Biodiversity conservation in social-ecological systems: (mis)matches between conservation discourses & evidence-based conservation

Katherine Vande Velde[1†], Jean Hugé[1], Nico Koedam[2] & Farid Dahdouh-Guebas[1]

1 **Laboratory of Systems Ecology and Resource Management**, Université Libre de Bruxelles (ULB), Campus d/l Pleine, Boulevard du Triomphe, B-1050 Brussels;
2 **Laboratory of Plant Biology and Nature Management**, Vrije Universiteit Brussel (VUB), Pleinlaan 2, B-1050 Brussels;
† To whom correspondence should be addressed. E-mail: **kathvdev@ulb.ac.be**

Context

FOR :
- Conservationists (globally)
- Decision makers (locally)

ABOUT :
- Local discourses
  (**INCLUSIVE CONSERVATION**)
- Evidence-based (ecological) knowledge
  (**EVIDENCE-BASED CONSERVATION**)

on **effective biodiversity conservation**

Asses (mis-)matches between scenarios of effective biodiversity conservation

| Lose-Lose | Win-Lose | Win-Win |

Increase effectiveness of biodiversity conservation by :
- allowing systematic improvement & integration of discourse knowledge and evidence-based (ecological) knowledge
- allowing maximally informed recommendations for local policy and/or management systems
  e.g.: method design shortcomings, ranked objectives based on attainability, etc.
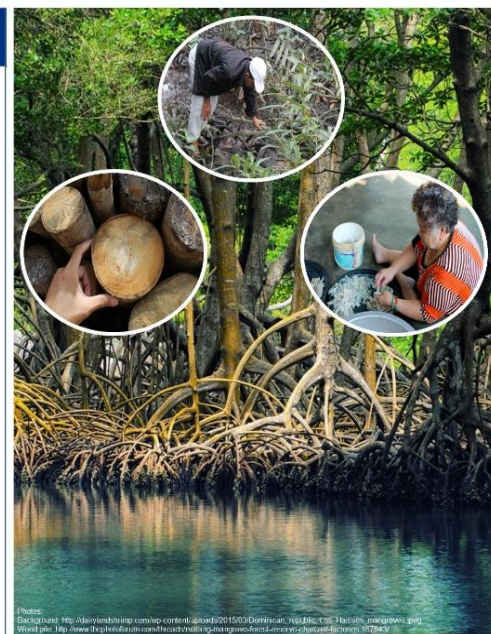
Methods
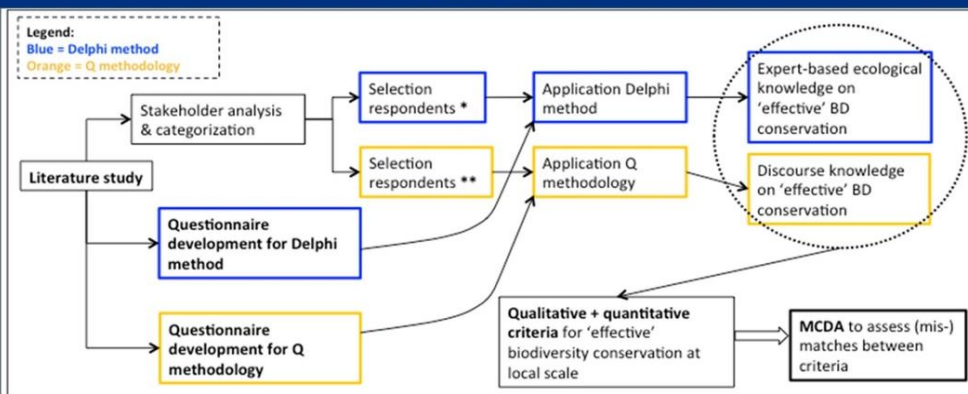
PROPOSED METHODOLOGY

This will be applied to three case studies. Remarks: * = selection of experts is based on meeting at least one of the following criteria: min. 2 relevant (i.e. subject related) publications in peer reviewed journals; min. 8 years of relevant experience; ** = selection of participants is based on indicators of diversity in order to improve approximation of local discursive representation (i.e. mapping of all discourses). Abbreviations: 'BD' = biodiversity; 'MCDA' = multi-criteria decision analysis.
(Possibly Participative Rural Approach: used to include stakeholders unable to participate in Q or Delphi)

Photos:
Background: http://dairylandshrimp.com/wp-content/uploads/2015/03/Dominican_republic_Los_Haitises_mangrove.jpeg
Woodpile: http://www.thephotoforum.com/threads/multing-mangroves-forest-4-mroyesl-chart-set-factories.187843/

Case Studies

SELECTION OF CASE STUDIES

The selection of case studies was done based on differences in characteristics likely to influence stakeholders and the local discourses. (CS = Case Study)

Case study	Characteristics likely to influence stakeholders and the local discourses
CS 1 • **Singaporean Mangroves** • Location: Singapore	• Industrialised country • Environmental pressure: continued existence threatened • Management framework: no clear priority
CS 2 • **Matang Mangrove Forest** • Location: Perak (Malaysia)	• Developing country • Environmental pressure: continued existence relatively ensured • Management framework: silviculture
CS 3 • **Sungai Pulai Ramsar Site** • Location: Johor (Malaysia)	• Developing country • Environmental pressure: continued existence questioned • Management framework: divergent, i.e. nature protection & development

CS 2

Peninsular Malaysia

CS 3   CS 1

Data SIO, NOAA, U.S. Navy, NGA, GEBCO
Image Landsat   © Google Earth Pro

CEBioS