Moving Toward a Scale Independent Approach to Monitoring Status and Trends in Biodiversity

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Environmental Evaluator's Networking Forum

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Guidance Systems

Help us adapt to better achieve targets

- Local / project
- Regional / National
- Portfolio / Global

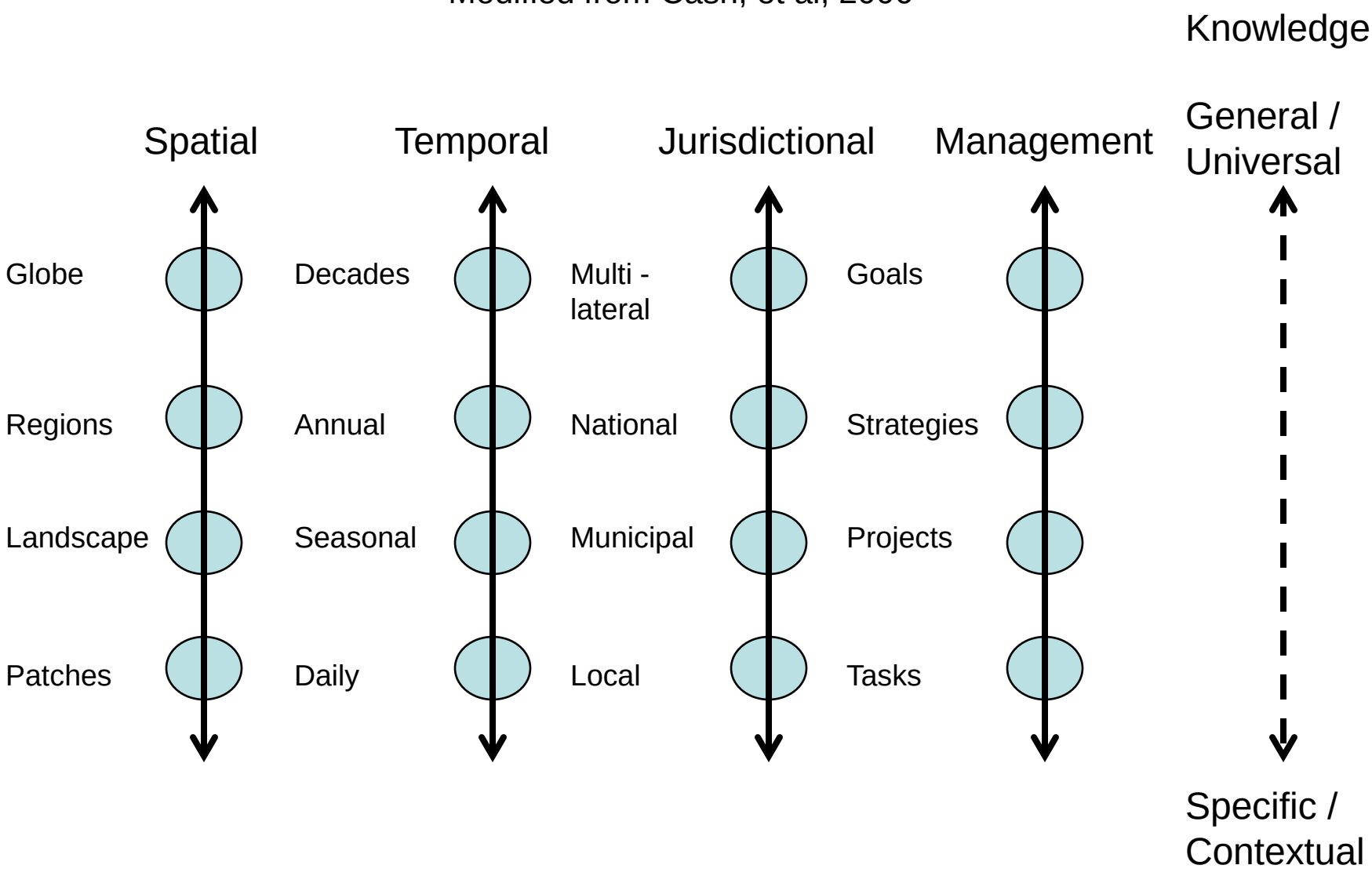
– What are the questions need to answer (purpose)?
– Who are the stakeholders?
– What information is needed?
– What are the strategies for meeting these information needs?

Overarching Elements of CI's Approach

- Define targets using globally consistent criteria
- Assess status of targets using standard set of indicators (SPR) – irrespective of investment
- Report change in status (trends) using standard set of indicators over time
- Apply higher resolution monitoring (SPR) for discreet investments

Scales of Interest

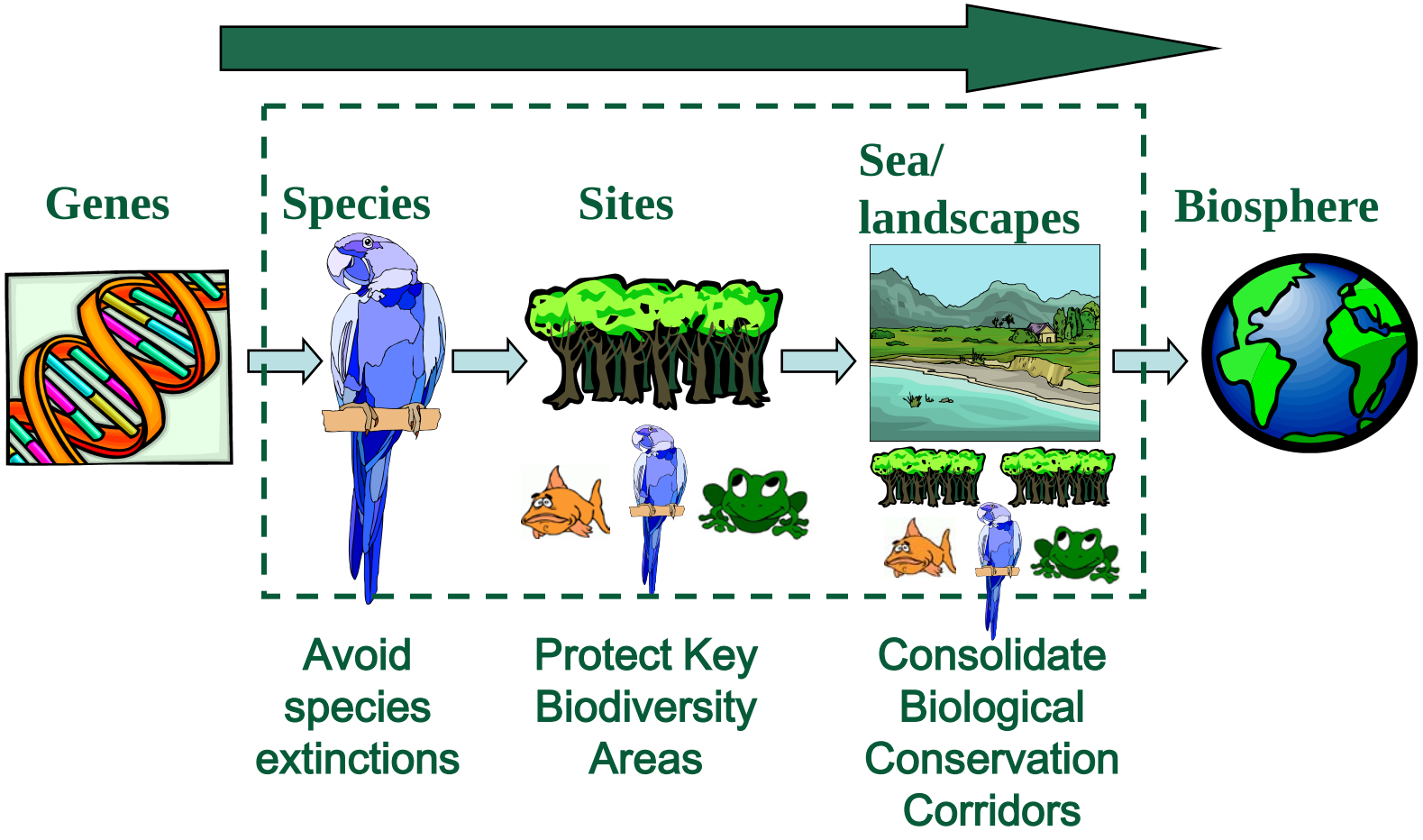
Modified from Cash, et al, 2006



Biodiversity

CI's view of the world

Increasing levels of ecological organization



IUCN
The World Conservation Union

Identification and Gap Analysis of Key Biodiversity Areas

Targets for Comprehensive Protected Area Systems

Penny F. Langhammer, Mohamed I. Bakarr, Leon A. Bennun, Thomas M. Brooks, Rob P. Clay, Will Darwall, Naamal De Silva, Graham J. Edgar, Güven Eken, Lincoln D.C. Fishpool, Gustavo A.B. da Fonseca, Matthew N. Foster, David H. Knox, Paul Matiku, Elizabeth A. Radford, Ana S.L. Rodrigues, Paul Salaman, Wes Sechrest and Andrew W. Tordoff

Peter Valentine, Series Editor

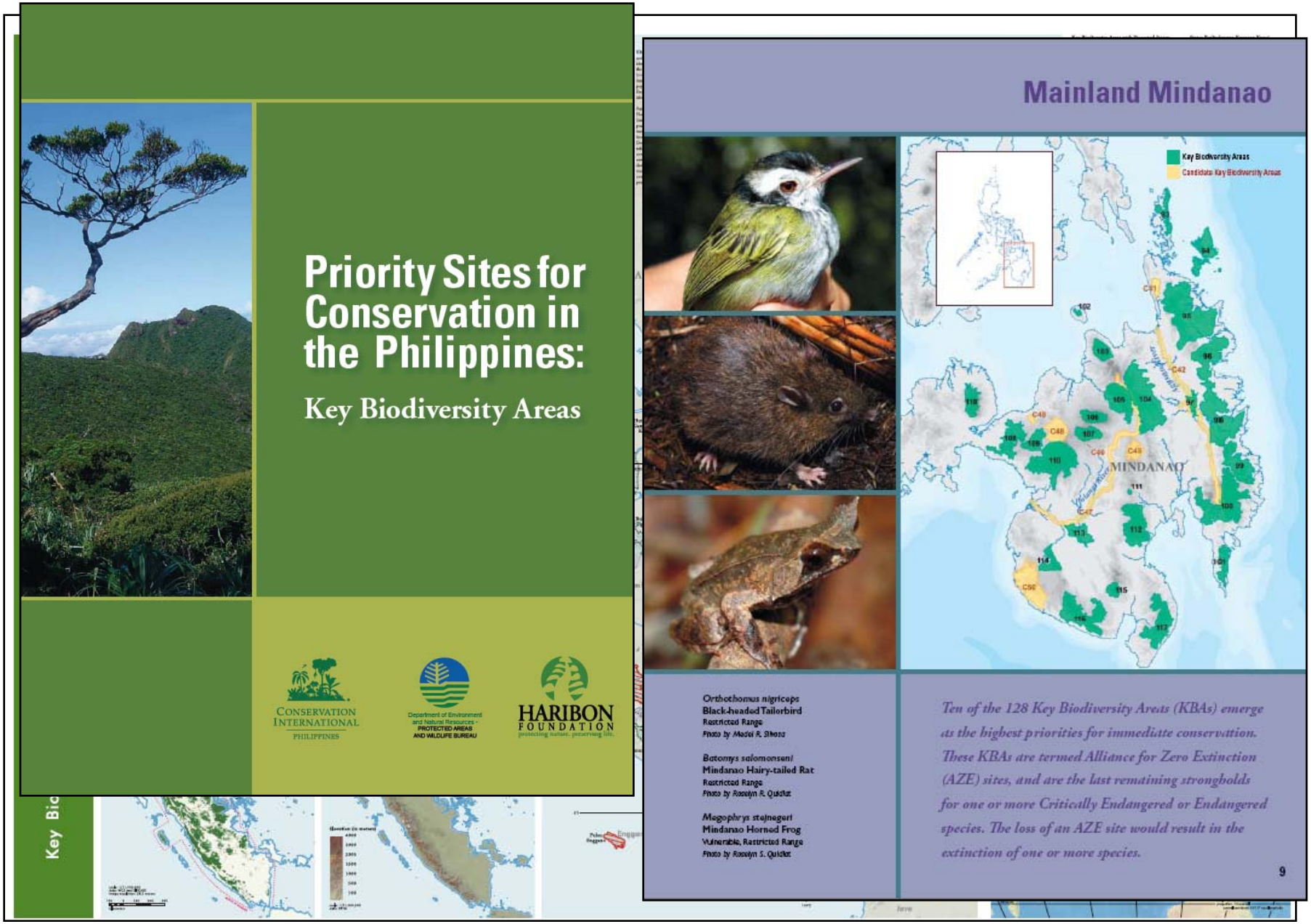
Best Practice Protected Area Guidelines Series No. 15

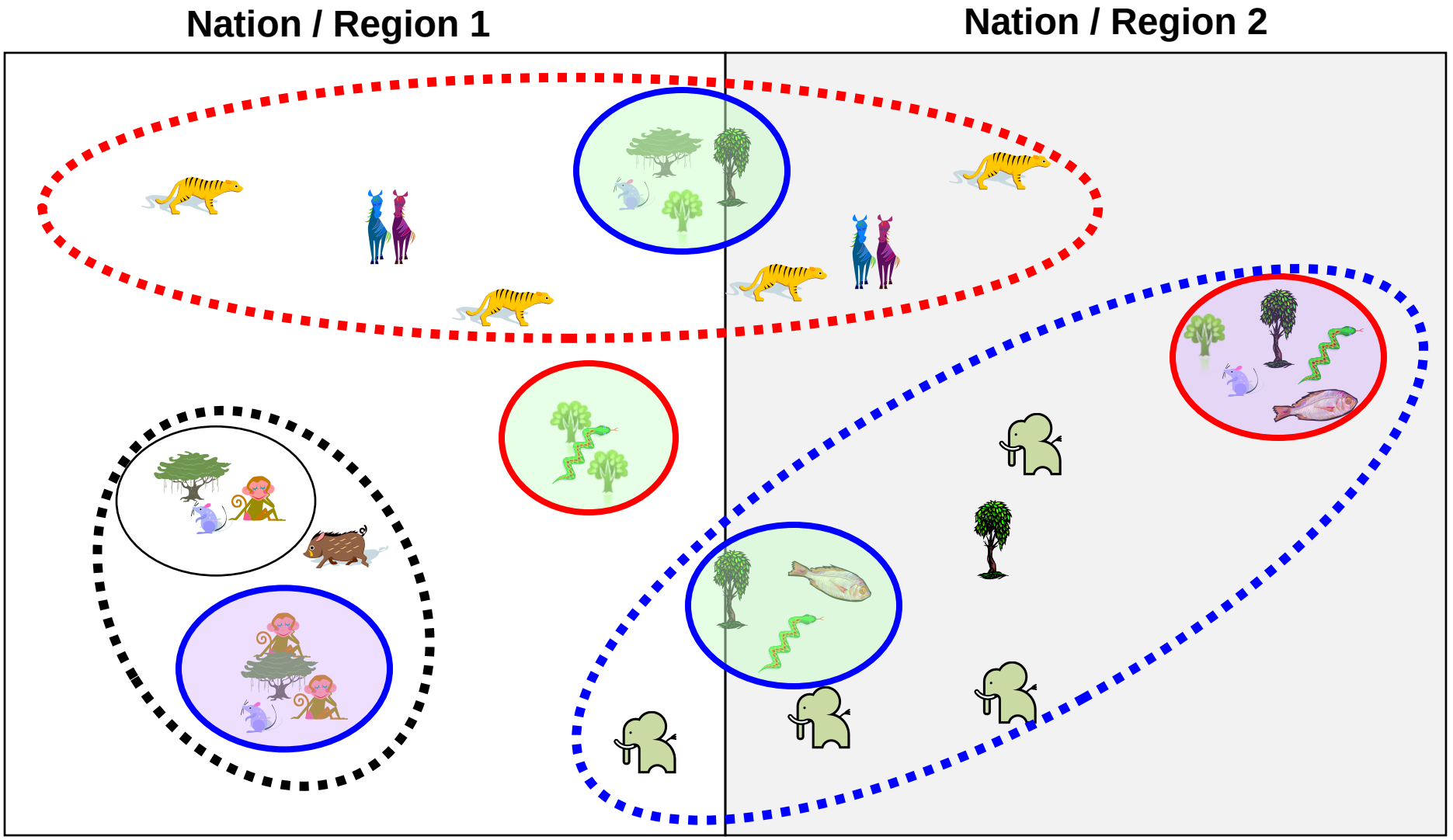
JCU
JAMES COOK UNIVERSITY

Rainforest CRC

WCPA

WBDB-Definition – Example of products




Nation / Region 1
Nation / Region 2
Legend:
Site
Landscape
CI
Partner Org.
VV investment
GCF investment

Status Monitoring

National, regional and global scale monitoring platform

Tracks the degree and direction of broad scale trends in biodiversity threats and associated conservation responses irrespective of investment.

Diagnostic monitoring of biodiversity components that provide early warning information for prioritization of conservation action

Why?

Assessment of trends in biodiversity, threats and conservation action at global, regional and national conservation scales

Helps to prioritize where and what conservation targets and actions need further conservation investment

Provides valuable data to different audiences (donors, government, industry, public)

Status monitoring provides ***'breadth'*** in data outputs

Intervention Monitoring

Measures the results of conservation actions applied to a local context

Indicators are measured at a higher level of resolution

Focus is on quantifying the correlative relationship between the status of biodiversity, threats and interventions (SPR model)

Why?

Explicitly evaluates the effectiveness of projects applied at the local or intervention scale

Advances knowledge of intervention and strategy effectiveness

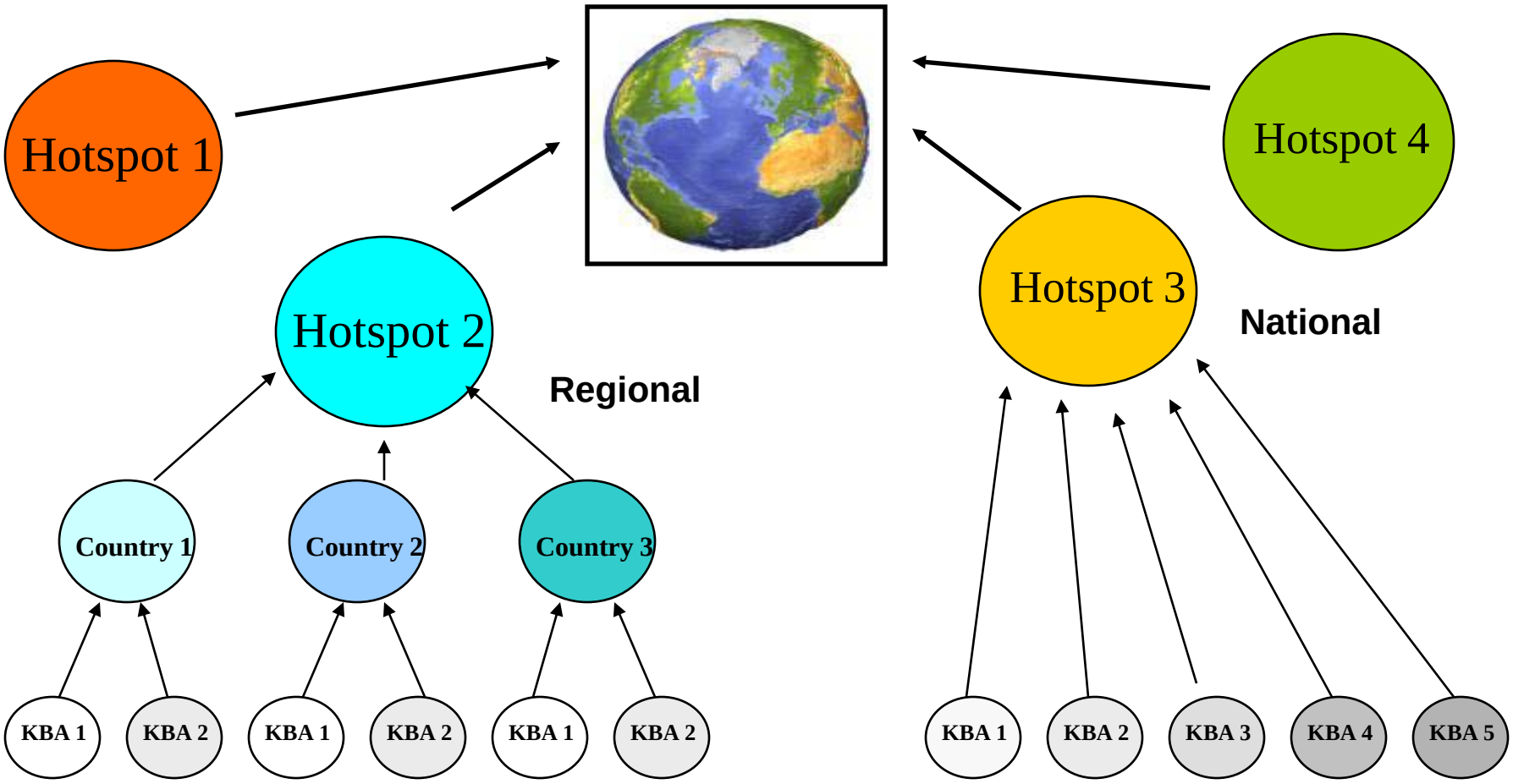
Adaptive management – evaluate & revise the level of conservation intervention needed to make a positive conservation impact

Lessons learned – improvement of future conservation strategies

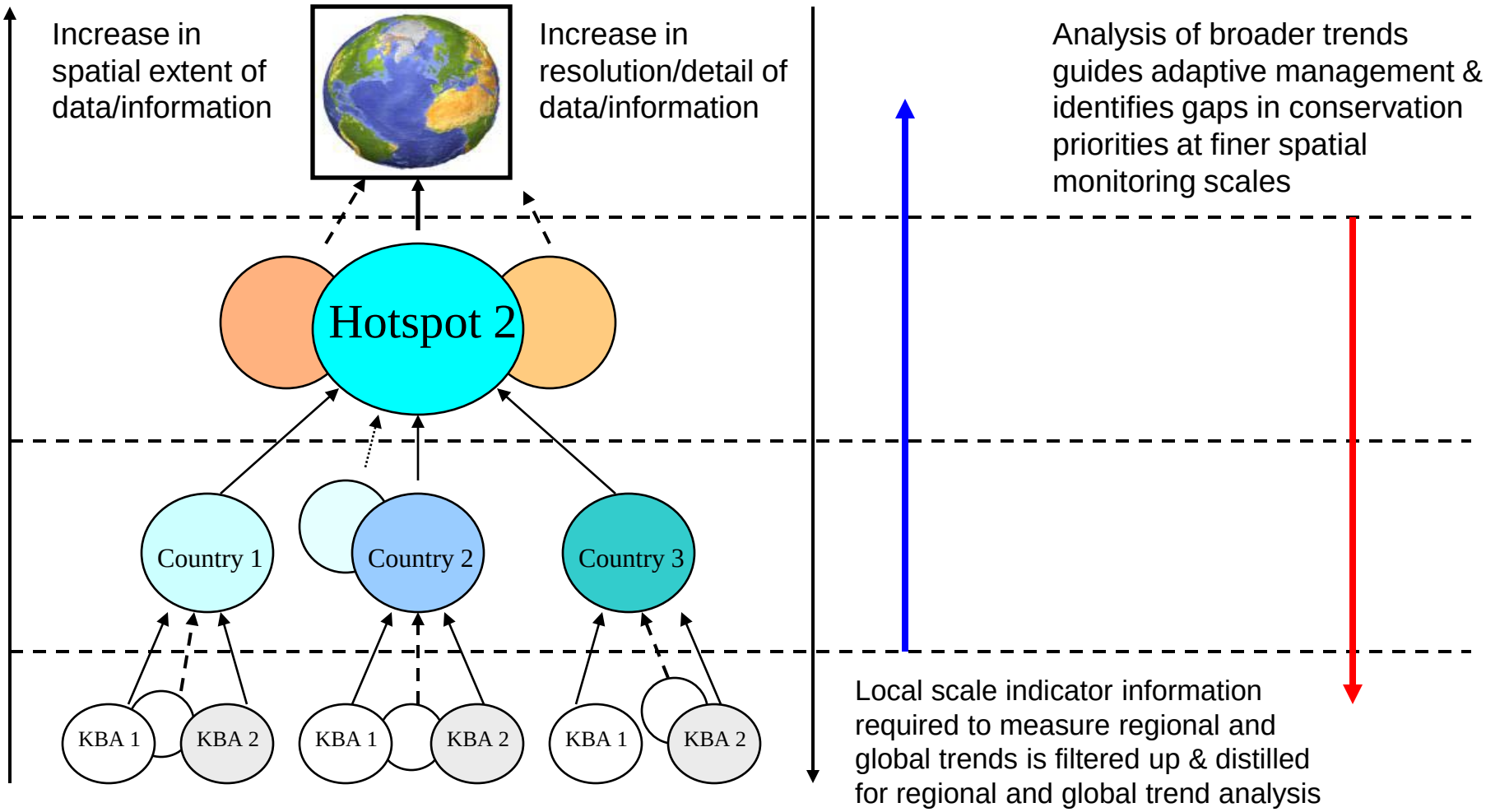
Informs status monitoring

Effectiveness Monitoring provides ***'depth'*** in data outputs

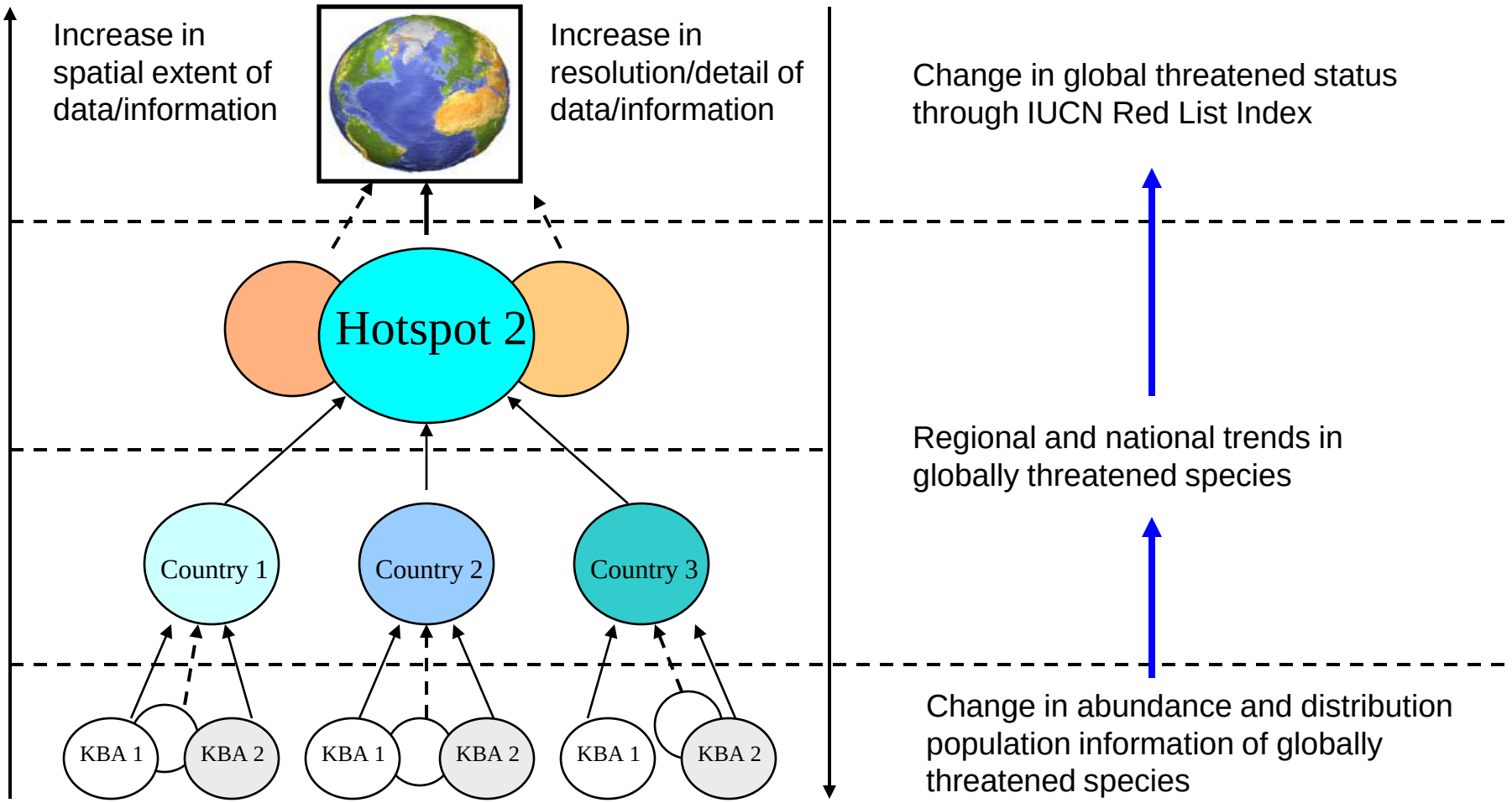
Different scales of monitoring



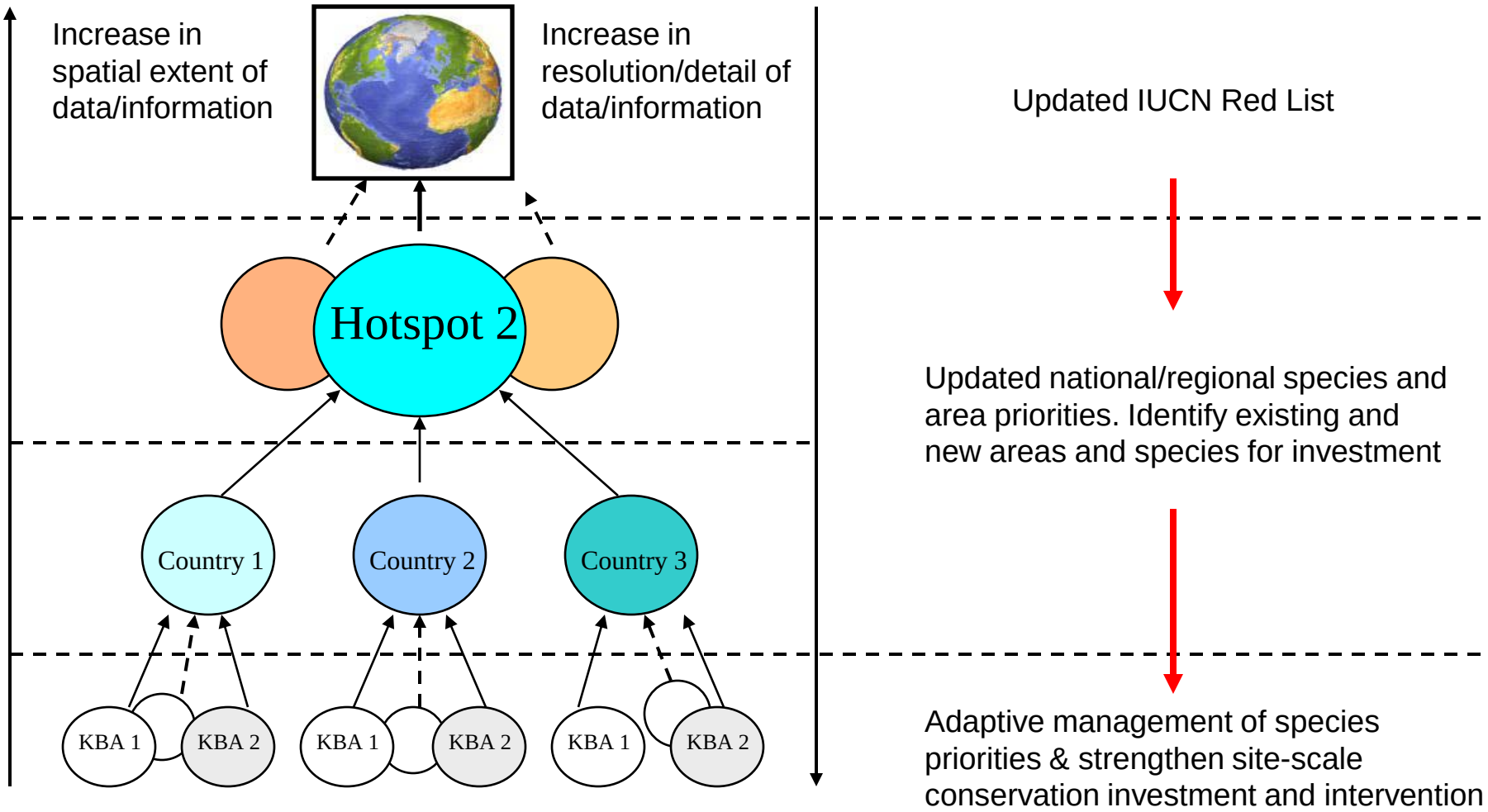
Collation and analysis of monitoring information at different scales: **Flow of information**



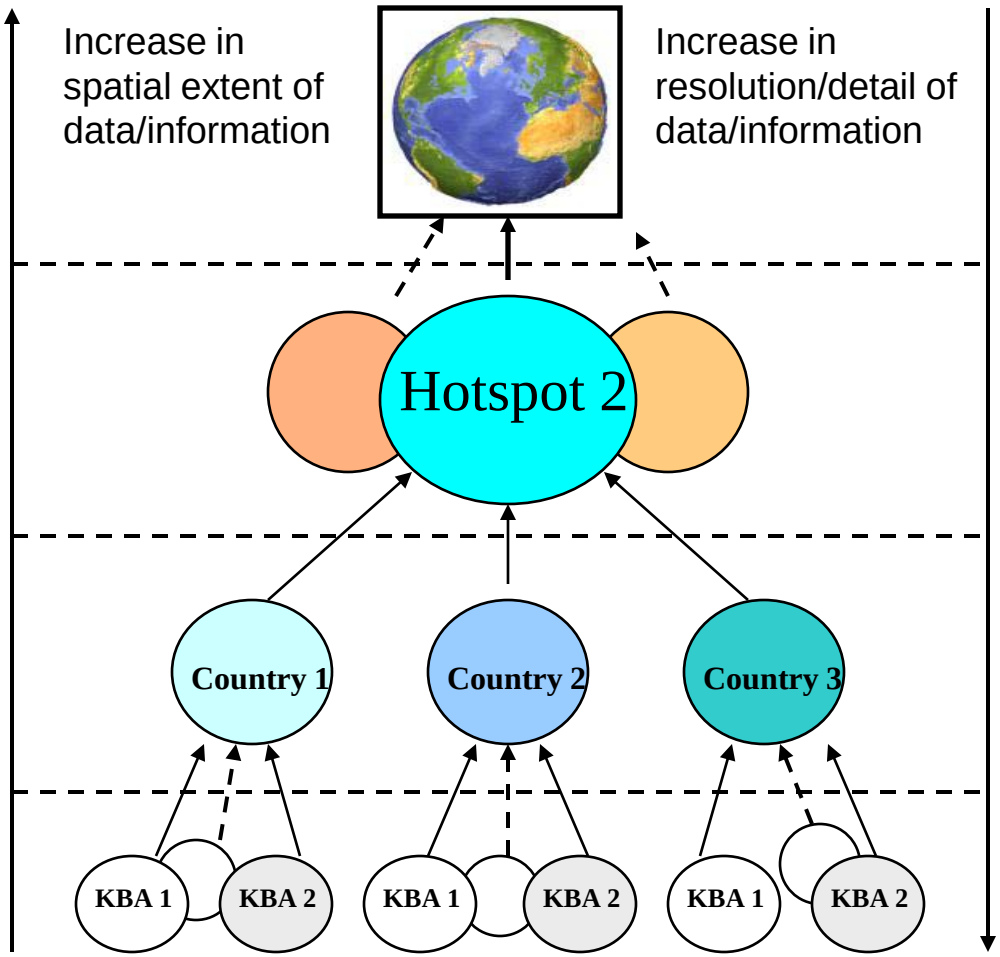
Collation and analysis of monitoring information at different scales: **Scaling up local information (Species)**



Collation and analysis of monitoring information at different scales: **refining local conservation tactics (Species)**



Collation and analysis of monitoring information at different scales: **Outputs & needs**



Report on global trends

Reports on institutional success

Guides donor investment

Regional & National policy making

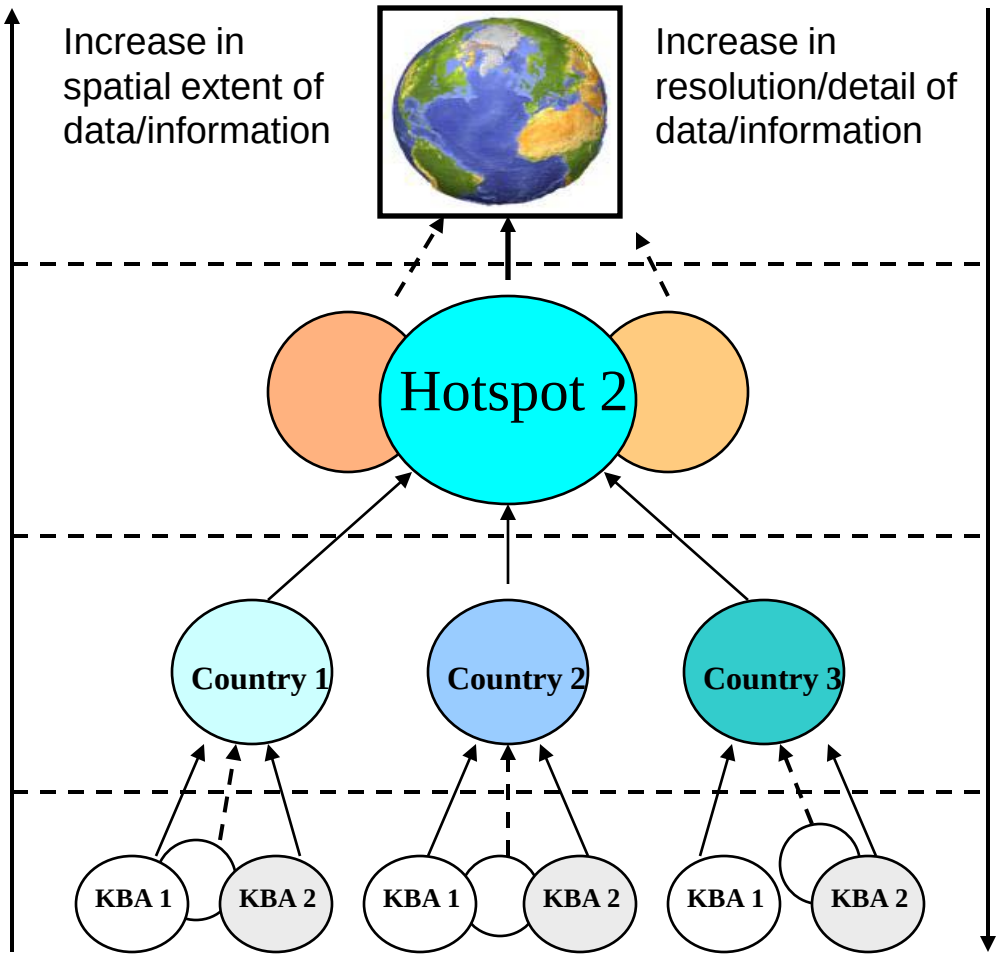
Scientific research

Guides adaptive management (regionally)

Project effectiveness reporting

Guide adaptive management (locally)

Collation and analysis of monitoring information at different scales: **Stakeholders & actors**



Global unions – IUCN, CBD

International NGOs – CI, TNC, WWF, WCS

Regional NGO programs

National and Local government agencies

Local NGOs

Scientific institutions

Local Scientific institutions

Local community stakeholders

Private sector stakeholders

Site Managers

Challenges in linking monitoring scales

- Spatial and temporal standardization of SPR variables that need measurement
- Establishing clear criteria and methodologies for data collection
- Achieving coherence between scales of reporting
- Resource constraints
- Formulate information/data linkages between local, regional and global data management systems
- Identify appropriate avenues for communication flow between different scales and among NGOs, governments, academic institutions and local stakeholders