CBM experiences and sharing of 'best practices':

How to sustain CBM, and prospects for a global guideline

Finn Danielsen
dr.scient.

NORDECO
Nordic Agency for Development and Ecology

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Capacity sharing in Arctic Community-Based Monitoring

Capardus UArctic

Greenland CBM program (PISUNA)

Nordic Council
Environment Prize

@FinnDanielsen
fd@nordeco.dk

Search for Cod

Search for details

PISUNA-net

Yakutia Community-Based Monitoring

Engaged communities, IP organisation, District and Republic gov't (about 100 people) in developing a monitoring program based on peoples' needs

Began to include local communities' voice and opinions in the natural resource management decisions made by the government

Helped put "Territories of Traditional Land Use" into practise

Contributed to protect rights of IPs to utilization of the natural resources

Examples of outcomes
- Rights to a traditional fishing ground,
- Changes to permitted net types,
- Protection against brown bear attacks,
- Hunting quotas for wild reindeer,
- Water quality monitoring started by authorities

The challenge: sustaining CBM programs

Greenland CBM program PISUNA:

Organizer: Ministry of Fisheries (central gov't). Today local government. Assisted by academics (Nordeco, ELOKA)

Funding: First central government, now Qeqertalik Municipality (honorarium community members, staff time of municipal employee facilitator)
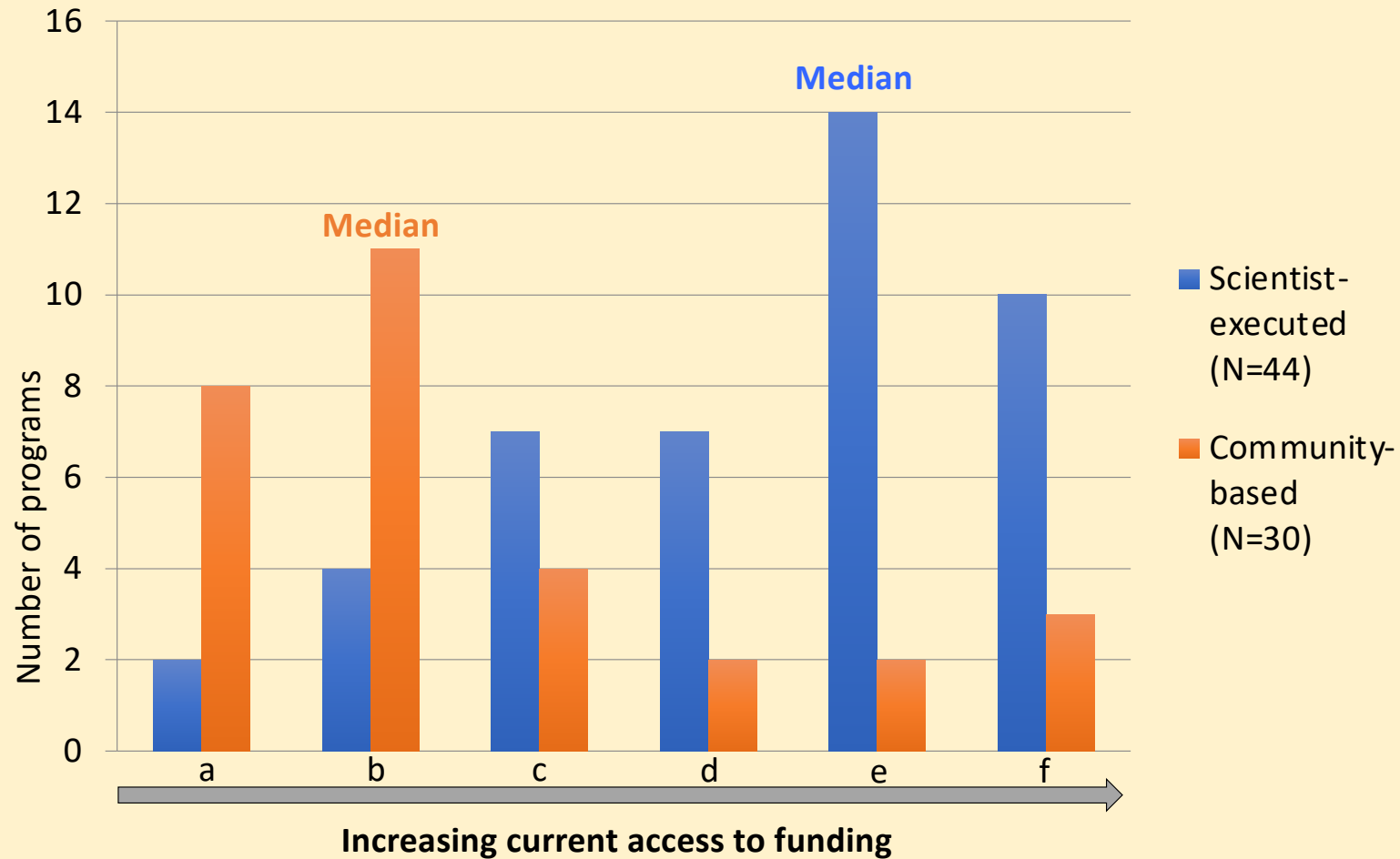
Yakutia CBM program:

Organizer: IP organisations (RIPOSR). Assisted by academics (CSIPN, Nordeco)

Funding: International bodies (EU < 23 Feb. 2022; philantrophies). Broad interest in developing Russian information platform – on hold

The challenge: sustaining CBM programs

Degree of sustainable funding stream

Danielsen, F., Pirazzini, R., et al. (2020, May). INTAROS joint assessment of scientific and community-based observation programs. In *EGU General Assembly Conference Abstracts* (p. 22212).

Degree of sustainable funding stream

*"**3.2 Funding support** (Assess the long-term financial support that underpins the measurement program)*

a. *None (No dedicated funding support)*

b. *Project based funding support available* **=Median, CBM programs**

c. *As in (b) + expectation of follow on funding*

d. *As in (c) + not dependent upon a single funding line*

e. *Sustained infrastructure support available to finance continued operations* **=Median, Scientist-executed programs**

f. *As in (e) + support for active research and development of tools"*
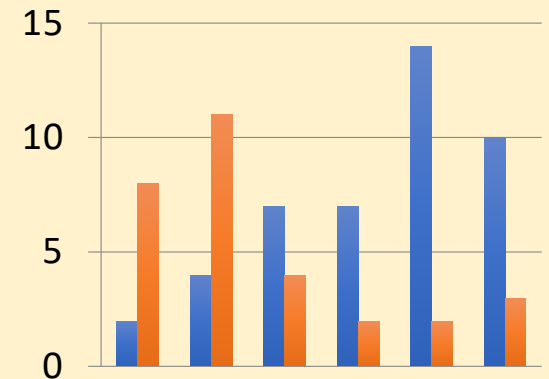
The challenge: sustaining CBM programs

Current fundings models for CBM programs in the Arctic
- Individual grants from govt (e.g. Inuvialuit CBM)
- Individual grants from philantropies and international bodies to local CSOs (Yakutia CBM)

- Financed by penalties from polluters (ex. AAOKH)
- Surplus from mineral exploration and exploitation (ex. Marion Watershed)
- Support from govt through annual appropriation based on a policy
- Other….?

= Sustained Infrastructure Support

Suggestions so far

Greenland CBM program PISUNA:

Try scale-up grants from international bodies to local CSOs, by establishing a local CSO

Yakutia CBM program: …. ?

CSO = Civil Society Organizations

Prospects for a global guideline

Manaus Letter: Recommendations for the Participatory Monitoring of Biodiversity

220 participants from Australia, Bolivia, Brazil, Colombia, Denmark, East Timor, Ecuador, England, Germany, Greenland, Guatemala, Indonesia, Madagascar, Mexico, Peru, Philippines, Sweden, the USA and Venezuela

Recommendations for the Participatory Monitoring of Biodiversity. In Constantino, P.A.L et al. (eds.), International Seminar on Participatory Monitoring of Biodiversity for the Management of Natural Resources 2014. Manaus, Brasil. Available at: www.pmmpartnership.com

Example

Data quality and management

13 Data quality is fundamental if participatory monitoring of biodiversity is to achieve its objectives; it is therefore essential that data collection be standardized at the necessary scales (among monitors, among communities, and among initiatives if the scale of monitoring is regional or global).

14 Data quality can be ensured by several mechanisms, including continuous training of persons involved in data collection, data quality assessment by researchers and community members, effective community involvement in all aspects of monitoring, and collective understanding and social control by the community. Additionally, community leaders participating in the project should be responsible for verifying data integrity.

15 When feasible, recognized statistical analysis or data filtering systems should be used to prevent the accumulation of errors in monitoring databases and ensure objectivity and standardization in data quality.

16 Data from biodiversity monitoring should be stored in a systematic manner using best practices of data base management.

17 Participatory monitoring data should always be available to local communities

18 Use and application of monitoring data should respect the characteristics, limitations and restrictions inherent in the data.

19 Data interpretation and analysis that are relevant for local management should be carried out as quickly as possible, with the participation of local actors, in order to accelerate and facilitate data use in local decision-making.

20 When monitoring initiatives are designed for use at the regional or global scale, they should ensure the return of information and results to participating local communities. Communication mechanisms must be in place in these larger scale initiatives to guarantee community access to information and transference of knowledge, ensuring that information can and will be in fact returned. … … …

Prospects for a global guideline

Assessment of The Manaus Letter 2015

Sub-Themes	Still relevant	Outdated	Don't know
Design	8	0	0
Community participation	2	0	0
Institutional arrangements	2	0	0
Data quality	8	0	0
Links to public policy	5	0	0
Recognition of communities	4	0	0
Institutional strengthening	3	0	0
Capacity building	5	0	0
Communication	2	1*	0

The only outdated or unclear recommendation:

Recommendation #40:

"Local, traditional and indigenous knowledge used in and produced by biodiversity monitoring should be systematized and made publicly available, ensuring that there is consent among the knowledge holders."

Perhaps missing

- Indigenous data sovereignty
- Digital platforms and other cyber-infrastructure for cross-weaving
- Tracking the SDGs and the post-2020 Global Biodiversity Framework
- The concept of "Community Observatories"
- Governance monitoring (e.g. citizen scorecards)
- The four academic literatures about environment CBM: Citizen Science, Adaptive Management, Common Property, Democratic Accountability
- Policy support for CBM from several environmental agreements (intl, regl)

Suggestions welcome!

Examples of environmental agreements supporting the use of Indigenous and Local Knowledge (ILK) and CBM
for decision-making on resource management

Arctic Fisheries Agreement

Prospects for a global guideline

Examples of recent tech developments and rapidly expanding platforms:
Any influence on the Manaus Letter (2015) recommendations ?

Thank you

@FinnDanielsen
fd@nordeco.dk

Photos: MK Poulsen, M Enghoff, F Danielsen

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