

“Advancing human security through knowledge-based approaches to reducing vulnerability and environmental risks“

**United Nations University
Institute for Environment and
Human Security
(UNU-EHS)**



UNITED NATIONS UNIVERSITY

Advancing Knowledge for Human Security and Development

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**Review of Open Research Questions
and Some Possible Answers**

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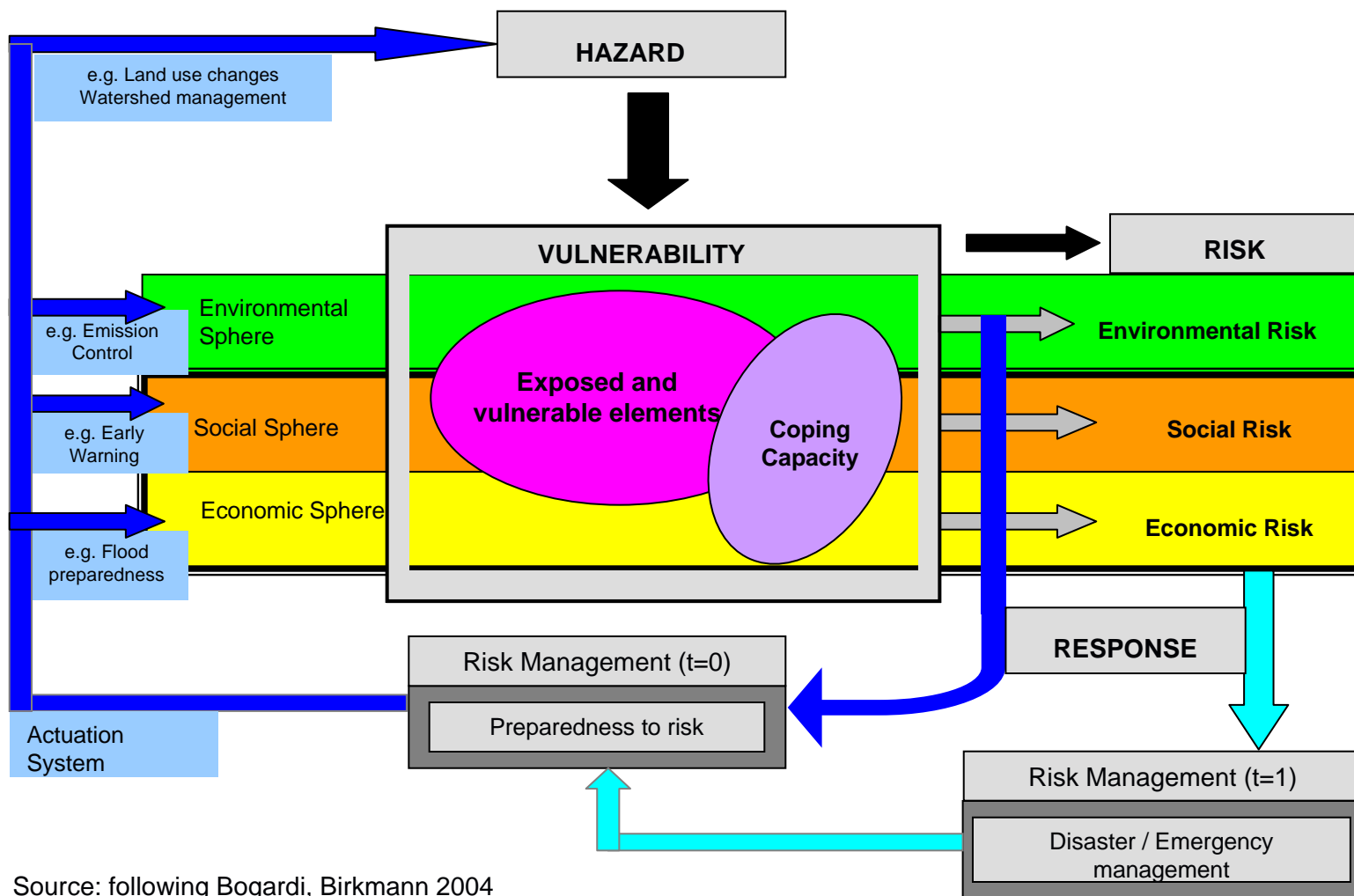
A Paradigm Shift?

■ Ensuring human security requires a paradigm shift in the concept of disaster prevention and preparedness. Instead of starting with a focus on natural hazards and their quantification, the assessment and ranking of the vulnerability of affected groups should serve as the starting point in defining priorities and means of remedial interventions.

The Consequences

1. Redefinition of floods and flood disasters – (socioeconoenvironmental extreme events)
2. Approach from the human security perspective (paradigm shift and its consequences)
3. Hazards-Vulnerabilities – Coping Capacities- Risks chain and Feedback mechanisms.

B-B-C Concept



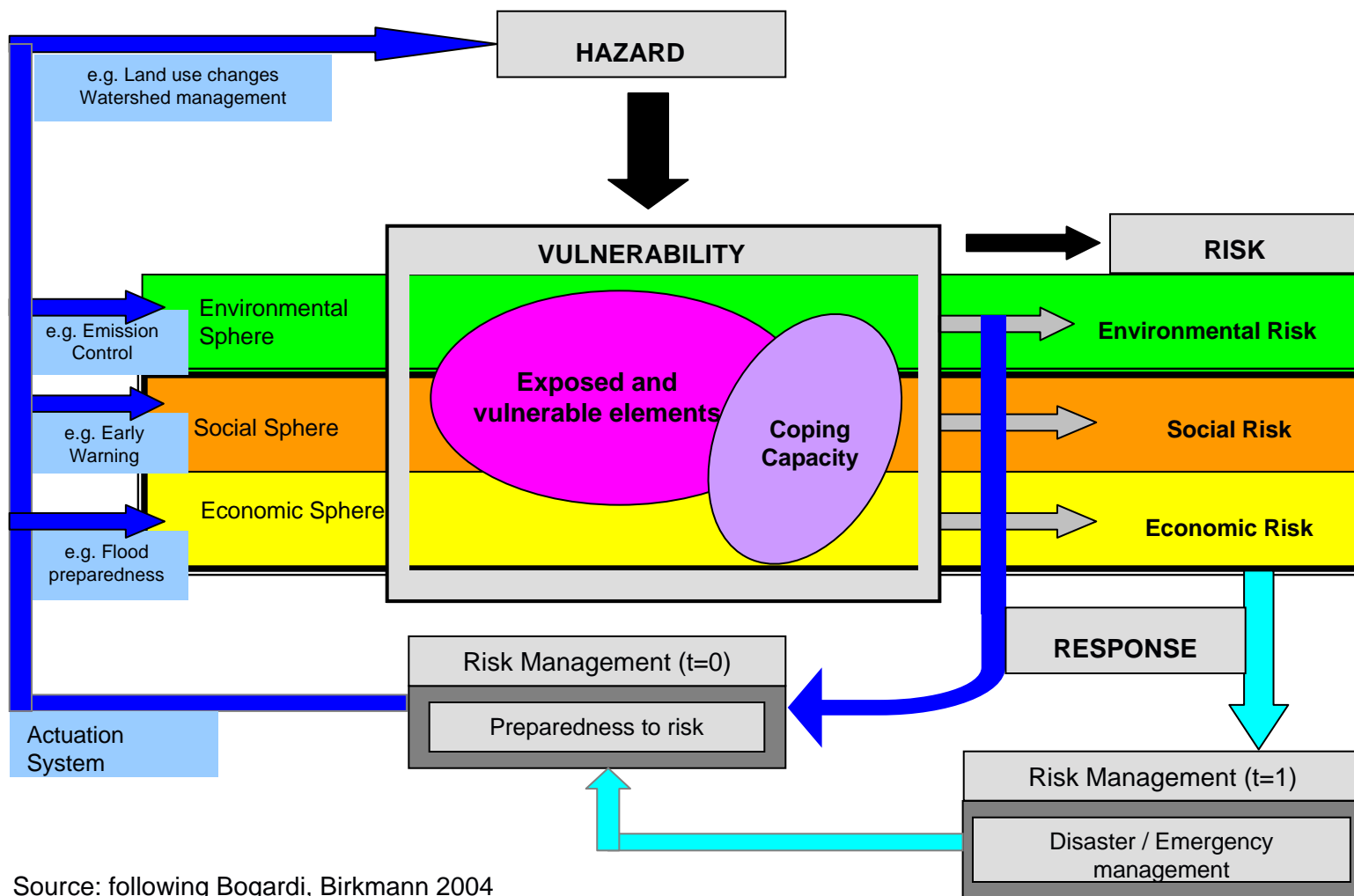
Source: following Bogardi, Birkmann 2004

Hazards

- Global (environmental) changes and their impact/influence on hazards
 - Which hazard will change?
 - Where will it occur?
 - When will it occur?
 - How much change will occur?

- Anthropogenic influence
 - effects of unsustainable land use (deforestation, soil structure)
 - effects of urbanisation (sealing the surface)
 - effects of infrastructure development
 - antropogenic changes in the atmosphere (condensation particles)

B-B-C Concept

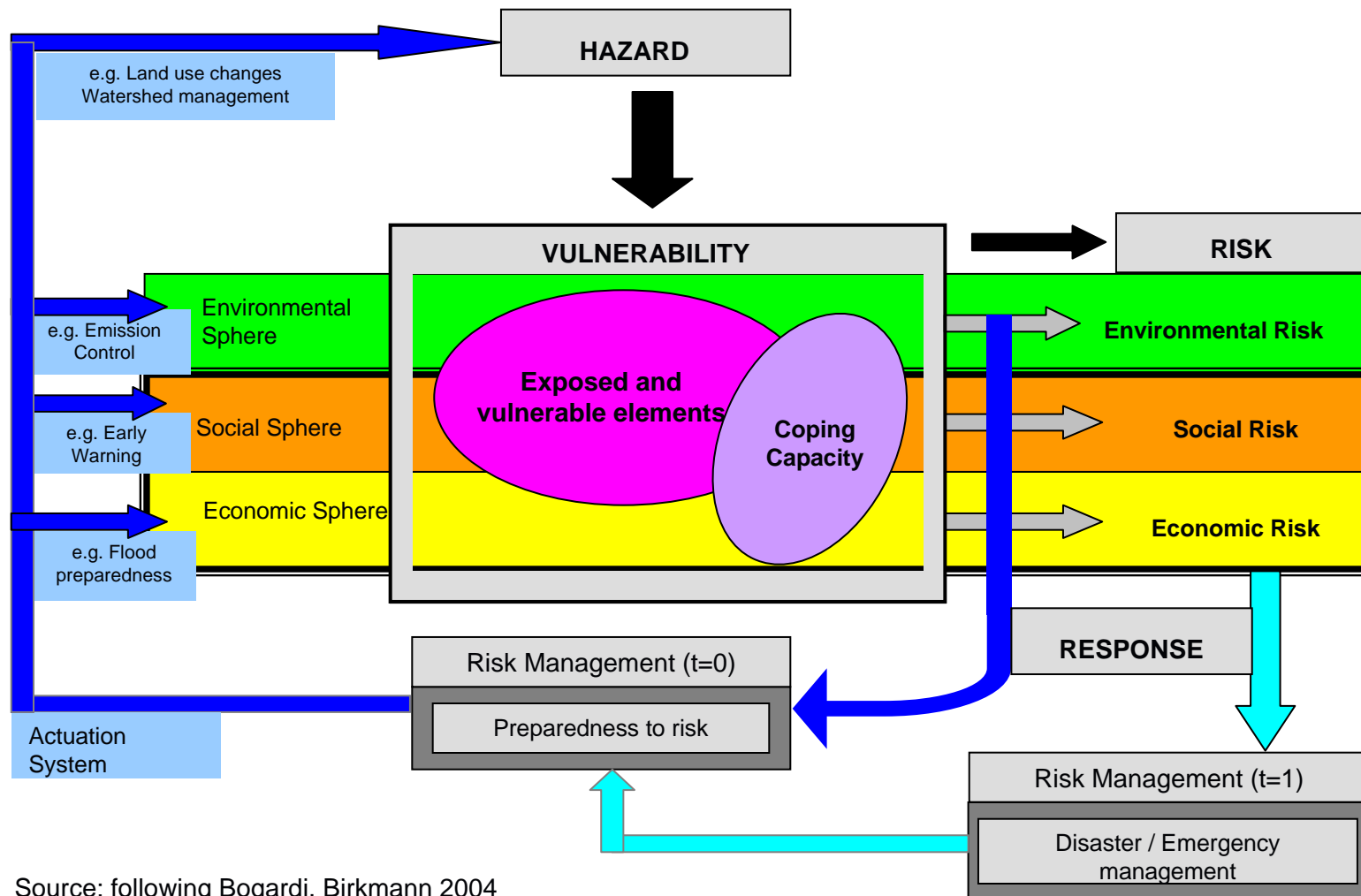


Source: following Bogardi, Birkmann 2004

Vulnerabilites / Coping Capacities

- Social or/and physical feature?
- How to assess to be policy relevant?
- At what scale can/should we capture vulnerability?
- How to monitor changes?
- Are there surrogate indicator(s) of vulnerability?
- How to develop vulnerability assessment as part of early warning?
- How to measure coping capacity?
- How far can coping capacity „compensate“ vulnerability?

B-B-C Concept

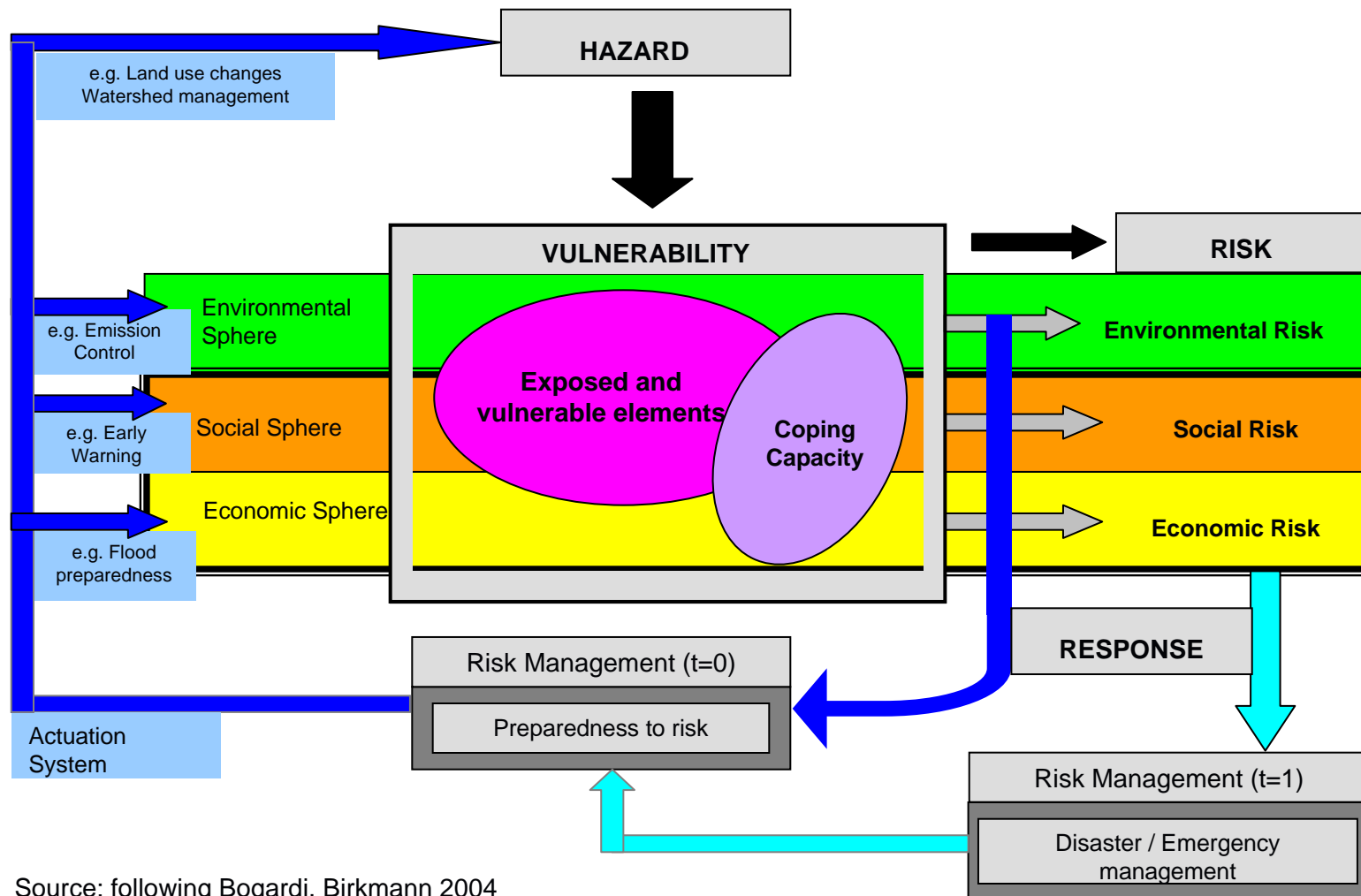


Source: following Bogardi, Birkmann 2004

Risks

- Risk mapping: is it the panacea?
- Different risk categories and dimensions?
- Risk – damage: When do disasters occur?
- Risk Management: the overall concept?

B-B-C Concept



Source: following Bogardi, Birkmann 2004

Feedback

- How to activate the „disaster management“ mode?
- Knowledge, capacity, awareness as parts of risk management?
- Governance structure(s)?

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