

PERSPECTIVE

More than an academic exercise: Structuring international partnerships to build research and professional capacity for conservation impact

Arlyne Johnson^{1,2}  | Santi Saypanya³ | Troy Hansel⁴ | Madhu Rao⁵

¹Foundations of Success, Bethesda, Maryland, USA

²Nelson Institute for Environmental Studies, University of Wisconsin—Madison, Madison, Wisconsin, USA

³Wildlife Conservation Society, Vientiane Capital, Laos

⁴Idaho Falls, Idaho, USA

⁵Department of Biological Sciences, Wildlife Conservation Society and National University of Singapore, Singapore, Singapore

Correspondence

Arlyne Johnson, Foundations of Success, 4109 Maryland Avenue, Bethesda, MD 20816, USA.

Email: arlyne@fosonline.org

Abstract

Partnerships between researchers and conservation practitioners are essential for gathering the information needed to diagnose conservation problems and to determine what actions are most likely to be effective to achieve desired conservation outcomes. In developing countries where conservation capacity is limited, it is critical that partnerships between international and local research and practitioner communities also strengthen local capacity to lead in the conservation of their own regions. To achieve this means avoiding the pitfalls of “parachute science,” a phenomenon where foreign researchers engage in a project in a developing country without appropriately integrating or acknowledging local researchers and without investing in the professional capacity of a country’s individuals or institutions. Using the authors’ experience, we describe four approaches used to structure international research partnerships with conservation and academic institutions in the Lao People’s Democratic Republic, where government policies oblige foreign researchers to partner with national institutions and students. We describe the impact of these partnerships on strengthening national capacity for conservation science and practice over time.

KEYWORDS

biodiversity conservation, capacity-building, conservation practice, Lao PDR, natural resource management, parachute science, Southeast Asia

1 | INTRODUCTION

Tropical ecosystems in developing countries host much of the globe’s biodiversity (Barber et al., 2014; Gardner et al., 2009) and are also where there is an urgent need for increased biodiversity conservation and management (Adenle, Stevens, & Bridgewater, 2015; Mammides et al., 2016). In Southeast Asia, the conservation crisis is

especially acute (Gray et al., 2018; Sodhi et al., 2010) and the need for research as well as conservation action to address the threats of illegal wildlife trade and habitat degradation are particularly urgent (Barber et al., 2014; Souter et al., 2017).

Partnerships between researchers and practitioners are essential for identifying and gathering the information needed to accurately diagnose conservation

This is an open access article under the terms of the Creative Commons Attribution License, which permits use, distribution and reproduction in any medium, provided the original work is properly cited.

© 2021 The Authors. *Conservation Science and Practice* published by Wiley Periodicals LLC on behalf of Society for Conservation Biology.

problems and to determine what actions are most likely to be effective to achieve desired conservation outcomes (Dubois, Gomez, Carlson, & Russell, 2020; Schwartz et al., 2017; Vanhove, Rochette, & de Bisthoven, 2017). In developing countries with limited national research capacity, international partnerships between foreign researchers and national scientists can help to provide the information needed to design effective conservation solutions. To achieve long-lasting conservation impact, these partnerships must ultimately strengthen the professional capacity of individuals and institutions to lead in the conservation of their own regions (Bonine, Reid, & Dalzen, 2003; Rodríguez, Rodríguez-Clark, Oliveira-Miranda, Good, & Grajal, 2006; Souter et al., 2017). To realize these long-term outcomes means avoiding the pitfalls of “parachute science,” a phenomenon where foreign researchers engage in a project in a developing country without integrating or acknowledging local researchers and without investing in the professional capacity of developing country institutions and individuals (Barber et al., 2014; Costello & Zumla, 2000; Gosliner & Burke, 2013; Mammides et al., 2016; Schiller & Brimble, 2009; Vos, 2020).

How can international research partnerships be structured to improve conservation capacity and effectiveness in developing countries? In this paper, we describe four approaches used to structure partnerships between foreign scientists and professional conservation organizations, including nongovernmental organizations (NGOs) and government agencies, and universities in the Lao People's Democratic Republic (hereafter referred to as Laos). We outline progress made toward the desired outcomes of building national capacity for conservation science and practice. Given word count limits, we do not provide details on the many challenges that were encountered and that had to be overcome to achieve these outcomes.

2 | BUILDING AN INTERNATIONAL RESEARCH PARTNERSHIP STRATEGY FOR CONSERVATION IMPACT IN LAOS

Laos is a developing country with high levels of biodiversity (Duckworth, Salter, & Khounboline, 1999; Emerton, 2009; Tordoff, Baltzer, Fellowes, Pilgrim, & Langhammer, 2012) and a relatively young higher education system (Siharath, 2010). The country gained independence from France in 1953. The National University of Laos (NUoL), which provides programs in the arts and sciences, was established in 1995 (Ogawa, 2009; Siharath, 2010). It is illustrative of many

developing countries that are challenged with preparing their scientists and practitioners to accurately diagnose and effectively resolve problems that are driving biodiversity decline. Although universities in the developing world tend to have strong teaching functions, it is not uncommon for these academic institutions to have limited resources for research (Schiller & Brimble, 2009). In these cases, opportunities for students and faculty to engage in applied research are frequently dependent on international partnerships (Sanyal & Varghese, 2006; Siharath, 2010; Souter et al., 2017). Building effective international partnerships with developing country universities has been shown to strengthen research skills and to improve the chances of the findings being translated into national policy and incorporated into practice (Mammides et al., 2016; Rodríguez et al., 2006; Schiller & Brimble, 2009).

In Laos, the legal framework and professional training to support biodiversity conservation are relatively recent developments. The protected area system was only established in 1993 (Berkmuller, Evans, Timmins, & Vongphet, 1995; Robichaud, Marsh, Southammakoth, & Khounthikoummane, 2001). Most conservation practitioners who were charged with managing protected areas had undergraduate degrees from the Faculties of Forestry or Sciences where the curriculum for teaching principles and methods of conservation science and practice was limited (Rao et al., 2014). The science curriculum initially included only undergraduate instruction in foundation studies (e.g., biology, chemistry) and laboratory skills, and forestry instruction consisted largely of applied coursework in forest utilization, management, and policy. Graduate programs in science or forestry were not available until 2006, and opportunities for field research were limited (Siharath, 2010).

To address these gaps, in 2003, the two NUoL faculties (Forestry and Science) initiated a partnership called the Biodiversity Cooperation Project with an international nongovernmental organization (INGO), the Wildlife Conservation Society (WCS), to work toward the shared goal of improving the capacity of faculty and students in the principles and practice of biodiversity conservation. The WCS office had been established in Laos in 1993 to work with the government (GoL) on wildlife and habitat surveys in the nation's new protected area system. The survey reports, co-authored with Lao colleagues, revealed a rich diversity of wildlife and habitats that were in decline and in need of management (Duckworth et al., 1999). To address this need, the GoL requested WCS to include a training component to build local capacity in all of its research and conservation projects. In response to this request, the partnership between NUoL, WCS and protected area management agencies

evolved over time to include four major approaches that collectively aimed to provide multiple pathways for faculty, students, and protected area managers to build professional capacity in conservation science and practice (Figure 1). In the following sections, we describe the context for each approach, the structure of each partnership, and the various pathways that were established to increase the capacity of individuals and institutions in Laos.

2.1 | Undergraduate research projects

2.1.1 | Context

In 2003, when the Biodiversity Conservation Project began it provided one of the first structured opportunities for NUoL undergraduates to systematically gain experience in conservation science by engaging in a field research project with scientists and staff of an international organization that were actively partnered with the

government to provide technical and financial support for protected area or wildlife management.

2.1.2 | Partnership

The partnership was structured such that at least two students in the final semester of their senior year were identified by each faculty to participate in a field research project with WCS scientists and a protected area management unit. The field studies were designed to generate information needed by protected area managers to better understand a conservation problem and to design more effective conservation actions. The data collected were used by students to complete their final year undergraduate thesis and by WCS scientists and students to develop recommendations for protected area management. From November to July each year, WCS scientists and staff worked with students and their faculty supervisors to design the research project, provided classroom and field training in research methods, and supplied transport,

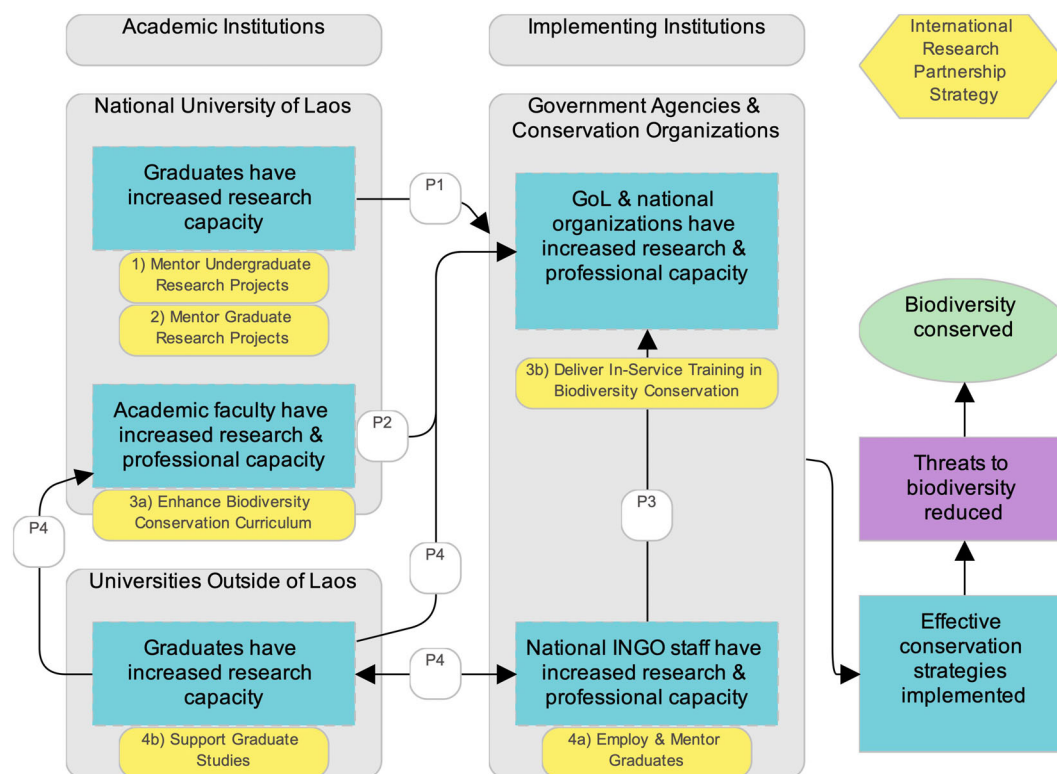


FIGURE 1 Four approaches used for structuring an International Research Partnership Strategy (yellow), desired outcomes of the approaches (blue), and various pathways (P) for increasing capacity in conservation science and practice of individuals and institutions in Laos, including: (P1) National university graduates integrated into conservation agencies and organizations, (P2) In-service training for protected area staff by national university faculty, (P3) Integration of national INGO staff with national conservation agencies and organizations, and (P4) INGO-supported graduates of universities abroad returning to employment with conservation and academic institutions in Laos

lodging and materials for students to conduct the study. NUoL professors participated in the field training and received support to monitor students at the field site. WCS provided computer access for students, and partnered with the Australian Youth Ambassador for Development program to engage young professionals to mentor students in data entry, basic analytical skills, generation of summary statistics, and literature review.

2.1.3 | Results

From 2002 to 2011, 50 students from the Faculty of Forestry (58%) and the Faculty of Sciences (42%) completed over 25 different studies in four protected areas and on wildlife trade in bordering markets and restaurants. Studies in protected areas provided information on questions related to the distribution and abundance of key species or ecosystems, habitat classification and land use mapping, the status and drivers of threats, and the use of non-timber forest products by communities bordering protected areas.

2.1.4 | Pathways

After completing a student research project, almost a third of the graduates were hired by WCS as full-time staff to work with ongoing projects in protected areas or on national-level research initiatives. At least 28% of the remaining students graduated to work with the GoL in natural resource management agencies or as educators (Figure 1). An overall outcome of this approach was increased local capacity of NGO, government, and academic institutions. Of what is known is that at least 22% of students that completed undergraduate research projects from 2002 to 2011 still work in conservation or academia in Laos today. It is notable that the career path of two of these students led them to complete PhDs abroad and to return to work with the NUoL Faculties of Forestry and of Natural Sciences.

2.2 | Graduate research projects

2.2.1 | Context

The Biodiversity Cooperation Project was expanded in 2006 when the two faculties began offering graduate degrees and wanted to promote more opportunities for students and faculty to engage with foreign scientists on ecological research in Laos. Academic research capacity

was still limited at the time, with only 32% of NUoL faculty having postgraduate degrees (Siharath, 2010). There were few prospects for students to engage in graduate level research without technical support and resources provided by international agencies or foreign scientists. Likewise, there are few opportunities for foreign scientists to gain permission to conduct research in Laos without an agreement between an international organization and a relevant government agency, which is partially the result of a cautious distrust of foreign influence in Laos resulting from the Indochina War (Singh, 2009).

2.2.2 | Partnership

The objectives of this partnership, as stated in the agreement between NUoL and WCS, were to engage in collaborative research that supported studies by Lao graduate students in the field of ecology and biodiversity, and to publish the results of these activities for the benefit of the scientific and conservation communities. Under the agreement, foreign scientists provided an abstract of their intended research topic to NUoL and WCS for consideration. The visiting scientist agreed to mentor and provide financial support for a Lao student to complete a Master's degree at NUoL as part of the research. The agreement specified that any document that was prepared jointly or individually must acknowledge the collaboration of the other involved parties. Although the extra funding and bureaucracy associated with the requirement that foreign researchers collaborate with a national agency and a student deterred some scientists from work in Laos, the policy was instrumental in minimizing parachute science. Successful agreements proved beneficial in many ways. One senior foreign researcher described the partnership as, "... the most rewarding aspect of my career and I am especially pleased that [the student] now has students of her own." (B. Stuart, personal communication, September 13, 2020).

2.2.3 | Results

From 2007 to 2016, five students completed master's degrees in science at NUoL with the mentorship and support of scientists from three different academic and research institutions in the United States. The theses that resulted from these studies provided new information on the distribution, natural history, and conservation of threatened fish, reptiles, and mammals in Laos, including one student-led peer-reviewed publication.

2.2.4 | Pathways

After completing master's degrees from NUoL, two of these students went on to complete PhDs in Thailand, and are now on the NUoL Faculty of Natural Sciences and continue to publish research on biodiversity in Laos. The other graduates are conservation practitioners working with the GoL or with conservation NGOs (Figure 1). An overall outcome of this approach was increased local capacity of government, NGO, and academic institutions.

2.3 | University curriculum enhancement

2.3.1 | Context

In much of the developing world, it is difficult for universities to provide adequate training in conservation without sufficient teaching materials or financial resources (Souter et al., 2017). Materials, where available, are often outdated, are in an inaccessible language, or excessively expensive. Prior to the Biodiversity Cooperation Project, NUoL did not have relevant teaching materials in Lao language or instruction for faculty on teaching biodiversity conservation principles (Rao et al., 2014). Curriculum strengthening and training of university faculties is a critical first step toward institutionalizing professional capacity.

2.3.2 | Partnership

From 2003 to 2013, WCS and the two NUoL faculties partnered with the Network of Conservation Educators and Practitioners (NCEP) project at the Center for Biodiversity and Conservation at the American Museum of Natural History (AMNH) to develop curriculum materials for training in principles of biodiversity research and conservation [Correction added on 5 October 2021, after first online publication: National Conservation Educators and Practitioners (NCEP) was changed to Network of Conservation Educators and Practitioners (NCEP)]. The faculties, along with scientists and staff at WCS and AMNH, selected the topics and worked together to develop the curriculum modules. Each module is written in Lao language and includes a synthesis document that brings together key concepts, applications, and literature for a topic, an easily modified visual presentation, and a practical exercise for laboratory or field use. Exercise solutions and teaching notes are included for the instructor, as are learning goals and student assessment questions. Workshops were held to introduce the curriculum to other faculty members and to develop interactive techniques for

teaching the modules and refining the materials in classrooms (Rao et al., 2014).

2.3.3 | Results

The partnership produced 17 modules on topics addressing key competencies in the principles and practice of biodiversity conservation. Sixteen professors from the two faculties were trained in the instruction of the modules and reported teaching components of all modules in existing courses (Rao et al., 2014).

2.3.4 | Pathways

In addition to modules being used in university classrooms for training undergraduate and graduate students, the completed modules were used by the faculty and WCS staff to deliver in-service training workshops for staff from seven national and six provincial protected areas. They—in turn—used the exercises to develop components of their protected area management plans (Figure 1). The partnership also resulted in a NUoL post-graduate certificate course in Biodiversity Conservation and Protected Area Management. An overall outcome of this approach was increased capacity in local academic institutions and government agencies.

2.4 | In-service training and graduate studies abroad

2.4.1 | Context

An important role for conservation INGOs in developing countries is to bolster the capacity of national government agencies (Rodríguez et al., 2006). For the last 20 years, WCS has worked alongside the GoL to improve protected area management to reduce threats to key species and ecosystems in three major landscapes of global biodiversity significance and to mitigate the illegal trade of wildlife that impacts both wildlife and human health. A wide range of research skills are needed to assess conservation problems, to identify and implement effective actions to address the problem, and to systematically evaluate if change in species, habitats, threats, and socioeconomic drivers are occurring or not, and why, and to adapt actions accordingly (Margoluis, Stem, Salafsky, & Brown, 2009; Salafsky et al., 2019). When this work began, there were a handful of conservation practitioners in Laos with graduate degrees in conservation science and none with PhDs. A common approach to building

this capacity in conservation is through on-the-job training and mentoring that is specific to an employee's job responsibilities (Bonine et al., 2003).

2.4.2 | Partnership

National professionals joining WCS became part of a project team working in collaboration with the GoL and alongside WCS scientists based in Laos, or in the region. In addition to on-the job training, national staff received support and mentoring to attend and present work co-authored with WCS scientists at regional and international meetings (e.g., Society for Conservation Biology, Tropical Biology Association) and to participate in relevant regional or international trainings to advance the technical skills required for their positions (i.e., monitoring and evaluation, statistics, GIS and remote sensing, conservation planning, outreach and communications, social marketing, project design, and management). Many of these same capacity-building opportunities were also offered to government counterparts. Beyond on-the-job training, an additional pathway for advancing national capacity for conservation science was to support staff to complete graduate studies at universities outside of Laos, a common pathway for many developing country professionals to acquire advanced training in conservation science (Bonine et al., 2003; Rodríguez et al., 2006).

2.4.3 | Results

From 2001 to 2013, 48 national staff were employed to work with WCS research and conservation projects. Approximately 35% of these joined WCS after completing undergraduate research projects with WCS (see approach 2.1). While on the job, they co-authored numerous technical reports and several peer-review publications with WCS scientists and staff.

2.4.4 | Pathways

Over half (54%) of Lao technical staff from this period remained with WCS for at least 5 years and of these, 69% continue to work with WCS today or with government agencies or NGOs engaged in conservation. Of those that remained with WCS for at least 5 years, 54% ($n = 26$) were supported by WCS through scholarships or mentoring to complete graduate degrees in conservation science at NUoL (see approach 2.2) or at universities outside of Laos, including Thailand, Philippines, China, England, Australia, New Zealand, and the United States

(Figure 1). The majority of these conducted and published studies that resulted from field work in protected areas in Laos, which contributed to advancing understanding of the status of biodiversity, the threats faced and provided recommendations for conservation action. Despite the concern that students who go abroad for higher education may not return to their native countries (Mammides et al., 2016), all of these graduates have returned to Laos and can be found today in positions as directors or staff of conservation agencies and organizations or in academia. An overall outcome of this approach was increased research and professional capacity in NGO, government, and academic institutions.

3 | CONCLUSION

Programs focused on developing professional capacity for biodiversity conservation in Southeast Asia have made major strides over the last two decades. As illustrated in this example from Laos, achieving the desired outcomes of capacity-building in academic and conservation institutions in developing countries takes years to bear fruit (Mammides et al., 2016; Souter et al., 2017) and cannot be achieved by parachuting in experts for short term independent research. As evidenced by this case, contemporary conservation requires a diversity of capacity development initiatives to ensure that individuals can access the necessary skills and experiences that are required for their profession (Elliott, Ryan, & Wyborn, 2018). These international partnerships were structured to combine applied field work with academic studies and with on-the-job training to expose young professionals to a range of opportunities for learning and practicing these necessary skills. This included curriculum strengthening and training of university faculty as a first step toward institutionalizing professional capacity. This combination of in-service and academic training is needed for conservation professionals to acquire skills such as leadership, innovation, and collaboration (Elliott et al., 2018; Langholz & Abeles, 2014), and to strengthen the capacity of developing country scientists and practitioners to identify conservation problems and to design site specific and relevant solutions (Binka, 2005; Bleck, Dendere, & Sangaré, 2018; Rodríguez, Simonetti, Premoli, & Marini, 2005). As a result of the partnerships described in this article, Lao scientists and practitioners have advanced to the forefront of conservation science in Laos but collaboration with foreign scientists and organizations is still ongoing and needed to support this movement. It is important to acknowledge that capacity-building is only an enabling strategy. It is essential to secure long-lasting government policies and budgets to support implementation of the

prescribed solutions to ultimately reduce threats to biodiversity and achieve conservation impact (Rao et al., 2015; Souter et al., 2017).

ACKNOWLEDGMENTS

We thank Harmony Patricio, Lorraine Scotson, and Bryan Stuart for their inputs. We also thank Zuzana Burivalova, Mike Hedemark, and two anonymous reviewers for valuable comments on earlier drafts of this manuscript.

CONFLICT OF INTEREST

The authors declare no competing interests.

AUTHORS' CONTRIBUTIONS

All authors were involved in the conceptual development of the article. Arlyne Johnson led the writing, the discussion among coauthors, and the submission of the article. All authors contributed data, reviewed, and vetted the analysis, collaborated in reviewing feedback from reviewers, edited drafts, and approved the final version of the article.

DATA AVAILABILITY STATEMENT

The authors confirm that the data supporting the findings of this work are available in the article.

ETHICS STATEMENT

The authors are not aware of any ethical issues regarding this work.

ORCID

Arlyne Johnson  <https://orcid.org/0000-0002-5663-1384>

REFERENCES

- Adenle, A. A., Stevens, C., & Bridgewater, P. (2015). Global conservation and management of biodiversity in developing countries: An opportunity for a new approach. *Environmental Science & Policy*, 45, 104–108.
- Barber, P. H., Ablan-Lagman, M. C. A., Berlinck, R. G., Cahyani, D., Crandall, E. D., Ravago-Gotanco, R., ... Willette, D. A. (2014). Advancing biodiversity research in developing countries: The need for changing paradigms. *Bulletin of Marine Science*, 90(1), 187–210.
- Berkmuller, K., Evans, T., Timmins, R., & Vongphet, V. (1995). Recent advances in nature conservation in the Lao PDR. *Oryx*, 29, 253–260.
- Binka, F. (2005). North–south research collaborations: A move towards a true partnership? *Tropical Medicine & International Health*, 10(3), 207–209.
- Bleck, J., Dendere, C., & Sangaré, B. (2018). Making north–south research collaborations work. *Political Science & Politics*, 51(3), 554–558.
- Bonine, K., Reid, J., & Dalzen, R. (2003). Training and education for tropical conservation. *Conservation Biology*, 17(5), 1209–1218.
- Costello, A., & Zumla, A. (2000). Moving to research partnerships in developing countries. *BMJ*, 321(7264), 827–829. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1118627/>
- Dubois, N. S., Gomez, A., Carlson, S., & Russell, D. (2020). Bridging the research-implementation gap requires engagement from practitioners. *Conservation Science and Practice*, 2(1), e134.
- Duckworth, J. W., Salter, R. E., & Khounboline, K. (1999). *Wildlife in Lao PDR: 1999 status report*. Vientiane: The World Conservation Union (IUCN), Wildlife Conservation Society (WCS) and Centre for Protected Areas and Watershed Management (CPAWM).
- Elliott, L., Ryan, M., & Wyborn, C. (2018). Global patterns in conservation capacity development. *Biological Conservation*, 221, 261–269.
- Emerton, L. (2009). Making the case for investing in natural ecosystems as development infrastructure: The economic value of biodiversity in Lao PDR. In *Conserving and valuing ecosystem services and biodiversity: Economic, institutional and social challenges* (pp. 85–98). London, UK: Earthscan.
- Gardner, T. A., Barlow, J., Chazdon, R., Ewers, R. M., Harvey, C. A., Peres, C. A., & Sodhi, N. S. (2009). Prospects for tropical forest biodiversity in a human-modified world. *Ecology Letters*, 12(6), 561–582.
- Gosliner, T. M., & Burke, M. (2013). From parachutes to partnerships: An “integrated” Natural History Museum expedition in the Philippines. *Curator: The Museum Journal*, 56(1), 47–67.
- Gray, T. N., Hughes, A. C., Laurance, W. F., Long, B., Lynam, A. J., O’Kelly, H., ... Wilkinson, N. M. (2018). The wildlife snaring crisis: An insidious and pervasive threat to biodiversity in Southeast Asia. *Biodiversity and Conservation*, 27(4), 1031–1037.
- Langholz, J. A., & Abeles, A. (2014). Rethinking postgraduate education for marine conservation. *Marine Policy*, 43, 372–375.
- Mammides, C., Goodale, U. M., Corlett, R. T., Chen, J., Bawa, K. S., Hariya, H., ... Goodale, E. (2016). Increasing geographic diversity in the international conservation literature: A stalled process? *Biological Conservation*, 198, 78–83.
- Margoluis, R., Stem, C., Salafsky, N., & Brown, M. (2009). Design alternatives for evaluating the impact of conservation projects. *New Directions for Evaluation*, 122, 85–96.
- Ogawa, K. (2009). Higher education in Lao PDR. In *The political economy of educational reforms and capacity development in Southeast Asia* (pp. 283–301). Dordrecht: Springer.
- Rao, M., Johnson, A., Spence, K., Syasong, A., Bynum, N., Sterling, E., ... Praxaysombath, B. (2014). Building capacity for protected area management in Lao PDR. *Environmental Management*, 53(4), 715–727. <https://doi.org/10.1007/s00267-014-0235-9>
- Rao, M., Le, M., Sterling, E., Porzecanski, A. L., Phimminith, T., & Praxaysomboth, B. (2015). Developing capacity for wildlife and protected area management in Lao PDR and Vietnam. *Cambodia Journal of Natural History*, 1(4), 715–727.
- Robichaud, W., Marsh, C. W., Southammakoth, S., & Khounthikoummene, S. (2001). *Status review of protected areas in Lao PDR*. Retrieved from Vientiane: file:///C:/5CAJ/5CREFS/5CPAs/5CNBCA/20StatusReview.pdf
- Rodríguez, J. P., Rodríguez-Clark, K. M., Oliveira-Miranda, M. A., Good, T., & Grajal, A. (2006). Professional capacity building: The missing agenda in conservation priority setting. *Conservation Biology*, 20(5), 1340.
- Rodríguez, J. P., Simonetti, J. A., Premoli, A., & Marini, M. Â. (2005). Conservation in austral and neotropical America: Building scientific capacity equal to the challenges. *Conservation Biology*, 19(3), 969–972. Retrieved from www.jstor.org/stable/3591089

- Salafsky, N., Boshoven, J., Burivalova, Z., Dubois, N. S., Gomez, A., Johnson, A., ... Wordley, C. F. R. (2019). Defining and using evidence in conservation practice. *Conservation Science and Practice*, 1(5), e27.
- Sanyal, B. C., & Varghese, N. (2006). *Research capacity of the higher education sector in developing countries*. Paper presented at the A: UNESCO Forum on Higher Education, Research and Knowledge. Paris.
- Schiller, D., & Brimble, P. (2009). Capacity building for university–industry linkages in developing countries: The case of the Thai higher education development project. *Science, Technology and Society*, 14(1), 59–92.
- Schwartz, M. W., Cook, C. N., Pressey, R. L., Pullin, A. S., Runge, M. C., Salafsky, N., ... Williamson, M. A. (2017). Decision support frameworks and tools for conservation. *Conservation Letters*, 11(2), 1–12.
- Siharath, B. (2010). *The higher education in Lao PDR and roles of international cooperation for its university development*. Vientiane: National University of Laos, Office of Planning and International Relations.
- Singh, S. (2009). Governing anti-conservation sentiments: Forest politics in Laos. *Human Ecology*, 37(6), 749–760.
- Sodhi, N. S., Posa, M. R. C., Lee, T. M., Bickford, D., Koh, L. P., & Brook, B. W. (2010). The state and conservation of Southeast Asian biodiversity. *Biodiversity and Conservation*, 19(2), 317–328.
- Souter, N. J., Hughes, A. C., Savini, T., Rao, M., Goodale, E., Van Nice, A., ... Silva, I. (2017). Building conservation capacity in Southeast Asia: Outcomes of the ATBC 2015 Asia-Pacific chapter meeting conservation education symposium. *Applied Environmental Education & Communication*, 16(3), 149–156.
- Tordoff, A. W., Baltzer, M. C., Fellowes, J. R., Pilgrim, J. D., & Langhammer, P. F. (2012). Key biodiversity areas in the Indo-Burma hotspot: Process, progress and future directions. *Journal of Threatened Taxa*, 4, 2779–2787.
- Vanhove, M. P., Rochette, A.-J., & de Bisthoven, L. J. (2017). Joining science and policy in capacity development for monitoring progress towards the Aichi Biodiversity Targets in the global south. *Ecological Indicators*, 73, 694–697.
- Vos, A. D. (2020). The problem of “colonial science”. Retrieved from <https://www.scientificamerican.com/article/the-problem-of-colonial-science/>

How to cite this article: Johnson, A., Saypanya, S., Hansel, T., & Rao, M. (2021). More than an academic exercise: Structuring international partnerships to build research and professional capacity for conservation impact. *Conservation Science and Practice*, e539. <https://doi.org/10.1111/csp2.539>