
One Health Scorecard

Operationalizing One Health as a
transdisciplinary ecosystem approach

Carsten Richter

Dr. rer. nat., MBA, Dipl.-Inf. Med.

*One Health and Vector Borne Diseases Webinar Series, Webinar 3,
Illustrating One Health Operationalization in Practice, 18 October 2023*



Review of the One Health Approach

What are key elements the One Health approach?

Systems Thinking:	A scientific approach associated with holism that recognizes that whole entities comprised of interacting parts possess properties that are more than the simple sum of multiple parts
Adaptive Management:	Systemic management incl. continuous monitoring of key variables and system behavior. Integration of information, whereby policy and action is a continuously iterative experiment.
Evolving Organization:	Enabling the assessment of evolving risks and adaptive management by involving disciplines and stakeholders in a manner that is adequate to the situation.
Generative Learning:	Continuous development of new perspectives and insights beyond accumulated knowledge, by challenging assumptions and creating knowledge as a driver of innovation.
Community Participation:	A process of facilitating capacity building, organizational development and OH operations within communities to enable them to holistically analyze, evaluate, prioritize and manage risk.
Transdisciplinarity:	Integrative interdisciplinary research that employs systems thinking and community participation, for integrated results and value creation in terms of real-world problems.

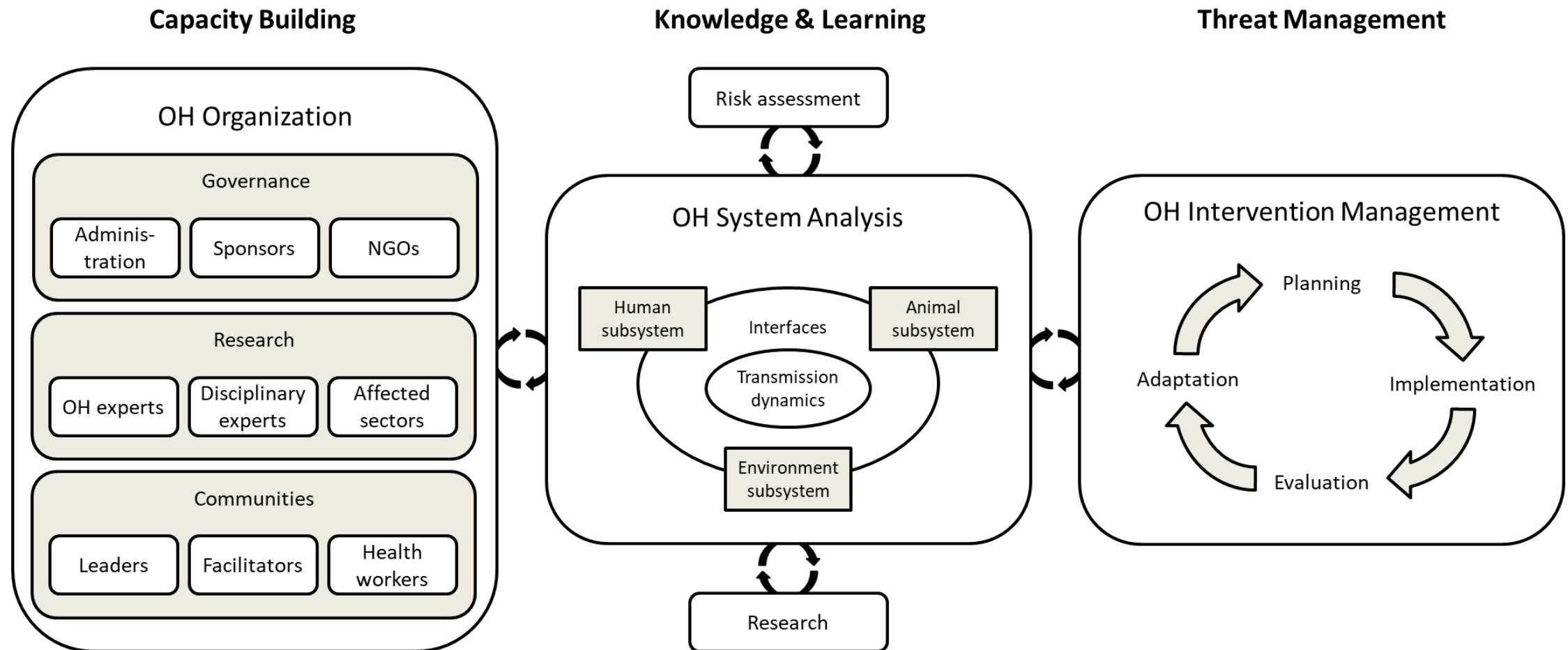
Problem Statement of One Health Operationalization

How can we properly plan, implement and evaluate One Health approaches?

- Ideal:** One Health approaches that empower the community to build and sustain the adaptive capacity to evaluate local health risks, implement threat management and generate knowledge in the process.
- Reality:**
- Risk assessment and prioritization is rarely led by the community.
 - The involvement of scientific disciplines is rarely demand-driven.
 - Research-led interventions generally focus more on publishable output than on community empowerment.
 - Funding institutions aim for evidence of reduction in epidemiological data of a certain disease (reactive) rather than for building adaptive, local organizational competencies for sustainable risk reduction (preemptive).
- Consequences:**
- Little / superficial support by the community during interventions.
 - Little / no empowerment of the community to build and sustain adaptive capacity.
 - Questionable research outputs / temporary intervention outcomes (due to limited time in individual projects).
 - Growing disinterest / resentment in communities to participate in research projects / local interventions.
 - Undetected, controlled systemic, infectious risks
- Proposal:** Create a framework for guidance on planning, implementing, measuring and evaluating One Health approaches to ensure their long-term maturity in terms of systems thinking, transdisciplinarity, adaptive management, adaptive organization, generative learning and community empowerment.

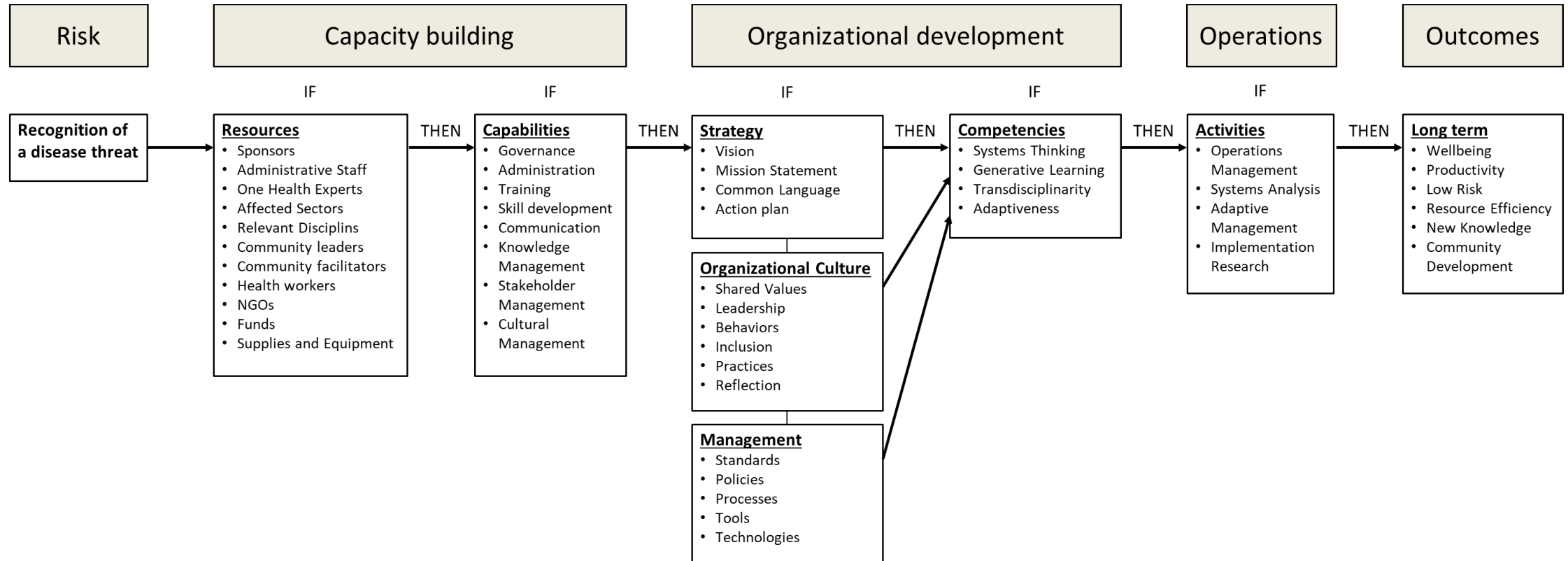
Components of an adaptive **One Health Approach**

Continuous capacity building for generative learning and sustainable threat management



Operationalizing the One Health Approach

A 'logic model' for building capacities, developing capabilities, achieving competencies



Quick Introduction to Scorecards

Management tool for building and sustaining core competencies

Rational:

- **Success:** Every organization that is successful offers specific resources, products, or services that are either cheaper or of a higher quality than those of its competitors or unique.
→ effectiveness and efficiency
- **Success factors:** Organizations develop internal core competencies that are key to their current success. Building, securing and strengthening them is the foundation of any successful strategy.
→ core competencies and sustainability
- **Managing success factors:** Core competencies are made of a multitude of key capacities and capabilities, enabled by organizational and managerial frameworks, processes and tools. Therefore, evaluating success requires evaluating the performance of essential success components from several perspectives.
→ perspectives and Key Performance Indicators

Rational for the **One Health Scorecard**

Facilitating the operationalization of One Health approaches

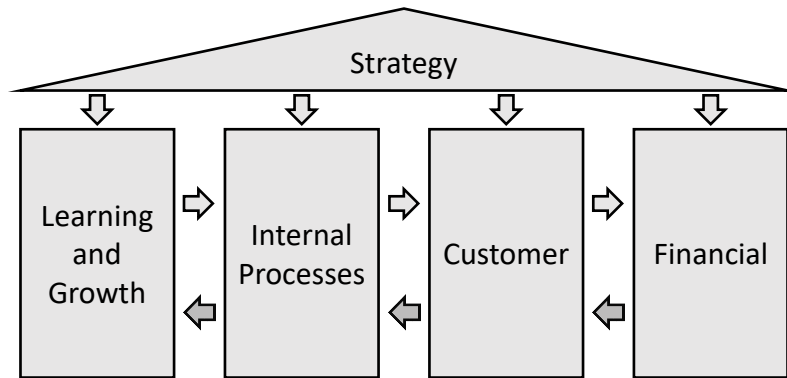
Per project phase:

- **Planning:** Design projects according to the operational state and maturity requirements of local One Health approaches and in alignment with the communities.
→ **demand driven and collaborative**
- **Implementation:** Build on the organizational development within communities to design, plan, implement, evaluate and adapt local interventions. Collaborate with an enabled community to identify relevant research questions.
→ **enabled and supportive**
- **Evaluation:** Measure progress and evaluate projects not based on isolated ecological, social or epidemiological figures but based on the impact on local systems, the collaboration with communities and the maturation of local One Health approaches.
→ **maturing and sustainable**

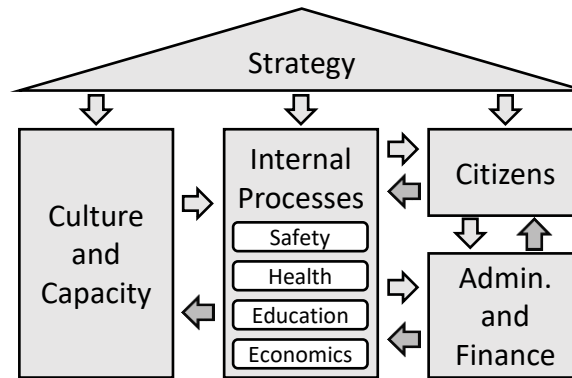
Examples of Scorecards

Evaluation of core competencies from different perspectives

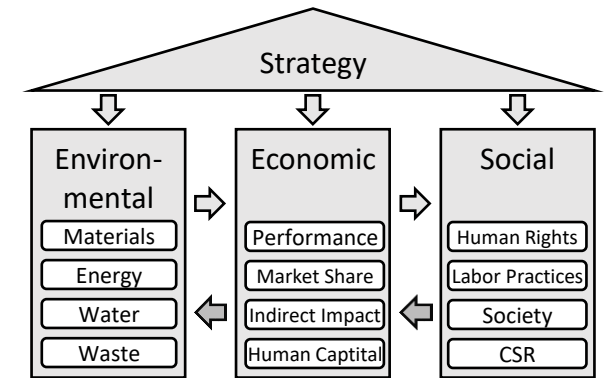
Classic corporate:



Public administration:



Corporate sustainability:



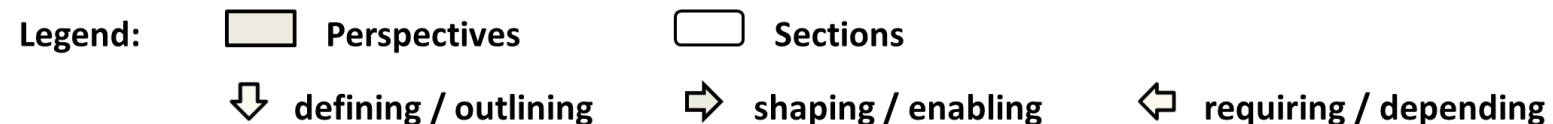
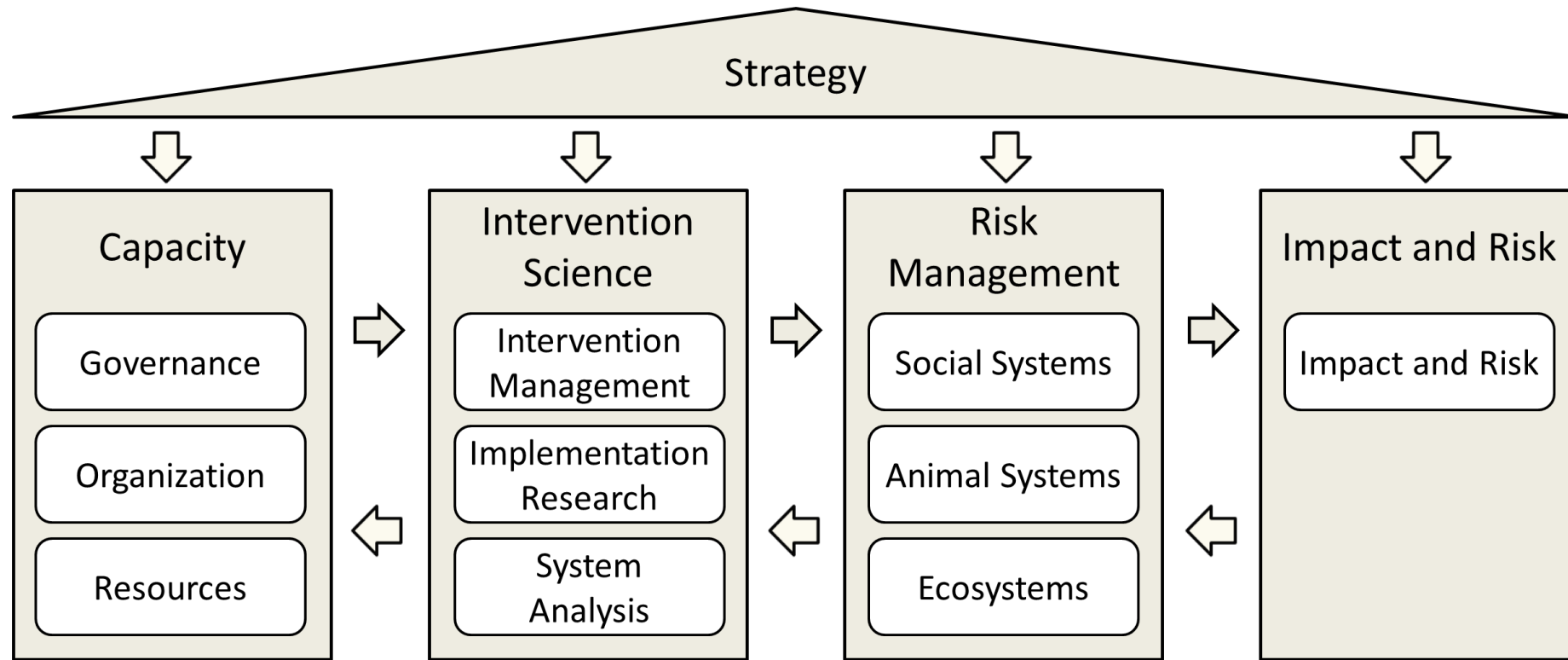
Core competencies of an adaptive One Health Approach:

- Systems thinking
- Generative learning
- Transdisciplinarity
- Adaptiveness



Structure and Interrelations of the **One Health Scorecard**

Management tool for evaluating organizational development, capabilities and systemic risk



Example of a Key Performance Indicator of the **One Health Scorecard**

Capacity / Organization / Knowledge

Score	Stage	Description
5	<i>Innovation</i>	New perspectives and insights through innovations in theories, models and paradigms and modifications of underlying norms, policies and objectives.
4	<i>Generation</i>	Generation of new knowledge through equitable integration of individual and social learning in an adaptive, transdisciplinary process.
3	<i>Provisioning</i>	Provisioning and enhancement of role-specific knowledge and skills and facilitation of knowledge sharing across sectors, disciplines and stakeholders.
2	<i>Compilation</i>	Establishment of a knowledge management, training and skill development system to build and sustain essential knowledge capacity.
1	<i>Analysis</i>	Analysis of essential knowledge and skills relevant to developing a sustainable One Health approach to a specific disease threat and analysis of current gaps.

An Example of a One Health Scorecard

Application of a standard that incorporates variances of specific settings for a harmonized evaluation

P1 Capacity 3	P2 Intervention Science 2	P3 Risk Management 2	P4 Impact and Risk 4
S1 Governance 3	S4 Intervention Management 2	S7 Social Systems 3	S10 Impact and Risk 4
K1 Sectors 4	K10 Planning 3	K19 Resilience 4	K28 Severity 3
K2 Disciplines 3	K11 Implementation 3	K20 Risk Mitigation 3	K29 Frequency 2
K3 Communities 3	K12 Adaptation 2	K21 Risk Control 3	K30 Risk Potential 4
S2 Organization 3	S5 Implementation Research 2	S8 Animal Systems 2	
K4 Culture 3	K13 Effectiveness 3	K22 Resilience 2	
K5 Knowledge 4	K14 Efficiency 3	K23 Risk Mitigation 3	
K6 Management 3	K15 Sustainability 2	K24 Risk Control 2	
S3 Resources 3	S6 System Analysis 3	S9 Ecosystems 2	
K7 Human Resources 4	K16 Social Systems 4	K25 Resilience 2	
K8 Supplies & Equipment 3	K17 Animal Systems 4	K26 Integrity 3	
K9 Financial Resources 3	K18 Ecosystems 3	K27 Vector Control 2	

Putting the **One Health Scorecard** to Action

For better and sustainable results of One Health approaches

The way forward:

- **Analysis of concluded projects:**
 - Apply the One Health Scorecard to concluded projects to evaluate the current/achieved maturity at local communities, to identify gaps in the project design or for designing future projects.
- **Analysis of ongoing projects:**
 - Apply the One Health Scorecard to ongoing projects to evaluate the current/achieved maturity at local communities, to identify gaps in the project design **and corrective action** or for designing future projects.
- **Utilization for planning projects:**
 - Apply the One Health Scorecard to identify One Health fundamentals and receive guidance on step-wise capacity building and development of local competencies.
- **Reference:**
 - Utilize the One Health Scorecard collaboration platform for capacity building, to identify projects facing the same challenges or to learn from other projects in terms of applied methods, models, tools, approaches...
- **Call for action:** Contact us for applying the One Health Scorecard to your projects in any stage.