



FORRISK

Thematic project team workshop 2

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Risk and risk management in agriculture and forestry – A brief introduction

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Risiken und Risikomanagement in der Landwirtschaft Österreichs – Eine Unterlage für LandwirtInnen und BeraterInnen

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Risk

(no uniform definition)

- Risk means „uncertainty“
- **Bandwidth of possible outcomes: negative or positive**
- Influencing factors: known or unknown
- Interlinkages: may reinforce or alleviate outcomes
- Origin: inside (internal risks) or outside (external risks) the business
- Factual (objective risk) or perceived (subjective risk)
- Manageability



Risk types

(no uniform classification)

Risk types	Risks related to ... (examples)	Influencing factors (examples)
Production risks	yield quantity, yield quality	weather events, climate, pests, diseases, management, area loss
Fixed assets risks	usability (e.g. operating hours) or value of fixed assets (e.g. resale value)	fire, storm; technical progress or wear, level of maintenance
People risks	availability and quality of own and hired labour	accident, illness, death, divorce; knowledge, skills, motivation, safety measures
Finance risks	liquidity, value of assets and liabilities, availability and terms of finance	payment management, re-/devaluation, securities, solvency of contract partners
Market risks	quantity and quality of goods and services; price levels and volatility	supply, demand, policy
Policy risks	legal requirements and scope of action, availability of public support	changes in institutional and legal framework (e.g. agricultural, environmental, rural, fiscal, trade policy)
Other risks	behaviour, environment, liability, legal protection, new technology, legal or contractual obligations, vandalism, theft, claims of different groups etc.	diverse



Risk management (1)

- Individual risk exposure – tailor RM to individual situation
- Objective of RM (e.g. viable business or life or to prevent insolvency)
- Cost and benefit of RM (e.g. eliminate a certain risk, but in some cases it may be cheaper to just accept the risk)
- Scope and complexity of RM (ranges from very simple, cheap and infrequent activities to very elaborate, costly and frequent activities, or any combination thereof.)
- Interlinkages of risks and RM activities (one risk management tool may reduce a certain risk, but reinforce or create another risk, and vice versa)



Risk management (2)

- Point of use:
 - Ex-ante RM (aim: damage does not occur at all or only at a smaller scale)
 - Early detection RM (identification of problems in their early stages)
 - Ex-post RM (taking action when the damage has already occurred)
- Providers:
 - Individuals (e.g. employees or management level)
 - Business (liquidity management, income diversification, marketing strategy)
 - Market (insurance, commodity exchange, supply contracts)
 - Public sector (financial support for training programmes, insurance, policy framework)



Risk management (3)

- RM is shaped by the persons involved.
 - Consider their risk attitude, perception and competence. Even if they are exposed to the same set of risks, they are likely to perceive these risks differently and deal differently with them.
- Risk attitude (avoidance, affinity or neutrality)
- Risk perception (may be biased by previous experience, pressure, stimulus overload, misconception etc.)
- Risk competence (Ability to deal with risk based on – incomplete – information, critical thinking and reflection, including statistical thinking, heuristics (e.g. “rules of thumb”), system knowledge or psychological knowledge)



Risk management (4)

- Risk strategies:
 - **avoidance** = trying to eliminating the risk so that the damage will not occur at all or that extent of damage is equal to zero
 - **reduction** = trying to reduce the risk; the damage can still occur to a smaller extent
 - **transfer** (to others) = not trying to reduce the risk/the possibility that a damage occurs, but if the damage occurs, it is covered by others (e.g. insurance)
 - **acceptance** = not trying to reduce the risk/the possibility that a damage occurs, when the damage occurs, the injured party covers the damage themselves;



Structured risk management (no uniform approach)





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1. Risk identification

Risk types: production risks, fixed assets risks, persons risks, finance risks, market risks, policy risks, other risks



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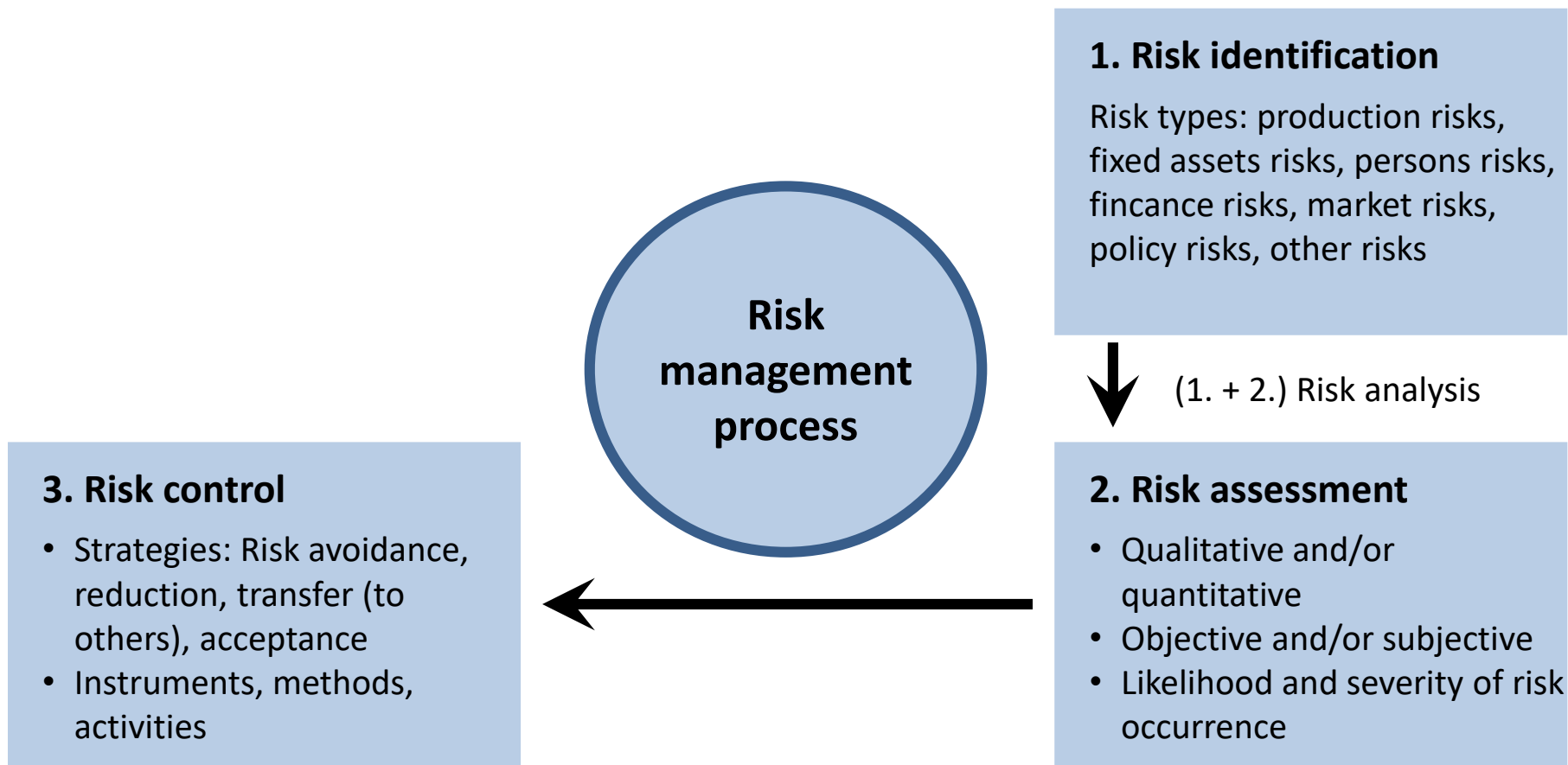
(1. + 2.) Risk analysis

2. Risk assessment

- Qualitative and/or quantitative
- Objective and/or subjective
- Likelihood and severity of risk occurrence

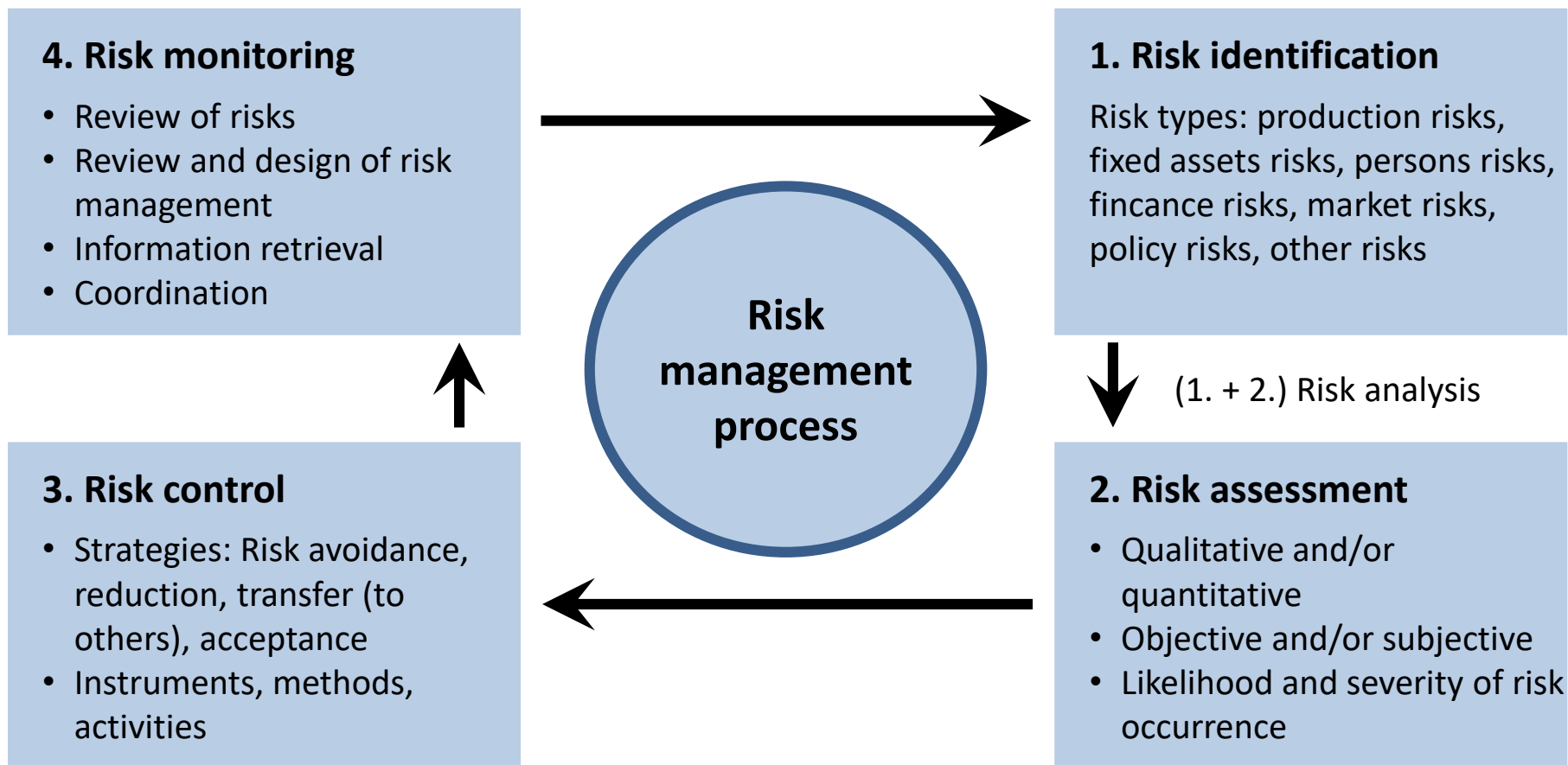


Structured risk management (no uniform approach)



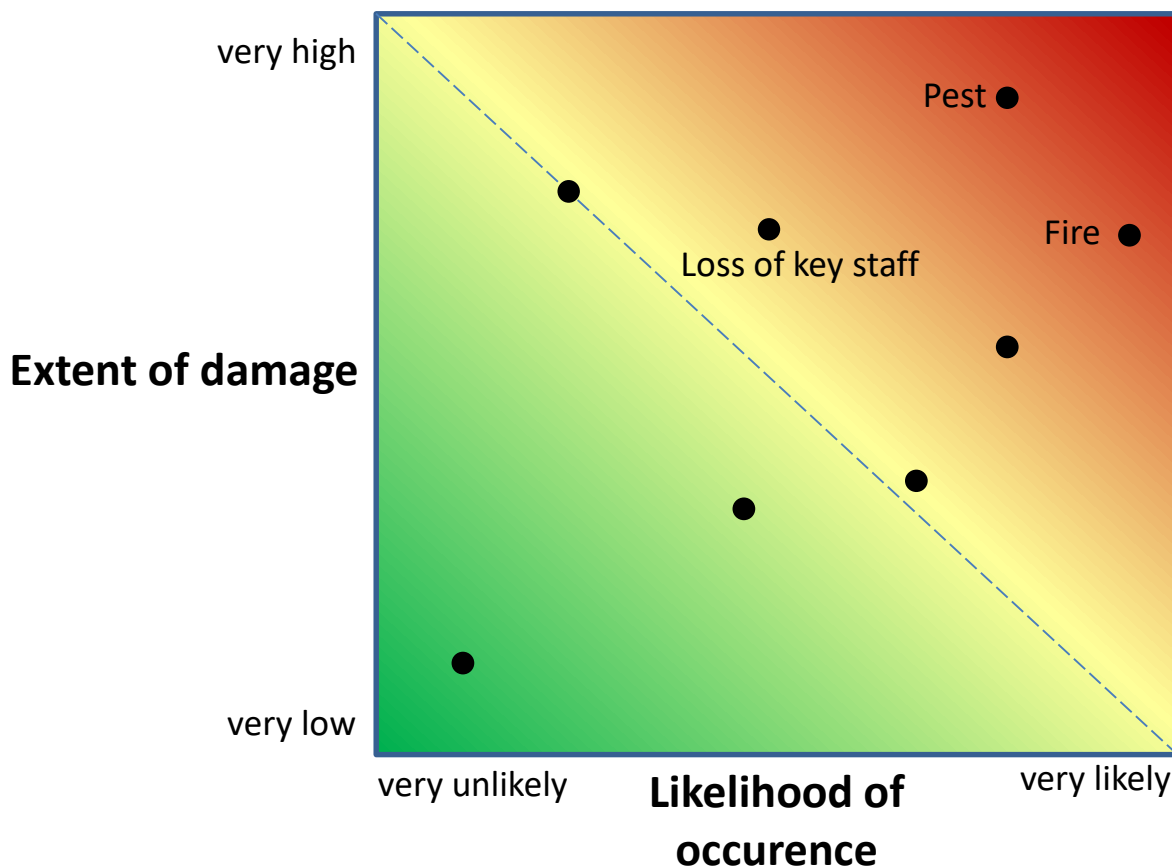


Structured risk management (no uniform approach)





Risk matrix



Mark the risks (●) in the matrix according to their extent of damage and likelihood of occurrence

Red area = more important, potentially existence threatening risks



Discussion

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