

Surveys of biodiversity data holders and decision makers in Sub-Saharan Africa

Biodiversity Information for Development (BID) is a multi-year programme funded by the [European Union](#) and led by GBIF. Its aim is to increase the amount and use of biodiversity information in [the 'ACP' nations of sub-Saharan Africa, the Caribbean and the Pacific](#).

From April 2015 until 2016, GBIF ran two surveys in parallel, seeking input from two stakeholder groups critical to the long-term success of the BID programme—data holders and decision makers. The surveys were available in three languages: English, French and Portuguese, with both online and offline versions.

Biodiversity data holders

Data holders need resources and incentives to distribute the many types of information that they steward. The twelve-question survey aimed to investigate which financial or technical challenges data holders in Sub-Saharan Africa face in sharing data for use in research and policy.

Survey respondents

A total of 354 responses were received, with 336 responses from 38 Sub-Saharan African countries, and 18 responses from ten other countries outside the region¹. Figure 1 shows the spread of responses from Sub-Saharan African countries.

The respondents represented a wide range of data holding institutions, with the majority being academic / research institutions (see table 1).

Table 1: Data holding institution types among survey responses from Sub-Saharan African countries

Type of institution	Responses	Percentage of total
Academic / research institution	173	51.5
Policy: Ministry or National agency	50	14.9
Non-governmental organisation (NGO)	47	14.0
Biological collection or museum	32	9.5
Park or reserve authority	12	3.6
(No response)	8	2.4
Private company or consultancy	5	1.5
Policy: Local government	4	1.2
Citizen science initiative	3	0.9

¹ Belgium, France, Egypt, Germany, Portugal, New Zealand, Spain, Switzerland, United Kingdom, USA.

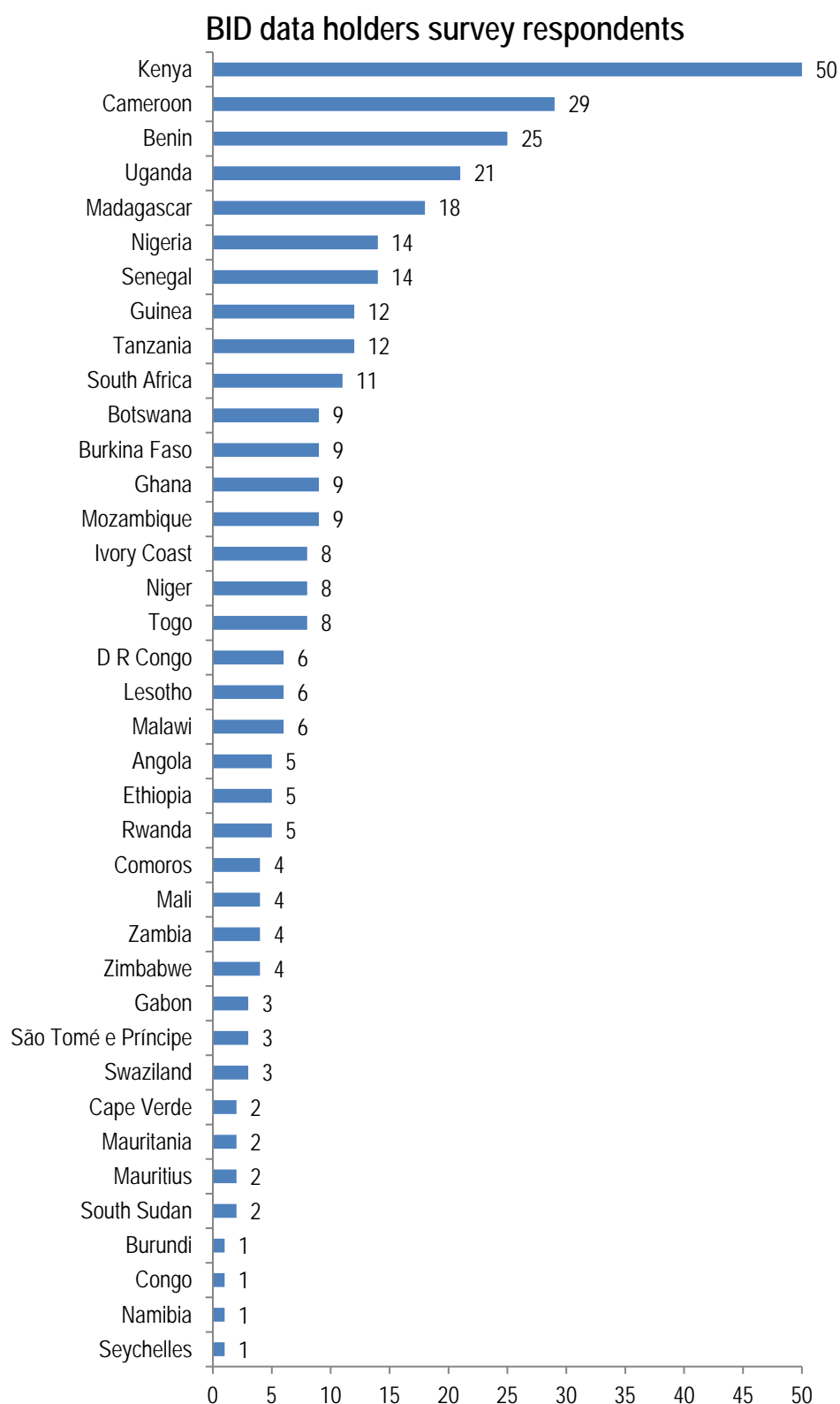


Figure 1: Data holder survey respondents from Sub-Saharan African countries

Respondents were asked to select all that applied to their institution from a list of possible roles relating to biodiversity data collection, management and use. Figure 2 shows the range

of roles among by the institutions that responded from Sub-Saharan Africa, together with the percentage of the total number of institutions that selected each role.

Data holders' institutional roles

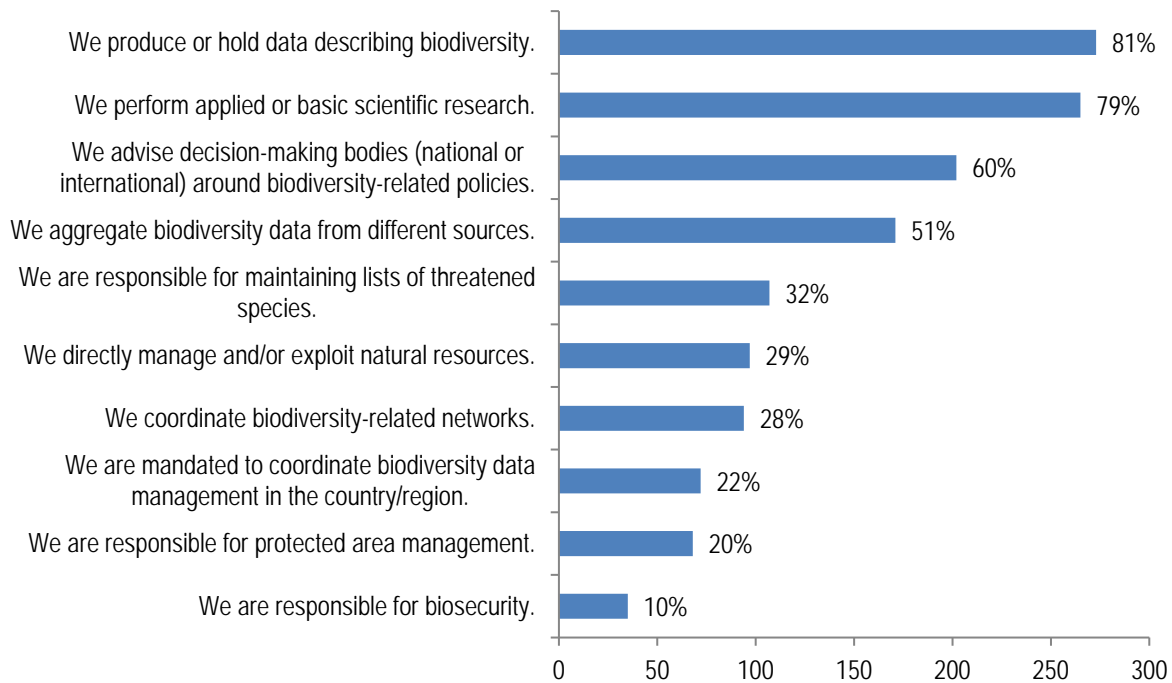


Figure 2: Roles of the institutions from Sub-Saharan Africa that responded to the BID data holding survey. Respondents were asked to select all the roles that apply to their institution. The percentage of the total number of institutions that selected each role is shown.

Information needs and value of biodiversity data

The data holders responding to the survey were in strong agreement that biodiversity information and/or data are of value to their work (of those that answered this question, 92% completely agreed with the statement and a further 7% agreed; Figure 3). Views varied widely on whether they had access to sufficient digital biodiversity information and/or data sources to support their work (of those responding, 38% either disagreed or strongly disagreed indicating a need for greater access to digital biodiversity information and/or data sources). They further agreed strongly that knowing more about how to analyze biodiversity information and/or data would benefit their work (of those that responded to this question, 79% completely agreed with the statement and a further 16% agreed).

Data holders' biodiversity data value and needs

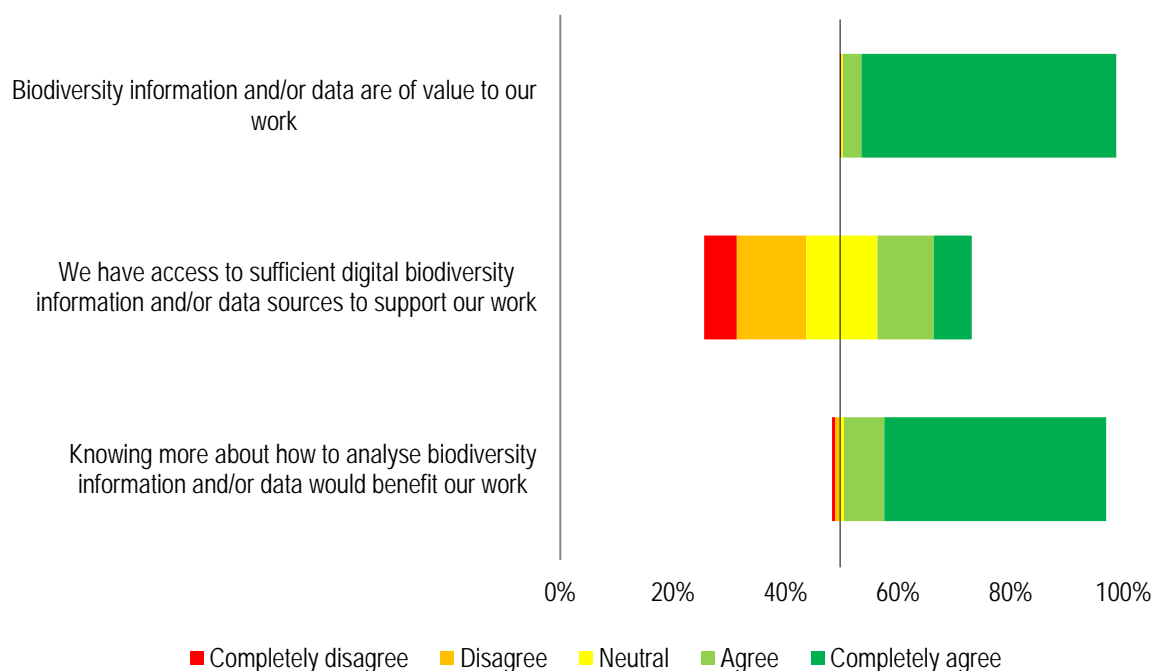


Figure 3: Views of 336 data holders from Sub-Saharan Africa about information needs and the value of biodiversity data.

Biodiversity data holdings

Biodiversity data holders were asked about the data they held and whether they were in digital format. In all cases, over half of respondents were in agreement that they held data of a type that could be published through the GBIF network (databases of observations or survey data, species lists, and databased collections), as shown in Figure 4. Of those answering the question, 79% percent provided positive responses to having species checklists, followed by 56% for databased collections and 48% for databased field observations or survey data.

Data holdings

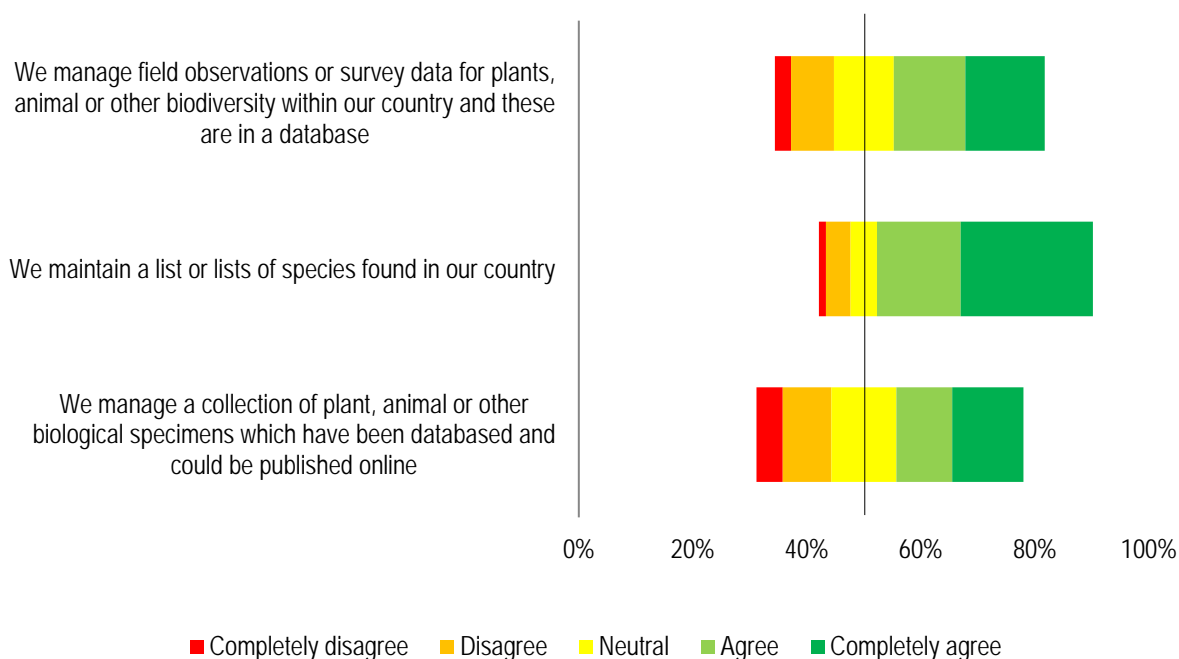


Figure 4: Views of 336 data holders from Sub-Saharan Africa on whether they hold biodiversity data of a type that can be published to the GBIF network.

Capacity needs

The survey respondents were asked a series of questions relating to capacity needs of relevance to the BID programme (see Figure 5). The respondents were in strong agreement that their work would benefit from improved collaboration and networking between biodiversity-related institutions (of those that answered this question, 84% completely agreed with the statement and a further 13% agreed), and also from knowing more about how to digitize and share biodiversity information online (79% completely agreed with the statement and a further 16% agreed).

Almost all the respondents agreed that they had the capacity to write project proposals and implement them with partners (70% completely agreed with the statement and a further 25% agreed).

The data holders expressed a range of views on whether they had access to the technical infrastructure needed to mobilize and analyze data, with this reported as a need for about half the respondents (7% completely disagreed with the statement, 26% disagreed and a further 22% were neutral).

Data holders' capacity needs

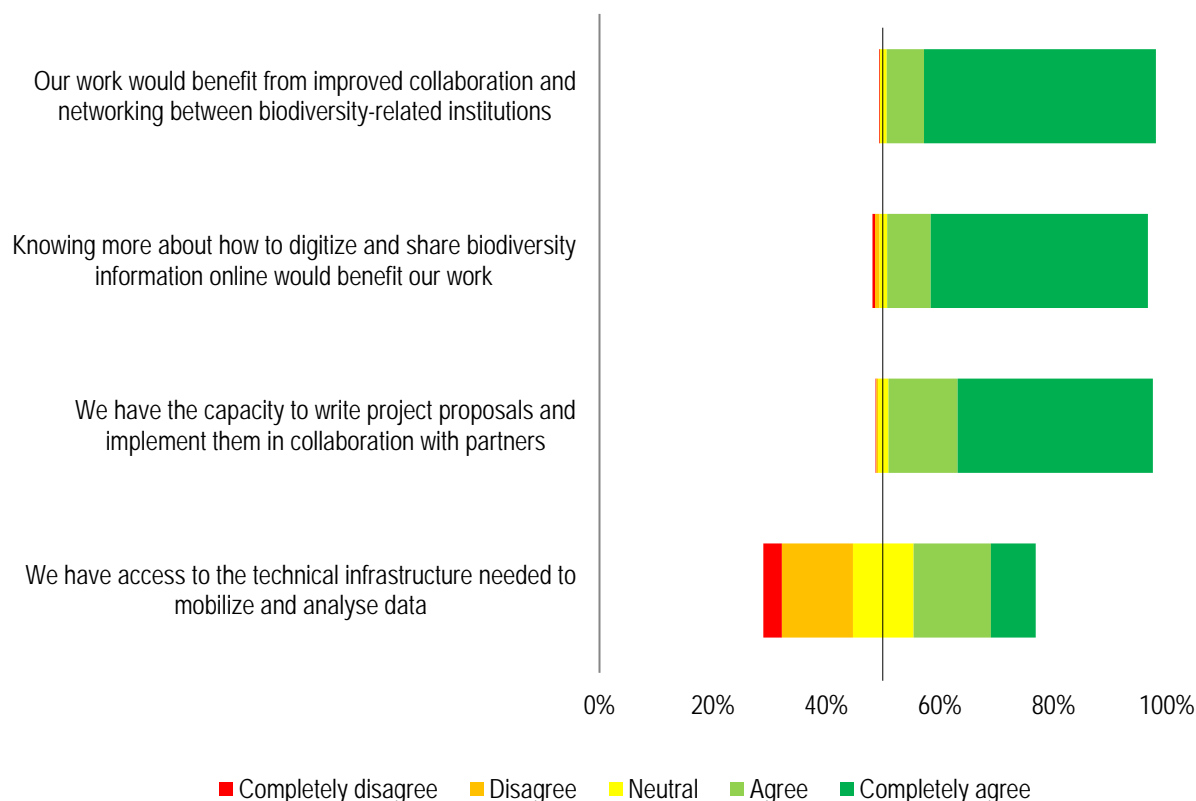


Figure 5: Views of 336 data holders from Sub-Saharan Africa on capacity needs to mobilize, share and analyze biodiversity data.

Willingness to participate in the BID programme

The majority of respondents indicated their willingness to participate in the BID programme in one or more ways (Figure 6). The largest group (80%) was interested in being part of a project proposal with a data digitization and sharing component. This was followed by 74% of the respondents that would consider being part of a project proposal around the reinforcement of biodiversity information networks. There was also willingness from over half of the respondents (57%) to promote the project and invite partners to present proposals.

Data holders' willingness to participate in BID

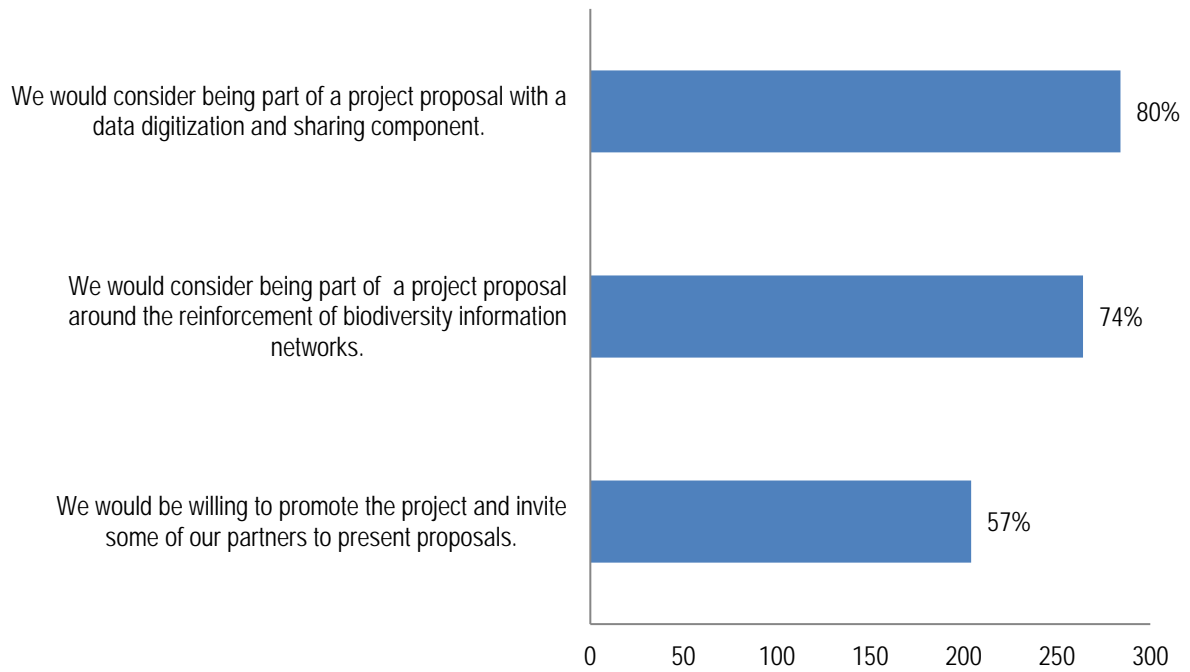


Figure 6: Willingness of 354 data holders from 48 countries to participate in the BID programme.

Decision makers

Decision makers depend on high-quality biodiversity information to support planning and policy and to encourage world-class research. This seven question survey aimed to investigate the views of decision makers from ACP countries in Africa on how well their information needs are currently served.

Survey respondents

A total of 94 responses were received, of which 91 responses were from 33 Sub-Saharan African countries, and three were from other countries². Figure 7 shows the spread of responses from Sub-Saharan African countries.

The respondents represented a wide range of institutions, with the majority being academic / research institutions (see table 2).

Table 2: Institution types among decision maker survey responses from Sub-Saharan African countries

Type of institution	Responses	Percentage of total
Academic / research institution	34	37.4
Policy: Ministry or National agency	22	24.2
Non-governmental organisation (NGO)	13	14.3
No response	11	12.1
Biological collection or museum	6	6.6
Park or reserve authority	2	2.2
Private company or consultancy	2	2.2
Policy: Regional government	1	1.1
Citizen science initiative	0	0.0
Policy: Local government	0	0.0

² Mexico, United Kingdom and USA

BID decision makers survey respondents

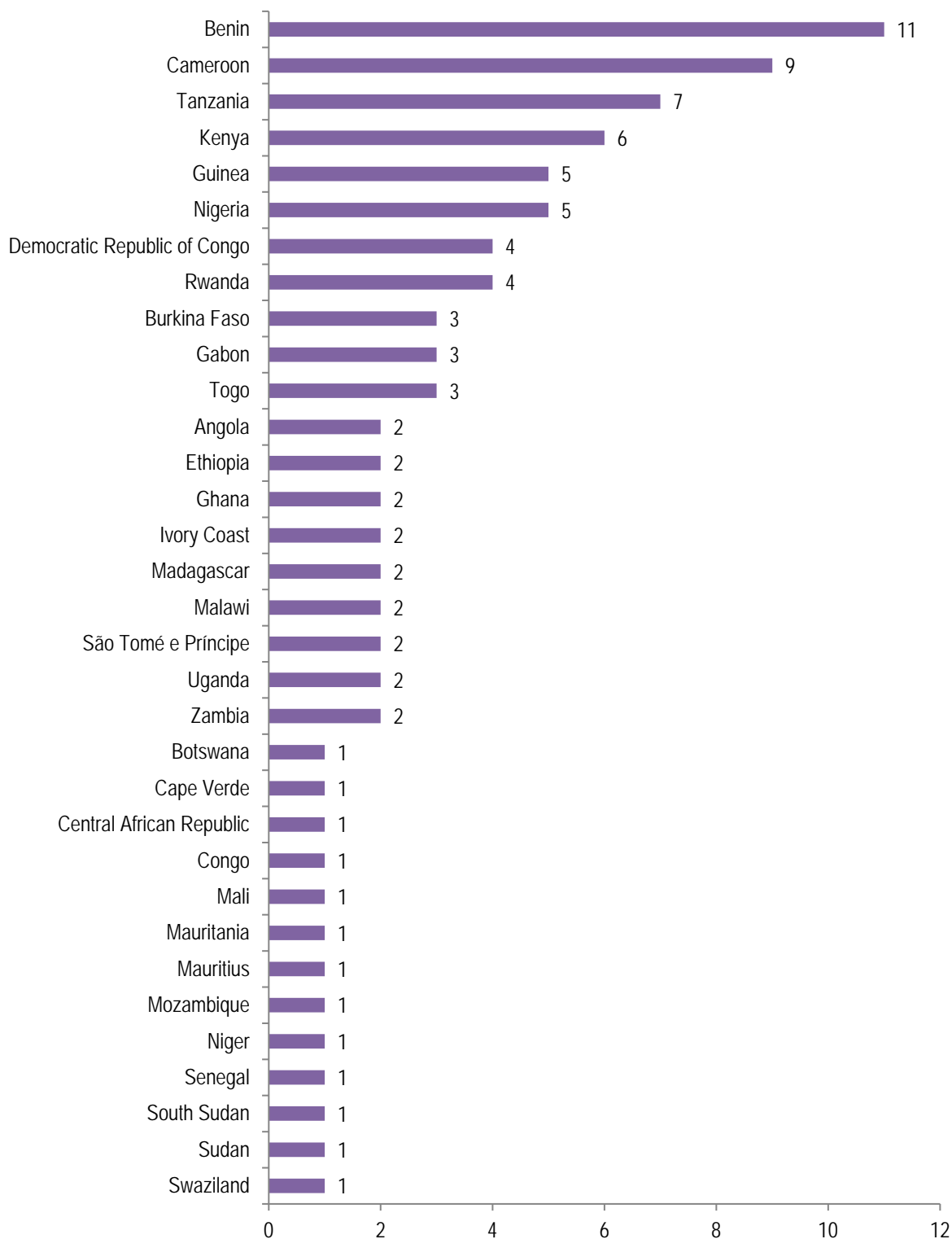


Figure 7: Decision makers survey respondents from Sub-Saharan African countries

Respondents were asked to select all that applied to their institution from a list of possible roles relating to biodiversity data collection, management and use. Figure 8 shows the range of roles among the decision makers' institutions that responded from Sub-Saharan Africa, together with the percentage of the total number of institutions that selected each role.

Decision makers' institutional roles

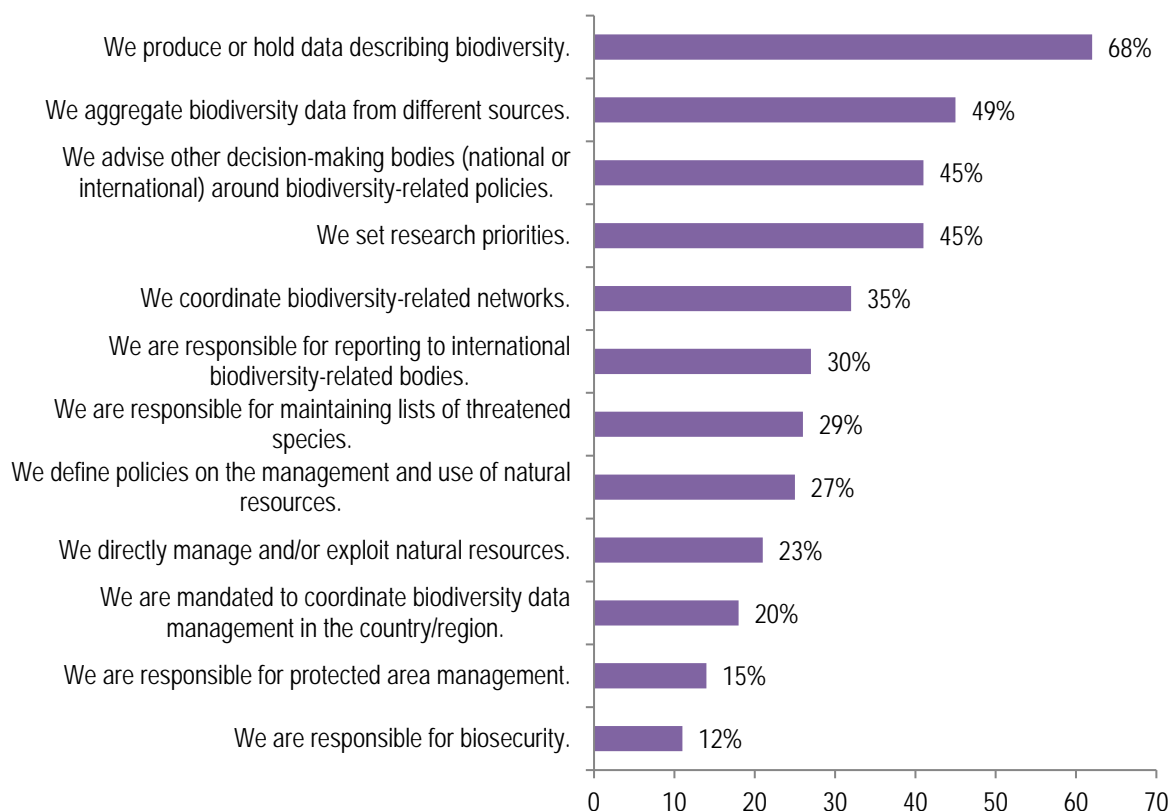


Figure 8: Roles of the institutions from Sub-Saharan Africa that responded to the BID decision maker survey. Respondents were asked to select all the roles that apply to their institution. The percentage of the total number of institutions that selected each role is shown.

Value of biodiversity data and collaboration

Decision makers were in strong agreement about the value of biodiversity information and/or data to their work (of those that answered the question, 92% completely agreed and a further 7% agreed). They also strongly agreed that their work would benefit from improved collaboration and networking between biodiversity-related institutions (81% completely agreed and a further 16% agreed).

Value of biodiversity data and collaboration to decision makers

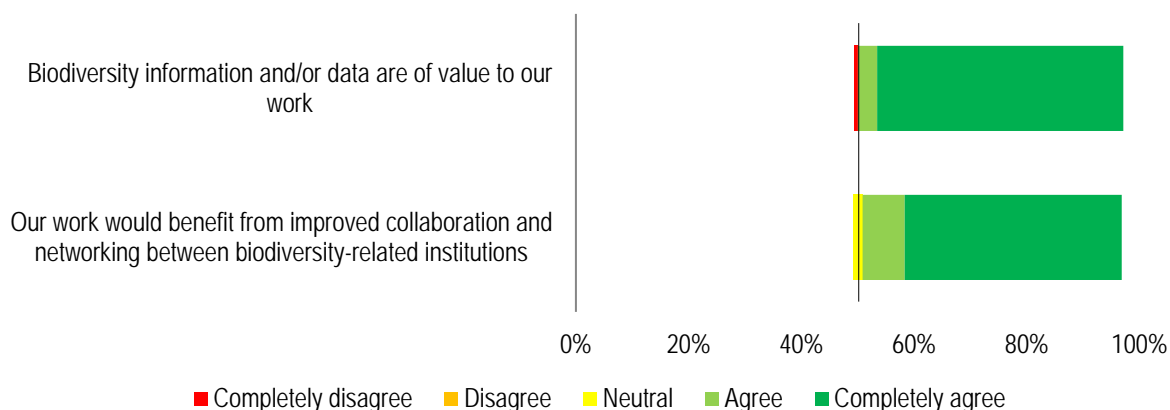


Figure 9: Views of the 91 decision makers from Sub-Saharan Africa on the value of biodiversity information and the need for collaboration between biodiversity-related institutions.

Biodiversity information needs

Decision makers were asked about their biodiversity information needs relating to the three topics targeted by the BID programme: threatened species, protected areas and invasive alien species (Figure 10). The respondents strongly agreed that they needed to understand key questions in these three areas: of those that answered each question, 85% were in complete agreement with the need to understand the risk of extinction faced by species, 79% were in complete agreement with the need to understand whether protected areas are effective in protecting biodiversity, and 62% were in complete agreement with the need to understand the impact of alien species.

The decision makers were also asked whether they had the data to answer these key questions, revealing needs for information in all three areas. The greatest need was expressed for data to understand which alien species had entered the country and the impact they were having (36% either strongly disagreed or disagreed that they had access to the data to understand this question), followed by data to understand the risk of extinction of species in the country (31% either strongly disagreed or disagreed), and data to understand whether protected areas in the country are effective (26% either strongly disagreed or disagreed).

Decision makers' biodiversity information needs

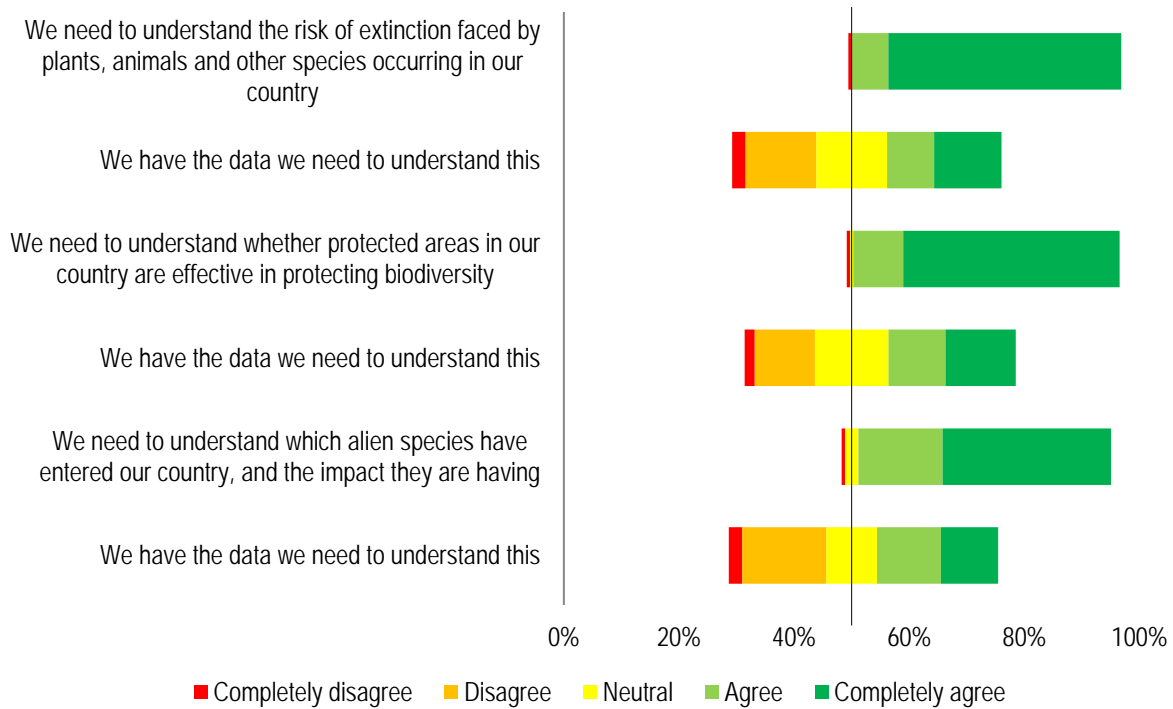


Figure 10: Views of 91 decision makers from Sub-Saharan Africa on the need for biodiversity information and the current availability of data to support these needs.

Willingness to participate in the BID programme

The majority of respondents indicated their willingness to participate in the BID programme in one or more ways (Figure 11). The largest group (72%) was interested in being part of a project proposal with a data digitization and sharing component. This was followed by 67% of the respondents that would consider being part of a project proposal around the reinforcement of biodiversity information networks. There was also willingness from over half of the respondents (55%) to promote the project and invite partners to present proposals.

Decision makers' willingness to participate in BID

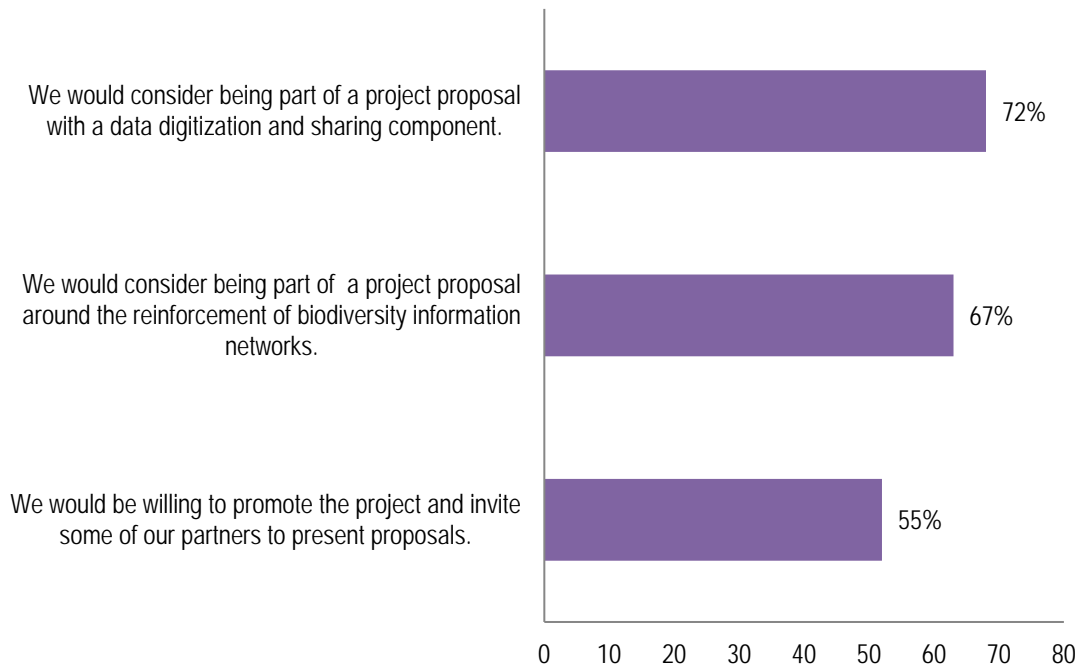


Figure 11: Willingness of 94 decision makers from 36 countries to participate in the BID programme.