improvement of the SMS

Train and Brief Personnels to make them:

- *Knowledgeable* about various types of Hazard
- *Promote Proactive identification* of Hazards

Safety Management System



Safety \equiv Risk Management
(Jerome Lederer, 1928)

How well do we manage Risk?

- ❑ *Analyzing and Evaluating* the Hazard to assess the Risk it poses
- ❑ *Taking Step to Mitigate* Risk posed by the Hazard
- ❑ *Ensuring* that the Hazards *do not turn into* an Accident/Incident

Carelessness and Overconfidence are more dangerous than deliberately *accepted risk*
(Wilbur Wright, 1901)

*If an Organization has implemented SMS with sincerity, then its Employees will have the **Knowledge and Awareness** to anticipate and address Safety Issues before they can lead to an Accident or Incident*

Integrating Safety into Business Operation

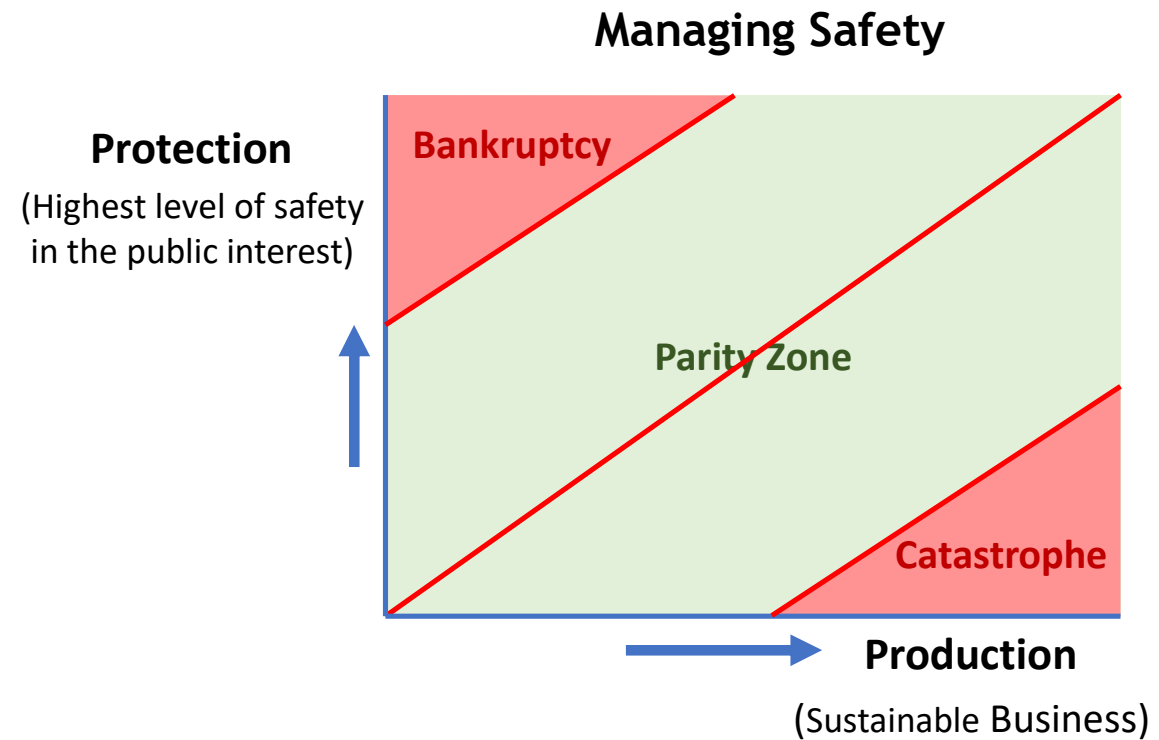


- ❑ Infuse **Safety** into *all parts of the system* of the Aviation System Provider:

Provider:

- ✓ People
- ✓ Tools
- ✓ Procedures
- ✓ Materials
- ✓ Equipment
- ✓ Softwares

- ❑ To maintain the **Balance** of production and protection.



Safety Management Strategy



Reactive (Past)

Responds to events that have *already happened*, such as Incidents and Accidents

Proactive (Present)

Actively identifies hazards through the analysis of the Organization's processes

Predictive (Future)

Analyzes system processes and environment to identify potential *future problems*

Safety Management System

- ❑ *Inform the Employees about the Reporting Channel*
- ❑ *Develop a System to Analyze and Evaluate the Hazards, to assess the Risk.*
 - ✓ Understanding the System and Environment
 - ✓ Identifying Hazardous Conditions
 - ✓ Analysis of Risk associated with the Hazardous Conditions
 - ✓ Assessing Risk for Safety Assurance and Decision Making
- ❑ *Take Steps to Eliminate the Hazard or Mitigate the Risk of the Hazard*
 - ✓ Developing Risk Control

Types of Hazards



Natural

- ✓ Thunder, Dust and Hailstorms
- ✓ Windshear, Snow, Icing, Fog, Smoke Haze
- ✓ Volcanic Ash
- ✓ Terrain
- ✓ Birds, Animals, Bats, Locust
- ✓ Pandemic, like Corona

Technical

- Operational
 - ✓ Pilots
 - ✓ Cabin Crew
 - ✓ Flight Engineers
 - ✓ ATC,
 - ✓ Operations
 - ✓ Dispatch Personnel
- Maintenance
 - ✓ Maintenance Personnel
 - ✓ Hangar
 - ✓ Apron
 - ✓ Stores
 - ✓ Documentation
 - ✓ . . .

Economical

- Low motivation and moral of the Employees due to:
 - ✓ Recession - non-payment of salaries in time
 - ✓ Deduction in salaries, and allowances
 - ✓ Inadequate funds leading to lack of Proper Equipment, Tools and Spare Parts backup
 - ✓ Keenness of the Operator to recover financial losses and thus resorting to shortcuts.

Examples of the Hazards



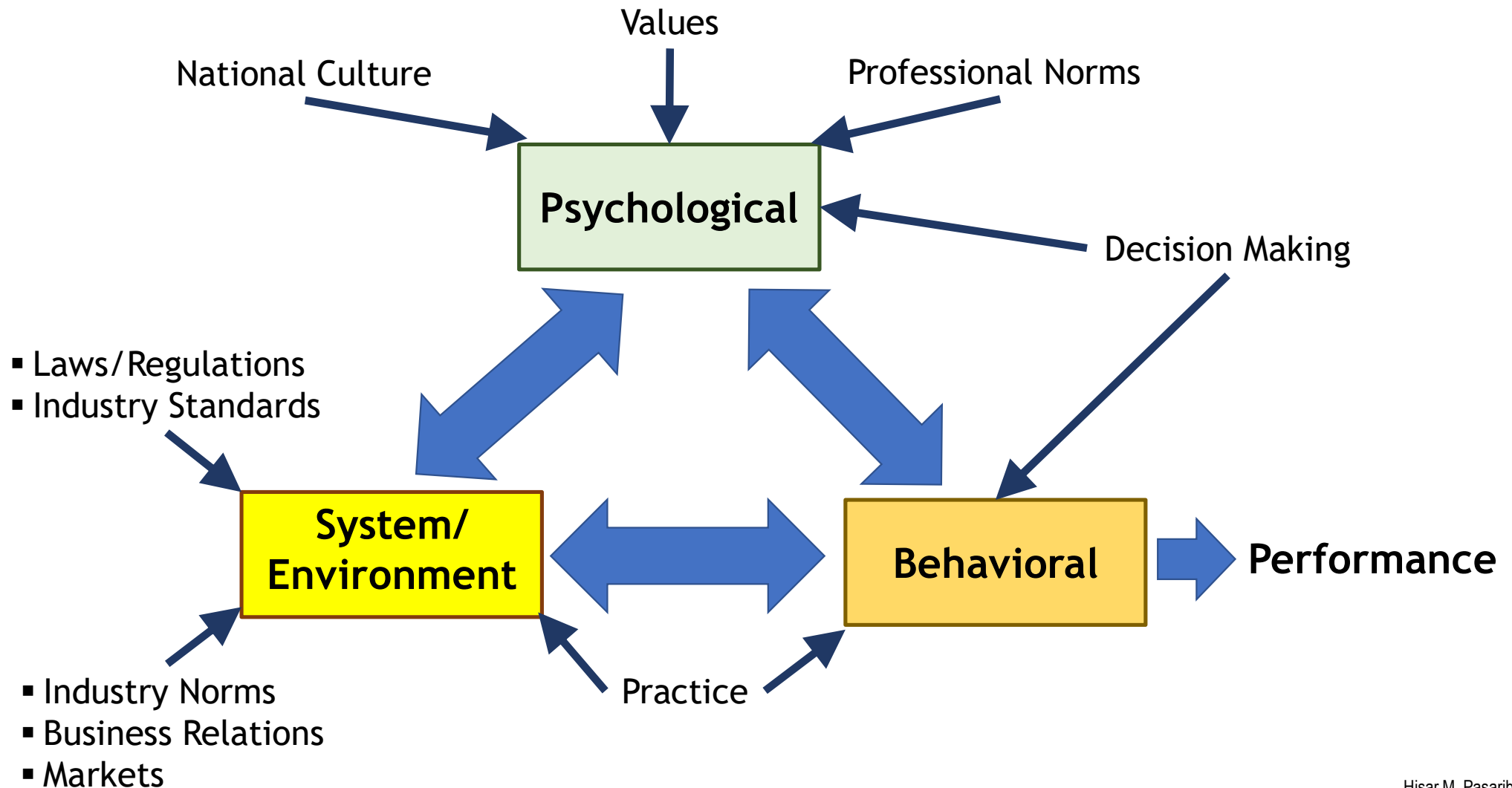
- ✓ Unsuitable Working Conditions
- ✓ Inadequate Remuneration compared to Industry norms
- ✓ Physical, Physiological and Psychological Stress
- ✓ Motivation and Morale of Personnel
- ✓ Commercial, VIP, Peer and Self Imposed Pressures
- ✓ Attitudinal Deficiency among Aircrew, Ground Crew, and Supporting Staff

- ❑ Safety Assurance is that whatever action has been taken to address and eliminate the Hazard or for the mitigation of the Risk, must give assurance that the Hazard no longer poses any Risk.
- ❑ This can be confirmed through:
 - ✓ Performance Monitoring
 - ✓ Investigation
 - ✓ Assessment
 - ✓ Employee Reporting and Feedback System
 - ✓ Audit:
 - ✓ Internal
 - ✓ DGCA
 - ✓ Third-Party Audit

- ❑ Some of the effective methods to promote safety:
 - ✓ Emphasis on Safety Related Training
 - ✓ Conduct of Flight Safety Meetings
 - ✓ Video Films on Safety
 - ✓ Accident Analysis and Lessons Learnt
 - ✓ Display Flight Safety Related Posters, Charts, Hoardings
 - ✓ Involvement of the Management to lead by Example
 - ✓ Innovative Ideas to Enhance Safety like Conduct of Flight Safety Seminars, observance of Flight Safety Week, etc.

- ❑ Safety Culture can have a direct impact on safety performance
- ❑ Safety Culture is the way safety is perceived, valued and prioritized in an Organization
- ❑ It reflects the real commitment to safety at all levels in the Organization
- ❑ Employees think of Safety in whatever they do, are Safety conscious, and follow Rules, Regulations, SOP's etc
- ❑ Self Discipline

Organizational Culture

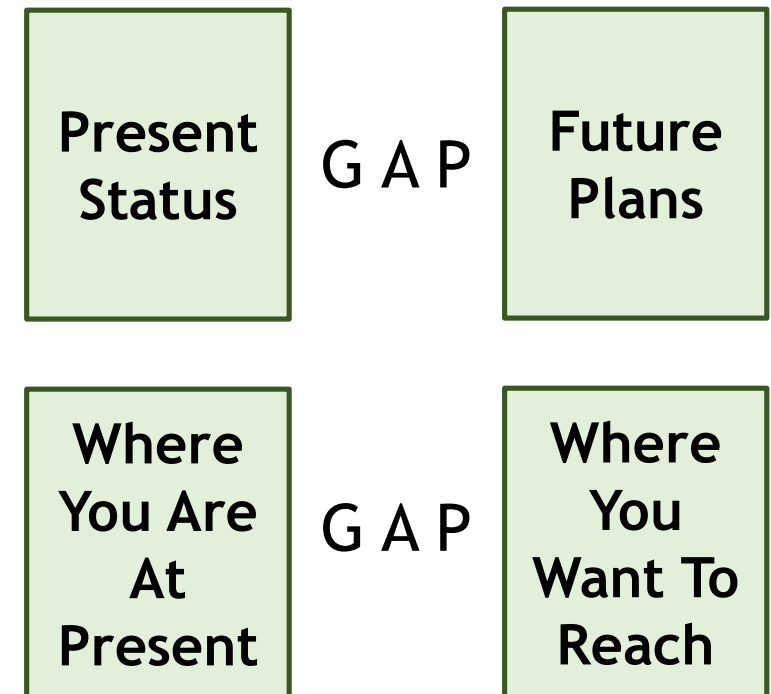


- ❑ All the Employees feel Responsible for Safety
- ❑ They think of Safety in everything they do
- ❑ Employees Report all Hazards, Errors, and Threats
- ❑ The CEO and Accountable Manager support the Identification of Hazards and Management of associated Risks

Gap Analysis



- ❑ The difference between the Present Status and the Future Plans is known as Gap
- ❑ There is a Gap between Where You Are At Present and Where You Want To Reach
- ❑ Organization needs to analyze the Gap and plan various activities to fill the Gap
- ❑ The Gap Analysis will help the Organization in planning activities for achieving the desired results over a period of time



- ❑ Organization must have a process to ensure that all Personnel are made aware of and understand any changes in:
 - ✓ Policies, Procedures, Rules, Regulations, Operating Conditions, Type of Operations, Weather, Technology, Man Power, Key Management Personnel
- ❑ And analyze the changes for any potential hazard
- ❑ Operators must Ensure that all the Documents, Operation, and Maintenance Manuals are kept posted with the most current changes.

Emergency Preparedness and Response



- ❑ The better prepared an Organization is for an emergency, the better the chances that injuries to personnel and damage to equipment, property or the environment can be minimized.
- ❑ The plan should be:
 - ✓ Readily available at the workstations of those that may be the first to be notified or required to respond

SMS Implementation on Small Aircraft Operators

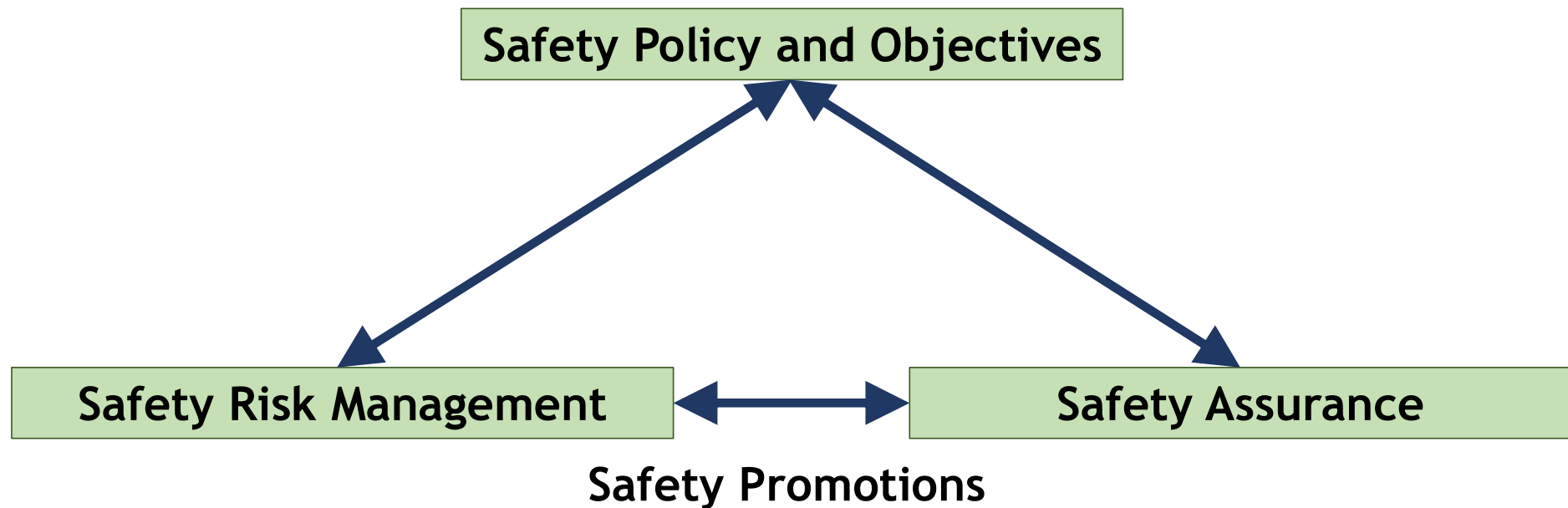


- ❑ No one and no airlines are too small for SMS
 - ❑ The cost for SMS is too small compared to the cost of accident.
 - ❑ At its essence, SMS forms a real triangle of safety:
 - ✓ You identify the problem
 - ✓ You analyze it, You come up with a solution
 - ✓ You train to the solution and then you check how you doing
 - ❑ Focus on key pillars:
 - ✓ Safety Risk Management (SRM)
 - ✓ Safety Assurance (SA)
1. *Emphasize on Knowledge, not Method*
 2. *Remember, there is nothing new in SRM or SA*
 3. *What is new is Organizing SRM and SA into a Management System called SMS*

- ❑ Implementation of Safety Management System can
 - ✓ Eliminate Hazards or Mitigate Risks
 - ✓ Prevent Accidents/Incidents
 - ✓ Help achieve the Goal of Zero Accidents

Organizational Culture





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