



BiodivERsA past and future activities & link with ‘nature-based solutions’

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BiodivERsA WS on NBS, Brussels, 11-12/06/2014



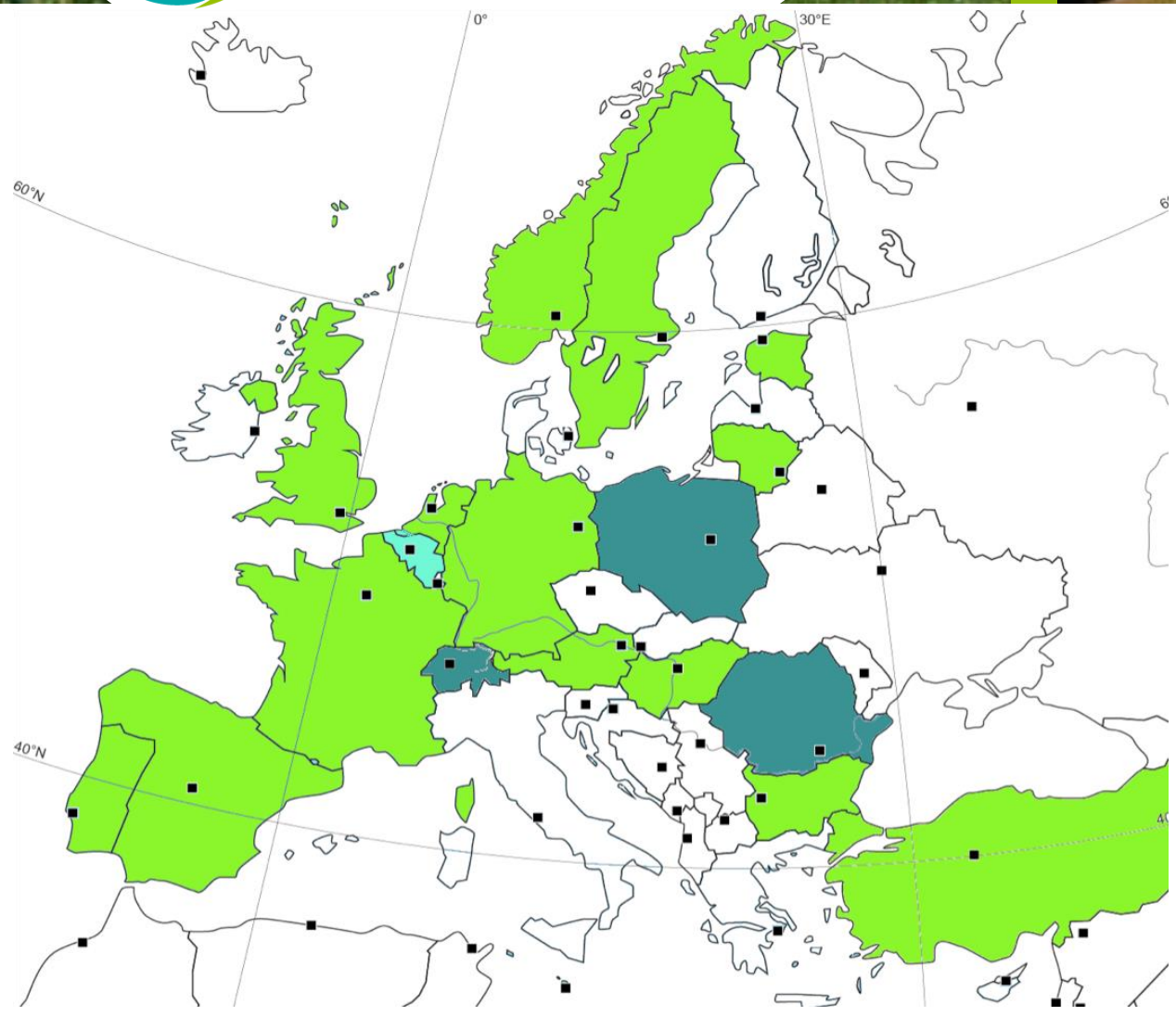
BiodivERsA1: FP6 ERAnet 2005-2010 (13 countries)

BiodivERsA2: FP7 ERAnet 2010-2014 (15 countries)


?? BiodivERsA3: H2020 ERAnet 2015-2019 (18 countries) **??**



**15 countries + 3
additional that
want to join**



Overview of BiodivERsA approach & activities :



Linking national strategies and funding sources in Europe



Research mapping & programme co-design

Detailed mapping of European research landscape (>6300 projects in the BiodivERsA database)

A shared research agenda, updated yearly : 5 pressing issues already addressed



Research funding & knowledge brokerage

Calls for 100 M€ (50M€ new money) since 2008

Funded research is outstanding, multidisciplinary and policy relevant

Professional knowledge brokerage to disseminate projects' outputs

⌘ BiodivERsA database:

-> funding, programmes and projects

currently >6300 funded projects !

Navigation: Home, Search, Advanced Search..., Manual, Feedback, Registration, Login

You are here : » Advanced Search » Search Funding Programs Results

Search Results
Funding Programs: Results: 1 - 19 of 19

Program ID	Name	Country	Starting date	Ending date
F-FP-0	Biodiversity and Global change		1999-01-01	2099-12-31
F-FP-5	Indian Ocean Islands Biodiversity-Biodiversité des Iles de l'océ...	FR	2006-06-10	2007-12-31
F-FP-2	Public action, agriculture and biodiversity - Action publique, a...	FR	2003-01-01	2099-12-31
F-FP-1	ANR Biodiversity		2005-01-01	2099-12-31
FP-081946206	Biodiversity and Forest Management - Biodiversité et gestion for...	FR	1998-01-01	2008-12-01
FP-979300406	Tropical ecosystems - Ecosystèmes tropicaux	FR	1999-01-01	9999-12-31
FP-027521509	Biodiversity dynamics and access policy to habitats and natural ...	FR	2002-07-01	2004-08-31
FP-730695107	Genetic Resources - Ressources génétiques	FR	2002-01-01	2007-01-01
FP-683112676	Dynamics and management of coastal ecosystems (LITEAU)	FR	1998-01-01	2010-01-01
FP-683064000	Sixth extinction - Sixième extinction	FR	2009-02-18	2012-12-31
FP-633646894	Biodiversity and Global change- GICC biodiversité	FR	2003-11-04	2008-11-23



Link
funding

Research mapping
co-d



Detailed mapping of European research landscape (>6300 projects in the BiodivERsA database)

➔ A tool for analysing funding sources / amounts ; profiles of funded research ; etc.

addressed

relevant

Calls launched during BiodivERsA2:

- Nov. 2010: *Biodiversity & ecosystem services and their valuation* (€9.5M ; 9 countries)
- Nov. 2011: *Biodiversity scenarios, identifying tipping points and improving resilience* (€8.8M ; 9 countries)
- Nov. 2012: *Invasive species & biological invasions* (€8M ; 10 countries)
- Nov. 2013: *Trade-offs and synergies between biodiversity/services/agriculture* (€10M? ; 14 countries)



Research mapping
co-d



Detailed mapping of European research landscape (>6300 projects in the BiodivERsA database)

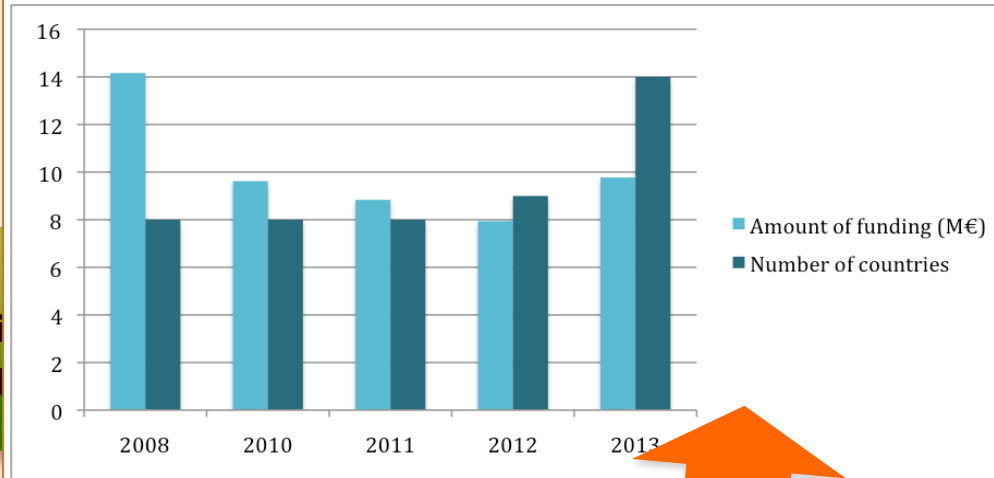
A shared research agenda, updated yearly : 5 pressing issues already addressed

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Professional knowledge brokerage to disseminate projects' outputs

Substantial, annual joint calls

- 5 calls since 2008; 100M€ total, 50M€ new money
- 18 countries participated in at least one call



Research mapping
co-d

Detailed mapping of European research landscape (>6300 projects in the BodivERsA database)

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Professional knowledge brokerage to disseminate projects' outputs

- ✓ Reinforcing stakeholder engagement & policy relevance of research
 - ➔ Analysis of stakeholders engagement in biodiversity research
 - ➔ Handbook for engaging stakeholders and for policy relevance

- ✓ Promoting knowledge transfer to stakeholders/policy makers
 - Outputs of funded projects
 - Policy briefs based on outputs of funded projects



Detailed mapping of European research landscape (>6300 projects in the BiodivERsA database)

A shared research agenda, updated yearly : 5 pressing issues already addressed

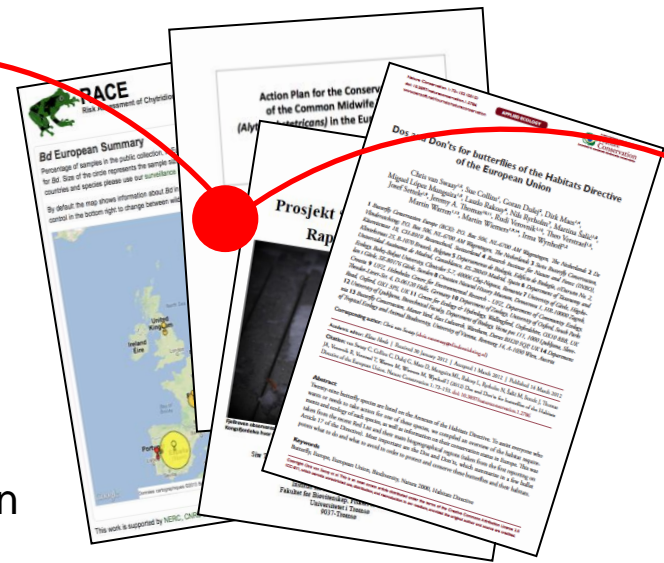
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Excellence of actual academic AND societal outcomes



Most projects reached excellence both for academic and societal impacts !!



- >300 scientific papers
- 2/3 of projects published in *Nature*, *Science* or *PNAS*

- Maps of emerging pathogens in EU; atlas of butterflies...
- Update of indicators used
- European abatement plan, Dos and don'ts for habitat directive, guidelines for business...

- Policy briefs targeting policy makers in Europe & European regions

Ex for the 12 BiodivERSa 2008 projects



To what extent the research supported by BiodivERsA addresses / could better address the issue of Nature-based solutions ?



Position of BiodivERsA as regards to NBS so far?

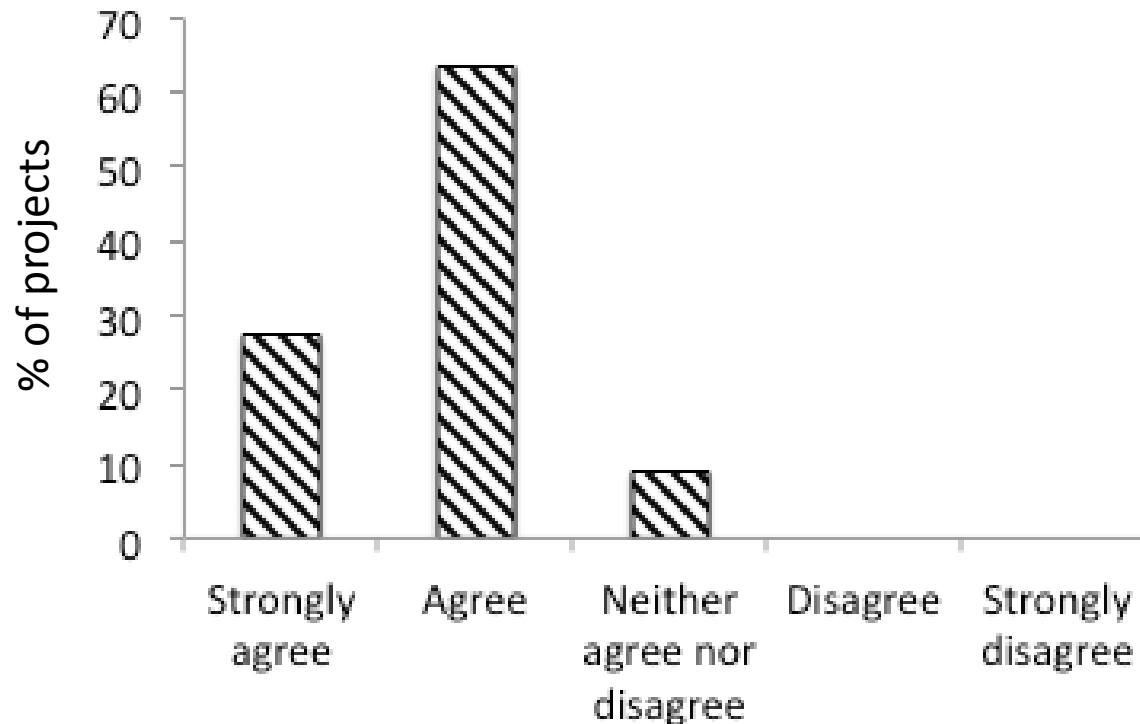
Result from the NBS questionnaire circulated to PIs of projects funded by BiodivERsA

88%, i.e. 22 projects, of the 25 pan-European projects funded since 2010 answered (3 calls)

Q1: To what extent do you agree with the following definition of Nature-Based Solutions:

"Nature-Based Solutions are:

- Win-win sustainability measures meeting simultaneously environmental, social and economic objectives.*
- Inspired by nature, use nature or are supported by nature.*
- Resilient, efficient and locally attuned solutions to societal challenges, that take into account the wider, system context while maintaining our natural capital."*





Q1: Comments:

NBS solutions will not allow 100% win-win to meet simultaneously environmental, social & economic objectives; **they will involve trade-offs** (4)

→ **Be prepared to make choices, hierarchize or minimize detrimental effects**

→ **NBS may commonly limit economic gain for many actors...**

→ **... unless the definition of « economic benefits » is revised (cf shift in the valuation of ecosystem services, longer term perspective, etc.)**

Is linked with the concept of ecological engineering (1) and includes biomimicry (1)

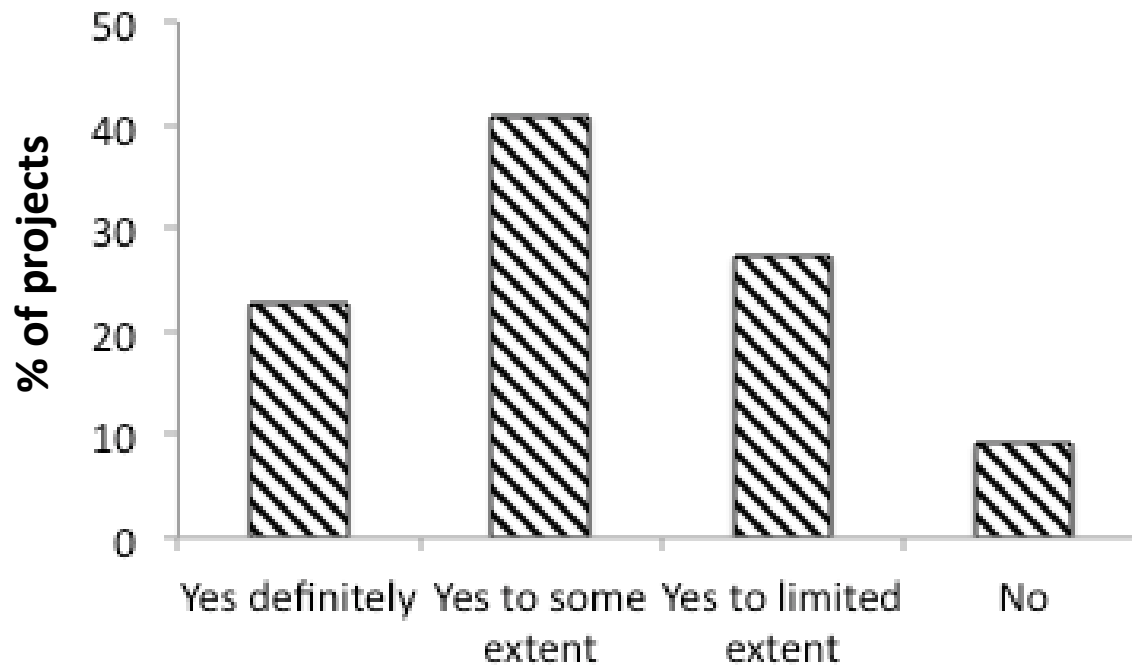
May need to shift from exploitation/growth concepts to a **new approach accounting for planetary boundaries** (1)...

...and a shift towards **more SYSTEMIC APPROACHES** (1)

Should make clearer if the definition aims at targeting **SUSTAINABLE NBS** (1)

Solutions to « societal challenges » or to « environmental challenges to society »(2) ?

Q2: In your opinion, is your project related to Nature-Based Solutions?

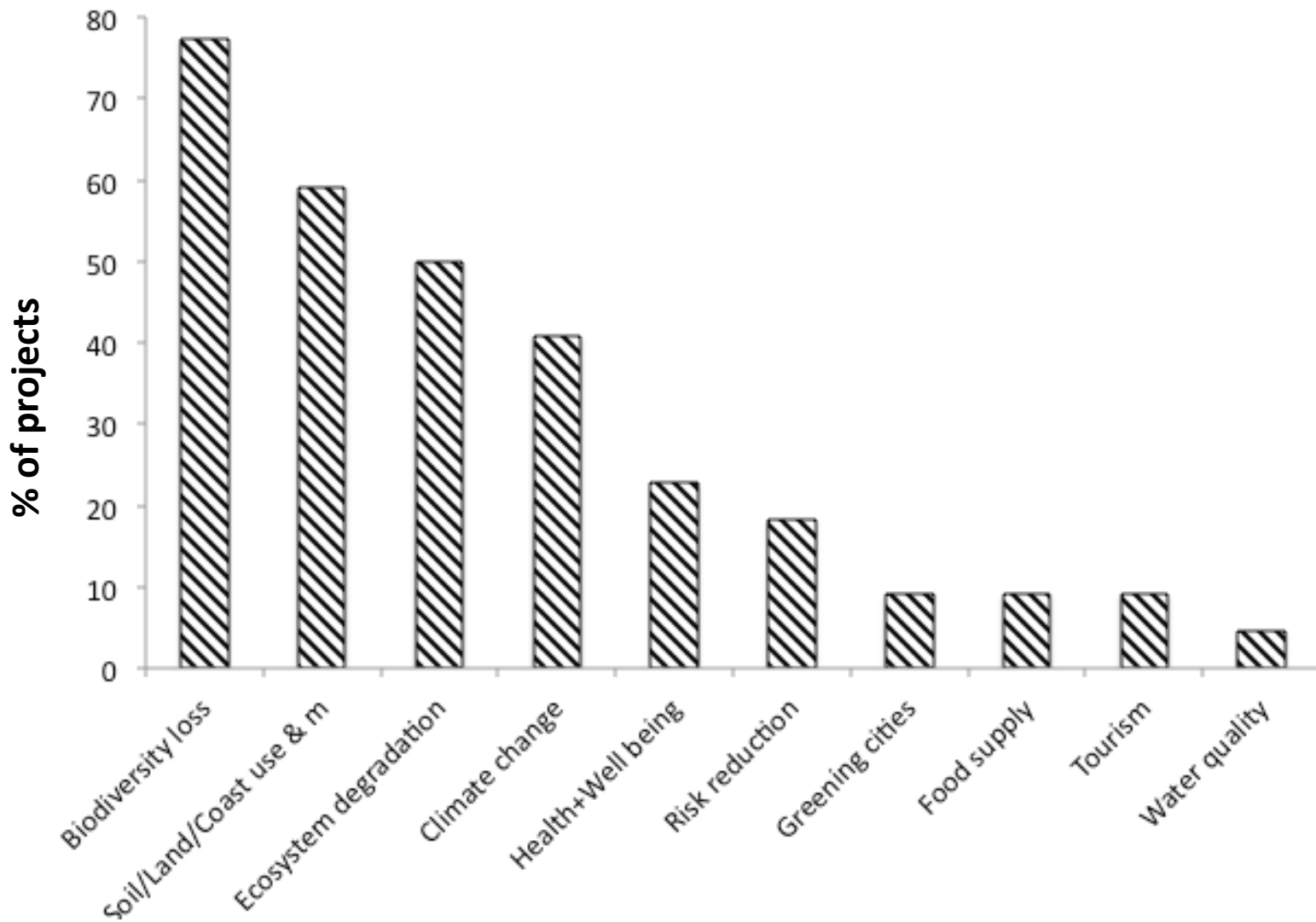




Q2: Concrete examples:

- Manage and value pest biocontrol across landscapes – alternative to the use of noxious pesticides alleviating their impact on food and health (x2)
- Management of partially protected areas to provide services (fisheries, diving...) while conserving biodiversity and increasing the linked social/ecological resilience
- Management of tropical forests for sustainable forestry and service delivery to local populations
- Agricultural landscape management for food supply, biodiversity conservation and delivery of a range of services
- Regeneration of forests based on a high diversity of offsprings derived from different environments for increasing forest resilience facing global changes
- Interplay between ecosystem quality of freshwaters and economic & societal systems (incl drinking water quality)
- NBS for urban areas and urban governance for decreasing the vulnerability of urban socio-ecosystems to shocks and disturbances
- Management of grasslands and associated services to allow persistence of mountain rural livelihoods facing climate and socio-economic changes

Q3: Societal challenges addressed





Q4: Benefits/opportunities:

- **NBS will often increase the linked social / ecological resilience and sustainability** of socio-ecological systems (x8)
- Address a challenge that cannot adequately be solved by technical solutions
- Keep access to day-to-day products and services in countries/areas where people live in remote places, and can allow persistence of rural livelihoods (x2)
- Benefit human health and well being (x2)
- Reduce trade-offs (social-economic-environmental) (x2)
- Reduce hidden costs to society

- **Change management** of systems
- **Change governance** of SES : link with local actors (x2)
- Products of designated Origin



Q5: Constraints:

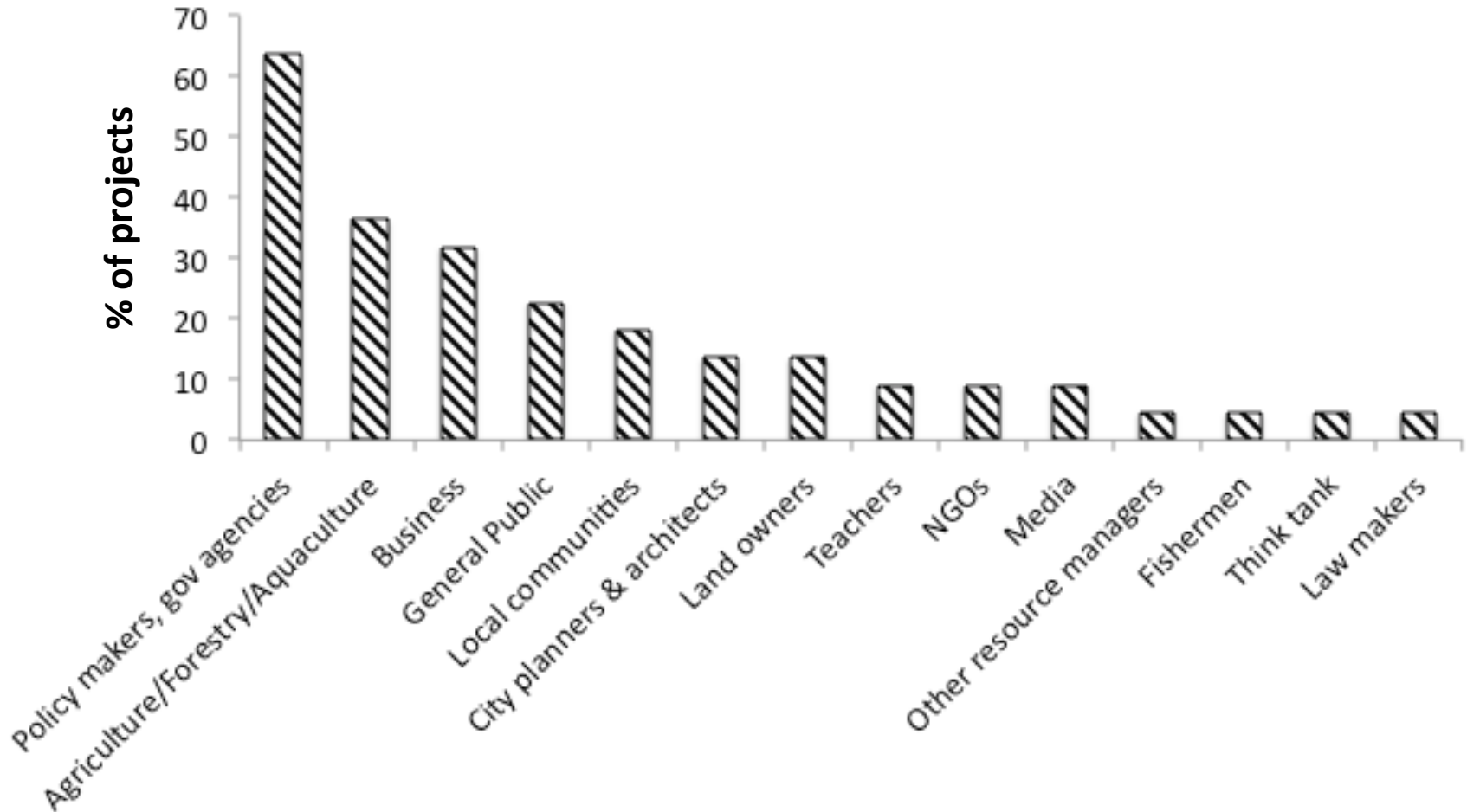
- NBS can **often be more costly than traditional solutions as regards short term profits** (x6) (e.g. conversion of forests into oil palm plantation) ... though may sometimes be cheaper (x1)
- NBS can be more complex
- NBS can imply more uncertainty and less efficacy (e.g. biocontrol) (x2)
- NBS may be tuned to local conditions (x2)
- NBS would **often require much time, investment/resources and skills** (x5)

- Promote our vision on linked social/ecological systems – interdisciplinary views ; **intellectual revolution needed** (x4)
- **Trade-offs do potentially exist; make them explicit to avoid proposing bad NBS !** (x4)
- Make people be aware of their dependency on ecosystems/biodiversity (x2)
- Rethink efficiency and revise cost estimation accounting for increased vulnerability



- More knowledge needed (x5) ...
- ... or lack of knowledge is only one of the obstacles, in addition to the following:
 - Leave the growth paradigm behind; move from monetary to welfare views (x2)
 - NBS should find their way facing traditional large-scale technical solutions
 - Fight inertia, lobbies opting for the statu quo
 - Promote work with stakeholders
 - **Promote uptake of research results and science-society/policy interfacing (x3)**
 - Clearer political will

Q6: Key stakeholders to develop & implement NBS





CONCLUSIONS

- NBS already well addressed in some BiodivERsA projects
- Many BiodivERsA projects tackle this issue to some extent ; but rarely as the major issue

* Many scientists think that NBS solutions will not allow 100% win-win to meet simultaneously environmental, social & economic objectives; **research will thus have to explicit trade-offs**

- **NBS may commonly limit economic gain for many actors...**

... unless the definition of « economic benefits » is revised (cf shift in the valuation of ecosystem services, longer term perspective, etc.)



Change of paradigms needed:

- Shift from growth concepts to a **new approach accounting for planetary boundaries**
- Shift towards **more SYSTEMIC APPROACHES**
- Better engage stakeholders + policy makers
- Change management and governance paradigms
- Revise cost estimation, with a longer term perspective
- **ACCEPT COMPLEXITY, UNCERTAINTY AND DIVERSITY WHERE THE REVERSE IS THE RULE**