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MEASURING IMPACT

STAKEHOLDER ENGAGEMENT FOR BIODIVERSITY CONSERVATION GOALS

Assessing the Status of the Evidence

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Front Cover: Women of the Cyamudongo Cooperative in Rwanda dancing. Photo Credit: Olaf Zerbock

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OVERVIEW

For the past several decades, "stakeholder engagement" has factored prominently in the toolbox for biodiversity conservation efforts by conservation organizations and governments. In this report stakeholders are defined as the people and organizations who, directly or indirectly, affect or are affected by a decision.[1-10] Every conservation activity has stakeholders. How stakeholders are engaged is an attribute that differentiates one initiative from another. Engagement methods range from passive stakeholders receiving communication about an initiative to full collaborative partnerships. Stakeholder engagement can be driven by actors external to those stakeholders, or can be self-organized, when stakeholders have active control over resource management and operate independently of external institutions other than for support.

In the broader environmental and development sectors, the main arguments for the importance of stakeholder engagement center on democratic and equity aims. This includes reducing marginalization of those underrepresented in decision-making, increasing stakeholder trust in and ability to act on decisions, accounting for diversity of values across stakeholders, and promoting social learning where stakeholders learn from each other while developing new relationships.

More pragmatic arguments include the possibility that increased diversity in decision-making may lead to a broader set of, and potentially more creative, solutions; higher quality and durability of decisions; decisions better adapted to the local social-cultural and environmental context; stronger initial data and knowledge feeding into decision-making; increased ability to anticipate and respond to potential unexpected negative consequences; development of common ground and trust; reduction of conflict between stakeholders; stakeholder "ownership" that may increase support for implementation; and the potential for reduced implementation costs.[11-21] The implicit assumption in much of this conservation and development practice is that effective engagement of stakeholders will have a positive influence on the outcome of conservation interventions.

Despite at least four decades of calls for increased stakeholder participation in biodiversity conservation, there are still remarkably few evidence-based studies of how stakeholder engagement approaches affect conservation goals. The goal for this comprehensive literature review was to compile and assess the documented evidence from externally driven and self-organized efforts around the world over the past 15 years to engage stakeholders at the local scale regarding biodiversity conservation goals. The review aims to illuminate patterns of success and failure in these efforts, and draw conclusions to inform USAID and its partners.

METHODS AND ANALYSIS

The review followed an a priori protocol adapted from the "Guidelines for Systematic Reviews in Environmental Management" developed by the Centre for Evidence-Based Conservation at Bangor University.[22] Search terms were based on expert review and a scoping process, and focused on peer-reviewed and grey literature.

All articles written in English were considered. Due to the volume of literature available and the changing landscape of engagement approaches and terminology in recent decades, the search was restricted to work published since 2000. Information was synthesized from background documents, case studies, and meta-analyses to identify patterns relating to externally driven stakeholder engagement, self-organized stakeholder action, and both self-organized and externally driven engagement to inform recommendations. Outcomes were classified among four attributes of successful (or effective) stakeholder engagement as having led to: (1) behavior change; (2) attitudinal change; (3) biodiversity conservation; or (4) economic benefit (Box 1, Figure 1 on Page 5).

Self-organization by local communities and indigenous peoples is an important "stakeholder engagement" strategy in biodiversity conservation, in which communities have active control over resources and their management and maintain autonomy while also potentially benefiting from external resources, support, and guidance. Although this kind of stakeholder participation and action is less prevalent in the literature, self-

organized groups can make an important contribution to overall conservation goals. For this reason this analysis considers both externally driven and self-organized stakeholder engagement. Further description of the methods can be found in the Annex on page 15.

BOX 1. Categorization of Case Study Outcomes

Outcomes of stakeholder engagement as reported in the documents that were reviewed for this study were categorized using the following criteria, based on those by Brooks et al. (2013): [36]

Success in producing behavioral change: Outcomes regarding local resource use by stakeholders.

Success in producing attitudinal change: Outcomes regarding local attitudes towards the project or conservation or resource management.

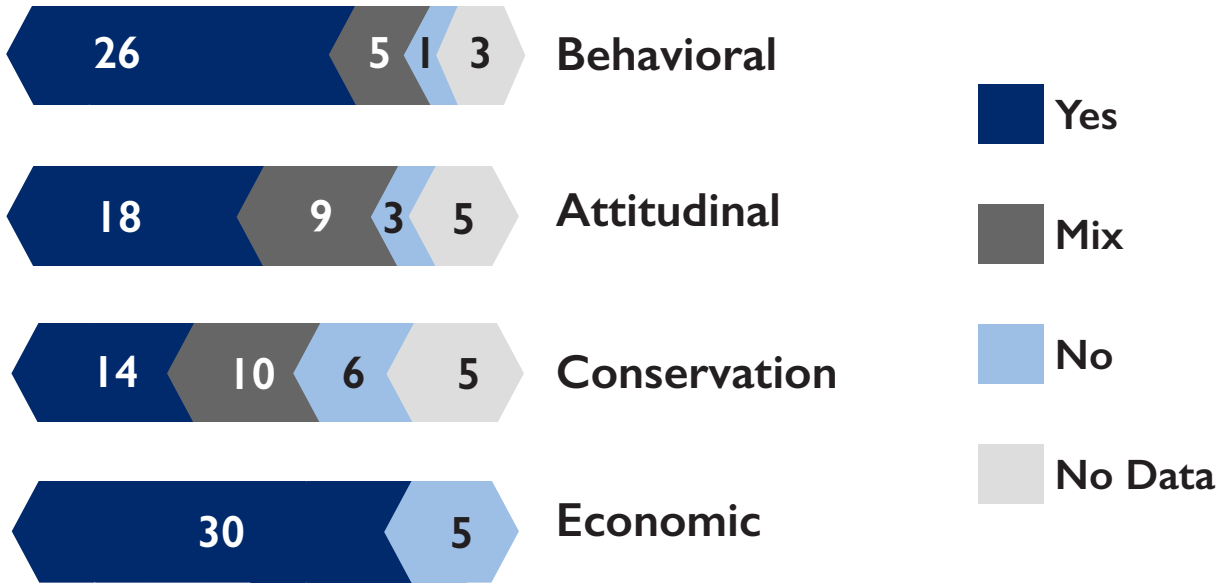
Success in conserving biodiversity: Outcomes related to whether the habitat and/or species of interest is in better condition following the project's conclusion (e.g., the population size of a species has increased, or a given resource is more abundant).

Success in producing economic benefit: Outcomes related to financial or other development benefits.

KEY RESULTS

Of the 148 references evaluated, 30 were designated as meta-analyses of high and medium relevance and 35 were designated as case studies that were strong on relative efficacy of methods with high and medium relevance. The majority of the high- and medium-relevance cases and meta-analyses relate to externally driven stakeholder engagement, with only three relating to self-organized engagement. Of the 35 cases, 94% reported success in at least one of the four outcomes. By category, 74% of cases reported success in behavioral change, 51% reported success in attitudinal change, 40% reported success in conserving biodiversity, and 86% reported some type of economic benefit outcome. In terms of overall success, eight case studies (23%) reported

Figure 1. **Reported outcomes across 35 case studies for success in behavioral change, attitudinal change, conserving biodiversity, and economic benefit outcomes. Response of "yes" indicates the case reported success for a given outcome, "mixed" indicates mixed success, "no" indicates no success, and "no data" indicates instances where the information was not reported.**



success in all four outcome categories of behavioral change, attitudinal change, conservation of biodiversity, and economic benefit outcomes. It is important to note that the sample of cases analyzed is relatively small, which limits the generalizability of the study's conclusions.

The four engagement methods used most often in case studies with successful outcomes are stakeholder-led activities, facilitated communication across stakeholders ("getting together to talk"), governance action, and capacity development (Table 1).

Table 1. **Methods of engagement for case studies reporting success in four outcome categories (n=35). Note each case study may report multiple methods.**

Method of Engagement	Number of Cases Reporting Success in the Following Outcome Categories			
	Behavior	Attitude	Conservation	Economic
Getting together to talk	11	10	7	14
Collaborating on research	6	5	4	5
Local stakeholder led activity	13	11	7	12
Outreach and awareness raising	8	6	5	10
Monitoring/patrolling	7	6	4	11
Governance action	10	8	7	12
Enhancement	3	2	1	4
Conservation agreement	9	7	4	10
Marketing campaign	1	1	0	1
Substitution	8	4	5	11
Capacity development	10	9	6	9
Other	6	3	4	8

The most common benefit outcomes observed in case studies reporting success are direct payment and an increase in the stakeholders' governance/control of a resource (Table 2).

Table 2. **Stakeholder benefits for case studies (n=35) reporting success in three outcome categories; each case study may report multiple benefits. In the table, direct payments include payments for ecosystem services.**

Stakeholder Benefit Outcome	Number of Cases Reporting Success in the Following Outcomes		
	Behavior	Attitude	Conservation
Livelihood – jobs	11	8	8
Direct payment	16	10	11
Governance/control of resource	16	13	7
Governance/control of project	9	8	4
Health	3	3	2
Education	5	3	3
Cultural values	7	5	4
Formation of womens groups	2	2	1
Food security	8	6	4
Recreation	4	3	0
Freshwater availability	2	2	1
Other	9	4	6

SYNTHESIS OF KEY LESSONS

FACTORS OF RELEVANCE TO EXTERNALLY DRIVEN STAKEHOLDER ENGAGEMENT

Identifying stakeholders and recognizing and respecting stakeholder values

- Identifying the right balance of stakeholders is a critical first step.
- Engaging too large a group can dilute outcomes, whether due to a cumbersome process or ineffective engagement method. A focus on "key" (defined by stakeholders themselves as well as external organizers) stakeholders is important.
- Project or program organizers need to understand the nuances of various stakeholder categories;[23] frequently, outsiders try to engage "communities" without effectively understanding how and with whom those individuals interact, or if the designated "communities" manage resources or make decisions in a collective manner. Mismatches between outsider and local stakeholder definitions of "community" can lead to misunderstandings and impede stakeholder engagement efforts.
- Any effort to engage, by virtue of selecting representatives, supporting existing institutions, or creating new ones, has the potential to strengthen or disrupt existing power dynamics and structures within a community, which in turn can affect outcomes.[24]
- Understanding and recognizing diverse and multiple value systems is critical to engaging stakeholders.
- Interventions framed around the perceptions of one stakeholder group may not appeal to all groups and could lead to disengagement. For example, a study in Namibia found that women and men had different human-wildlife conflict risk perceptions; therefore, if mediation is framed in terms of male-oriented viewpoints, some women may be less likely to participate.[25]
- Practitioners should be aware of and acknowledge any disconnect between their own motivations and beliefs and those of local stakeholders. This includes differing outlooks on concepts such as biodiversity and ultimate conservation goals, which should be factored into project design and implementation. For example, a recent study in the Netherlands found that conservation professionals think about species, habitats, and ecosystem health when considering the "environment," whereas non-specialists tend to approach conservation in terms of individual animals and trees.[26]
- Successful engagement efforts are built from the value base and local context of stakeholders and involve context-appropriate decisions provided by or co-created with stakeholders.[27-37]

Photo Credit: USAID/CARPE

CARPE Program stakeholders participate in community land use planning.

Timing and degree of stakeholder engagement

- Successful programs engage key stakeholders as early as possible and work collaboratively to incorporate stakeholders into key activities in all phases of the decision-making process.[18,30,38-41]
- Highly skilled facilitation is key,[16] and stakeholders often reject the legitimacy of a system if they have not been part of negotiating objectives and parameters, or if they do not understand how they will be affected.[42,43]

- Involving communities in setting and upholding rules, such as where local community members are engaged in monitoring and enforcement, can lead to successful behavioral outcomes.
- Participation consisting of passive listening rather than active involvement may not be effective at reaching outcomes.[42,44-46]
- Hidden barriers to participation, such as power inequities, inadequate funds for travel to meetings, lack of background knowledge, and language barriers, inhibit a true collaborative process.[45]
- Successful early engagement takes time, and in turn is likely to drive shifts in investments over the course of an initiative, requiring strategies that incorporate feedback among stakeholders across all stages of a given program or conservation initiative.[47] Failure to plan for adequate time for engagement and adaptation can hinder project success.[23,27,39,48-50]
- This review's authors hypothesize that integrating stakeholder participation and knowledge from the beginning may foster robust partnerships in a shorter time frame, as this lays the groundwork for a more transparent and equal partnership and ensures the early inclusion of local values, institutions, and dynamics.
- "Engagement fatigue" can hinder projects,[37] particularly those where individuals are not actively involved in decision-making but are brought in for consultation or opinions; some conservation initiatives effectively place the burden of conservation on local stakeholders by promoting them as stewards of a protected area while not allowing them to influence or benefit from such actions.[51]

Stakeholder motivation for engagement

- Stakeholders have different motivations for participating in a program, and as such the effectiveness of projects can be enhanced by identifying significant predictors or motivators for participation.[52,53]
- Direct, tangible financial benefits, such as direct payments in revenue sharing programs or other mechanisms, were most effective when they were timely, reliable, sustained, and sufficient.[40,41,54-57]
- When stakeholders self-select, they are most motivated by non-financial or intangible benefits, including social factors such as personal well-being,[53] conservation for future generations,[58] heritage,[59] or by providing a public environmental good.[60,61]

Effective leadership

- Effective leadership, charismatic leadership, and local champions are often hallmarks of success in conservation initiatives. [18,37,52,54,62]
- This review's authors hypothesize that when the context and capacity of local organizations and existing leadership structures allow, the success of conservation projects will be enhanced if leaders come from within local communities, avoiding an outside-in approach to management when feasible.
- Leadership capacity should be expanded through training, professional development, and mentoring,[63] including areas such as adaptive leadership.[64]

Effective partnerships

- Trust, reciprocity, exchange, and respect are critical variables in collaborations.
- Successful collaborative projects between local stakeholders and external individuals or agencies were those that developed out of sustained long-term relationships and "social capital" built over several years to decades with strong two-way commitments to maintain relationships.[32,49,55]
- Social outcomes from stakeholder engagement, such as trust-building, led to greater-than-expected conservation outcomes.[35]
- Trust-building involves effective communication, transparency, outreach, and co-learning throughout the collaboration.[32,41,56,57] Studies reflect the importance of effective communication and attention to perception and attitudes of local stakeholders in order to build trust.[18,55,65]

FACTORS OF RELEVANCE TO SELF-ORGANIZED STAKEHOLDER ACTION

Social-ecological systems principles

- Autonomous governance, rights, power, control, and decision-making by stakeholders appeared to support positive outcomes.[30,39]
- Strength and use of local and traditional ecological knowledge plays a fundamental role in achieving biodiversity conservation goals.[33]

Retaining sovereignty while obtaining access to outside resources

- Successful self-organized groups have learned when to solve problems internally and when to reach out to external actors, for example for technical, financial, or other resources.
- Government, academic, and NGO representatives can play important roles, when requested by communities, and have acted as extension agents and for enforcement, facilitation, and group support, among other things.[37]
- Other benefits of engaging with external experts for self-organized stakeholders include capacity development, learning/gaining scientific knowledge, and increased trust as a result of working with cross-institutional arrangements.[33]

FACTORS OF RELEVANCE TO SELF-ORGANIZED AND EXTERNALLY DRIVEN ENGAGEMENT

Social-ecological systems principles

- Natural resource decision-making based on multiple sources of knowledge was identified as a key factor contributing to successful conservation in both self-organized and collaborative community-based conservation initiatives.

Photo Credit: AWF Kazungula

Village fisheries meeting in Zambia.

Social, cultural, and political contexts

- Socio-economic and political contexts affect engagement success, but challenges can be overcome with well-designed strategies.
- Peer pressure and social norms are important factors in stakeholder engagement and behavior change;[66] this is particularly true if peers are initially skeptical of an initiative and then change their mind to support the initiative. This change of mind can encourage other peers to engage.[67]
- Networking and sharing of knowledge and ideas across communities can be an effective way to achieve landscape-level natural resource management by building "social capital" and facilitating social learning.[33,37]

Management strategies

- Successful engagement is associated with adaptive management, evaluation, and organizational and policy flexibility and coordination at all levels.[27,30,37,39,49,52,68]
- Participatory scenario planning may be an effective tool to foster communication and set common goals. Participatory scenario planning is a reflective, deliberative process to develop and assess plausible future scenarios and guide strategic planning for innovative, collective, and actionable solutions in the context of complex and uncertain futures. [69]
- Investing in capacity development can result in attitudinal and behavioral outcomes,[36,62,70] and it is important to move beyond training at the level of individuals to organizational and national levels in order to catalyze long-term change.
- Engagement efforts should have sufficient and sustained support.[40,49,68] Lack of funding can lead to failure of a program. Often funding is not explicitly addressed in publications and case studies, and, when discussed, the focus is on lack of stability in funding cycles leading to the ultimate demise of a project.[40,65,71]
- Self-organization could be supported through means such as collaborative stakeholder networks to enable knowledge sharing and creation of social connections; for example, program design could factor in adequate time for the creation of peer networks and resources, such as financing and personnel, to provide ongoing support.

CONCLUSIONS

Six main dimensions of externally driven stakeholder engagement processes emerge from the literature as critical for success and requiring careful consideration by practitioners in project design:

- How stakeholders are identified and selected
- How multiple and diverse stakeholder values are recognized and integrated
- The timing and degree of engagement
- The drivers of stakeholder motivation
- The presence of effective leadership and
- A strong commitment to building social relationships and trust

For self-organized stakeholder action, social-ecological conditions relating to rights and governance, as well as the presence of local and traditional ecological knowledge, play an important role in success. Networking can be an effective way to scale up across communities and build "social capital" and support social learning. Self-organized stakeholder action also benefits from access to external support, resources, and strategic guidance, but this has to be balanced with the stakeholders' autonomy and ability to retain control of the process.

For both externally driven and self-organized efforts, the inclusion of multiple sources of knowledge and an understanding of social context seem to play important roles. Finally, flexible and adaptive management, capacity development, participatory scenario planning, and the provision of sufficient and sustained support are among the management strategies and tools that support positive outcomes.

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ANNEX: DETAILED METHODS AND ANALYSIS

The review followed an a priori protocol adapted from the "Guidelines for Systematic Reviews in Environmental Management" developed by the Centre for Evidence-based Conservation at Bangor University.[22] Search terms were determined based on expert review and a scoping process, and focused on peer-reviewed and grey literature (Box 2).

All articles written in English were considered. Due to the volume of literature available, and the changing landscape of engagement approaches and terminology in recent decades, the search was restricted to work published since 2000. After the search was complete, the review was divided into two processes: a review of evidence from references published in the past five years and a qualitative review of 15 years of background literature. For the analysis of evidence, document titles and abstracts for all references from 2011-2015 were reviewed to identify references meeting the following inclusion criteria: related to biodiversity conservation, related to stakeholder engagement actions, and/or interventions undertaken since 2000 at the local scale.

References that did not meet these criteria were excluded. References that met these criteria and did not contain evidence were sorted into potential background reading and then included if they contained important contextual information, definitions, or anecdotes. If references contained evidence, they were then sorted into two groups: case studies and meta-analyses. Case studies were then further sorted for inclusion based on the reviewer's assessment of the case study's strength on relative efficacy of engagement methods. Reviewers extracted 44 separate pieces of information for case studies, including four outcome variables: success in producing behavioral change, success in producing attitudinal change, success in conserving biodiversity, and economic success. For all references designated as meta-analyses, 18 separate pieces of information were extracted, including three outcome variables: success in producing behavioral change, success in producing attitudinal change, and success in conserving biodiversity. A critical appraisal of case studies and meta-analyses was conducted to assess relevance, based on presence of conclusive evidence relevant to the aim of the review. This was scored as high, medium, or low. Finally, extracted information from background reading, case studies, and meta-analyses, was synthesized to identify patterns and inform recommendations.

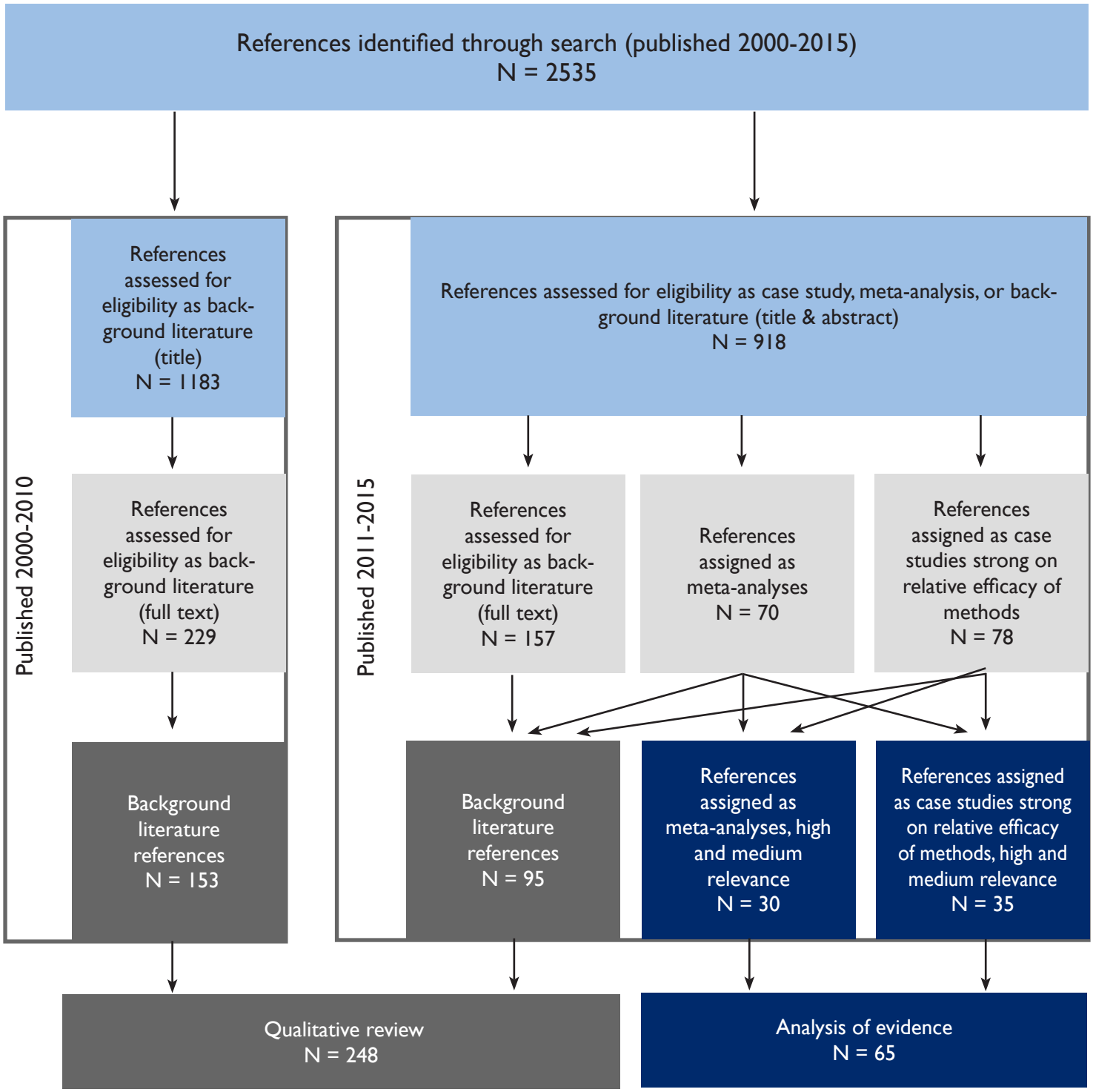
BOX 2. SEARCH PROTOCOL

All searches were conducted between February 20, and March 13, 2015 in the following databases: ISI Web of Knowledge, Scopus, Google Scholar, Columbia University Find Articles, and Environmental Evidence journal. For Google Scholar and Columbia Find Articles, the first 100 results (filtered based on relevance to the search terms) were further assessed for relevance.

Grey literature searches were conducted with the portals for Networked Digital Library of Theses and Dissertations – Bielefeld Academic Search Engine, OpenGrey, WorldWideScience.org, Center for International Forestry Research (CIFOR), Collections at United Nations University, and USAID's Development Experience Clearinghouse. For all grey literature portals, the first 50 results (filtered based on relevance to the search terms, where possible) were assessed for relevance.

Following the inclusion and exclusion decisions based on title and abstract-level reviews, the dataset included 78 references containing case studies judged to be potentially strong on relative efficacy of engagement methods (out of a total of 265 case studies), 70 meta-analyses, and 386 background readings. Following full text review, the final dataset included 54 case studies strong on relative efficacy of engagement methods (of which 35 were quantitatively analyzed, representing high and medium relevance references), 30 meta-analyses, and 248 background readings (Figure 2 on page 16).

Figure 2. Systematic map of the search and inclusion process.



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