Qualified Safety Management Ensures Sustainable Human Life Quality

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Introduction
Disasters
Strategic management of territory
Risk and safety management
Safety management system
Procedure for ensuring the safety, continuity and sustainable development of subject
Planning for safety management needs
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Conclusion

Introduction

Present goal of humans is their security, continuation of existence and sustainable development.

According to documents of the UN and the EU for this target it is necessary to create the safe territory, safe community, safe state, safe Europe and safe world.

To reach certain aim it is necessary to manage human activities.

At present we have a lot of management types and proponents of each of them believe that his / her management type is the best.

In paper I will describe the integral safety management that is based on present knowledge and ensures all requirements of humans, i.e. it:
- **considers all public assets that are necessary for human live,**
- **is strategic, proactive and systemic,**
- **has aim „co-existence of systems social, environmental and technological.**

At the end I will compare usefulness of the integral safety management with the usefulness of the environment management from the viewpoint of human needs and public interest.

TERMS for INTEGRAL SAFETY MANAGEMENT SYSTEM

Security is a state of system at which the occurrence of harm or loss on system assets has an acceptable probability (it is almost sure that harm and loss do not origin). To this there is also belonged a certain stability of system in time and space, i.e. a sustainable development in time and space.

Safety is a set of human measures and activities for ensuring the security and sustainable development of system and its assets (protected interests).

Secure system is a system that is protected against to internal and external disasters.
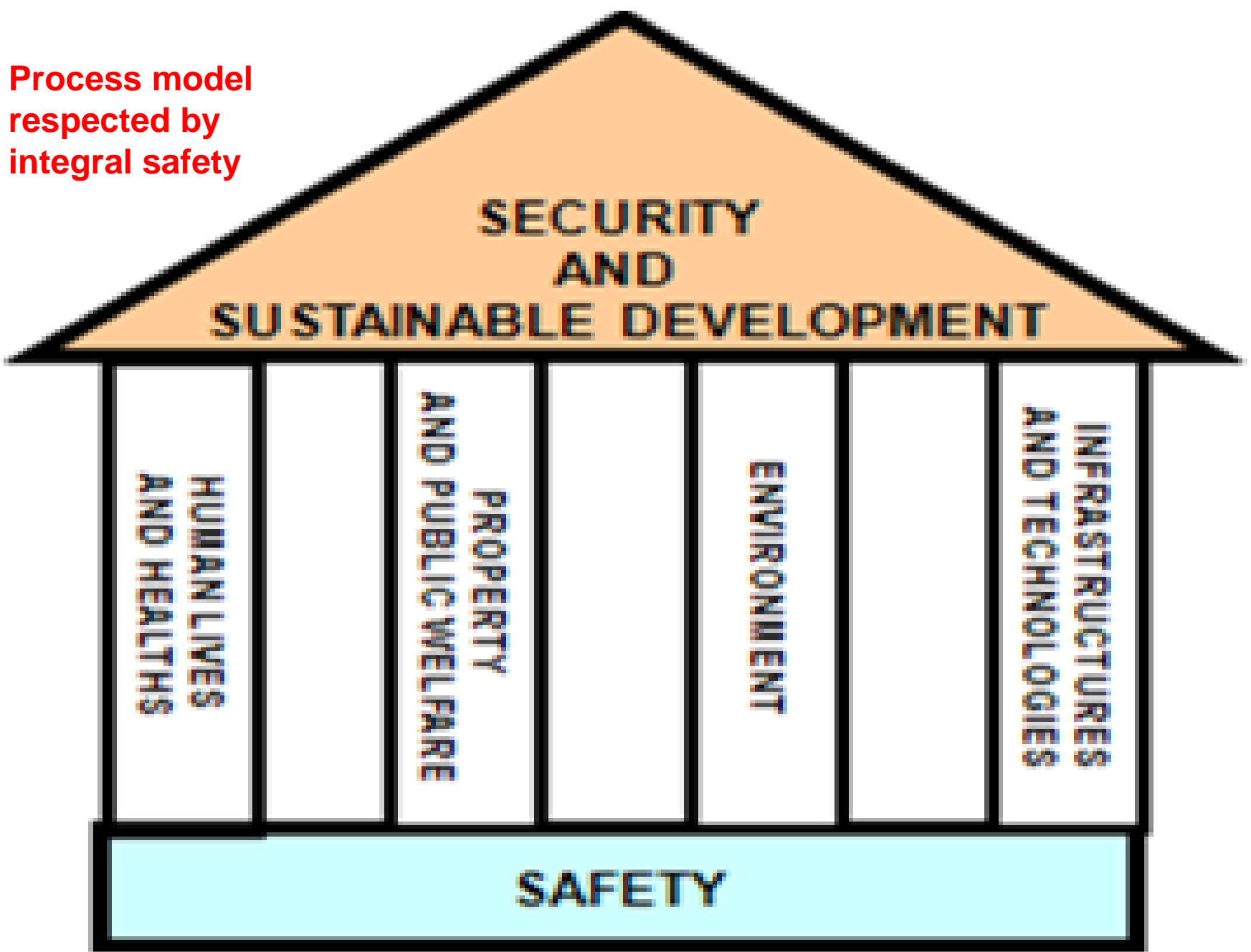
Safe system is a system that is protected against to internal and external disasters and it does not threaten its vicinity.

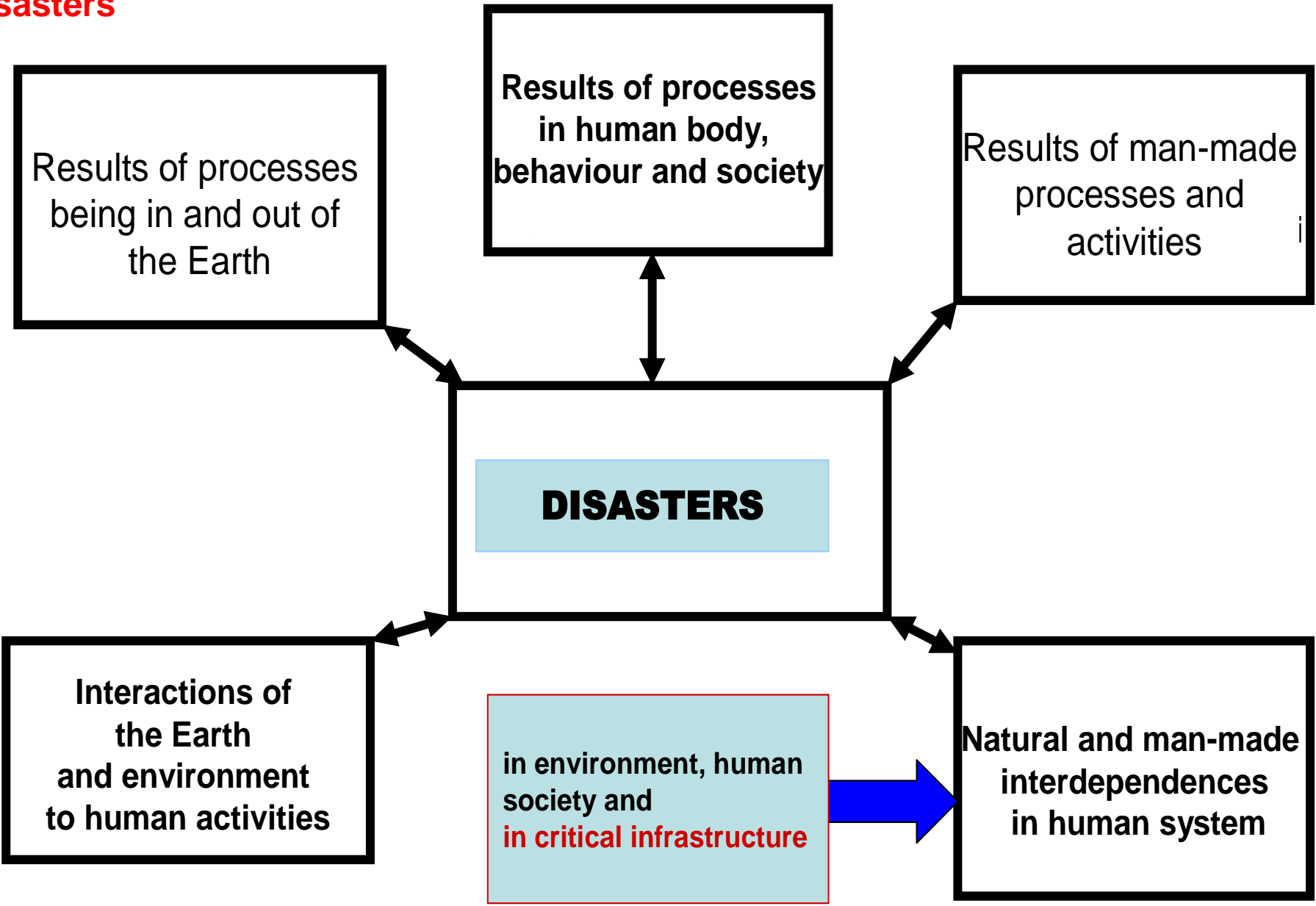*Safe environment* is an environment which is secure and it can sustainable develop.

Safe human system represented by *safe territory* including the human society, is a human system, the assets of which are public assets (Figure 1) being in security and with potential of sustainable development. Similarly *safe organisation* is the organisation, the assets of which are in security and they can sustainable develop; the organisation assets are public assets and specific assets directly connected with organisation existence [3].
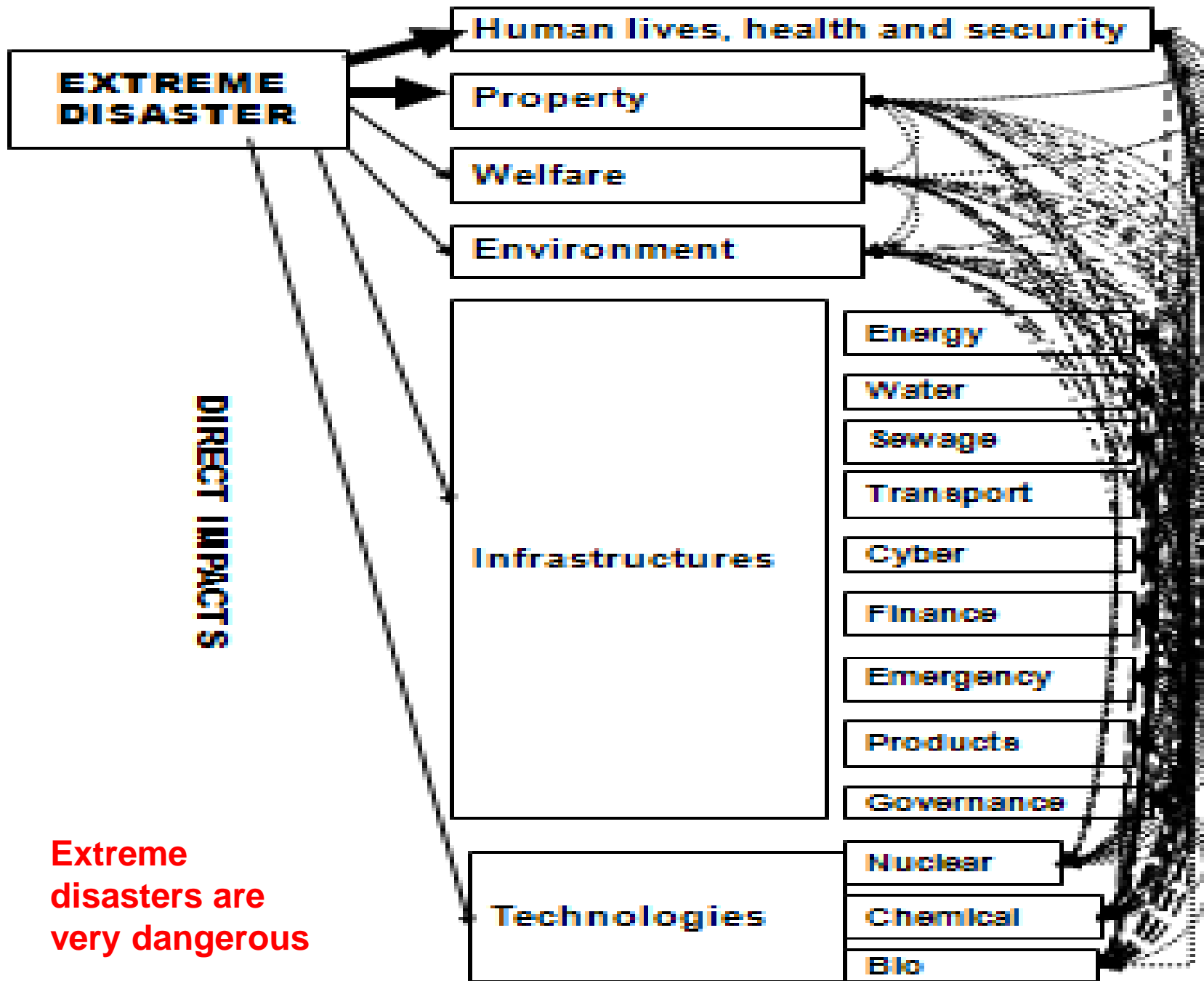
Human system safety management is the management of human system directed to human system safety, the product of which is security and sustainable development of all public assets

**Process model respected by integral safety**

SECURITY
AND
SUSTAINABLE DEVELOPMENT

HUMAN LIVES AND HEALTHS

PROPERTY AND PUBLIC WELFARE

ENVIRONMENT

INFRASTRUCTURES AND TECHNOLOGIES

SAFETY

Human system is threaten by disasters

Results of processes being in and out of the Earth

Results of processes in human body, behaviour and society

Results of man-made processes and activities

DISASTERS

Interactions of the Earth and environment to human activities

in environment, human society and in critical infrastructure

Natural and man-made interdependences in human system

EXTREME DISASTER

Human lives, health and security

Property

Welfare

Environment

Infrastructures
- Energy
- Water
- Sewage
- Transport
- Cyber
- Finance
- Emergency
- Products
- Governance

Technologies
- Nuclear
- Chemical
- Bio

DIRECT IMPACTS

SECONDARY IMPACTS

Extreme disasters are very dangerous

For protection the humans use strategic management of territory

CRISIS MANAGEMENT

EMERGENCY MANAGEMENT

CURRENT MANAGEMENT
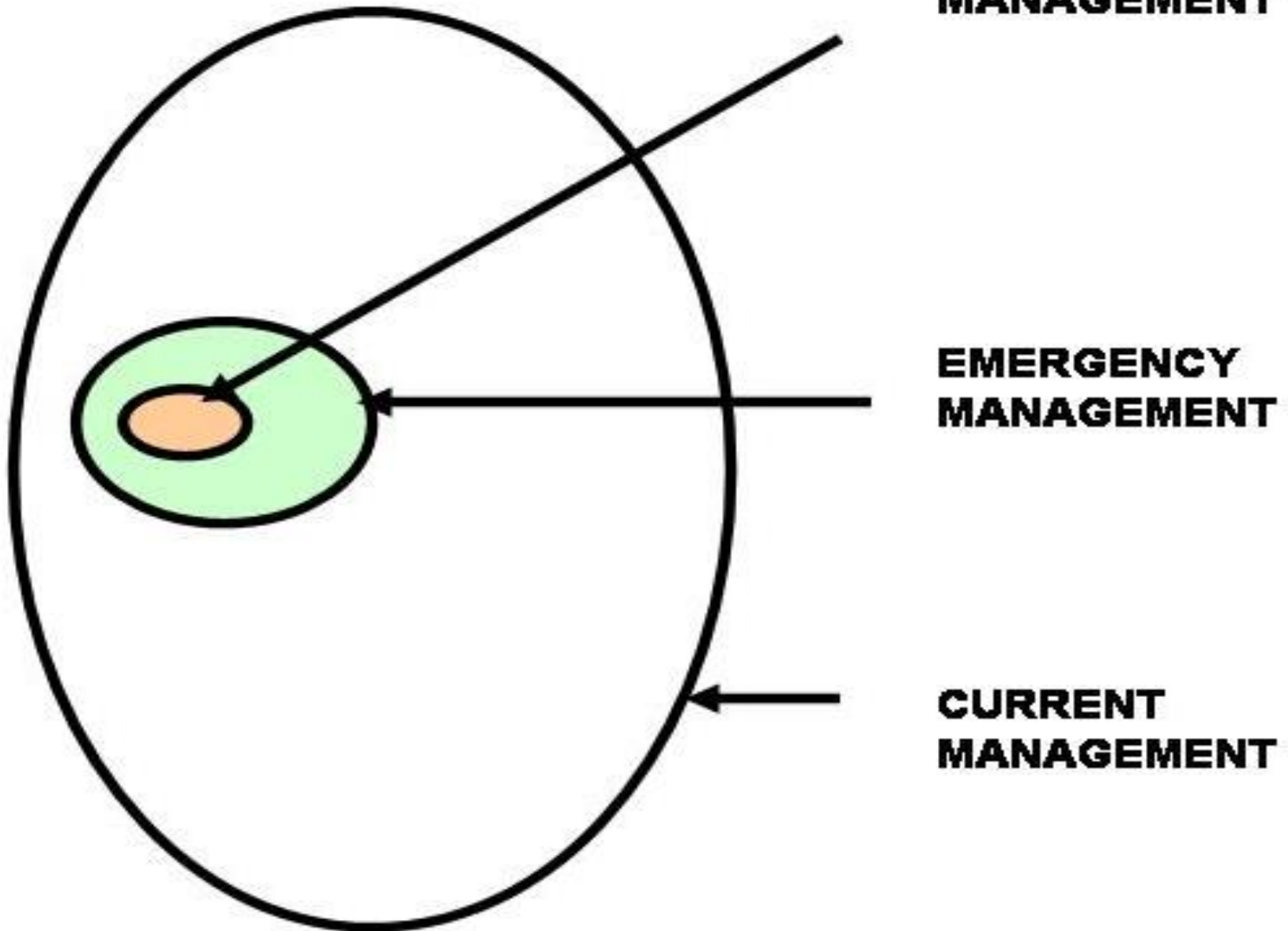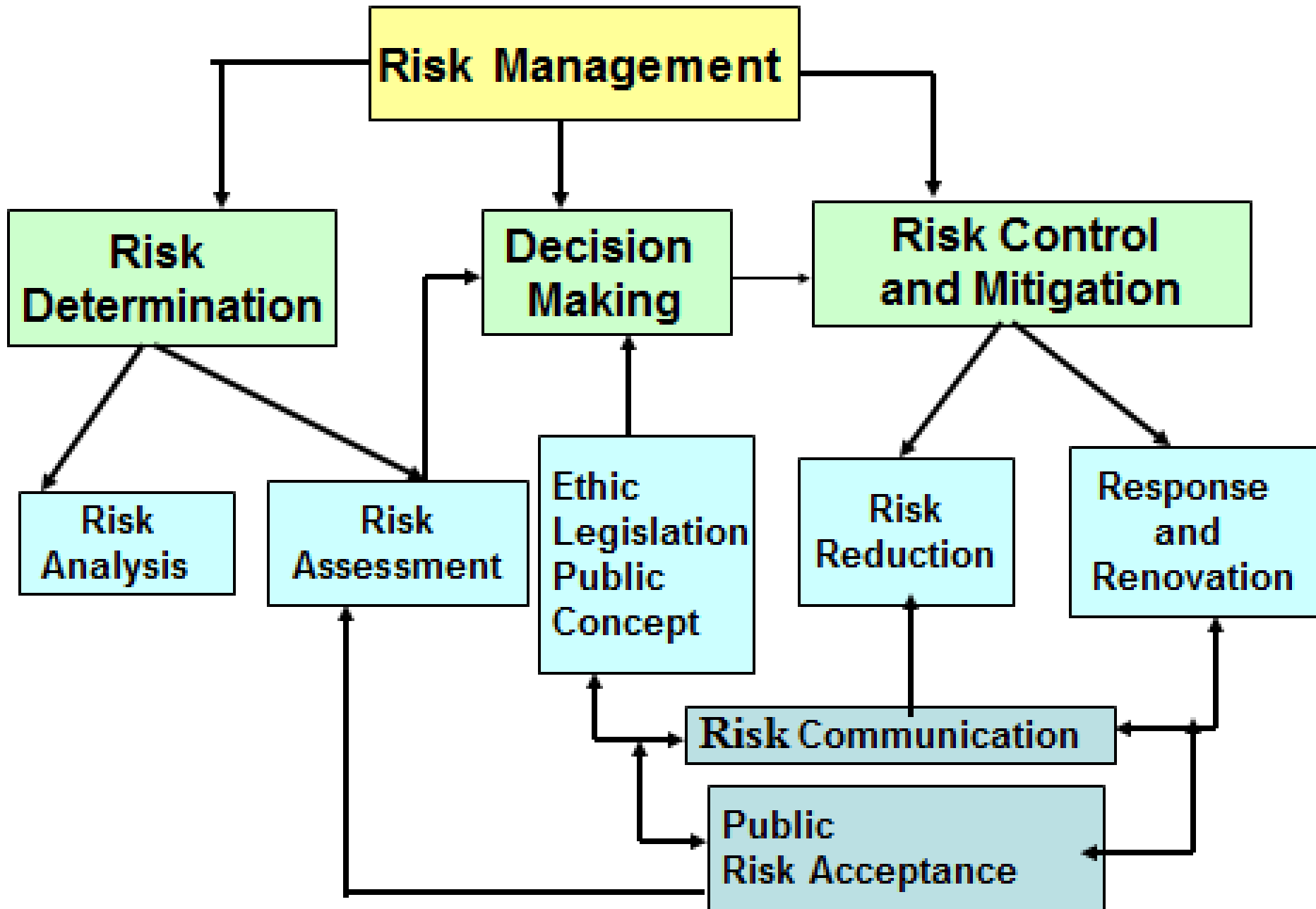
Safety Management in Territory

**Determination of Residual Risk
after Risk Management from Disasters in Territory**

Safety Assessment ← **Monitoring**

**Decision-Making
on Safety**

Acceptable

Non-Acceptable

**Risk Assessment for
Individual Disasters**

**Identification of Causes
and
Measures Determination**

Measures Implementation

System is closed to vicinity
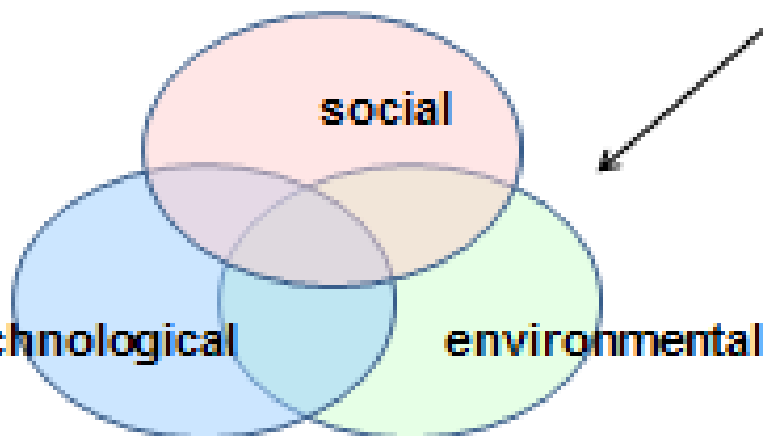
Risk originators are only phenomena inside the system

AIM: risk reduction

Risk engineering

System is closed to vicinity

Risk originators are only phenomena inside the system + human factors

AIM: risk reduction

Risk engineering respecting the human factor

System is open against vicinity

Risk originators are phenomena inside and outside of system + human factor

AIM: system security

Security engineering

System is open against vicinity

Risk originators are phenomena inside and outside of system + human factor + interdependences with vicinity

AIM: system security and vicinity security

System of systems = system of mutually interconnected systems

Risk originators are phenomena inside and outside of system + human factor + interdependences among systems and across system of systems

AIM: system of system security

Safety engineering

social

technological

environmental

Safety Management System

Planning for Safety Management Needs

- **security plan**, the aim of which is to arrange the subject needs and development,

- **emergency plan**, i.e. the set of response plans to emergency situations of the 3 – 4 categories for foreseeable emergency situations,

- **continuity plan**,

- **crisis plan**, i.e. the set of response plans for putting under control the critical situations,

- **contingency plan**, i.e. the response plan for unforeseen situation.

ENVIRONMENTAL MANAGEMENT SYSTEM

www.epa.gov.emc, www.inem.org

It refers to the management of an organization's environmental programs in a comprehensive, systematic, planned and documented manner. It includes the organisational structure, planning and resources for developing, implementing and maintaining policy for environmental protection. It:

- **serves as a tool to improve environmental performance,**

- **provides a systematic way of managing an subject's environmental affairs,**

- **is the aspect of the subject's overall management structure that addresses immediate and long-term impacts of its products, services and processes on the environment,**

- **gives order and consistency for organizations to address environmental concerns through the allocation of resources, assignment of responsibility and on-going evaluation of practices, procedures and processes,**

- **focuses on continual improvement of the system.**

It means that it deals with an organisation or territory safety management with the asset "environment".

Comparison of human system safety management and environmental management

Logic comparison of basic items shows that considered management types differ by:

Assets, i.e.:
- environmental management has one asset "environment"
- integral safety management has several public assets and environment is only one of them.

Aims, i.e.:
- recent environmental management is aimed to secure environment with sustainable development enabling the human existence; the first is environment needs and the second human needs, which does not enable to solve human needs in the sense of Maslow pyramid,
- integral safety management is aimed to secure human system with sustainable development and it also takes care on environment but not as the main priority but as one of basic system assets, i.e. it has a chance to solve human needs in the sense of Maslow pyramid.

Regarding these facts we can conclude that for humans the integral safety management is more acceptable because it has a chance to fulfil human needs in the sense of Maslow pyramid.

Conclusion

The security situation in the world, territory and organisation has been changing with the time, and therefore, there must be systematically built the safety culture, which taking into account actual piece of knowledge and experience.

The safety culture promotion into practice requires both, the aimed management and the broad participation of all staff of a subject under consideration with emphasising that the top management has the biggest responsibility. It understandably leads to the assignment of higher priority to planning and safety management as well as to higher demands to the understanding level of all participants.

For humans the integral safety management is more acceptable because it has a chance to fulfil human needs in the sense of Maslow pyramid and it include the environment and search for co-existence of systems social, environmental and technological.

THANK YOU VERY MUCH FOR ATTENTION !!!!!!