



WILDTEAM®

Conservation project management skills survey

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List of acronyms

CMP	Conservation Measures Partnership
FoS	Foundations of Success
GIS	Geographic Information System
NGO	Non-Governmental Organisation
TNC	The Nature Conservancy
WCS	Wildlife Conservation Society
WWF	World Wide Fund for Nature

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Executive summary

Introduction

For over a decade there has been a growing effort to build project management skills in the conservation sector. Conservation organisations have created partnerships to develop project management guidelines, and have assigned dedicated staff, developed processes, and created training aids to support their staff and other conservationists. No survey, however, has specifically assessed the status of project management skills in this sector. This highlights a potential risk that the conservation sector as a whole may be still missing a skill set that is essential for effectively delivering projects. The main objectives of this study were, therefore to assess:

- The need for project management skills in conservation
- The demand for training in project management skills
- The supply of training in project management skills

To help direct future capacity building efforts, this study also had the sub-objectives to identify:

- The barriers to training
- Additional training needs

Methods

The online survey was created in English, using Google forms, carried out over three weeks, and carried out in accordance with international standards of market research ethics. The survey was sent out to 481 WildTeam contacts and posted on 2 email groups to target responses from conservation practitioners.

Results

Survey response: We received a total of 250 responses from conservationists representing 141 organisations and 52 countries. Most (84%) responses were from practitioners (NGO staff, government staff, independent consultants), with less representation from donors (4%) and other groups.

Need for project management skills in conservation: 98% of respondents thought that project management skills were important for them to be effective in their current role. However, the difference between current and desired skills levels indicated that over 66% of respondents had insufficient competency in each of the defined project management skill sets.

Demand for training in project management skills: Over over 75% of respondents were interested in additional project management skills training, and over 70% of respondents were interested in online training or class-based training in project management.

Supply of training in project management skills: 70% of respondents had received project management training before, with the most common types of training being informal on-the-job training provided by colleagues, but only 10% of respondents had any type of certification. A total of 123 organisations were identified as having provided some sort of project management training.

Barriers to training: Lack of funds was identified by 92% of respondents as a barrier to receiving training in project management skills, followed by lack of time (identified by 89%), lack of training courses near to where respondents work (82%), lack of training courses (82%), and lack of institutional value for project management skills (62%).

Additional training needs: In addition to project management, the highest priority training needs for operations skills were fundraising, human resources, and financial management. The most high priority training needs for research were statistics, GIS, and ecological research. The most high priority training needs for conservation actions were behaviour change, policy, and landscape management.

Discussion

Overall, considering the representation of regions, countries, organisations and accountability levels of respondents, and supported by the unequivocal nature of the responses, we think the survey results provide a reasonable initial inference for the conservation sector as a whole.

The results suggest that currently there is insufficient supply of certified project management training for the conservation sector, which makes it difficult to assess skill levels and reduces the opportunities for conservationists to acquire standardised, transferable skills that can enhance their conservation efforts and support their career development.

It seems reasonable to conclude that having two thirds of conservationists, often with relatively high and medium levels of accountability, continuing to work at below level performance in project management will greatly reduce the impact the conservation sector is able to achieve.

1 Introduction

For over three decades, the need for improved planning, implementation, and evaluation of efforts has been highlighted as essential for enabling conservation projects to adapt to changing conditions, measure the impact of their efforts, and improve the chances of achieving impact (Holling, 1978; Holling & Meff, 1996, Grumbine, 1994). During that time, the discipline of project management, widely used in the engineering, technology, and business sectors to improve the delivery of projects while controlling costs, time, and quality under changing conditions (Crawford et al., 2006), has been gradually tailored for application in the conservation sector, where it is often termed “adaptive management” (McDonald-Madden et al., 2010; Parma, 1998; Wilhere, 2002).

There has been a growing effort over the past decade to build the capacity of conservationists in project management skills and to standardise best practice in this discipline. In 2002, for example, the Conservation Measures Partnership (CMP) was created as a collaborative platform to develop a set of guidelines (The Open Standards for the Practice of Conservation) to help practitioners adaptively manage conservation projects of any size (CMP, 2003). Many leading conservation organisations have since joined CMP to help further develop the Open Standards and associated tools. Working in partnership with CMP is the Conservation Coaches Network (CCNet); a collection of regional franchises that develop conservation coaches to support organisations implement the Open Standards.

In addition, there is a growing body of literature that provides additional guidance on several aspects of the Open Standards or complementary project management approaches (Grantham et al., 2006; Knight et al., 2006; McCarthy & Possingham, 2007; Margoluis et al., 2013; Salafsky et al., 2001; Stem et al. 2005). Some conservation organisations (e.g. World Wide Fund for Nature, The Nature Conservancy, International Union for the Conservation of Nature) have also assigned dedicated staff, established processes, and created training aids to support their staff and other conservationists develop project management skills (IUCN, 2004; TNC, 2007; WWF, 2012). Conservationists wanting to apply project management principles to their work are also supported by a range of planning and decision making tools (Sarkar et al., 2006).

Despite the considerable input of effort to build project management capacity in the conservation sector, so far few studies have attempted to assess the output of these efforts. Only two surveys that we are aware of have highlighted gaps in how conservation practitioners are applying some key project management processes and phases (O’Neil, 2007; Redford et al., in prep). The early indications from these studies were revealing. For example a review of conservation project audits suggested that 90% of funds are supporting projects that have no means to verify the effectiveness of their efforts (O’Neil, 2007). The gaps in application of project management processes highlighted in this study may, in part, be related to a lack of project management skills in the conservation sector. As far as we are aware, however, no survey has specifically assessed the status of project management skills in this sector. This highlights a risk that the conservation sector as a whole may be lacking a key skill set that is essential for effectively delivering projects.

The main objectives of this study were, therefore to assess:

- The need for project management skills in conservation
- The demand for training in project management skills
- The supply of training in project management skills

To help direct future capacity building efforts, this study also had the sub-objectives to identify:

- The barriers to training
- Additional training needs

The study was carried out using an online survey targeting conservation practitioners and donors. The study's findings are expected to help conservation organisations assess the need to provide their staff with additional training in project management in order to help achieve conservation objectives. Likewise the study's findings will help individual conservationists judge the importance of improving their project management skills to increase the effectiveness of their contribution to conservation. The study's findings will also highlight barriers to training provision which organisations and training providers can aim to overcome to provide conservationists professional development in this discipline.

2 Methods

2.1 Survey effort

The online survey was created in English, using Google forms, and carried out in accordance with international standards of market research ethics (ICC/ESOMAR, 2007). Responses were collected over three weeks from 22nd October to 12th November, 2014. The survey questions were directly linked to the survey objectives, and were a mix of multiple choice and open ended formats (Table 1). The use of standardised multiple choice questions, Likert scale response options (Likert, 1931), and clear definitions of terms used in questions, were used to minimise measurement error related to possible inaccuracies of responses (Groves, 2004).

The survey was sent out directly to a total of 481 WildTeam contacts and was posted to two conservation email groups. The survey covering letter also requested people to share with their colleagues. The target for the total number of responses was 100, and a basic response rate was measured by the % of WildTeam contacts that responded.

The main target group of the survey were conservation practitioners (Non Government Organisation staff, government staff, and independent consultants) and donors, as these groups are all involved in assessing, supporting, or implementing conservation projects. However, responses from other categories of conservationists, such as trainers, teachers, and students, were also accepted to help build an overall assessment for the sector. The target of 100 total responses was assumed to overcome issues relating to non-response

error (failure to collect data on all persons in a sample), and sampling error (heterogeneity in the responses) from the conservation practitioner population (Groves, 2004). However, the survey design does not take into account coverage error, as it did not provide sample selection to some of the overall population of conservation practitioners, so the results should be considered in the context of this potential source of error (Groves, 2004).

To categorise respondents, respondents were asked to list the country and organisation they were employed in. The geographic coverage was then measured in the % of regions and the number and % of countries represented (as classified by the United Nations).

Respondents were also asked to categorise the type of organisation they worked for and this data was used to calculate the % of respondents from each organisation category. Respondents were also asked to provide their job title, which was used to get an idea of the relative role of that respondent within their organisational hierarchy, categorised as high, medium, and low levels of accountability. This data was used to calculate the % of respondents from each level of accountability (Box 1).

Box 1: Examples of job titles corresponding to relative level of accountability.

Low accountability: Officer, assistant, student, scientist, conservationist, biologist, ranger, forester.

Medium accountability: Manager, coordinator, instructor, adviser, specialist, consultant, adviser, team leader, senior scientist, professor.

High accountability: Director, head, CEO, chair, dean, president.

2.2 Assessing the need for project management skills in conservation

The need for project management skills (as defined in Box 2) was assessed by the % of respondents agreeing to the statement “Well managed conservation projects are essential for achieving measurable conservation impact”, and the % of respondents that viewed project management skills as important for being effective in their current role.

Box 2: Definitions of some key project management skills

Situation analysis = Selecting and assessing the project's biodiversity of interest, identifying threats and causal factors, completing stakeholder and actor analysis.

Planning conservation actions = Selecting and mapping actions to theories of change, setting objectives and outcomes, planning exit strategy, estimating budget and team needs.

Planning monitoring and evaluation = Selecting indicators, developing plan and methods, estimating budget and team needs.

Implementation (of conservation actions/M&E/exit strategy) = Detailed team planning, work planning and budgeting, managing implementation team and partners, implementing activities, tracking progress and spend, managing risks.

Respondents were also asked to rate their current and desired future project management skill levels (as defined in Box 3 and described in the survey).

The difference between the current and desired competencies was then used to calculate the % of respondents with more than sufficient, sufficient, and insufficient project management skill sets needed to be effective in their current role.

2.3 Assessing the demand for training in project management skills

The demand for training in project management skills was assessed by the % of respondents agreeing to the statement "To increase measurable conservation impact it is essential that conservationists receive more training in project management skills", and the % of respondents indicating that they would be interested in receiving training in the different project management skill sets. Respondents were also asked to indicate if they would be interested in online training and/or class-based training in project management skills.

2.4 Assessing the supply of training in project management skills

The supply of training in project management skills was assessed by the % of respondents that had received project management training, the type of training that they have received, and the % of respondents who had certification in project management skills. Respondents were also asked to list the organisations which had supplied the project management training.

2.5 Assessing the barriers to training in project management

The barriers to project management training were assessed by the % of respondents agreeing to the statement "There is a lack of training opportunities in the conservation sector and this is reducing our chances of achieving successful conservation". Respondents were then asked to classify a range of potential barriers to project management training in terms of being a major barrier, minor barrier, or not a barrier.

2.6 Identifying additional training needs

Respondents were asked to identify an additional 3 high priority training needs (Table 1). Each of the training needs listed by respondents were categorised into 1 of 3 classes: operations (e.g. human resources, fundraising), conservation action (e.g. law enforcement, behaviour change), or research (e.g. ecological research, GIS). High priority training needs were then identified by the number of times each training type was mentioned across respondents.

Box 3: Definitions of project management skill levels

Expert = able to handle all tasks and a role model or coach for others

Advanced = able to handle all tasks

Intermediate = able to handle most types of tasks

Basic = able to handle simple tasks

None = no skills

3 Results

3.1 Survey response

We received a total of 250 responses to the survey. Of those responses, 117 (47%) were from author contacts and 133 (53%) were from conservationists that may have received the survey through an email group or from a colleague. The overall response rate from the original contact list of 481 was 24%.

Responses were received from conservationists representing 100% (5) of all geographic regions, and 22% (52) of countries (Fig. 1). Most responses were from Asia (36.8%), the Americas (33.2%) and Europe (20.8%), with less representation from Africa (6.8%) and Oceania (2.4%) (Table 2). Within the Asia region there was a particularly high representation from India (7.2% of all responses), Bangladesh (6.4%), and Nepal (4.4%). From the Americas the USA had the highest proportion of responses (22% of all responses), followed by Canada (4.8%). The UK had the most responses (12% of all responses) of any European country (Table 2).

Responses were received from conservationists representing a total of 141 organisations, with WWF, WCS and TNC providing the most responses (Table 3). Most (84%) responses were from practitioners (NGO staff, government staff, independent consultants), with less representation from donors (4%) and other groups (Table 4).

Most respondents were classed as having medium accountability within their organisation (54%), followed by high accountability (25%), and low accountability (21%) (see Box 1 for examples of job titles for each category).

3.2 Need for project management skills in conservation

Nearly all (99%) of respondents agreed with the statement that “Well managed conservation projects are essential for achieving measurable conservation impact” (Fig. 2), and 98% of respondents thought that project management skills were important for them to be effective in their current role (Fig. 3).

When asked which of a list of project management skills were important for them to be effective in their current role (Box 2), 91% identified situation analysis, 93% identified planning conservation actions, 94% identified planning monitoring and evaluation skills, and 90% identified implementation skills as important (Figs. 4-7).

In general, most respondents rated their own current skill levels as advanced or intermediate for each of the project management skill categories (Box 2, Figs. 8-

Box 4: Additional comments on the need for project management skills in conservation.

“It is important to have all the project management skills simultaneously at least to an ‘acceptable’ level to ensure successful conservation impacts.”

“My country is littered with the detritus of ill founded, ill funded, unsustainable projects. Strong management is a key to implementing the right projects in the right manner.”

11). However, most respondents rated their desired skill levels to be effective in their current role as expert or advanced (Box 3, Figs. 12-15).

The difference between current and desired skills levels (by respondents' self evaluations) indicated that the majority had insufficient competency in situation analysis (66%), planning conservation actions (67%), planning monitoring and evaluation (75%), and implementation skills (68%) (Fig. 16). Additional comments on the need for project management training are highlighted in Box 4.

3.3 Demand for training in project management skills

Box 5: Additional comments on the demand for training in project management skills.

"Additional training would be helpful for all staff."

"I would love to take a class-based training course, but I am afraid my current location prohibits it. Online would work perfectly though."

Most (95%) of respondents agreed with the statement "To increase measurable conservation impact it is essential that conservationists receive more training in project management skills" (Fig. 17). A majority of respondents indicated that they were interested in receiving further training in situation analysis (80%), planning conservation actions (80%), planning monitoring and evaluation (84%), and implementation (76%).

Overall, 74% of respondents were interested in online training in project management and

73% were interested in class-based training in project management. Additional comments on the demand for training in project management skills are highlighted in Box 5.

3.4 Supply of training in project management skills

Of all respondents, 70% had received project management training before, but only 10% had any type of certification in project management skills. The most common types of training previously received were informal on-the-job training provided by colleagues (mentioned by 47% of respondents that had received training), classroom training provided by an external (non-academic) provider (35%), and classroom training provided by colleagues (28%) (Fig. 18).

A total of 123 organisations were identified as providers of some kind of project management training, with 50% of those being conservation practitioner organisations, 47% training organisations (including universities and professional training providers), and 3% other. A majority (78%) of the training providers were only mentioned once by respondents as a supplier of training, with 22% mentioned more than once,

Box 6: Additional comments on the supply of training in project management skills.

"I think any development of courses or tests that result in certification would be excellent. I hope any such development is in coordination with the Conservation Measures Partnership. A certificate for a "certified instructor" on this topic would also be excellent to see."

with the World Wide Fund for Nature Conservation mentioned by the greatest number respondents (Table 5). Additional comments on the supply of training in project management skills are highlighted in Box 6.

Box 7: Additional comments on the barriers to training.

“We provide access to training and other resources, but there is no systematic reward for completion of training. Nor is there an institutionalized, consistent, or evaluative recognition of these skill sets.”

“There isn't a lack of training courses in project management, but there is a lack of courses for project management for conservation, so specialized courses would be helpful.”

3.5 Barriers to training in project management

Over half (65%) of respondents agreed with the statement that “There is a lack of training opportunities in the conservation sector and this is reducing our chances of achieving successful conservation” (Fig. 19). Respondents identified a number of barriers to receiving project management training: lack of funds (identified by 92%), lack of time (89%), lack of training courses near to where respondents work (82%), lack of training courses (82%), and lack of institutional value for project management skills (62%) (Fig. 20). Additional comments on barriers to training are highlighted in Box 7.

3.6 Additional training needs

Respondents listed a total of 505 additional training needs, but 91 of these were discounted: 82 because they were already covered by the project management skills definitions (Box 3), and seven because they were either not possible to categorise or not strictly relevant (e.g. “fly fishing”). Of the remaining 416 training needs, 69% were classed as operations, 21% as research, and 10% as conservation action training needs. The most high priority training needs for operations were fundraising (47 mentions), human resources (35 mentions), and financial management (30 mentions). The most high priority training needs for research were statistics (23 mentions), GIS (22 mentions), and ecological research (11 mentions). The most high priority training needs for conservation actions were behaviour change (15 mentions), policy (11 mentions), and landscape management (five mentions) (Table 6).

4 Discussion

4.1 Survey response

The 250 total responses exceeded the target number of responses (100) by 150%, and 24% of people on the author contact list responding seems reasonable considering that there was no particular incentive for completing the survey. The geographic coverage of the survey was widespread, with 100% of regions and 52 countries represented. However, there were notably more responses from Asia, the Americas, and Europe, compared to

Africa and Oceania, and within each region not all countries were represented. There was a large number (141) of organisations represented by the responses, but we do not know what proportion of the total number of organisations this represents. The geographic bias in responses is likely due to the author contact list and expansion of the contact list to include more conservationists from underrepresented countries and organisations would improve the inference of future surveys. If possible, an understanding of the total number of conservation organisations in the world would also improve the inference of future surveys.

The main target group of conservation practitioners (NGO staff, government staff, independent consultants) and donors were well represented with 84% of all responses, but donors only provided 4% of total responses. The low number of donor responses may be a reflection of a lower number of donor organisations in existence compared to the number of NGOs and government agencies, or the survey may not have seemed relevant to donor staff who do not manage conservation projects directly. The inference of future surveys may be improved, therefore, by increasing the numbers of donor staff in the author contact list and by improving the supporting survey text to better appeal to donor staff.

People with roles of medium accountability for achieving conservation impact (e.g. managers) were better represented (54%), than those with high accountability (25%, e.g. directors) or low accountability roles (21%, e.g. officers). The lower number of high accountability roles was expected considering the proportionally lower number of those roles in a given organisation. It might be expected that there would be a larger proportion of people with low accountability available to respond, but this group was the least represented. This could be a result of low numbers of this group represented in the author contact list, or the survey reach being limited to those people who had internet access and could respond in English. However, it is likely that the high and particularly the medium level accountability roles would be more responsible for incorporating project management into their day-to-day work and that of their teams.

Overall, considering the representation of regions, countries, organisations and accountability levels of respondents, and supported by the unequivocal nature of the responses, we think the survey results provide a reasonable initial inference for the conservation sector as a whole, but results should not be considered definitive due to possible coverage error (Groves 2004).

4.2 Need for project management skills in conservation

The need for project management skills in conservation was strongly supported by the unequivocal (99%) agreement of respondents with the statement that “Well managed conservation projects are essential for achieving measurable conservation impact”, and that 98% of respondents thought that project management skills were important for them to be effective in their current role. Likewise, each project management skill set was highlighted by respondents as being important for their current role.

Despite the highlighted importance of project management skills, over two thirds of respondents (by their own evaluation) were insufficiently skilled in each of the project management skills sets (situation analysis, planning conservation actions, planning monitoring and evaluation, and implementation) to be effective in their current role. It seems reasonable to conclude that having two thirds of conservationists, often with relatively high and medium levels of accountability, continuing to work at below their desired level performance in project management will greatly reduce the impact the conservation sector is able to achieve.

4.3 Demand for training in project management skills

There was an overwhelming demand for training in project management skills from respondents, indicated by 95% of respondents agreeing with the statement that “To increase measurable conservation impact it is essential that conservationists receive more training in project management skills”. Over three quarters (between 74% and 84% depending on the specific skill) of all respondents were interested in further training in each of the four defined project management skills sets. Over three quarters of all respondents also indicated interest in further training in the various project management skills sets, with most interested in both online and classroom style training.

4.4 Supply of training in project management skills

Although most respondents (70%) receiving some sort of project management training, only 10% of respondent had any sort of certification in project management skills. Likewise, the most common form of training (mentioned by 47% of the respondents that had received training) was informal on-the-job training provided by colleagues, which may be variable in quality, effectiveness, and applicability. Half of the 123 identified suppliers of project management training were from conservation practitioner organisations, which tallies with the large number of respondents that received on the job training provided by colleagues.

Overall, these results indicate an insufficient supply of certified project management training for the conservation sector. This makes it difficult to assess the quality of training efforts or individual skill levels. It also reduces the opportunities for conservationists to acquire standardised, transferable skills that can enhance their conservation efforts and support their career development. The current low level supply of certified project management training for the conservation sector may also be a contributing factor that explains how 90% of funds are supporting projects that have no means to verify the effectiveness of their efforts (O’Neil, 2007). An increased availability of project management for conservation training may, therefore, enable the conservation sector as a whole to achieve more measurable impact..

4.5 Additional training needs

Of the 505 additional training needs listed by respondents, most (69%) were classed as operations skills, compared to 21% as research, and 10% as conservation actions. This

may be a reflection of both the lack of training in operations skills in traditional academic courses, and also the current supply of operation skills training in the conservation sector.

4.6 Barriers to training in project management

There are considerable challenges to overcome for conservationists to be able to access training. Respondents highlighted lack of funds, time, and nearby training courses as particularly major barriers. There was also a perception that a lack of institutional support is a barrier to training in some cases, supported by comments such as “We provide access to training and other resources, but there is no systematic reward for completion of training. Nor is there an institutionalized, consistent, or evaluative recognition of these skill sets”. The lack of funds may also be an indication that institutions and individuals find it difficult to raise funds to support training of their staff, and/or that donors do not provide sufficient funds to support project management training for practitioners. The lack of funds, together with other identified barriers such as lack of time, may be a reflection of a the general lack of institutional support for project management skills highlighted by 62% of respondents. Likewise, a lack of training courses means that even if there were funds, time, and institutional support, then conservationists may still not have the opportunities available to develop their project management skills.

These challenges highlight the need for additional training courses in project management to be created with specialist content for the conservations sector that are certified, affordable, and accessible for conservationists.

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6 Appendices

6.1 Tables

Table 1. Survey objectives and questions.

Objective	Question	Answer type	Answer options
To assess the need for project management skills in conservation.	Please indicate how much you agree with the statement "Well managed conservation projects are essential for achieving measurable conservation impact".	Multiple choice	Likert scale: Strongly agree, agree, neither agree nor disagree, disagree, strongly disagree
	To be effective in your current role, how important are project management skills overall?	Multiple choice	Likert scale: Very important, important, neither important nor unimportant, unimportant, very unimportant
	To be effective in your current role, how important are the following project management skills? [Situation analysis]	Multiple choice	Likert scale: Very important, important, neither important nor unimportant, unimportant, very unimportant
	To be effective in your current role, how important are the following project management skills? [Planning conservation actions]	Multiple choice	Likert scale: Very important, important, neither important nor unimportant, unimportant, very unimportant
	To be effective in your current role, how important are the following project management skills? [Planning monitoring and evaluation]	Multiple choice	Likert scale: Very important, important, neither important nor unimportant, unimportant, very unimportant
	To be effective in your current role, how important are the following project management skills? [Implementation]	Multiple choice	Likert scale: Very important, important, neither important nor unimportant, unimportant, very unimportant
	Please add any further comments to explain your above answers.	Text	Open answer
	How would you rate your current skill level in each of the following? [Situation analysis]	Multiple choice	Likert scale: Expert, advanced, intermediate, beginner, none
	How would you rate your current skill level in each of the following? [Planning conservation actions]	Multiple choice	Likert scale: Expert, advanced, intermediate, beginner, none
	How would you rate your current skill level in each of the following? [Planning monitoring and evaluation]	Multiple choice	Likert scale: Expert, advanced, intermediate, beginner, none

Objective	Question	Answer type	Answer options
	How would you rate your current skill level in each of the following? [Implementation]	Multiple choice	Likert scale: Expert, advanced, intermediate, beginner, none
	To be effective in your current role, what is your desired future skill level in each of the following? [Situation analysis]	Multiple choice	Likert scale: Expert, advanced, intermediate, beginner, none
	To be effective in your current role, what is your desired future skill level in each of the following? [Planning conservation actions]	Multiple choice	Likert scale: Expert, advanced, intermediate, beginner, none
	To be effective in your current role, what is your desired future skill level in each of the following? [Planning monitoring and evaluation]	Multiple choice	Likert scale: Expert, advanced, intermediate, beginner, none
	To be effective in your current role, what is your desired future skill level in each of the following? [Implementation]	Multiple choice	Likert scale: Expert, advanced, intermediate, beginner, none
	Please add any further comments to explain your above answers.	Text	Open answer
To assess the demand of training in project management skills	Please indicate how much you agree with the statement "To increase measurable conservation impact it is essential that conservationists receive more training in project management skills".	Multiple choice	Likert scale: Strongly agree, agree, neither agree nor disagree, disagree, strongly disagree
	Would you be interested in receiving additional training in the following? [Situation analysis]	Multiple choice	Yes, no
	Would you be interested in receiving additional training in the following? [Planning conservation actions]	Multiple choice	Yes, no
	Would you be interested in receiving additional training in the following? [Planning monitoring and evaluation]	Multiple choice	Yes, no
	Would you be interested in receiving additional training in the following? [Implementation]	Multiple choice	Yes, no
	Would you be interested in taking part in class-based training courses in project management?	Multiple choice	Yes, no
	Would you be interested in taking part in online training courses in project management?	Multiple choice	Yes, no
	Please add any further comments to explain your above answers.	Text	Open answer

Objective	Question	Answer type	Answer options
To assess the supply of training in project management skills.	Have you received any training in project management?	Multiple choice	Yes, no
	What type of training have you received in project management?	Multiple choice	Classroom training provided by colleagues, classroom training provided by an external (non academic) training provider, classroom training provided by an external (academic) training provider, online learning from your organisation's online learning site, online learning from an external (non academic) provider's online learning site, online learning from an external (academic) provider's online learning site. informal "On-the-job" training provided by colleagues, other
	Please list the organisation(s) that provided you with the training indicated above.	Text	Open answer
	Do you hold any certification in project management?	Multiple choice	Yes, no
	If "yes" then please list the certification.	Text	Open answer
	Please add any further comments to explain your above answers.	Text	Open answer
Identifying additional training needs	Please list up to 3 skills (in addition to project management skills) that you would like more training in to become more effective in your role.	Text	Open answer
Identifying barriers to training	Please indicate how much you agree with the statement "There is a lack of training opportunities in the conservation sector and this is reducing our chances of achieving successful conservation".	Multiple choice	Likert scale: Strongly agree, agree, neither agree nor disagree, disagree, strongly disagree
	In terms of being a barrier to you receiving training in project management, how would you rate each of the following? [Lack of funds]	Multiple choice	Major barrier, minor barrier, not a barrier
	In terms of being a barrier to you receiving training in project management, how would you rate each of the following? [Lack of time]	Multiple choice	Major barrier, minor barrier, not a barrier
	In terms of being a barrier to you receiving training in project management, how would you rate each of the following? [Lack of training courses]	Multiple choice	Major barrier, minor barrier, not a barrier

Objective	Question	Answer type	Answer options
	In terms of being a barrier to you receiving training in project management, how would you rate each of the following? [Lack of training courses close to where I work]	Multiple choice	Major barrier, minor barrier, not a barrier
	In terms of being a barrier to you receiving training in project management, how would you rate each of the following? [Lack of institutional value for project management skills]	Multiple choice	Major barrier, minor barrier, not a barrier
	Please list any additional major barriers that are preventing you from receiving training in project management.	Text	Open answer
	Please add any further comments to explain your above answers.	Text	Open answer

Note: The Likert scale is a standardised approach to assess people's opinions (Likert 1932).

Table 2. Survey responses by geographic region.

Region	Country	No. of responses	%	
Africa	Cameroon	3	1.2%	
	Kenya	4	1.6%	
	Ethiopia	2	0.8%	
	Madagascar	2	0.8%	
	Namibia	2	0.8%	
	South Africa	2	0.8%	
	Democratic Republic of Congo	1	0.4%	
	Zambia	1	0.4%	
	Sub-total	17	6.8%	
	Americas	United States of America	57	22.8%
		Canada	12	4.8%
		Mexico	4	1.6%
Brazil		3	1.2%	
Paraguay		2	0.8%	
Argentina		1	0.4%	
Colombia		1	0.4%	
Costa Rica		1	0.4%	
Ecuador		1	0.4%	
Peru		1	0.4%	
Sub-total		83	33.2%	
Asia		India	18	7.2%
		Bangladesh	16	6.4%
	Nepal	11	4.4%	
	Malaysia	9	3.6%	
	Thailand	7	2.8%	
	Bhutan	6	2.4%	
	Indonesia	5	2.0%	
	Sri Lanka	5	2.0%	
	Philippines	3	1.2%	
	Laos	2	0.8%	
	Singapore	2	0.8%	
	United Arab Emirates	2	0.8%	
	Vietnam	2	0.8%	
	Afghanistan	1	0.4%	
	Cambodia	1	0.4%	
	Pakistan	1	0.4%	
	Rwanda	1	0.4%	
	Sub-total	92	36.8%	
	Europe	United Kingdom	30	12.0%
Netherlands		4	1.6%	

Region	Country	No. of responses	%
	Russia	3	1.2%
	France	2	0.8%
	Germany	2	0.8%
	Georgia	1	0.4%
	Albania	1	0.4%
	Belgium	1	0.4%
	Croatia	1	0.4%
	Greece	1	0.4%
	Ireland	1	0.4%
	Norway	1	0.4%
	Republic of Kosovo	1	0.4%
	Sweden	1	0.4%
	Switzerland	1	0.4%
	Ukraine	1	0.4%
	Sub-total	52	20.8%
Oceania	Australia	6	2.4%
	Sub-total	6	2.4%
	Total	250	100.0%

Table 3. Number of responses by organisation.

Organisation	No. of responses
World Wide Fund for Nature	35
Wildlife Conservation Society	10
The Nature Conservancy	9
WildTeam	6
Zoological Society of London	6
Conservation International	5
Foundations of Success	5
Flora and Fauna International	4
National Trust for Nature Conservation	4
Bangladesh Forest Department	3
Blue Ventures	3
Consultant	3
Department of National Parks Wildlife and Plant Conservation	3
Environmental Investigation Agency	3
International Union for Conservation of Nature	3
TRAFFIC	3
Aaranyak	2
Department of Forest and Park Services	2
Department of National Parks and Wildlife Conservation	2
Environmental Foundation Ltd	2
Environmental Incentives	2
Frankfurt Zoological Society	2
German Federal Enterprise for International Cooperation	2
Haribon Foundation	2
International Fund for Animal Welfare	2
International Trust for Nature Conservation	2
Ministry of Environment and Forestry	2
Ministry of Natural Resources	2
Nature Conservancy of Canada	2
Panthera	2
Rare	2
Save the Rhino International	2
Smithsonian Institution	2
The Corbett Foundation	2
Whitley Wildlife Conservation Trust	2
Wildlife Conservation Trust	2
21st Century Tiger	1
Africam Safari	1
African Marine Mammal	1

Organisation	No. of responses
Conservation Organization	
African Wildlife Foundation	1
Albertine Rift Conservation Society	1
Archipelago Consulting	1
Artemis Wildlife	1
Awely, Wildlife and People	1
Axios Delta Management Authority	1
Bangladesh Environment and Development Society	1
Biodiversity Conservation Agency	1
Bioma	1
BirdWatch Ireland	1
Bush Heritage	1
Cameroon herpetology	1
Care for the Wild Kenya	1
Carolinian Canada Coalition	1
Carpathian biosphere reserve	1
Center for Tropical Agricultural Research and Education	1
Clemson University	1
Colchester Zoo	1
Columbia University	1
Conservation Authority	1
Conservation Coaches Network	1
Conservation Development Foundation	1
Croatian Herpetological Society	1
Defenders of Wildlife	1
Department for Environment, Food and Rural Affairs	1
Department of Forest Resource Management	1
Department of Land and Natural Resources	1
Durham Wildlife Trust	1
Eberswalde University for Sustainable Development	1
Emirates Wildlife Society	1
Environment Department	1
Essex Region Conservation Authority	1
Field Ornithology Group of Sri Lanka	1
Forest, Nature, and Environment of Aceh	1
Freeland	1
Fundacion Conservacion Verde	1
Galapagos Conservation Trust	1
Global Nature Fund	1
Global Primate Network-Nepal	1
Gonzales-Stoller Surveillance	1
Gordon & Betty Moore Foundation	1

Organisation	No. of responses
Guyra Paraguay	1
Indian Forest Department	1
Institute for Nature Conservation in Albania	1
Institute of Zoology	1
Instituto Chico Mendes de Conservação da Biodiversidade	1
International Rhino Foundation	1
LBiodiv	1
Leech Lake Band of Ojibwe	1
MacArthur Foundation	1
Malaysian Conservation Alliance for Tigers	1
Malaysian Nature Society	1
Margaret A. Cargill Foundation	1
Marine Stewardship Council	1
Mohamed bin Zayed Species Conservation Fund	1
Namibia Nature Foundation	1
National Audubon Society	1
National Museums of Kenya	1
National Research Council	1
National Socio-Environmental Synthesis Center	1
National University of Mexico	1
Nature Conservation Foundation	1
Nepal Tiger Trust	1
Nordens Ark	1
Norfolk County	1
Norwegian Institute for Nature Research	1
Nottawasaga Valley Conservation Authority	1
Oklahoma State University	1
Province of Groningen	1
Puget Sound Partnership	1
Rainforest Alliance	1
Research & Development Center	1
Royal Manas National Park	1
Royal Society for Protection of Birds	1
Royal Society for Protection of Nature	1
Royal Zoological Society of Antwerp	1
South African National Biodiversity Institute	1
Spatial Informatics Group	1
Stellenbosch University	1
Sumatran Orangutan Society	1
Sumatran Tiger Conservation Forum	1
Taita Taveta Wildlife Forum	1
Thames Talbot Land Trust	1

Organisation	No. of responses
The Manta Trust	1
The Wilderness & Wildlife Conservation Trust	1
Tribhuvan University	1
Tropical Andes Alliance	1
Tusk	1
Ugyen Wangchuck Institute for Conservation and Environment	1
United States Fish and Wildlife Service	1
University of California, Davis	1
University of Kent	1
University of Maryland	1
University of Prishtina	1
University of Texas, Austin	1
Van Hall Larenstein	1
Wildlife and National Parks Department	1
Wildlife Conservation Network	1
Wildlife Institute of India	1
Wildlife Preservation Canada	1
Wolaita Sodo University	1
Yale School of Forestry & Environmental Studies	1
Total	250

Note: For the purpose of this survey, all organisations affiliated with an international organisation (e.g. WWF) were counted as under the international organisation rather than as separate organisations.

Table 4. Responses by type of organisation.

Type of organisation	No. Of responses	%
Conservation NGO	170	62.3%
Government organisation	45	16.5%
Consultant	15	5.5%
Academic	15	5.5%
Training organisation	13	4.8%
Donor organisation	12	4.4%
Other	3	1.1%
Total	273	100.0%

Note: The total (273) is greater than the total number of responses (250) because some respondents classified their organisation by more than one type.

Table 5. Organisations that have supplied project management training.

Organisations that have supplied project management training	No. Of respondents trained
World Wide Fund for Nature	33
Foundations of Success	21
The Nature Conservancy	19
Zoological Society of London	13
Conservation Coaches Network	7
Conservation Measures Partnership	7
Wildlife Conservation Society	5
Conservation International	4
WildTeam	4
Durrell Institute of Conservation and Ecology	4
Fauna and Flora International	3
International Union for the Conservation of Nature	3
Smithsonian Conservation Biology Institute	3
United States Fish and Wildlife Service	3
Accenture	2
African Wildlife Foundation	2
Bangladesh Forest Department	2
Blue Ventures	2
Bond	2
Cornell University	2

Organisations that have supplied project management training	No. Of respondents trained
Japan International Cooperation Agency	2
Management for Development	2
NTNC	2
Oxford University	2
Prince 2	2
Self taught	2
The Management Centre	2
Wildlife institute of India	2
Academy for Planning And Development, Dhaka	1
African Conservation Center	1
Alianza Andes Tropicales	1
AMI	1
Asian Institute of Management	1
Australian College of Project Management	1
Baikal State University of Economics and Law	1
BirdLife International	1
Blymyer Engineers, Alameda, California	1
British Petroleum	1
Bridgespan	1
Bund für Umwelt und Naturschutz Deutschland	1
Bundesamt für Naturschutz	1
Bush Heritage Australia	1
Canadian Land Trust	1
Cap Gemini	1
Chittagong University	1
Colleagues from Guyra Paraguay	1
Coral Reef Degradation in the Indian Ocean	1
Dachverband Deutscher Avifaunisten	1
Danish Hunter's Association	1
Defenders of Wildlife	1
Department for Environment, Food & Rural Affairs	1
Duke University	1
European Association of Zoos and Aquaria	1
Eberswalde University for Sustainable Development	1
Endangered Wildlife Trust	1
Environmental Foundation Limited	1
Ephroymsen Training	1

Organisations that have supplied project management training	No. Of respondents trained
ESRI	1
FORMEZ Italy	1
Frankfurt Zoological Society	1
Global Coral Reef Monitoring Network	1
Georgetown University	1
Deutsche Gesellschaft für Internationale Zusammenarbeit	1
Her Majesty's Forces	1
International Fund for Animal Welfare	1
Indian Institute of Management Bangalore	1
International Institute for Management Development Business School	1
IMM	1
Imperial College London	1
INCAE Business School	1
Indian Institute of Management Kozhikode	1
Institute of Forestry & Environment Sciences	1
Instituto de Educação Tecnológica	1
International NGO Training and Research Centre	1
International Program for Development Evaluation Training	1
Kenya Forest Services	1
KMDA	1
Leech Lake Band of Ojibwe	1
Mango	1
Marine Stewardship Council;	1
McKinsey & Co.	1
Medecins sans Frontieres	1
Ministry of Natural Resources	1
Mitacs	1
Monash University	1
Monterey Institute of International Studies	1
MRAG	1
Malaysian Conservation Alliance for Tigers	1
National Audubon Society	1
National University of Mexico	1
Nature Kenya	1
Norfolk a County Human Resources Dept	1
North American Association	1

Organisations that have supplied project management training	No. Of respondents trained
for Environment Education	
Oxfordshire Community and Voluntary Action	1
Ontario Land Trust	1
PACT	1
Philippine-Australian Human Resource and Organizational Development Facility	1
Pacific Islands Marine Protected Areas Community	1
Planning Commission, Bangladesh	1
Project Management Institute	1
PMIQ	1
PMP Institute	1
RARE	1
REOS	1
Royal Hong Kong Police Association	1
South African National Biodiversity Institute	1
Sydney University	1
Tropical Andes Alliance	1
University of Minnesota	1
University of Hawaii at Manoa	1
Unilever	1
United Nations High Commissioner for Refugees	1
Universiti Kebangsaan Malaysia	1
University of Bradford	1
University of Queensland	1
University of the Philippines	1
United States Agency for International Development	1
Van Hall Larenstein University of Applied Sciences	1
Virginia Tech	1
Wageningen University	1
World Bank Institute	1
Wilderness Safaris	1
Total	251

Table 6. Additional training needs identified by survey respondents.

Training category	Training type	No. Of responses	%
Operations	Fundraising	47	11.3%
	Human resources	35	8.4%
	Financial management	30	7.2%
	Stakeholder engagement	24	5.8%
	Communications	23	5.5%
	Leadership	19	4.6%
	Facilitation	16	3.8%
	Communications	17	4.1%
	Presentation	14	3.4%
	Strategic planning	10	2.4%
	Conflict management	8	1.9%
	Technology (operations)	7	1.7%
	Administration	6	1.4%
	General IT skills	6	1.4%
	Reporting	5	1.2%
	Governance	3	0.7%
	Networking	3	0.7%
	Knowledge management	2	0.5%
	Conflict management	2	0.5%
	Coaching	2	0.5%
	Change Management	2	0.5%
	Business Planning	2	0.5%
Marketing	2	0.5%	
Organisational Development	1	0.2%	
English	1	0.2%	
Sub-total		287	69.0%
Research	Statistics	23	5.5%
	GIS	22	5.3%
	Ecological research	11	2.6%
	Socio-economic research	11	2.6%
	Experimental design	9	2.2%
	Climate change	3	0.7%
	Technical writing	5	1.2%
	Technology (research)	3	0.7%
Sub-total		87	20.9%
Conservation action	Behaviour change	15	3.6%
	Policy	11	2.6%
	Landscape management	5	1.2%
	Law enforcement	5	1.2%
	Wildlife Management	3	0.7%
	Technology (conservation action)	2	0.5%
	Human-wildlife conflict management	1	0.2%
Sub-total		42	10.1%
Total		416	100.0%

6.2 Figures

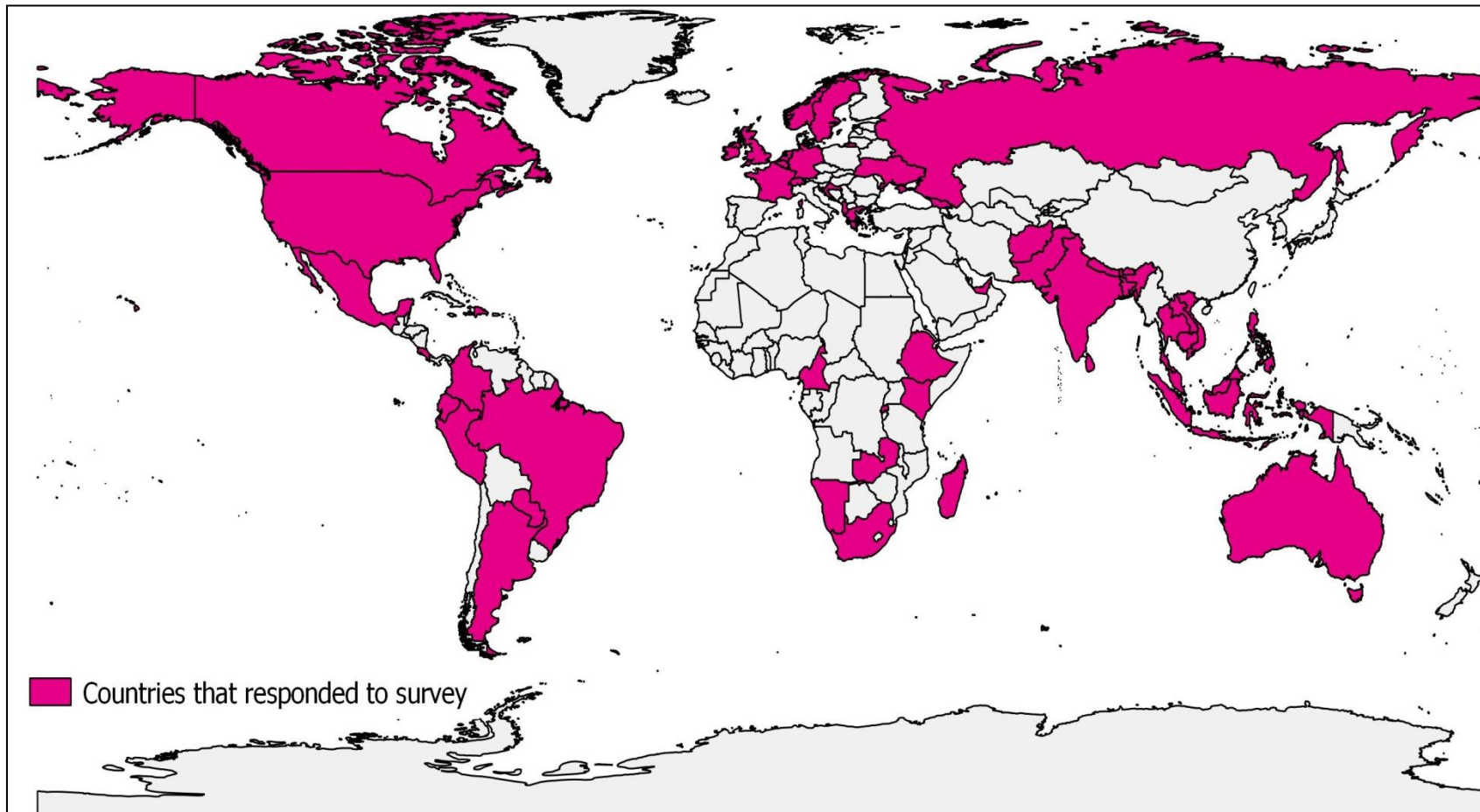


Figure 1. Map of countries that were represented by survey responses.

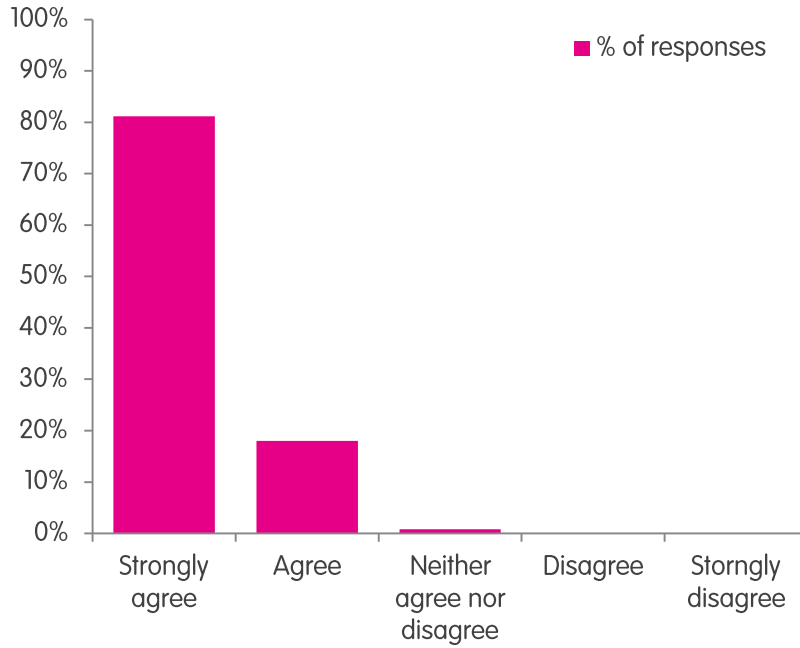


Figure 2. Participant level of agreement with the statement “Well managed conservation projects are essential for achieving measurable conservation impact”.

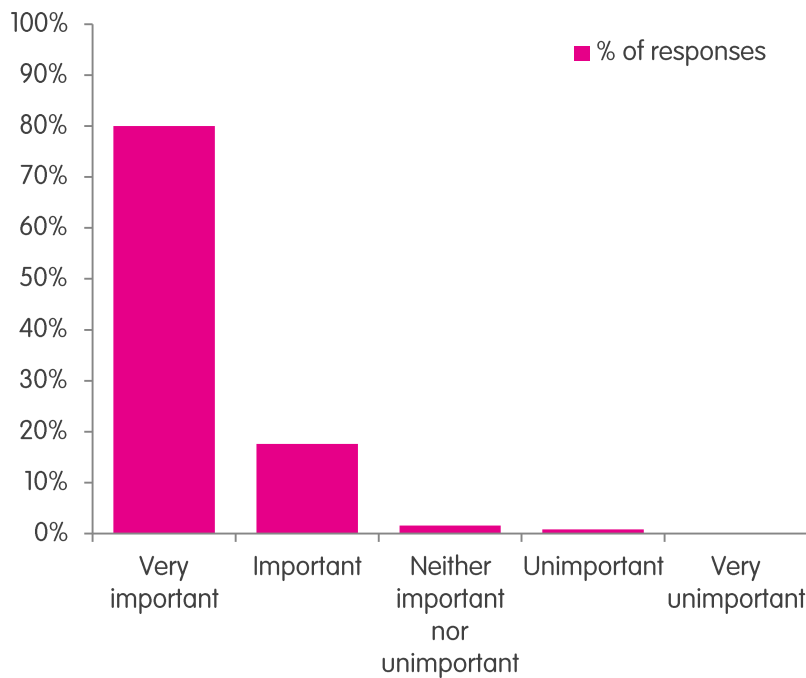


Figure 3. Overall importance of project management skills to be effective current role.

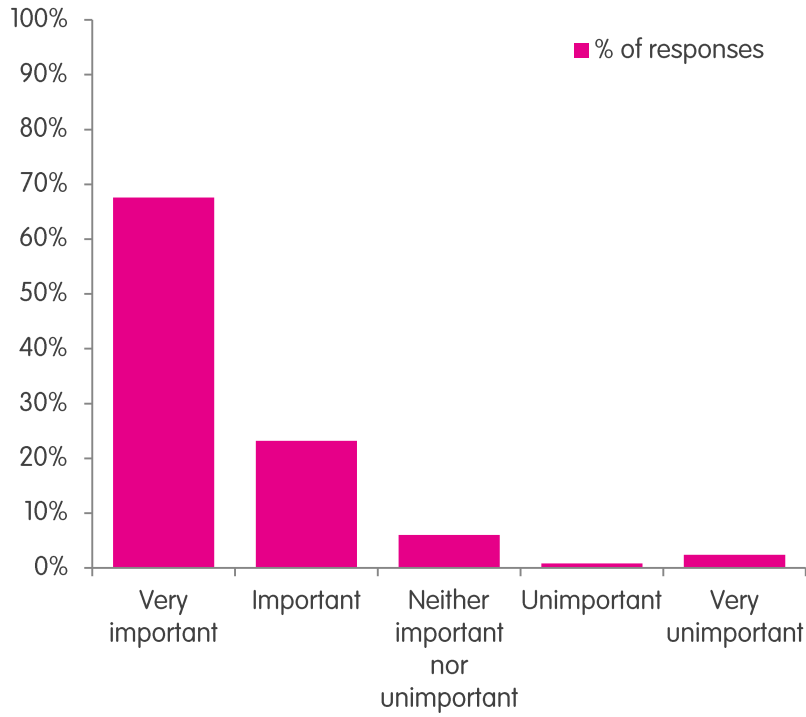


Figure 4. Importance of situation analysis skills to be effective in current role.

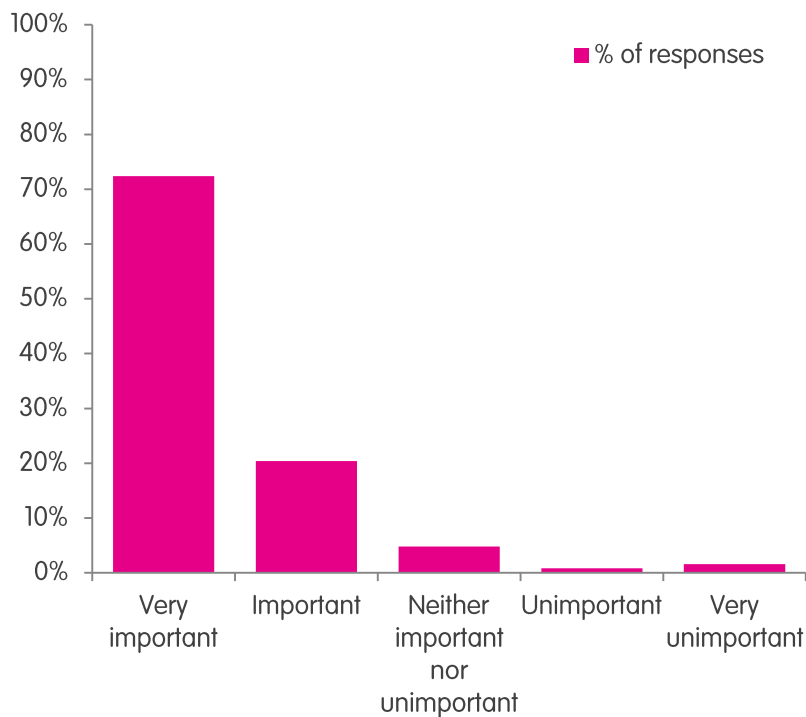


Figure 5. Importance of planning conservation actions skills to be effective in current role.

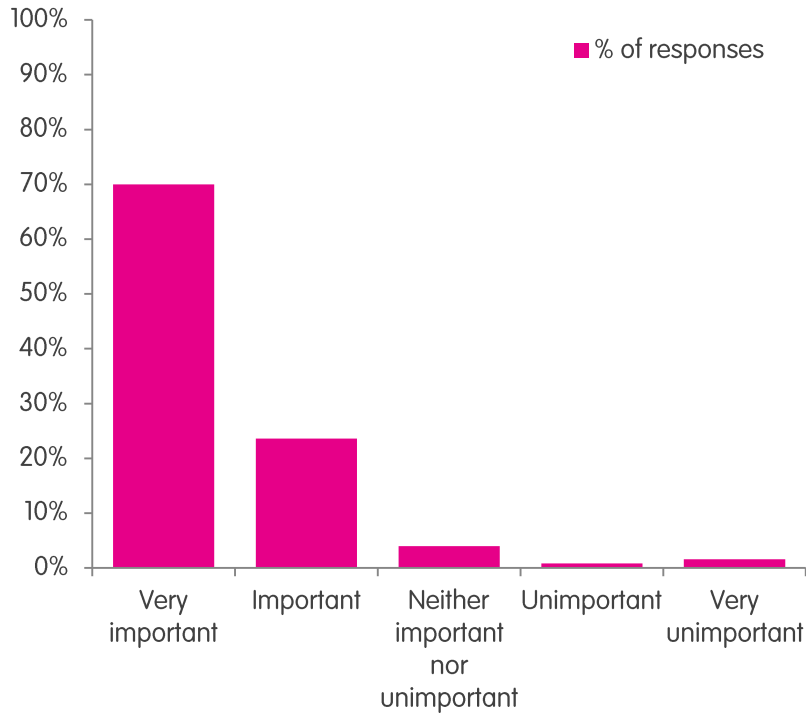


Figure 6. Importance of planning monitoring and evaluation skills to be effective in current role.

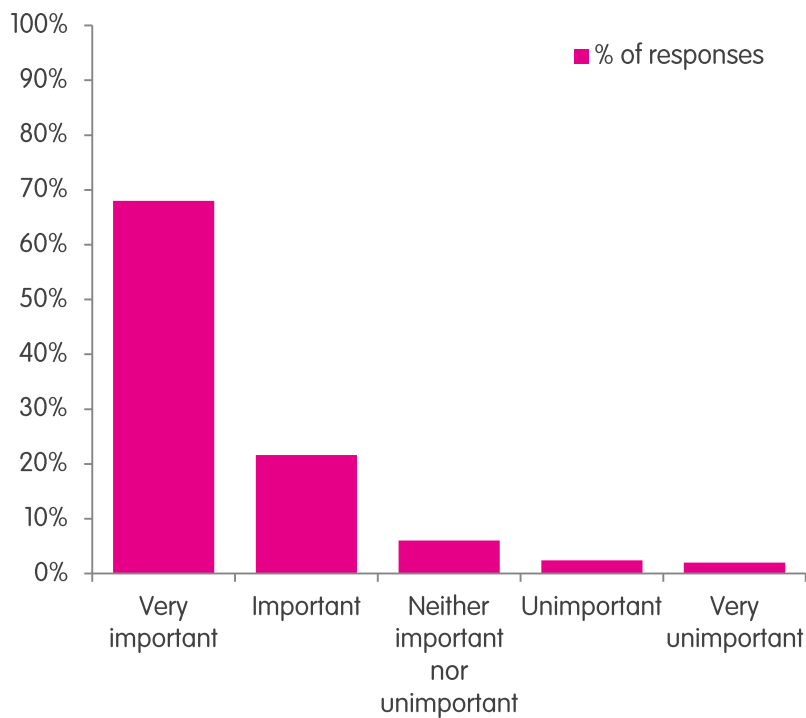


Figure 7. Importance of implementation skills to be effective in current role.

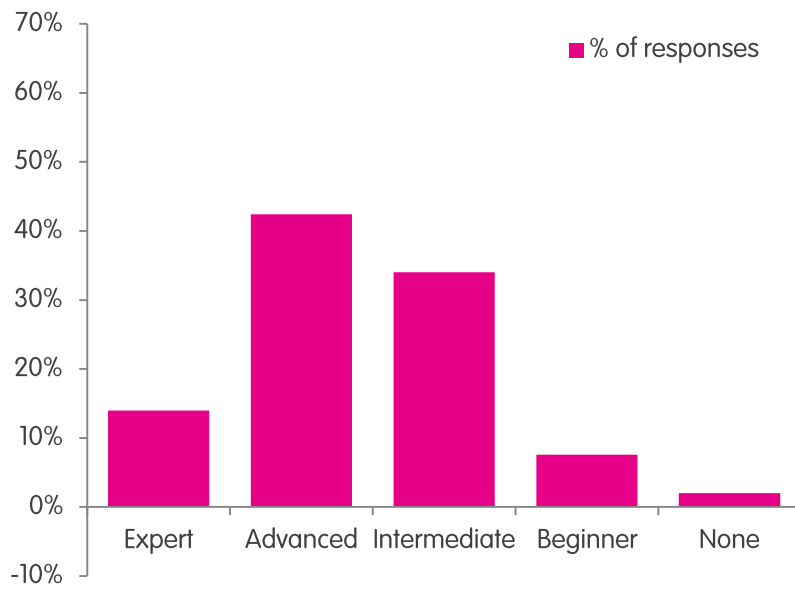


Figure 8. Current competency in situation analysis.

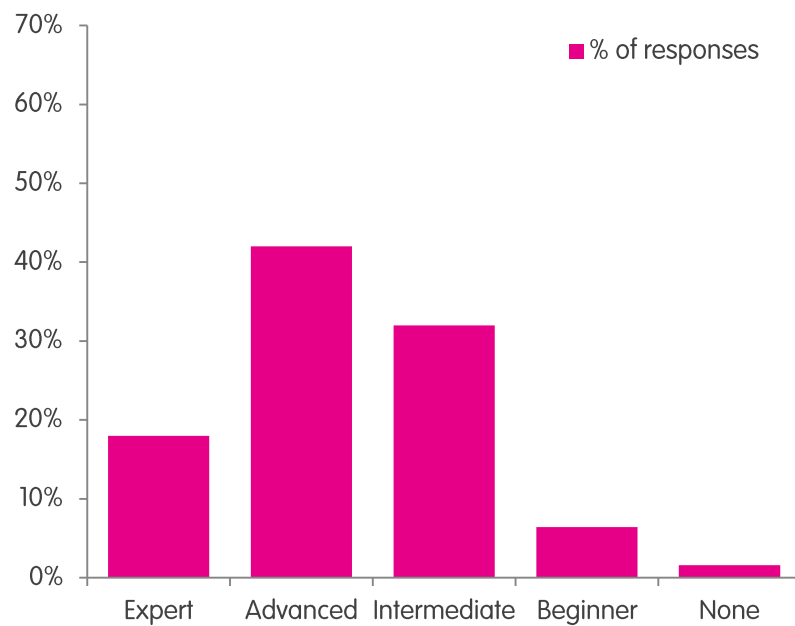


Figure 9. Current competency in planning conservation actions.

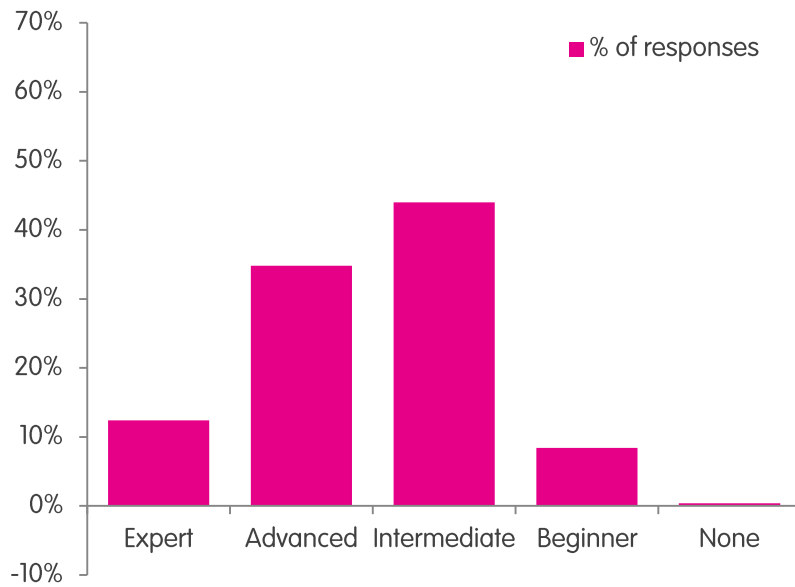


Figure 10. Current competency in planning monitoring and evaluation.

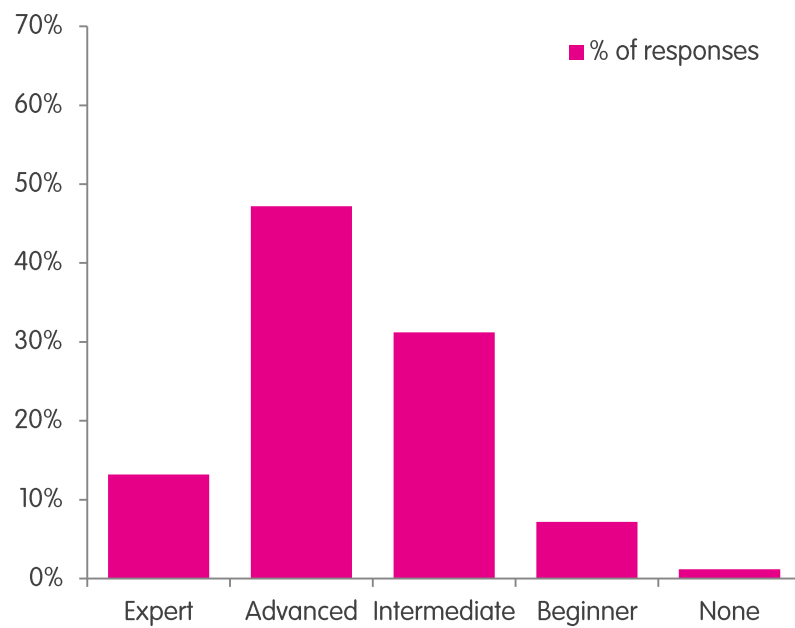


Figure 11. Current competency in implementation.

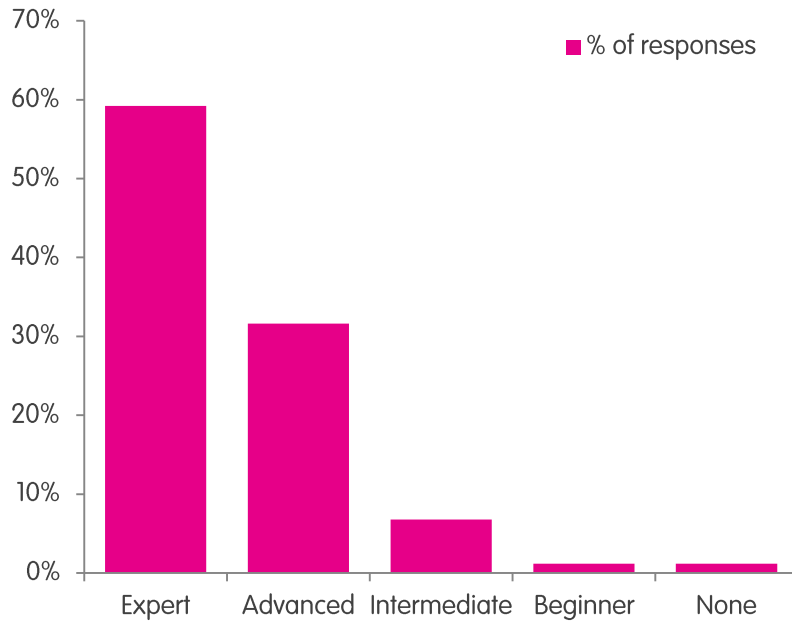


Figure 12. Desired competency in situation analysis.

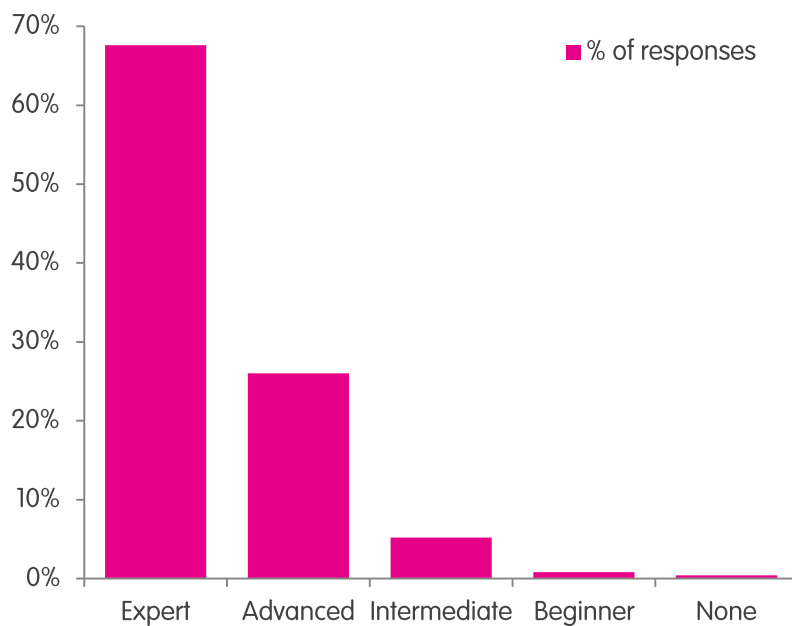


Figure 13. Desired competency in planning conservation actions.

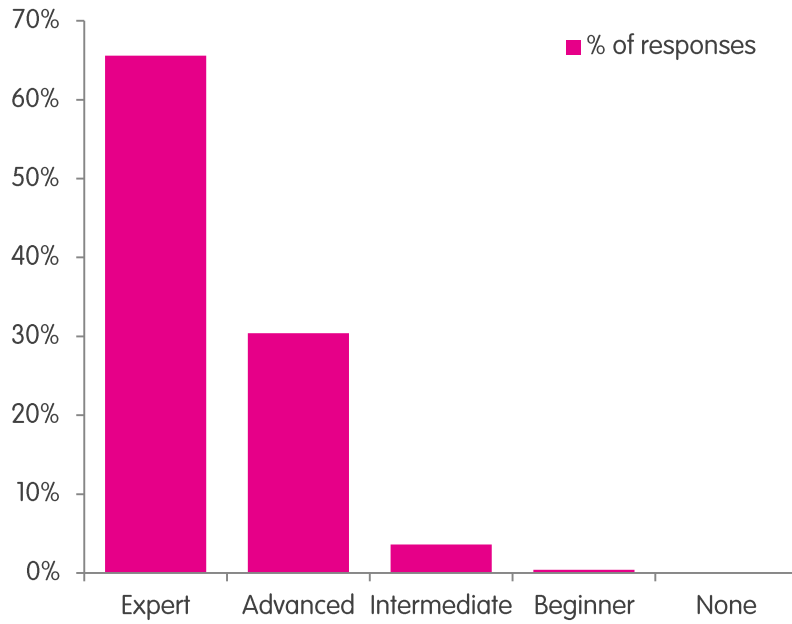


Figure 14. Desired competency in planning monitoring and evaluation.

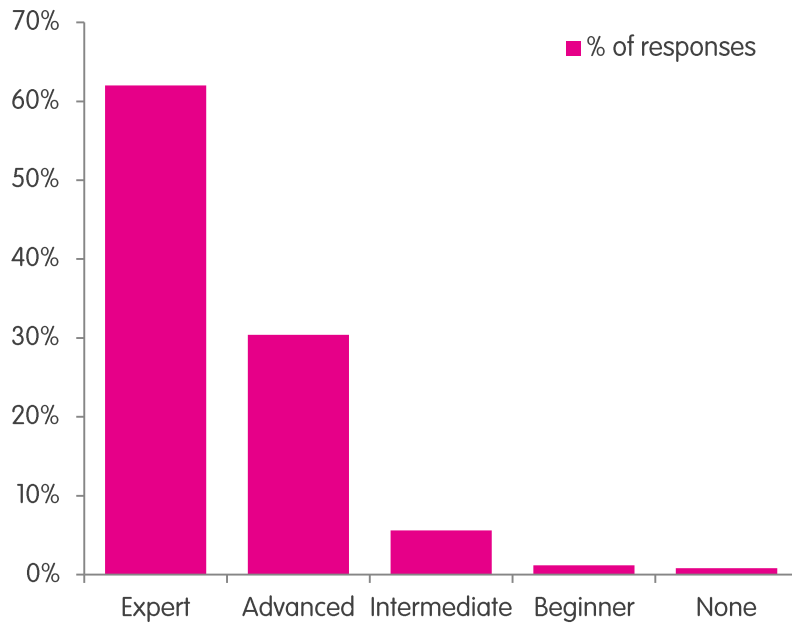


Figure 15. Desired competency in implementation.

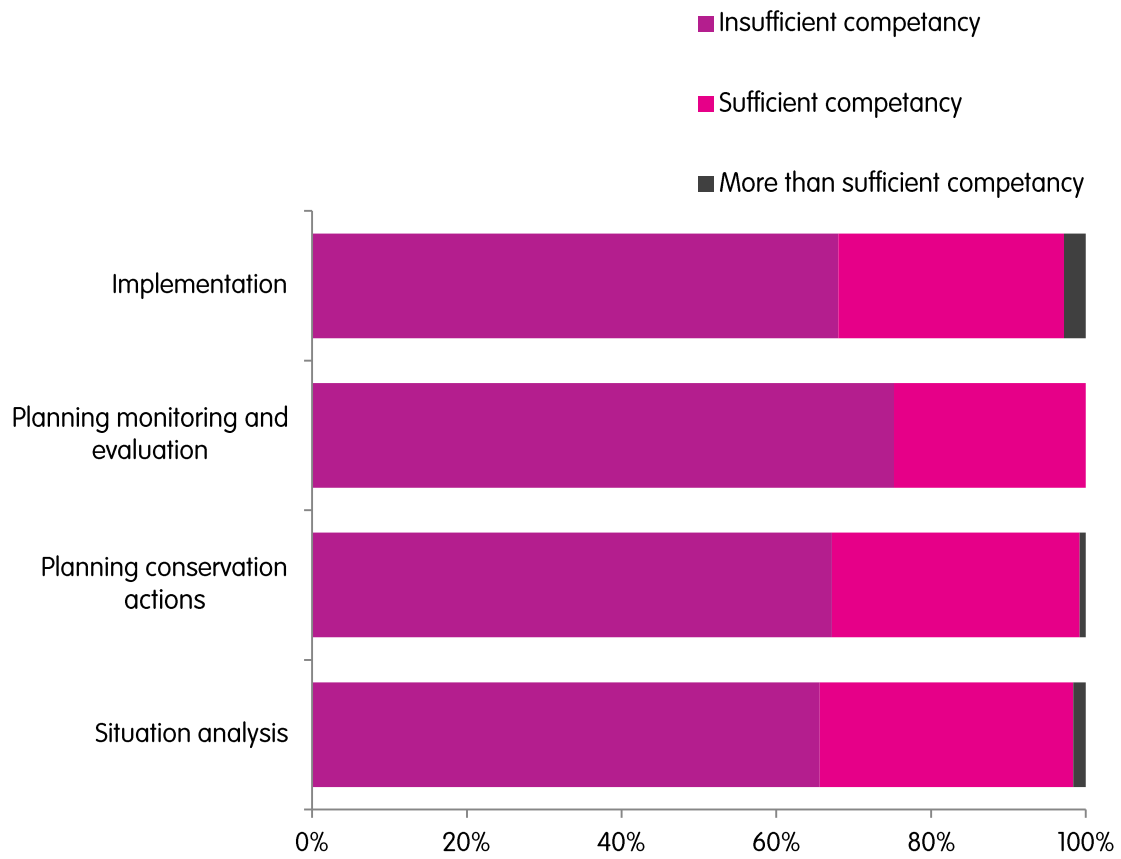


Figure 16. Levels of insufficient, sufficient, and more than sufficient competency in project management skills.

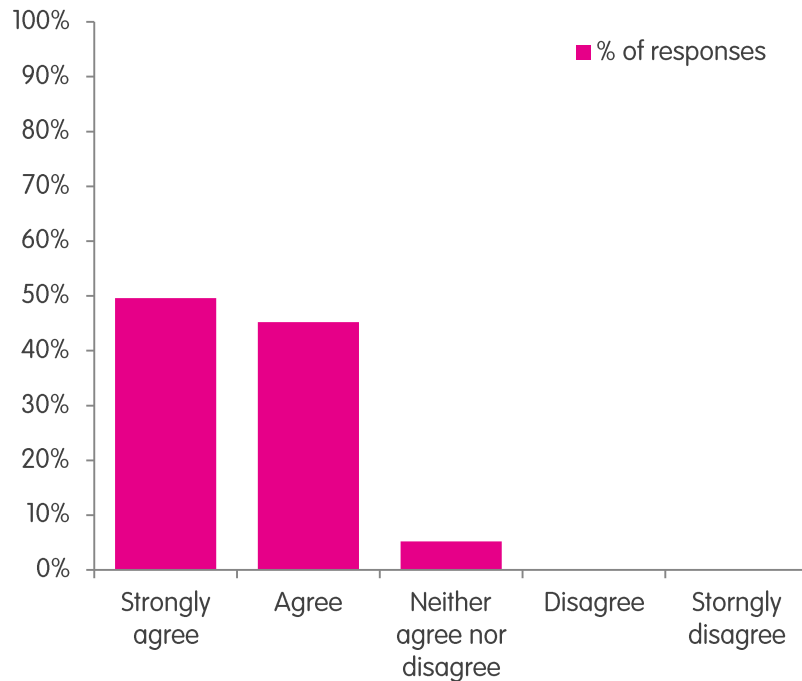


Figure 17. Participant level of agreement with the statement “To increase measurable conservation impact it is essential that conservationists receive more training in project management skills”.

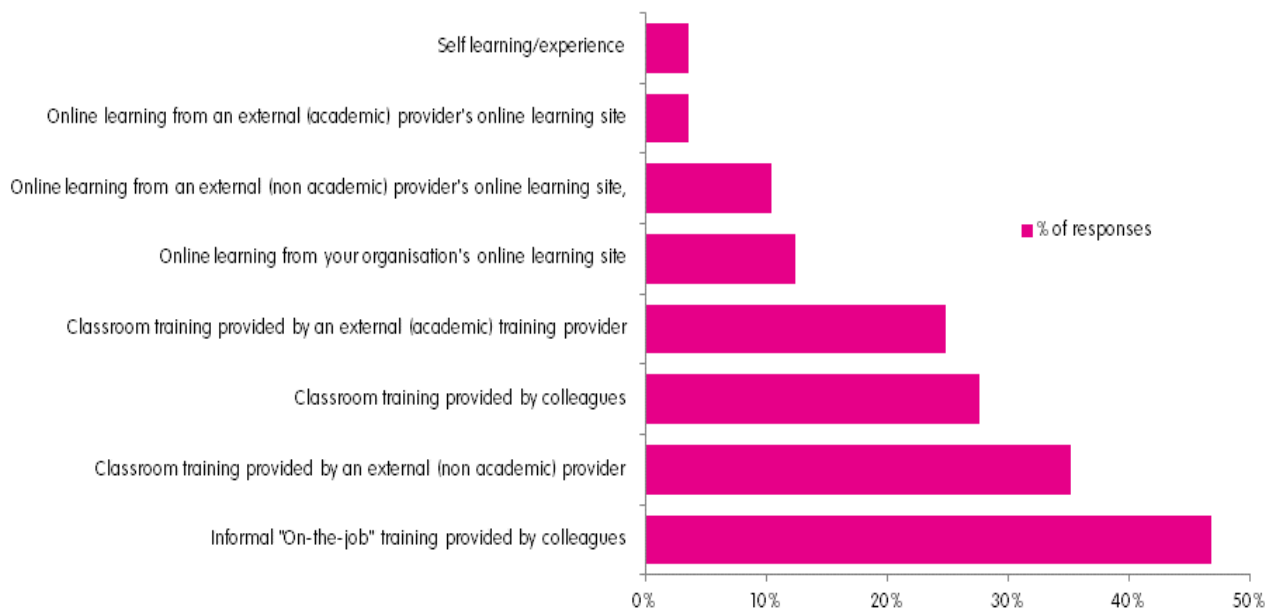


Figure 18. Types of project management training previously received.

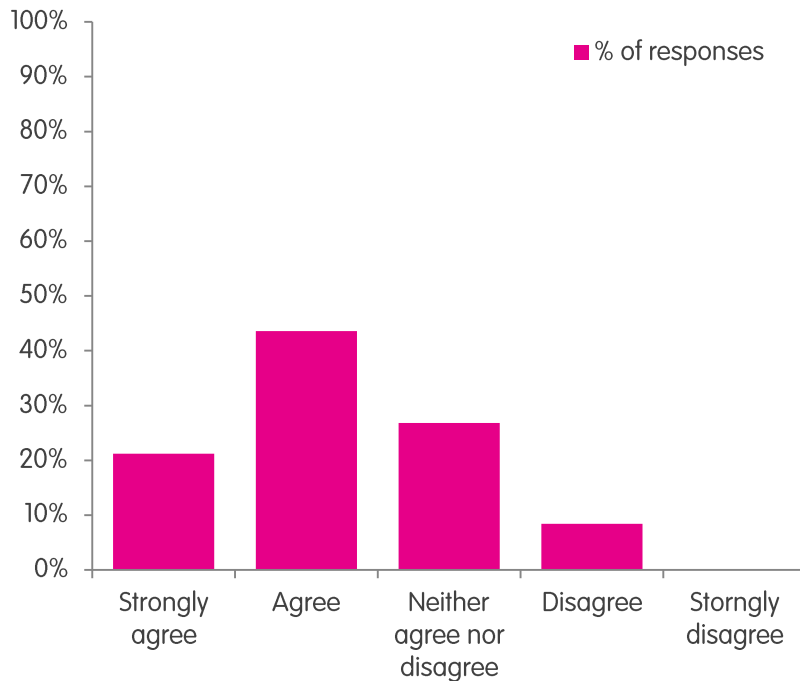


Figure 19. Participant level of agreement with the statement “There is a lack of training opportunities in the conservation sector and this is reducing our chances of achieving successful conservation”.

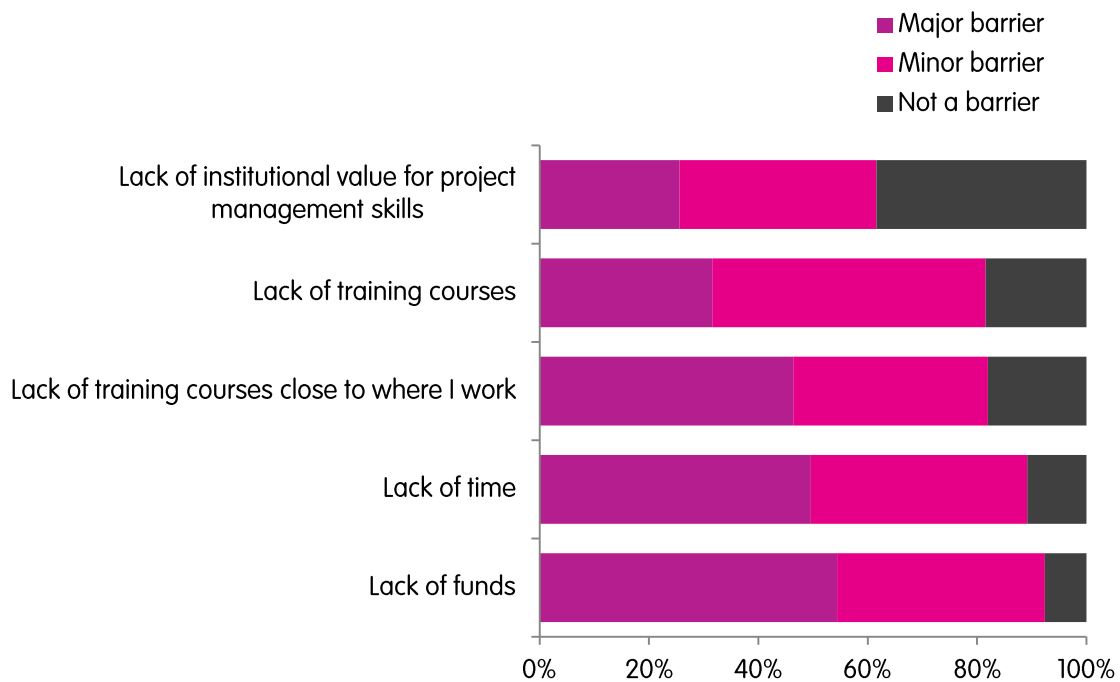


Figure 20. Barriers to training.



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