

## Review

# A systems framework for planning and evaluating capacity development in conservation: recommendations for practitioners

ANA L. PORZECANSKI, ELEANOR J. STERLING, JAMIESON A. COPSEY  
MICHAEL R. APPLETON, JAMES R. BARBORAK, BRETT L. BRUYERE, NORA BYNUM  
KAY H. FARMER, RYAN FINCHUM, DOMOINA RAKOTOBÉ  
RICARDO B. STANOSS and ARMANDO VALDÉS-VELÁSQUEZ

**Abstract** Capacity development is increasingly recognized as central to conservation goals. Efforts to develop individual, organizational and societal capacity underpin direct investments in biodiversity conservation and natural resource management, and sustain their impact over time. In the face of urgent needs and increasingly complex contexts for conservation the sector not only needs more capacity development, it needs new approaches to capacity development. The sector is embracing the dynamic relationships between the ecological, political, social and economic dimensions of conservation. Capacity development practitioners should ensure that individuals, organizations and communities are prepared to work effectively in these complex environments of constant change to transform the systems that drive biodiversity loss and unsustainable, unequitable resource use. Here we advocate

for a systems view of capacity development. We propose a conceptual framework that aligns capacity development components with all stages of conservation efforts, fosters attention to context, and coordinates with parallel efforts to engage across practitioners and sectors for more systemic impact. Furthermore, we highlight a need for practitioners to target, measure and support vital elements of capacity that have traditionally received less attention, such as values and motivation, leadership and organizational culture, and governance and participation by using approaches from psychology, the social sciences and systems thinking. Drawing from conservation and other sectors, we highlight examples of approaches that can support reflective practice, so capacity development practitioners can better understand the factors that favour or hinder effectiveness of interventions and influence system-wide change.

**Keywords** Capacity development, conservation, evaluation, framework, leadership, learning loops, planning, systems

ANA L. PORZECANSKI (Corresponding author, [orcid.org/0000-0002-5157-4579](https://orcid.org/0000-0002-5157-4579), [alporze@amnh.org](mailto:alporze@amnh.org)) and ELEANOR J. STERLING ([orcid.org/0000-0003-2692-8264](https://orcid.org/0000-0003-2692-8264)) Center for Biodiversity and Conservation, American Museum of Natural History, 200 Central Park West, New York, NY 10024-5102, USA

JAMIESON A. COPSEY IUCN Species Survival Commission, Conservation Planning Specialist Group, Apple Valley, USA

MICHAEL R. APPLETON ([orcid.org/0000-0003-1669-162X](https://orcid.org/0000-0003-1669-162X)) Re:wild, Austin, USA

JAMES R. BARBORAK ([orcid.org/0000-0003-1235-8707](https://orcid.org/0000-0003-1235-8707)) and RYAN FINCHUM ([orcid.org/0000-0002-7735-3803](https://orcid.org/0000-0002-7735-3803)) Center for Protected Area Management, Colorado State University, Fort Collins, USA

BRETT L. BRUYERE ([orcid.org/0000-0001-7802-5468](https://orcid.org/0000-0001-7802-5468)) Human Dimensions of Natural Resources Department, Colorado State University, Fort Collins, USA

NORA BYNUM Amazon Center for Environmental Education and Research, Bahama, USA

KAY H. FARMER Wild Ally, Edinburgh, UK

DOMOINA RAKOTOBÉ ([orcid.org/0000-0003-1718-0645](https://orcid.org/0000-0003-1718-0645)) Wildlife Conservation Society, Antananarivo, Madagascar

RICARDO B. STANOSS ([orcid.org/0000-0001-8891-1244](https://orcid.org/0000-0001-8891-1244)) Smithsonian National Zoo and Conservation Biology Institute, Washington, DC, USA

ARMANDO VALDÉS-VELÁSQUEZ ([orcid.org/0000-0003-2450-8645](https://orcid.org/0000-0003-2450-8645)) Laboratory for EcoHealth and Urban Ecology, School of Sciences and Philosophy, Universidad Peruana Cayetano Heredia, Lima, Peru

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## Introduction

Capacity development is widely recognized as central to achieving development, conservation, and sustainability goals (UNDP, 2008; Bloomfield et al., 2018; Franco & Tracey, 2019). Investments in biodiversity conservation and sustainable development have been complemented by growing efforts to advance individual and organizational capacity (Bellamy & Hill, 2010; Ling & Roberts, 2012; WCPA, 2015).

The need for conservation capacity development continues to grow and change. The next decade will be pivotal for leveraging the full potential of the global network of protected and conserved areas. Strengthening the effectiveness of existing protected areas (Eklund & Cabeza, 2016; Gill et al., 2017) and improving the management of new areas to internationally accepted standards will require investments to build new capacity, increase the competency of the existing workforce, and replace staff upon retirement (Coad et al., 2019). Ambitious species-specific goals also

form part of the post-2020 Global Biodiversity Framework (CBD, 2020). With c. 32,000 species classified as threatened with extinction, this target will demand an exponential scaling up of global capacity.

There is also a pressing need to promote in-country capacity of government employees, local stewards and citizens (WCPA, 2015). Furthermore, the diversity of protected and conserved area governance models and the growing complexity of species conservation projects (McCool et al., 2015; Evans et al., 2017; Copsey et al., 2018) have resulted in a broader constituency of people involved in protecting, managing and interpreting biodiversity. Part of the new complexity includes greater engagement with local stakeholders, including an extension of conservation benefits to meet their interests and needs, and planning jointly at a broader landscape scale with attention to local context and capacity development. In this context, collaborative and multi-stakeholder approaches, as well as locally led efforts, are strongly associated with conservation success (Brooks et al., 2013; Sterling et al., 2017; Dawson et al., 2021), and are becoming the norm for state actors, communities, businesses, user groups and academia (Margerum & Robinson, 2016; Parker et al., 2018; Thomas & Mendezona Allegretti, 2020).

New investments in capacity development should acknowledge the dynamic and interlinked nature of the social-ecological systems we live in and depend on. The conservation sector operates within complex systems (contexts with many parts that depend on and interact with each other), and practitioners increasingly seek to embrace their ecological, political, social and economic dimensions (Game et al., 2014; Knight et al., 2019). As we strive to do so, the sector needs leaders and practitioners at all levels with the expertise to execute conservation action and act as systems thinkers, adaptive learners, conveners, network builders, collaboration brokers, effective communicators and innovators (Black & Copsey, 2014; Sawrey et al., 2017; Bruyere et al., 2020).

Systems thinking is both 'an approach to seeing the world and a set of methods and tools', and comprises a set of complementary analytic skills that help us identify and understand systems, predict their behaviours and devise interventions according to our aims (Betley et al., 2021, p. 9). Seeing the world through a systems lens can make connections and relationships more visible and improve our decision-making abilities; systems thinkers ask broader questions and accept that often there is not a single solution to a problem but a set of linked actions that could guide a system towards a desired outcome (Betley et al., 2021). Using a systems lens to better understand the relationships and feedback loops between social and environmental dimensions can prepare individuals to work effectively in complex and changing contexts, and

ultimately to transform the systems that drive biodiversity loss and unsustainable, inequitable resource use and its impacts (Díaz et al., 2019). To meet these challenges, the conservation sector is not only in need of more capacity development, it is in need of new approaches to capacity development.

The author team comprises capacity development practitioners and researchers based in the USA, UK, Peru and Madagascar. Our practice has been informed by substantive capacity development engagements in 106 countries over the course of our careers, representing 260 years of combined experience. Here we discuss what we consider to be some of the most persistent challenges in conservation capacity development and propose a broad conceptual framework to guide capacity development planning and evaluation. Our analysis and proposed framework are based on our joint experience, discussions and lessons learnt, as well as a review of practices from conservation and other sectors.

### **Persistent conservation capacity development challenges**

Current models guiding capacity development recognize that actions are required at multiple levels, from individuals to society (OECD, 2006; CADRI, 2011). These models encompass an individual, an organizational and a societal or system level. The individual level encompasses the attitudes, skills and knowledge, as well as motivation and self-efficacy (the belief in one's own ability to perform a particular task or skill), that are present in individuals. The organizational level encompasses rules, systems and structures within collective contexts, such as diverse organizations, collaborations and local communities. These include leadership dynamics, evolving workplace cultures, and the ability to produce results and to adapt to change, as well as to provide relevant rewards and incentives. Societal systems act as an enabling environment for capacity development: they are the cultural, social, political, financial/economic, legal and environmental contexts in which individuals and organizations operate, providing both constraints and opportunities (UNDP, 2008; CADRI, 2011; Fig. 1). A range of capacity development activities are typically carried out at each of these levels (Table 1).

Although practitioners recognize linkages between individuals, organizations and societal systems, as well as the need to strengthen capacity at these multiple levels, we argue that prevailing planning, evaluation and learning practices in conservation capacity development currently limit our ability to assess effectiveness at each of these levels, and to learn from implementation. Here we discuss two persistent challenges we have identified pertaining to conservation capacity development.

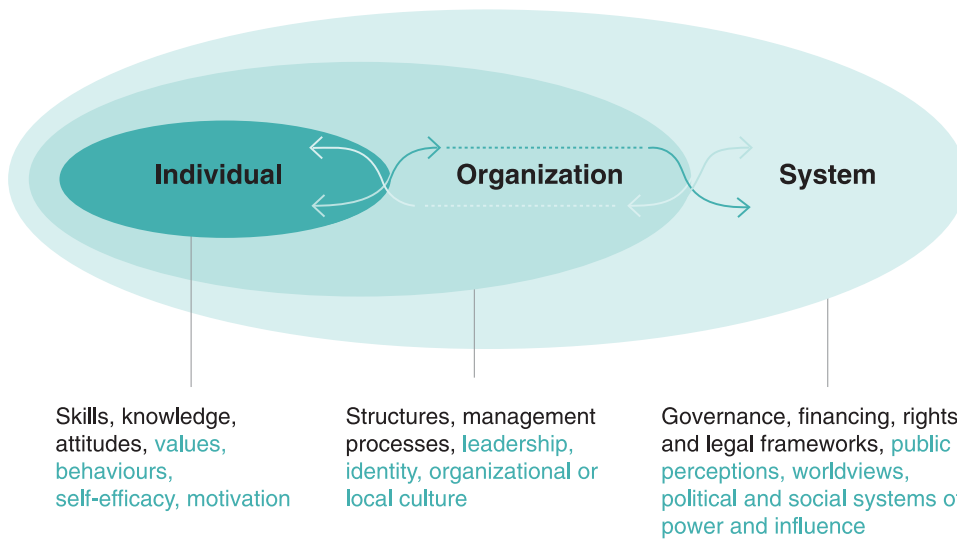


FIG. 1 Practitioners recognize the need to address capacity at multiple levels (represented in this figure by ovals; see text for details). These levels are nested and connect in multiple ways and directions (shown by arrows depicting both direct and indirect linkages as solid and dashed, multidirectional lines, respectively). Relevant dimensions of capacity at each level are indicated below each oval; some are often recognized and targeted (black text), whereas others are less visible and have traditionally received less attention (lighter text).

TABLE 1 Examples of methods for developing capacity at the individual, organization and community, and societal levels. Although many of these approaches can be used at all three levels, we have listed them here under the level where they are most commonly employed. For useful illustrations of some of these methods see WCPA (2015), Bloomfield et al. (2018), Knight et al. (2019) and O’Connell et al. (2019a).

Level	Methods
Individuals	Conferences, formal education, informal education, mentoring & coaching, needs assessments, peer-to-peer learning, self-directed learning, training courses, workshops
Organizations & communities	Capacity development planning, competences & standards, demonstration sites, human resource management, monitoring & evaluation for organizational learning, networks & partnerships, operational planning, organizational assessments, participatory planning & management, professional & peer networks, strategic planning, succession planning, toolkits & practice guides
Society	Behavioural change interventions (e.g. social marketing campaigns), broad participation in conflict resolution & reconciliation processes, cross-sectoral integrated planning, cultural revitalization, institutional analysis, scenario planning & modelling, supportive legislation & policy, systems driver analysis, systems modelling & analysis

The need to understand context and clarity of purpose in planning stages

Under a so-called ripple model, the impacts of interventions at the individual level are expected to be far-reaching over time (James, 2009). In our experience, this model informs prevailing planning philosophies such that capacity development interventions target singular aspects of the wider system (predominantly individuals), frequently with an implicit belief that this will lead to change throughout other parts of the system.

Capacity development efforts have documented the advancement and increasing influence of individuals trained over time as they come to occupy leadership positions (e.g. Bravo et al., 2016; Sawrey et al., 2017), but connections to biodiversity outcomes are infrequently documented or evaluated, making it challenging to assess whether a ripple effect occurs. The field would benefit from clearer definitions of capacity targets, envisioned capacity outcomes, as well as the alignment between these and conservation outcomes.

In addition, capacity development programmes are often short-term or centred on single events as opposed to longer-term processes, planned with a limited understanding of local needs and priorities, or in isolation from other related efforts. This can stem from the need to work efficiently, with limited resources and under tight project timescales, but can reduce impact and relevance or even cause unintended harm. For example, the Game Rangers Association of Africa has expressed concerns regarding militarized training of rangers, in which foreign and/or military contractors can lack understanding and appreciation of the political, cultural and social environment in which local rangers operate (GRAA, 2017). A broader lens that involves an understanding of the governance and social-cultural context would provide more opportunities to design actions that are the best fit for a given context, share lessons and coordinate actions with sectors beyond conservation.

Increased attention is needed regarding how we can effectively target, measure and support less visible but vital elements of capacity, such as values and motivation,

leadership and organizational culture, and governance, by using approaches from psychology and the social sciences. Indicators of psychological capacity such as meaningful ownership, effective autonomy and feeling needed are informative regarding capacity at the individual level and increasingly recognized in conservation (Black & Copsey, 2014; Cranston, 2016). At a collective level, capacity can be targeted and assessed using indicators of organizational or community capacity. Mumaw et al. (2019) for example, proposed a systems-based framework for community capacity with indicators in five categories: human capital, socio-cultural capital, natural capital, economic capital and conservation action. At a societal level, we see a need for diverse indicators that assess collective capacity to target and measure those aspects of human–environmental systems that affect biodiversity loss. Narrow assumptions about collective values and motivations, omissions or limited framings can lead to missed opportunities for crucial capacity development. For example, Agol et al. (2014) have examined context-specific sustainability indicators (i.e. income-generating activities, presence of community-based groups, welfare index, disease incidence, women's leadership). Similarly, Sterling et al. (2020) have highlighted important dimensions contributing to sustainability that are overlooked in many global metric frameworks. Finally, including different systems of knowledge and learning (Reid et al., 2021) in capacity development would enrich these initiatives, diversify measures of success and reduce some of the barriers to the exchange of information, skills and practices.

#### Evaluating for outcomes and impact

The evaluation of capacity development is evolving. There is a desire to document results beyond outputs, towards outcomes and system impacts, but in our experience this has proved challenging. It is common for a project to target individuals with the intention of producing conservation or organizational gains, but then report only on outputs (e.g. people trained or events held) or the results of specific activities (e.g. satisfaction with a given course) with no subsequent evaluation of larger or longer-term impacts (Simister & Smith, 2010). Given that individuals are likely to participate in multiple capacity development events over time, it is more realistic to document contributions to outcomes than to attribute such changes to specific interventions (Mayne, 2008; Simister & Smith, 2010; Vallejo & Wehn, 2016), something that both practitioners and donors should take into account. A broader, or systems lens on evaluation would assess capacity development impacts across capacity levels, how changes within levels influence each other, and what is needed for systemic change to occur (Knight et al., 2019).

Some recent evaluations of long-running capacity development programmes reveal the critical role of context, or the enabling environment, which can either facilitate or act as a constraint to change (see below, and Table 2). For example, such barriers may take the form of recruitment, promotion, inclusion and retention policies. A recent evaluation of a long-term training programme in Mauritius shows that if a trainee's work environment was negative, the impact of training on practical skills, job performance and trainee perception of control was lower (Sawrey et al., 2017). Multi-level, longer-term evaluation frameworks would help shed light on the existence of organizational and/or systemic barriers that must be addressed for the potential of individual capacity gains to be fully realized. In summary, we see critical needs and opportunities to adapt how we currently plan, evaluate and learn from capacity development practice in conservation.

#### A broader conceptual framework to guide capacity development planning and evaluation

Based on our collective experience and our review of practices from conservation and other sectors, we have organized these ideas into a framework, comprising four stages: preparing, planning and designing, implementing and monitoring, and evaluating and learning (Fig. 2). Our framework is informed by lessons learnt from capacity development efforts in other fields, including health/medicine (LaFond et al., 2002) and economic development (Ling & Roberts, 2012) as well as literature on learning loops and their application to natural resource management (Kohl & McCool, 2016), which provide useful ideas for practitioners in the conservation arena.

#### Discussion

The framework builds on established steps for planning and programme implementation such as adaptive management (McCarthy & Possingham, 2009; Keith et al., 2011), the Conservation Standards (CMP, 2020), international guidelines for species conservation planning (IUCN-SSC, 2017), and the principles and steps that underpin participatory planning approaches. The framework aims to foster capacity development efforts that are: (1) aligned and interwoven with the planning and implementation of conservation activities, and (2) conceived using a systems lens, such that efforts consider pre-existing and concurrent efforts, as well as other levels of influence (individuals, organizations, societal systems) as both important context and an opportunity for impact.

If we have reason to believe that achieving conservation outcomes requires coordinated capacity change at multiple levels of a system, or across sectors, then we need to be more

TABLE 2 Examples of conservation capacity development initiatives that have used double or triple loop learning to examine effectiveness and system-wide implications, and key lessons learnt.

Context	Learning question & approach	Key lessons
The Conservation Planning Specialist Group of the IUCN's Species Survival Commission has led stakeholder-inclusive species conservation planning worldwide for 40 years (CPSG, 2020). In 2018 CPSG formalized its training programme in species conservation planning (online & in-person) & mentoring to build participants' competence & confidence.	<i>Are there knowledge gains &amp; changes in working practice?</i> A 2020 alumni survey addressed the programme's early effectiveness & also aimed to inform future development. A questionnaire was sent to > 500 participants on a range of factors: recall & application of training topics, self-efficacy, motivation, peer networks.	Results supported programme effectiveness yet found knowledge gain was a poor predictor of any of 12 species conservation actions & had a modest effect on other variables. Self-efficacy was the strongest predictor of most behavioural variables (e.g. motivation). A focus on knowledge is unlikely to elevate competencies or change working practices.
Colorado State University & the U.S. Forest Service International Programs Office have led short-term training courses for protected area managers for > 3 decades, including the International Spanish-language Seminar on Protected Area Management (WCNR, 2020).	<i>How can we evolve our strategy to ensure trainees overcome external barriers?</i> Evaluations showed that trainees faced barriers to implementation & advancement post-course. The programme now holds pre-course virtual orientations, requires trainees & superiors to sign pre-course agreements to plan how new skills will be applied & participate in virtual communities of practice & reunions.	Identifying potential barriers to implementation from the onset helps participants shape action plans that are realistic & within existing institutional contexts. In addition to technical skills, it is critical to develop self-efficacy. Trainee-supervisor agreements can foster a more supportive environment & create a positive feedback loop for further investments in capacity development.
In 2003 the Center for Biodiversity & Conservation of the American Museum of Natural History & partners led conservation capacity development activities in Madagascar as the Réseau des Educateurs et Professionnels de la Conservation. Focus was to strengthen long-term capacity for biodiversity conservation through the expansion & enhancement of training opportunities for universities & conservation professionals (REPC-MD, 2020).	<i>Is the programme addressing needs &amp; resulting in lasting change?</i> Needs assessments found a gap between academic courses & conservation practices. Malagasy conservation educators & trainers developed modular, locally relevant, open resources on priority topics, & assessed their use over time. To embed capacity development in-country, the project fostered the development of national competency standards for protected area staff & establishment of local training programmes for protected area staff, university educators & community leaders.	The programme assessed capacity needs, convened key players to invest in strategic long-term thought & worked to implement solutions at the individual, organizational & national levels. Frequent evaluation of results & co-adaptation of project targets & goals enabled the initiative to achieve impact across scales & systemically. The competence standards now serve as a tool for performance evaluation, design of training curriculum & career development paths & for recruitment in the field of protected area management in Madagascar.
The Wildlife Conservation Society established a network of terrestrial protected area professionals, the Lafa Forum (Lafa Forum, 2020), to advance capacity in protected area management in Madagascar.	<i>Is the project improving performance of protected area staff? Is this leading to organizational or systemic capacity gains?</i> Needs assessments identified strategies, including workshops, exchange visits between protected area professionals & small group discussions. Professionals from a variety of public organizations & NGOs benefited. In 2019, a survey & focus groups explored changes in protected area management practices.	A majority of participants (82%) reported major improvements in the way they work. There was little evidence that these changes have been incorporated by their organizations but there was a significant perception of positive changes such as more integrated activities among departments & across hierarchies. Longer project duration would have allowed measurement of additional impacts.
A project led by the Propark Foundation (Romania) assessed the individual capacity of > 1,400 individual protected area staff in 23 countries in Eastern Europe & the Caucasus using a standard set of competences. Follow-up projects with selected countries focused on developing nationally-owned capacity development strategies for protected area personnel.	<i>Are individual capacity gains leading to organizational or systemic capacity gains?</i> In Croatia the capacity planning process was used to leverage funding from a UNDP-GEF project to institutionalize & operationalize the plan. This led to a shift from reliance on externally driven capacity development projects to better institutional ownership & leadership of its capacity priorities & programmes, adoption of new approaches to capacity development, & adjustment of personnel systems to enable this.	Project success was highly reliant on institutional change-readiness & building trust & collaboration with partners. Individual capacity assessments & the engagement of human resource departments stimulated an interest in finding broader ways to address shortcomings. The process of capacity development planning triggered a conceptual leap from listing training needs to changing how the institution addressed capacity in a broader way.

TABLE 2 (Cont.)

Context	Learning question & approach	Key lessons
The Orangutan Veterinary Advisory Group leads capacity development for wildlife veterinarians in Indonesia & Malaysia, linking wildlife, public & ecosystem health. Activities include didactic & problem-based workshops, practical labs, online advisory support, & acting as an advocate between participants & their organizations (Unwin et al., 2021).	<i>What are the gains &amp; changes in working practice?</i> Participants complete an annual survey on application of new knowledge or ideas, improvements to job performance & the health of animals, & knowledge sharing. Evaluations show high value to participants, a sense of higher efficacy & significant improvements in conservation medicine & wildlife clinical skills. An unexpected impact is helping mitigate issues of burnout, & fostering job retention. Participation is recognized by a local professional association, serving to steer standards in formal education.	The project has improved disease surveillance, risk analysis & clinical skills. External barriers such as limited professional progression & rigid organizational structures show a need to provide effective well-being & advocacy support with employers & professional associations, & the importance of institutional readiness to adopt & adapt to new ways of working. Although the impact of the Group on enhancing conservation health & medicine knowledge & skills can be measured, evaluating the impact on orangutan conservation requires long-term data collection & presents the challenge of assessing attribution.
Through a careful, context-informed, collaborative design, a capacity development programme of the Saint Lucia Forestry Department was reoriented from a focus on developing a protected area management plan to a focus on broad organizational capacity development (Appleton et al., 2017).	<i>What has been done &amp; what is needed?</i> Initial plans focused on improving understanding of technical requirements for management & protection, but discussions led to a realization that the more fundamental need was to examine the institution & its operations. Participatory individual & organizational capacity assessments were conducted with external support, leading to development of an entirely new organizational strategy. This is now used in Saint Lucia as a guide for similar processes in other departments.	The key to success was the readiness of the organization for change & the openness of its leadership towards listening to staff & embracing change. Engagement of Forestry Department staff was a capacity development process in itself & helped build institution-wide ownership of the process & results. The process advanced thinking to consider the capacity of the institution to function effectively, & ultimately to revising the goals, objectives & structure of the department.

explicit in designing and evaluating capacity development activities in this way, a radical departure from how conservation capacity development is typically carried out. Causal models, or theories of change (models that ‘detail the logic and assumptions around how a series of interdependent steps will lead to intended outcomes’; Cheng et al., 2020, p. 2), are a potentially helpful way to make our expectations explicit about the effects of an intervention and the role of all actors in a system. Theories of change need to be well-defined, and their assumptions and pathways should be logical and plausible (Aragón, 2010; Mayne, 2017; Cheng et al., 2020). However, capacity development causal models currently tend to focus mostly on individuals, presenting a bias towards the more visible aspects of capacity, such as training for knowledge gains, application or strategic planning (e.g. see capacity development theories of change in the Conservation Actions & Measures Library; CAML, 2020).

Another useful idea, that of learning loops (Argyris, 1977; Hargrove, 2002), has been increasingly applied to natural resource management to capture the need for different kinds of learning (see Kohl & McCool, 2016; O’Connell et al., 2019a). Authors identify three kinds of learning loops: single loop learning adjusts and refines existing practices (i.e. asks: Are we doing things right? Are we efficient?), and double loop learning reframes or reforms assumptions, goals and

strategies (Are we doing the right things? Are we effective?). Finally, triple-loop learning entails questioning our goals and assumptions about the way things are and should be, and leads to further transformation of worldviews and values (Are we pursuing the right outcomes? Are we asking the right questions?). The framework and questions for practitioners that we present here aim to foster learning along all three loops.

Practitioners from the field of human development have framed capacity development as a complex process of change, with a focus on individuals or groups as change agents, perhaps not ripples activated by an external intervention but rather capable of initiating and generating their own ripples, and even chain reactions. In recognition of the long timeframes of capacity development, there is an increasing focus on monitoring and evaluating intermediate capacity outcomes that can facilitate or drive further change. The World Bank Institute defines these as ‘improvements in the ability or disposition of the local change agents to take actions that will effect institutional changes towards a development goal’ (Ling & Roberts, 2012, p. 15). They illustrate six types of intermediate capacity outcomes: raised awareness, enhanced knowledge or skills, improved consensus and teamwork, strengthened coalitions, enhanced networks and new implementation know-how. Combined

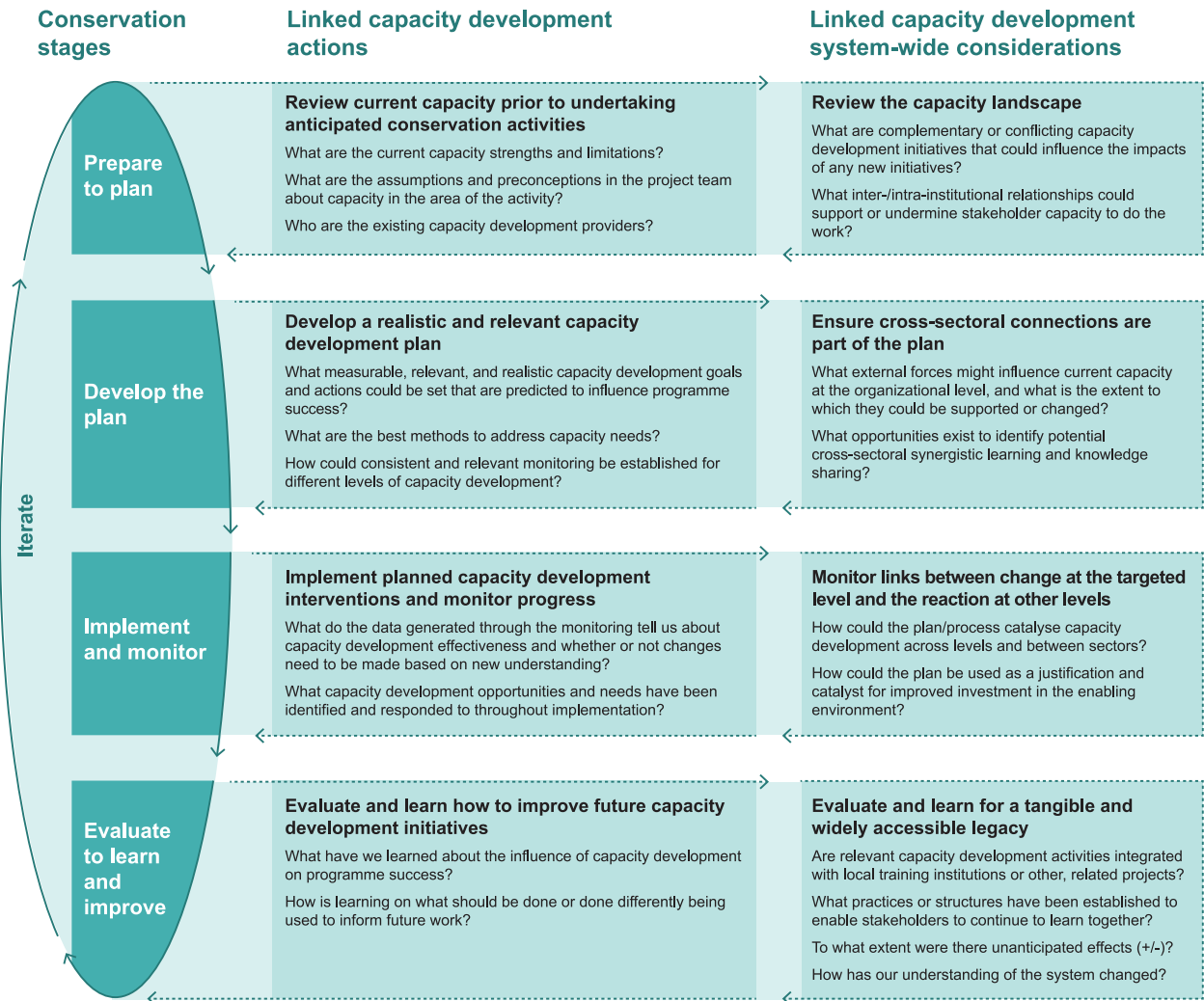


Fig. 2 A conceptual framework for an iterative, multi-loop learning process for conservation and capacity development planning, implementation and evaluation. The framework lays out guiding questions that can help connect conservation actions at different stages to capacity development actions and cross-level, cross-sectoral considerations, to catalyse learning at multiple levels during the capacity development process. For our purposes we view a stakeholder as being an individual or an organization that has a vested interest in or power over the plan to be implemented.

with resources (financial, human, technology and infrastructure), these types of outcomes are expected to lead to changes in institutional capacity over longer time frames yet can be assessed in the medium term, and could be useful for conservation.

In conservation, we see capacity development practitioners using double loop learning through adaptive management and reflection (Manolis et al., 2009; Black, 2019). There is also a growing emphasis on assessing results in terms of both outputs and outcomes (Howe & Millner-Gulland, 2012). Some practitioners are striving to measure learning and competence outcomes beyond outputs, including whether the learning was retained and applied later (Sawrey et al., 2017).

In addition, there is increasing reflection about the capacity development methods used, the things we are doing, because as conservation strategies diversify, methods

may not be optimal for the full diversity of participants. For example, many capacity development activities aimed at protected area management or species conservation have focused on short-term, one-off training events, or on academic programmes (Elliott et al., 2018), which often focus on research training. Although this strategy is adequate for some capacity development objectives, it may not be effective for all. Training courses continue to have an important role, and additional approaches to learning such as mentoring and regional networks can fulfil a learning need that formal training courses cannot (Pietri et al., 2015; O’Connell et al., 2019b).

We recommend that practitioners reflect on their work by asking questions at each stage of conservation to promote a broader lens for the design, implementation and evaluation of capacity development in conservation; illustrative questions are included in Fig. 2. We have aimed to

include triple loop questions in our framework through cross-level considerations and stage 4, Evaluate to learn and improve (Fig. 2). Sterling et al. (2021) provide an analysis of the current state of capacity development evaluation, and highlight the need for systems approaches to evaluation that explore the links between interventions and effects at other levels, including effects on biodiversity and other outcomes. The considerations and questions outlined in our framework can help orient practitioners towards envisioned outcomes, and encourage the monitoring of peer efforts, consideration of broader contexts and evaluation at all levels through cycles of reflection and learning (Manolis et al., 2009). The framework is meant to be applied in an iterative way, promoting evaluation cycles.

To connect these ideas to capacity development practice, we have compiled selected, illustrative examples of conservation capacity development projects to explore how they have applied double and triple loop learning (Table 2). These examples support the practitioner recommendations presented in the framework and highlight several lessons for practitioners. A number of examples support targeting more than gains in knowledge and technical skills and highlight the importance of monitoring dimensions such as individual confidence and self-efficacy, and even the holistic well-being of practitioners. Most examples also demonstrate a need to engage with the broader context of the work and with stakeholders in all stages. This is especially important in capacity development, given that important barriers to efficacy can stem from rigid or organizational cultures and structures.

Several of the examples demonstrate the enabling influence of learning spaces where it is safe to experiment and try out new methods, tools and practices within organizations and across them, through networks. The readiness for change of organizations and systems should be an important focus for conservation moving forward. This can be advanced by both practitioners and donors by promoting monitoring and evaluation approaches that focus on learning, and include learning from failure (Redford & Taber, 2000; Knight et al., 2019).

## Conclusion

As we face a shifting understanding of the social and ethical context for conservation, updated modes of leadership, and the limitations of conventional planning practices for the complexities and needs of our time, there is a pressing need to evolve capacity development practice in conservation. Our aim was to highlight how this new understanding can apply to capacity development planning, spark discussion of an initial conceptual model, and promote its testing and refinement in the design and delivery of programmes. The framework we present here describes conservation capacity development as a cyclical and ongoing process

that includes opportunities for stakeholders to engage in collective reflection and learning from experience. Convening together, for instance through ongoing communities of practice at local and regional scales or through dedicated gatherings for directed reflection could help create spaces for this type of collective exchange.

The hard questions inherent in double and triple loop learning demand significant time, attention and resources, possibly resulting in major restructuring, and diverting time from other activities. Yet some of the most fundamental questions around conservation capacity development are double and triple loop questions: Does capacity development contribute to achieving conservation goals? Does the evidence demonstrate it leads to impact? Does it empower individuals and organizations to lead transformational change? Asking, and endeavouring to answer, these questions will strengthen the case for capacity development and its value, as well as conservation practice.

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