

Man-made Disasters and their Audits

Lesson-learned from Previous Disaster Related Audits

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AGENDA

□ INTRODUCTION

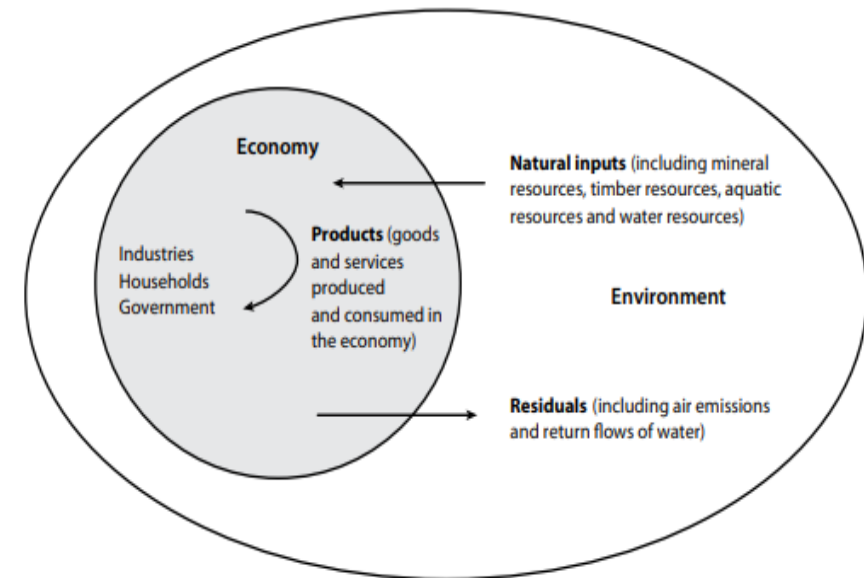
□ DISASTER RELATED AUDITS

□ LESSON-LEARNED

INTRODUCTION

- ❑ Hydro-meteorological types of Disasters such as land and forest fires, floods, extreme waves, extreme weathers and droughts often occur nowadays.
- ❑ Hydro meteorological disasters - climate change : Human Actions (man-made) and tend to recurrence and have an impact on the economy and society in addition to having an impact on the environment.

Physical flows of natural inputs, products and residuals



Source :
System of Environmental-Economic Accounting 2012 Central Framework (United Nations, European Union, Food and Agriculture Organization, International Monetary Fund, Organisation for Economic Co-operation and Development, and The World Bank)

DISASTER RELATED AUDITS (1)

2008

Audit on Flood Disaster Management in the River Watershed

2014

Audit on Government Activities in Mitigating the Forest Fires

2017

Audit on Disaster Risk Reduction Programs

BPK RI has conducted various disaster-related Audits

DISASTER RELATED AUDITS (2)

2008

Audit on Flood Disaster Management in the River Watershed

The Audit Objective

To assess whether the implementation of the flood disaster management system in the river watershed was effective with the target. Focusing on flood disaster prevention, mitigation and emergency response activities.

The Audit Conclusion

Several weakness and non-compliances in the implementation of the activities

Disaster Prevention Aspects

- The improvement of the policies related to infrastructure development, operation and maintenance, spatial planning implementation, and coordination between agencies.
- Programs / activities to prevent flood disasters implementation.

Disaster Mitigation Aspects

- The function of the early warning information system, the determination of flood-prone areas and its link to mitigation efforts, and the implementation of spatial planning.
- The adequacy of the organization, personnel, equipment, budget use and administration, as well as physical recovery for flood disaster emergency response activities.

Disaster Emergency Response Aspects

- The control on the River Border Protected Area and the implementation of spatial policies in supporting the efforts to reduce the impact of the disaster.

DISASTER RELATED AUDITS (3)

2014

Audit on Government Activities in Mitigating the Forest Fires

The Audit Objective

To assess the effectiveness of spatial planning activities, development arrangements, infrastructure development and building layouts, as well as the implementation of education and training and counseling in forest and land fire disaster mitigation.

The Audit Conclusion

- The mitigation efforts effectiveness

- Disaster-prone maps, and, strategic and operational plans as well as efforts to mitigate disasters.
- The implementation of the infrastructure development planning, the procurement activities, and the education, training and counseling related to forest and land fire disaster mitigation.

DISASTER RELATED AUDITS (4)

2017

Audit on Disaster Risk Reduction Programs

The Audit Objective

The Audit aims to assess the effectiveness of implementing disaster risk reduction programs.

The Audit Conclusion

The effectiveness of the regulation, planning, implementation, reporting, and monitoring and evaluation of disaster risk reduction programs implementation.

- The adequacy of the guidelines and directions for disaster management efforts, such as the preparation of risk maps, disaster management plans and contingencies.
- The development of the mechanism to terminating the emergency response.
- Availability of the national and regional disaster data.

DISASTER RELATED AUDITS (5)

Recommendations

BPK RI, in general for all three audits, recommended to improve plans, guidelines, work procedures, mechanisms, coordination and trainings in order to increase efforts to decrease the frequency and recurrence of the disasters.

DISASTER RELATED AUDITS (6)

1.	Forest and land fire prevention in 2013	To assess the effectiveness of the planning, Institution, outreach and community relations activities, as well as community involvement, in the context of preventing forest and land fires.	<ol style="list-style-type: none"> 1. The planning, institution, and community participation through activities to raise awareness or community involvement as well as outreach are key factors in efforts to prevent forest and land fires. 2. The identification of areas that prone to forest and land fires and the hotspot data. 3. The resources to conduct groundchecking and counseling or an efforts to raise public awareness to increase the coverage.
2.	Forest and land fire control activities in 2007	To assess the risks and causes of forest and land fires, the efforts to mitigate the occurrence of forest and land fires and the implementation of forest and land fire prevention and control activities.	Law enforcement need to be implemented consistently in order to have a deterrent effect.
3.	The implementation of preparedness and emergency programs for forest and land fire disasters in 2017 and semester I of 2018	To assess the effectiveness and efficiency of preparedness and emergency programs in handling forest and land fire disasters in 2017 s.d. semester I 2018 conducted by related agencies.	<ul style="list-style-type: none"> • The formulation and establishment of the policies related to disaster risk reduction, the development of a website-based disaster risk assessment application, the compilation of the national disaster management plan document and action plan, and the mapping of fire-prone areas and utilizing information from other related institution in the context of forest and land fire early warning systems. • Regional patrols and blackouts on certain lands, and coordinated with other related parties. • The coordination in the agencies who responsible for prevention activities, the contingency planning, and the number of early warning tools and action plans for indications of forest and land fires.

LESSON-LEARNED (1)

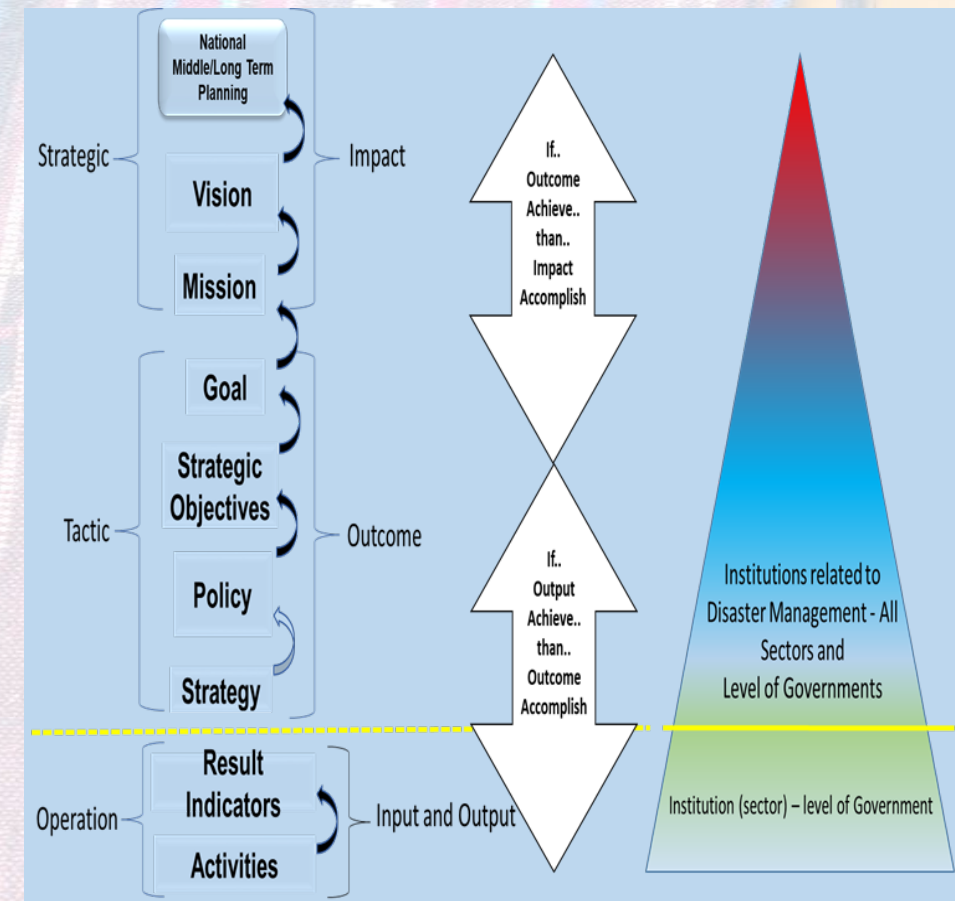
1 - CHARACTERISTICS

- Man-made type of disasters have characteristics of **recurring** and **worsening** if the causes of the problems are not resolved.
 - Comprehensive and complete data and information related to areas that prone to disaster.
 - The involvement of all related institutions and communities in preventing the recurrence of disaster in the future.
 - The sufficiency of resources to mitigate the disaster and law enforcement.
 - The coordination among all related government entities in all level and sectors.
 - The sufficiency and applicability of the contingency plan and early warning system.

LESSON-LEARNED (2)

AUDIT STRATEGY

- The Whole of Government and Outcome/Impact Based Audit Planning
 - The audit need to involve all related institutions (all level and sectors) and plan the audit not based on the output but outcome or impact.
 - In order to formulate “**value added** and **multiplier effect** recommendation” and “all aspects/Institutions considered”.



LESSON-LEARNED (3)

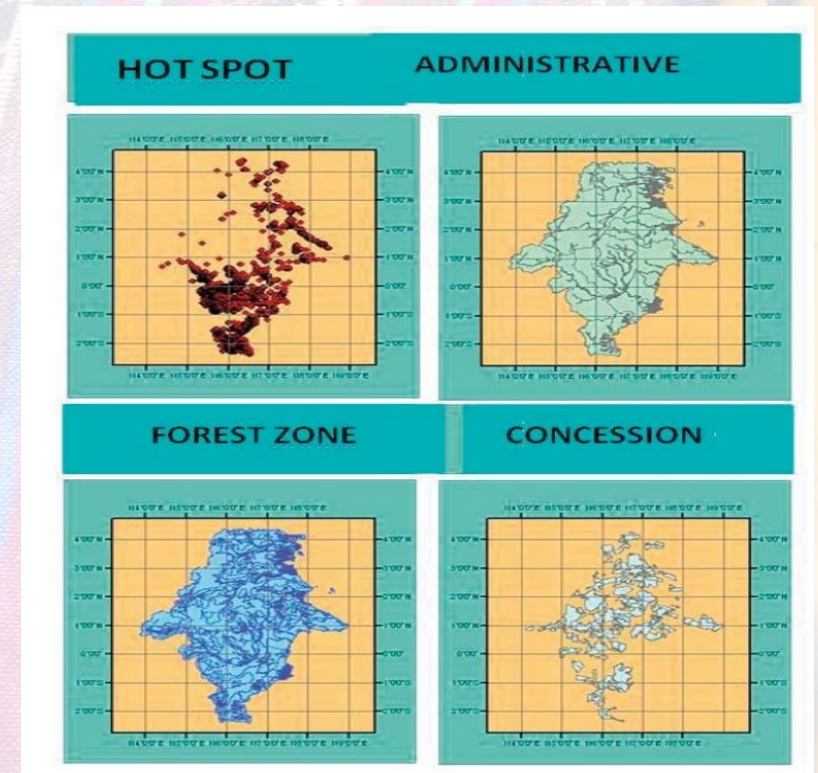
AUDIT STRATEGY

- Audit Focus on mitigation, and, Data and information
 - The audit focus on risk assessment on areas prone to disasters and their mitigation plan or activities such as updating the map of area prone to disaster, examine the disaster mitigation plan implementation, validity and accuracy of data and information related to disaster management.
 - Consider to conduct :
 - Audit with Disaster Perspective – disaster management consideration in regular audits.

LESSON-LEARNED (4)

AUDIT TOOLS AND EXPERT

- Utilization of other institution data and information such as Hot Spot and Satellite Imagery.
- Utilization of Technology – Geographic Information System (GIS), Global Positioning System (GPS) and Drone.



Source : Auditing Forest : Guidance for Supreme Audit Institutions, INTOSAI WGEA 2010

LESSON-LEARNED (5)

AUDIT TOOLS AND EXPERT

- Expert – Academician and others
 - Multi dimensional and complexity of the subject matter in the disaster management.
 - Formulation : Conclusion and Recommendation.



