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Risk management as an element of sustainable development and effective use of natural resources

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Sustainable use of Natural Resources = Effective Risk Management

Get ahead of risk — don't just react to it

Fewer regulatory fines and penalties	Avoiding suspension of licenses or operational shutdowns	Future-proofing against tightening environmental regulations
Reduced exposure to volatile commodity and energy prices	Resilience to shortages of critical resources	More reliable and resilient supply chains
Adaptability to market transformation	Fewer operational disruptions and accidents	Greater resilience to extreme weather and climate-related events

Risk management framework

Risk management

Planning

- Define objectives
- Assemble the risk team
- Develop a risk management plan

Identification

- Identify threats and opportunities
  - Threats: climate change, pollution, resource scarcity
  - Opportunities: green innovation, carbon credits, eco-branding, regulatory incentives
- Compile a risk register

Analysis

- **Qualitative risk assessment:** impact on biodiversity, level of pollution (air, water, soil)
- **Quantitative risk assessment:** tonnes of CO_2 equivalent, volume of waste generated, economic loss from environmental incidents, cost of compensation for environmental damage

Response Planning

- **Develop response strategies**
  Technology upgrades (energy efficiency, substitution of hazardous chemicals)
- **Define risk response actions**
  Sourcing raw materials from certified suppliers (e.g., FSC, Rainforest Alliance)
- **Assign ownership**

Implementation & Monitoring

- **Execute risk responses**
- **Monitor and control risks**
  Pollution incidents, energy consumption etc.
- **Update and adapt**
  New environmental regulations, climate change impacts, results of audits and Life Cycle Assessments (LCA)
- **Reporting and documentation**
  (GRI, SASB, TCFD)

Digitalization of risk management

Continuously developing distributed resource for information analysis and processing

Comprehensive digitalization of the risk space – a living digital model of the entire diversity of processes and objects

Integration of centers of expertise for various types of risks and documentation databases

Compliance with recommendations of ISO 31000:2018 and COSO ERM 2017

A single end-to-end risk management process within the digital ecosystem

Central
Institutional
Risk
Management
Platform

Possibility of integrating the contour of risks that are external in relation to the subjects/objects within the enterprise

Mathematical modeling and forecasting of risk situations and the consequences of their occurrence

Control and monitoring of a wide range of risks, risk factors and measures to manage them in real time

Accounting for inter-dependencies and the impact of risks on all relevant processes

100% domestic solution

Digital geographic model

Interactive map of natural hazards

Assessing the impact of major natural hazards, as well as risks of terrorism, war and epidemics, on assets and supply chains.

Real-time alerts on natural events threatening assets or supply chains.

Interactive map allows:
- Gain insight into how global events and disasters may impact an organization's assets and supply chains;
- Assess the exposure of an organization's assets to natural risks;
- Improve the effectiveness of investment decisions taking into account natural risk factors.

Environmental risks

Analysis and assessment of potential impact on the environment taking into account:
- Features and characteristics of the organization's assets: hazardous facilities, use of hazardous substances, availability of protection and preventive measures;
- Terrain;
- Climate characteristics.

Modeling of natural risks

Modeling potential progress of natural disaster scenarios taking into account the terrain:

- Surge
- Tsunami
- Flood
- Mudflows / landslides
- Natural fires

Forecasting

Forecasting the risks of natural disasters based on multifactor analysis.

Modeling climate change and natural risks

Modeling the impact of an organization's assets on the climate, taking into account their characteristics:

- Emissions and other impacts on the environment;
- Presence of measures aimed at preventing and minimizing negative impacts on the environment;
- Terrain;
- Climate characteristics.

Key Takeaways

The Platform works — you manage

Administration is significantly accelerated

Setup, monitoring, and reporting run automatically

Reports, risk maps, and registers are always up to date

One click to refresh, real-time access for all stakeholders

Fewer human resources required

Less manual work, fewer staff needed — more focus on strategic decisions

Critical vulnerabilities and bottlenecks are instantly visible

The system highlights priority risks — so you know exactly where to act first

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