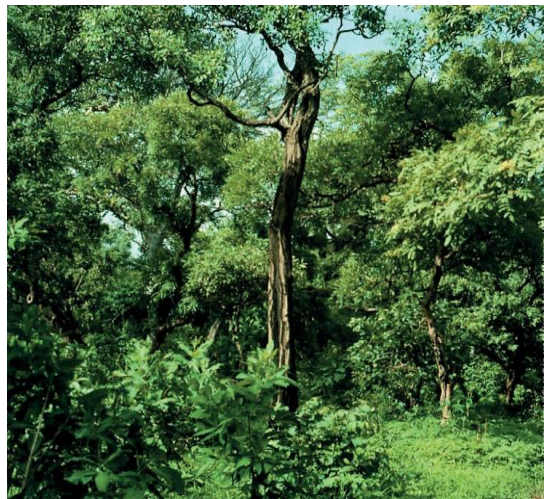




# African Forest Forum

A platform for stakeholders in African forestry



Access, uptake and use of knowledge products  
developed by the African Forest Forum

(2008-2018)



## **About AFF**

Established in 2007 as a non-political, non-governmental, objective, independent and not for profit international organisation, the African Forest Forum (AFF) is an association of individuals with a commitment to the sustainable management, wise use and conservation of Africa's forest and tree resources for the socio-economic well-being of its peoples and for the stability and improvement of its environment.

AFF exists to voice the concerns of African forestry stakeholders, and to use science, indigenous knowledge, and experience to advocate for the increasing relevance of forests and trees outside forests to peoples' livelihoods, national economies and the stability of the environment.

In this regard, AFF provides independent analysis and advice to national, regional and international institutions and actors on how economic, food security and environmental issues can be addressed through the sustainable management of forests and trees outside forests. Operationally, AFF mobilises resources to address forestry and related issues that cut across countries and different African sub-regions with a view of enhancing the relevance and contribution of forests and trees outside forests to the livelihoods of the people of Africa and stability of their environment.

## **Vision**

The leading forum that unites all stakeholders in African forestry

## **Mission**

To contribute to the improvement of the livelihoods of the people of Africa and the environment they live in through the sustainable management and use of tree and forest resources on the African continent.

Copyright © African Forest Forum 2019.

All rights reserved.

African Forest Forum

P.O. Box 30677-00100 Nairobi GPO KENYA

Tel: 254 20 722 4203

Fax: +254 20 722 4001

E-mail: [exec.sec@afforum.org](mailto:exec.sec@afforum.org)

Website: [www.afforum.org](http://www.afforum.org)

Follow us on Twitter @ africanff

Like us on Facebook / African Forest Forum

Find us on LinkedIn / African Forest Forum (AFF)

# **Access, uptake and use of knowledge products developed by the African Forest Forum**

(2008-2018)

# TABLE OF CONTENTS

<b>ACRONYMS AND ABBREVIATIONS .....</b>	<b>7</b>
<b>EXECUTIVE SUMMARY .....</b>	<b>8</b>
<b>1. INTRODUCTION .....</b>	<b>10</b>
1.1 Background to the assessment .....	10
1.2 Assessment guiding questions .....	11
<b>2. METHODOLOGY .....</b>	<b>11</b>
2.1 Survey design.....	11
2.2 Target population.....	11
2.3 Sample size and sampling procedure.....	11
2.4 Data collection .....	12
2.5 Data Analysis.....	12
<b>3. DISCUSSION OF THE FINDINGS .....</b>	<b>12</b>
3.1 Biodata of the respondents.....	12
3.2 Access to AFF communication tools and knowledge products .....	16
3.3 Thematic areas of information access and use .....	19
3.4 Utility of AFF’s knowledge products.....	34
3.5 Quality of AFF communication tools and knowledge products .....	36
3.6 Utilization of knowledge products .....	38
<b>4. CONCLUSIONS .....</b>	<b>43</b>
4.1 Access to knowledge products.....	43
4.2 Utility of AFF’s knowledge products.....	43
4.3 Quality of AFF’s knowledge products and events.....	43
4.4 Use of information shared by AFF .....	44
4.5 Recommendations.....	44
<b>REFERENCES .....</b>	<b>45</b>
<b>APPENDICES .....</b>	<b>46</b>

# LIST OF TABLES

Table 1: Accessed information on forestry sector contribution to green economy.....	20
Table 2: Accessed information on public -private-partnerships in forestry.....	21
Table 3: Accessed information on tree germplasm and seed management in Africa .....	22
Table 4: Accessed information on forest and tree pests and diseases .....	23
Table 5: Accessed information on forest governance and management-FLEGT .....	24
Table 6: Extent (%) to which knowledge gained on FLEGT was applied by different gender .....	25
Table 7: Extent (%) of use of knowledge gained on FLEGT by region .....	25
Table 8: Extent (%) of use of knowledge gained on FLEGT by profession.....	26
Table 9: Accessed information on forest certification .....	27
Table 10: Extent (%) to which knowledge on forest certification was used by women and men.....	28
Table 11: Extent of use of knowledge gained on forest certification by region .....	28
Table 12: Extent of use of knowledge gained on forest certification by profession .....	29
Table 13: Accessed information on multi-lateral environmental agreements.....	29
Table 14: Extent (%) to which knowledge gained on MEAs was applied by different gender .....	30
Table 15: Extent of use of knowledge gained on MEAs by region.....	30
Table 16: Extent of use of knowledge gained on MEAs by profession .....	31
Table 17: Accessed information on climate change adaptation and mitigation.....	31
Table 18: Extent (%) of use of knowledge on climate change adaptation and mitigation by gender .....	33
Table 19: Extent of use (%) of knowledge on climate change adaptation and mitigation by region.....	33
Table 20: Extent of use of knowledge on climate change mitigation and adaptation by profession.....	34
Table 21: Correlation between quality and utility of knowledge products (KP) .....	38
Table 22: Relationship between information use, quality and utility of knowledge products	40

# LIST OF TABLES

Figure 1: Sex of the respondents.....	13
Figure 2: Age of the respondents .....	13
Figure 3: Region of the respondents .....	13
Figure 4: Profession of the respondents .....	14
Figure 5: Length of interaction of the respondents with AFF .....	15
Figure 6: Growth of AFF membership .....	15
Figure 7: Access to communication tools .....	16
Figure 8: Level of Access to different type of AFF's knowledge products by members .....	18
Figure 9: Access to knowledge products by AFF members in the last 10 years.....	18
Figure 10: Extent of use of knowledge on climate change adaptation and mitigation.....	32
Figure 11: Utility of communication tools .....	34
Figure 12: AFF members' appreciation of the utility of knowledge products.....	35
Figure 13: Members' appreciation of the utility of AFF events .....	36
Figure 14: Members' appreciation of the Quality of knowledge products .....	37
Figure 15: Quality of events.....	37
Figure 16: Utilization of Knowledge Products .....	39
Figure 17: Key strategic areas of AFF information use by members .....	41
Figure 18: Summary of information use by strategic area .....	42

# ACRONYMS AND ABBREVIATIONS

AFF	African Forest Forum
CDM	Clean Development Mechanism
FLEGT	Forest Law Enforcement, Governance and Trade
MEAs	Multilateral Environmental Agreements
PPP	Public Private Partnership
REDD+	Reducing Emissions from Deforestation and Forest Degradation in developing countries, and the role of conservation, sustainable management of forests, and enhancement of forest carbon stocks in developing countries.

# EXECUTIVE SUMMARY

The African Forest Forum (AFF) celebrated, in May 2019, ten years of its active work on African forestry. Since its establishment in December 2006, AFF developed project activities and obtained funding for them with the actual work starting in 2008. The activities targeted improving livelihoods of the people of Africa and the environment they live in through the sustainable management and wise use of tree and forest resources on the African continent. AFF is a people centred institution, and advocates for wise use forest and tree resources to improve peoples' livelihoods and national economies in an environmentally friendly manner.

As a build-up to the 10<sup>th</sup> anniversary event, AFF conducted a survey between November and December 2018 to track access, uptake and use of the information and knowledge products the institution generated and shared over this ten-year period (2008 – 2018). In addition, the survey also sought to identify ways for improving AFF communication tools with the aim of increasing the uptake, use and impact of its knowledge products.

The survey adopted a descriptive research design combined with a quantitative approach to data collection and analysis and targeted the entire membership of AFF. For purpose of sampling, Krejcie and Morgan (1970) sample determination table was used to establish the sample size at 95% confidence level. With a total AFF membership of 2056 at the end of 2018, the sample size was determined at 333 respondents. At the close of the assessment, 299 members responded, translating to a response rate of 89.78% which was good for analysis and reporting. Data collection was done through SurveyMonkey with descriptive statistics being adopted in aggregating, analysing and presenting the findings. Frequency distribution was used to give a summary of the frequencies (or percentages) of individual values or ranges of values of a given variable. The results were presented using tables, charts and graphs. Info-mail and website have, respectively, been the most used communication tools by AFF to reach its members and the general public. Also, efforts continue to be targeted at increasing use of both social and mainstream media.

The findings from the survey indicated that *access to knowledge products* shared by AFF was high among its members, with about 74.09% of the members reporting having accessed the knowledge products regularly and in a consistent manner. Of the knowledge products accessed, 89.3% were newsletters, journal articles (88.3%), technical reports (85.3%), policy briefs (76.6%), documents published under AFF Working Papers Series (74.9%), compendiums (62.9%), fact sheets (60.9%) and 54.5% were books. The findings further indicated that access to the knowledge products have improved by more than three times since 2015.

As regards the *type of information* stakeholders were looking for, forest contribution to green economy was the most accessed at 62.08%, followed by forest governance and management at 58.28% and climate change adaptation and mitigation at 53.69%. Information on forest and tree pests and diseases was least accessed at 29.22%.



The *utility of AFF's knowledge products* was found to be moderate [mean of means= 2.39, where 1=least useful, 2=moderately useful,3=most useful] while the *quality of AFF's knowledge products and events* was found to be good [mean of means= 2.53, where 1=low quality, 2=average quality,3=high quality]. There was a significant strong positive correlation between utility and quality of knowledge products,  $r= 0.693^{**}$   $p<0.001$ , indicating that the perception of members on the quality of the knowledge products would influence their perception on the usefulness of the same.

The *use of information shared* by AFF was found to be moderate [mean of means= 2.13, where 1=least utilized, 2=moderately utilized, 3=most utilized]. Information was largely used in awareness creation activities, research and development, and capacity strengthening. Least use was recorded in fundraising, lobbying on topical issues and policy advocacy. The regression analysis indicated that the perception on utility of knowledge products ( $\beta=0.469$ ,  $p=0.437$ ,  $CL=0.05$ ) and the quality of knowledge products ( $\beta=2.295$ ,  $p<0.001$ ,  $CL=0.05$ ) positively influenced the use of the information accessed by the stakeholders. Access to information in the knowledge products is an important aspect that secured use of that information ( $\beta= -0.619$ ,  $p=0.012$ ,  $CL=0.05$ ). The study also indicated that the perception of the stakeholders on the quality of the knowledge products had the greatest contribution in influencing their use of that information.

The study findings advise that AFF should improve and intensify use of communication tools (info-mail and AFF website) to make them more user friendly and thereby improving their reach. Also, AFF could generate and share more information on the themes that are least accessed, such as tree pests and diseases, multi-lateral environmental agreements, tree germplasm and seed management in Africa. Further, AFF could explore better ways to structure some of its information in ways that it can facilitate its use in fundraising, lobbying on topical issues and policy advocacy, among its diverse constituencies.

In order to improve the utility rating even further, AFF will have to identify information needs based on temporal requirements and attributes specific to different African sub-regions and should share information in a timely manner. Also, the AFF Secretariat should sustain the high quality of knowledge products and events' content by continuing to uphold high quality standards and improved perception by stakeholders on information usefulness, both of which contribute to increasing the use of information accessed; since the findings demonstrated that perception on quality of knowledge products is positively associated with perception of their usefulness. Further, AFF could further secure greater use of information by sustaining its relevance, production of high-quality knowledge products and strengthening follow-up on how information is accessed and used by various stakeholders.

This could be of value in developing its programmes and projects.

# 1. INTRODUCTION

## 1.1 Background to the assessment

The African Forest Forum (AFF) has over the years produced several knowledge products that include scientific journal articles, edited technical reports appearing under AFF Working Paper Series, books, monographs, reports, policy briefs, factsheets, training manuals, training modules, compendiums, newsletters and workshop proceedings. All these continue to be disseminated through the AFF website, social media and print material. Some of these are updated regularly. In addition, news and updates on issues related to forestry are regularly sent to AFF registered members through emails and info mails. As part of its project activities, AFF conducts workshops, seminars and meetings with targeted forestry stakeholders to share information, in addition to building capacities and skills through training. All these combine to develop the expertise necessary for making well-informed decisions and undertaking various forestry and related activities.

According to African Forest Forum (2018b), the knowledge products shared in 2018 were double those shared in 2015, and comprised publications, videos, audio files and news items. The 173 information materials freely available in 2018 on the AFF website comprised of: scientific journal articles (35), policy briefs (20), factsheets (7), reports (30), publications under AFF Working Paper Series (45), training modules (2), newsletters (16), edited proceedings of meetings (1), books (4), compendium (1), and corporate documents (12).

The most common topics/areas addressed by these knowledge products included: forest ecosystem services, sustainable forest management, forest policy formulation and implementation, marketing and trade in forest products and services, climate change, capacity building and skills development.

The AFF communication and knowledge management report for 2018 informs that, in 2018, the AFF website recorded 1,446,936 visits from 372,837 visitors from 142 countries. These visitors were in no doubt interested in various forestry issues. There was also noted a considerable access to the knowledge products since 2015, as attested by the downloading of a total 22,608 documents in 2018.

Given this background, and in preparation to celebrate ten years of being active in African forestry (2008-2018), AFF conducted an assessment to establish access, uptake and use of its information and knowledge products over that ten-year period. The assessment also sought to highlight areas of knowledge impact, as well as identifying ways for improving AFF communication tools, in an effort to improve the uptake of its knowledge products, and by doing so, to eventually contribute to improving livelihoods, national economies and the environment through sustainable management and use of African forest and tree resources.

## 1.2 Assessment guiding questions

This assessment sought to answer the following questions by AFF stakeholders who were approached for this task:

- a) What is the extent to access to AFF's communication tools and knowledge products?
- b) What is the extent of utility of AFF's knowledge products?
- c) How informative are the AFF's knowledge products?
- d) To what extent has information shared by AFF been put into use?

## 2. METHODOLOGY

This section explains how the data was sourced, analyzed and presented.

### 2.1 Survey design

This survey adopted a descriptive research design combined with a quantitative approach to data collection and analysis.

### 2.2 Target population

The target population for the survey was all the AFF members. By the end of 2018, AFF had 2056 members from 84 countries, out of which 51 were from African countries comprising 94% of all the members. Only 4-member states of the African Union, namely Equatorial Guinea, Libya, Sahrawi Republic and São Tomé and Príncipe were yet to be represented. Membership from outside Africa (6%), referred to as "Friends of African forestry" (i.e., people with extensive experience in African forestry or had worked and/or are interested in African forestry), was from 33 countries namely: Albania, Australia, Austria, Bangladesh, Belgium, Bhutan, Brazil, Cambodia, Canada, China, Denmark, Finland, France, Germany, India, Ireland, Indonesia, Italy, Norway, Philippines, Poland, Portugal, Slovakia (Slovak Republic), South Korea, Spain, Sri Lanka, Sweden, Switzerland, The Netherlands, United Kingdom, United States of America, Vietnam, and Falkland Islands. The members came from diverse backgrounds such as academia, government ministries/departments, NGOs, the private sector, and farmer organizations.

### 2.3 Sample size and sampling procedure

The survey used Krejcie and Morgan (1970) sample determination table to establish the sample size at 95% confidence level. With a population of 2056, the sample size was

determined at 333 respondents. The survey was however administered on all the 2056 members given that, from experience, the response rate to questionnaires is usually low and some e-mails bounce back. In this survey, 49 e-mails bounced back. At the close of the survey, 299 members responded, which translated to questionnaire response rate of 89.78%.

## **2.4 Data collection**

Data collection was done through SurveyMonkey. SurveyMonkey is an online cloud-based software that enables users to create, send and analyze professional surveys. The e-mail contacts of all the AFF members were uploaded into SurveyMonkey [contacts](#). Custom e-mail invitation was then created, and the survey link sent to the target population. Response rate was tracked, and reminders were sent to those who had not responded.

## **2.5 Data Analysis**

Descriptive statistics was adopted in aggregating, analyzing, and presenting the findings. Frequency distribution was used to give a summary of the frequencies (or percentages) of individual values or ranges of values of a given variable. The results were presented in form of tables, charts and graphs.

# **3. DISCUSSION OF THE FINDINGS**

This section analyses the data, presents and interprets the findings. It comprises of respondents' biodata, access to AFF's communication tools and knowledge products, utility of AFF's knowledge products, quality and adequacy of AFF's knowledge products, and utilization of the products.

## **3.1 Biodata of the respondents**

### **3.1.1 Age and sex of the respondents**

Figure 1 indicates that the majority of the respondents (81.3%) were male, while 18.7% were female. This mimics fairly well AFF membership; for example, in 2015 women comprised 22% of AFF members. This highlights the need to encourage more women to become members of AFF. Unfortunately, there are not many women engaged in forestry related work.

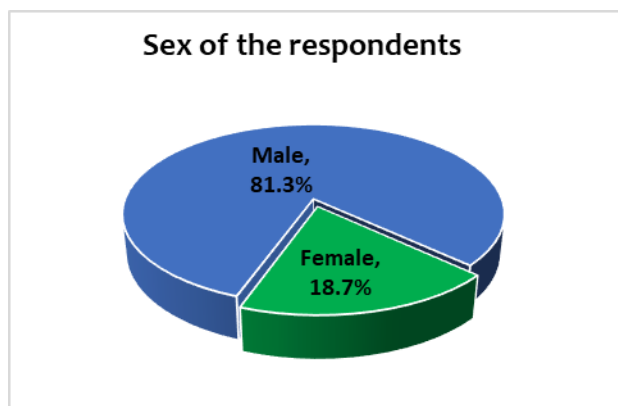


Figure 1: Sex of the respondents

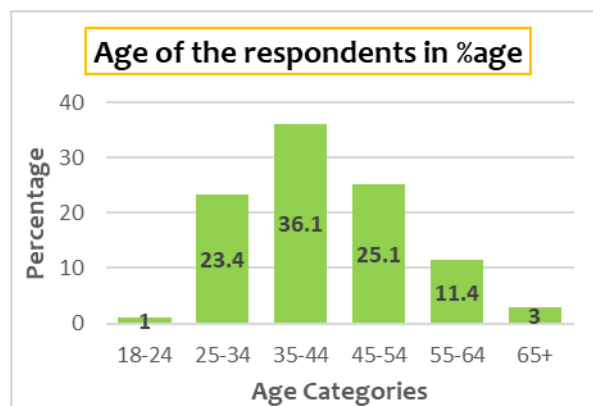


Figure 2: Age of the respondents

In terms of age distribution, most of the respondents (36.1%) were of a young working age of between 35 – 44 years. Only one percent of the respondents were aged between 18 – 24 years (Figure 2). The finding gave an indication that AFF membership comprises people who are at their productive age; with about 96% being in the age range 25-64 years that stretch to the upper limit of the retirement age in some countries. This implies that most of the respondents could have been engaged in activities related to forest and tree resources that hold potential to contribute to the improvement of the livelihoods of the larger African population and the environment they live in. Their responses to all these questions could have been informed by their work experiences.

### 3.1.2 Region of the respondent

More than two fifths (42.1%) of the respondents were from the eastern Africa region, followed by western Africa at 35.1% and southern Africa at 10.4%; while northern Africa recorded the least at 1.7% for members from Africa (Figure 3).

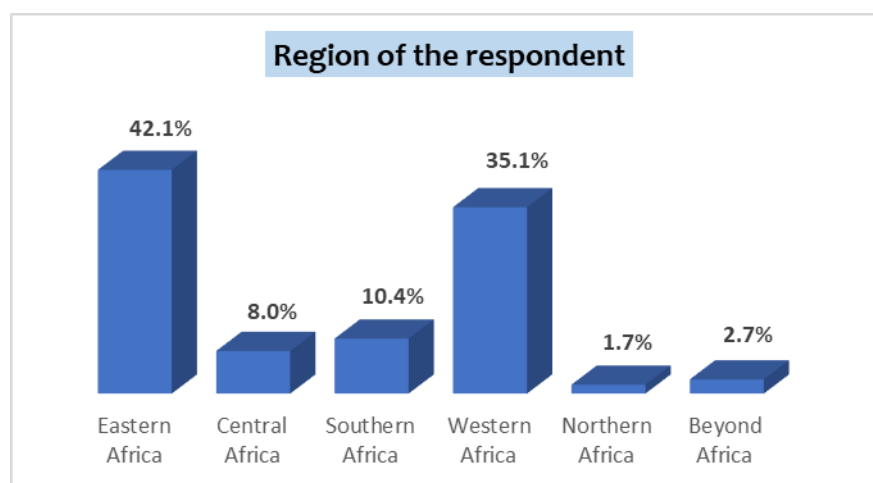


Figure 3: Region of the respondents

This distribution mimics fairly closely the distribution of AFF members across Africa in 2018. The region with the highest number of members was western Africa (611), followed by eastern Africa (470), southern Africa (336), North Eastern Africa (331).

### 3.1.3 Profession of the respondent

One quarter of the respondents were lecturers (25.8%), followed by research scientists (25.4%) and forest officers (23.1%). Journalists and consultants were least represented. More details in Figure 4.

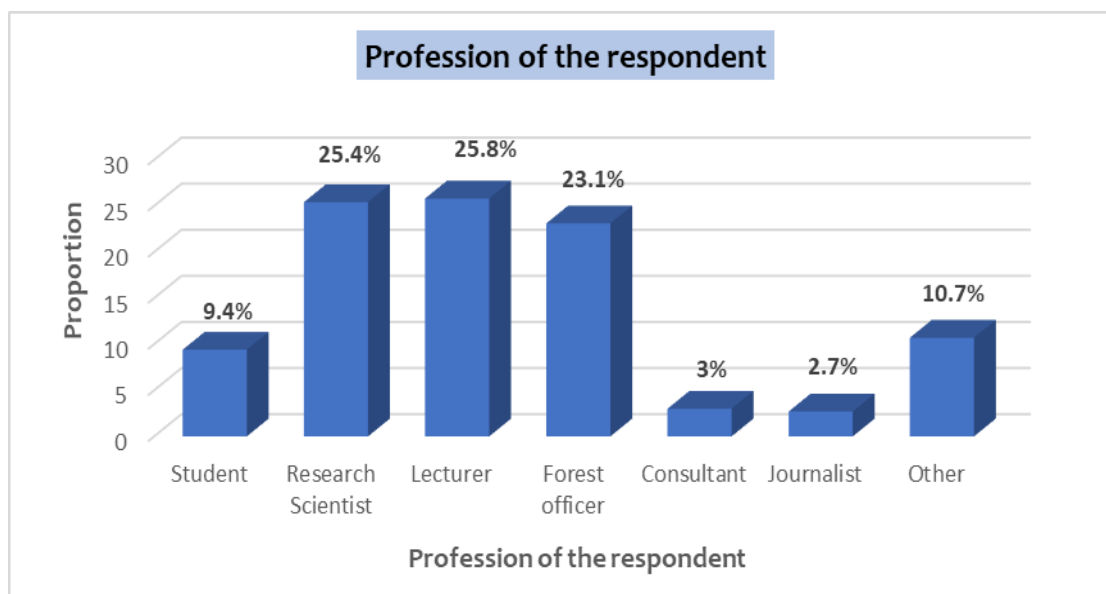


Figure 4: Profession of the respondents

About 60% of the respondents were drawn from the scientific community (students, researchers and lecturers), while close to one quarter of the respondents (23.1%) were people practicing forestry in the field, i.e. forest officers. This trend could influence the type, frequency and use to which these products were used, as seen in subsequent sections.

### 3.1.4 Length of interaction of the respondents with AFF

Nearly half of the respondents (45.8%) reported to have interacted with AFF for a period of 3 years or less (Fig. 5). The average number of years of interaction between AFF and her members was  $4.67 \pm 3.021$ . The findings gave an indication that a sizeable proportion of the members were relatively new.

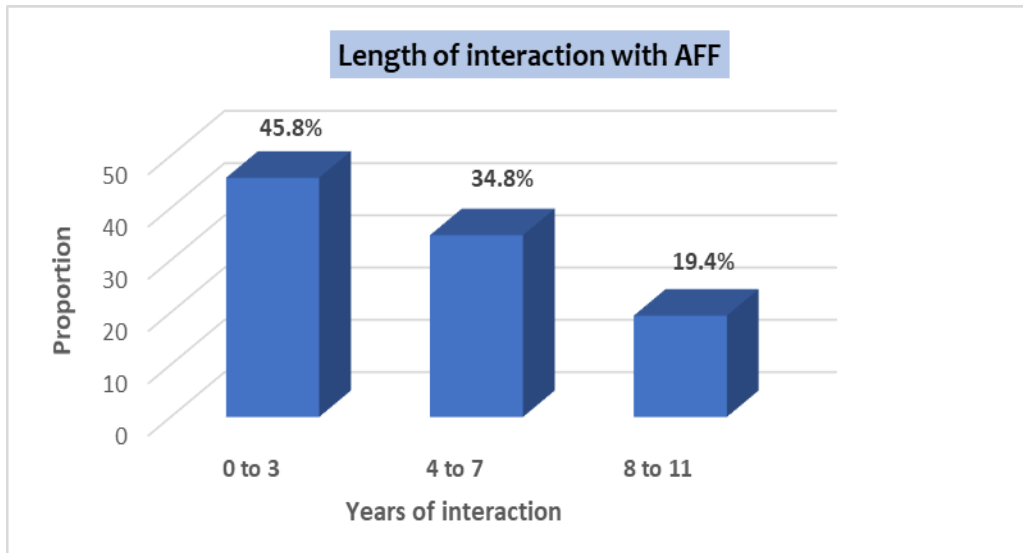


Figure 5: Length of interaction of the respondents with AFF

The majority of the respondents, 80.6%, reported to have interacted with AFF for less than seven years ; this is mainly because of two reasons: low level of production and sharing of AFF’s knowledge products because AFF had only one project before 2011, and also because AFF had very few members by 2011. In the years close to 2018, AFF shared considerable information that came from the conclusion of several phases of its main projects that generated considerable knowledge products. This saw a sharp increase ‘on period of interaction’ to 45.8% because AFF reached more people during this period due to its aggressive efforts to improve AFF’s communication tools as well as to increase members as can be seen in the sharp increase in membership since 2013 (Fig. 6).

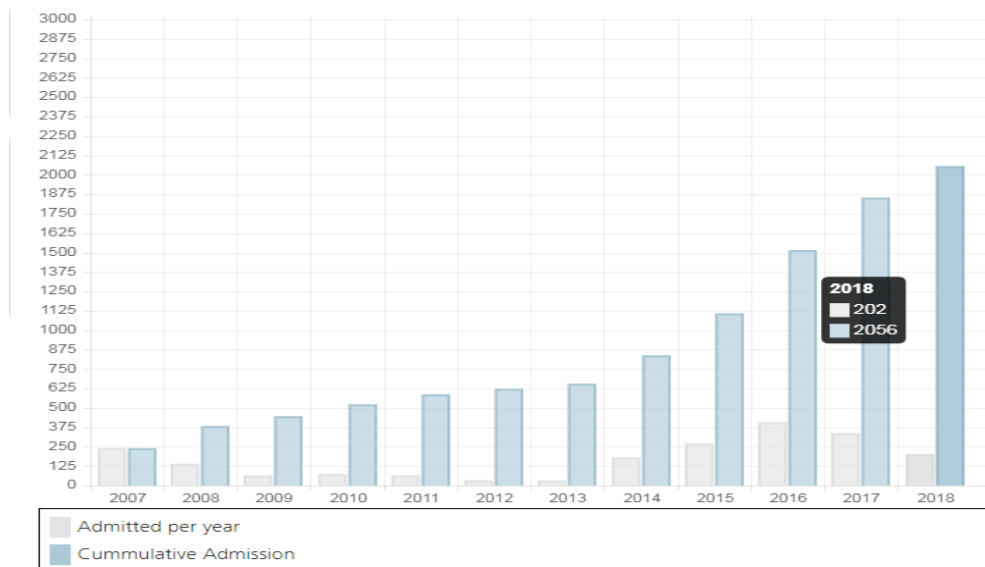


Figure 6: Growth of AFF membership

## 3.2 Access to AFF communication tools and knowledge products

This section answers the first question of the assessment: *what is the level of access to AFF's communication tools and knowledge products among AFF members?*

### 3.2.1 Access to communication tools

The respondents were asked to state the frequency with which they accessed AFF's communication tools; the findings were as in Figure 7.

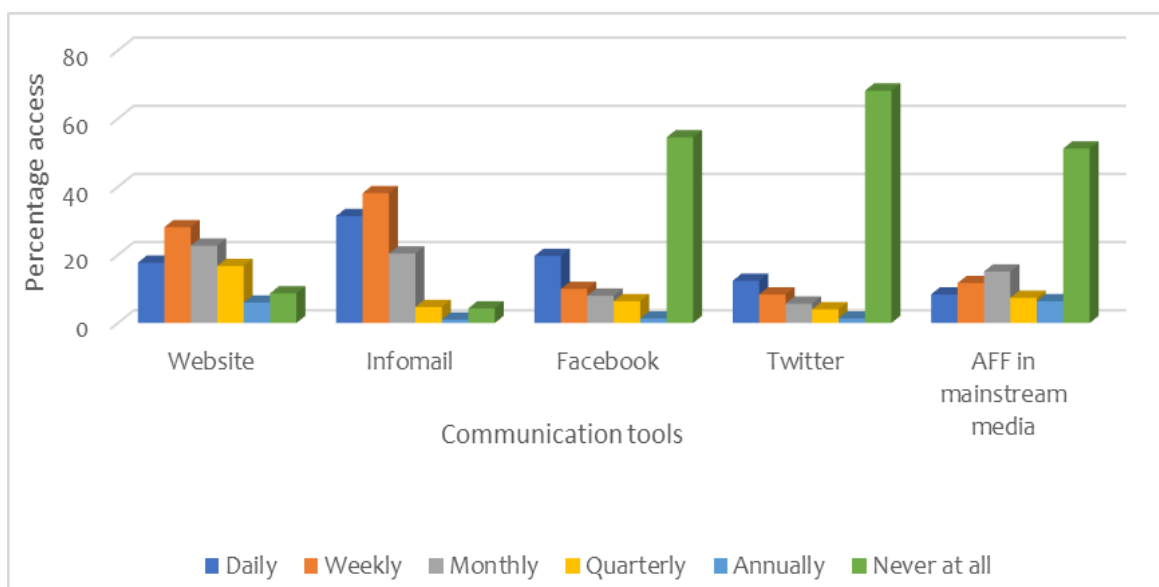


Figure 7: Access to communication tools

Most of the respondents who accessed info mail at 38.1% did so weekly; this was also the case for website at 28.1%; most probably because info mail drops into their inboxes which they see immediately and read, rather than the website which they would access less frequently when looking for specific information or just to find out what is new from AFF. Twitter was not accessed by most members at 68.2%, followed by Facebook and mainstream media.

Annual surveys conducted by African Forest Forum in 2016 and 2015 to assess patterns of access to information products and services consistently showed that info mail was the most frequently accessed information channel from AFF. In the 2016 survey, 78% of respondents indicated that they accessed information through info mail compared to 63% who accessed the AFF website, the next most frequently accessed channel of information. Other channels such as the social media, workshop and events recorded lower access



rates. In the 2015 survey, 80% of respondents indicated to have accessed useful information from AFF through info mail. Respondents used the info mail more because it was easily accessed through their normal email accounts that they checked regularly. Further, the African Forest Forum (2018a), in an annual survey, also confirmed that info mail was the most accessible mode of communication with two thirds of the respondents rating its accessibility as very high (mean=4.63), and with the website coming second in accessibility rating with a mean of 4.49. The mainstream media was the least accessible (mean=3.06), just behind social media (mean=3.34).

The low access to social media could perhaps be due to the respondents not subscribing to these two media outlets (Facebook and Twitter), and if they do, then they have other non-AFF things they prefer to read from them. However, these two media outlets would appear to be more popular among the youth, while as could be seen earlier, less than 25% of the respondents are youths. This presents a challenge to AFF to not only reach out to more youths, but to also cultivate more interest or tailor its knowledge products to increase the frequency of accessing them through info mail and website by the fairly many people who access them less frequently, on more than a weekly basis.

### **3.2.2 Access to knowledge products**

Of interest to the survey were the type of knowledge products that were accessed and by what proportion of the surveyed stakeholders; and secondly how frequently they accessed these products. The latter could give an indication on their usefulness, because a frequently accessed knowledge product could be made into some use.

#### *(a) Frequency of access to knowledge products*

The respondents were asked to state the frequency with which they accessed the knowledge products; the findings were as shown in Figure 8. Newsletters, journal articles and technical reports were the most frequently accessed, with at least half of the respondents accessing them within a period of one month. Nearly half of the respondents reported to having never accessed books produced by AFF and more than one third of the respondents neither accessed factsheets nor compendiums. These knowledge products comprised only 12 documents (1 compendium, 4 books and 7 fact sheets) or 6.9% of the information materials that were freely available from the AFF website. One would have expected a higher frequency of access to the compendium and books from the scientific community; however, lecturers probably frequent them only a few times when developing lecture notes, but frequent journals more often to update their notes and also for their scientific publishing. Also, the books and compendium could have been of interest to only a few in the scientific community surveyed.

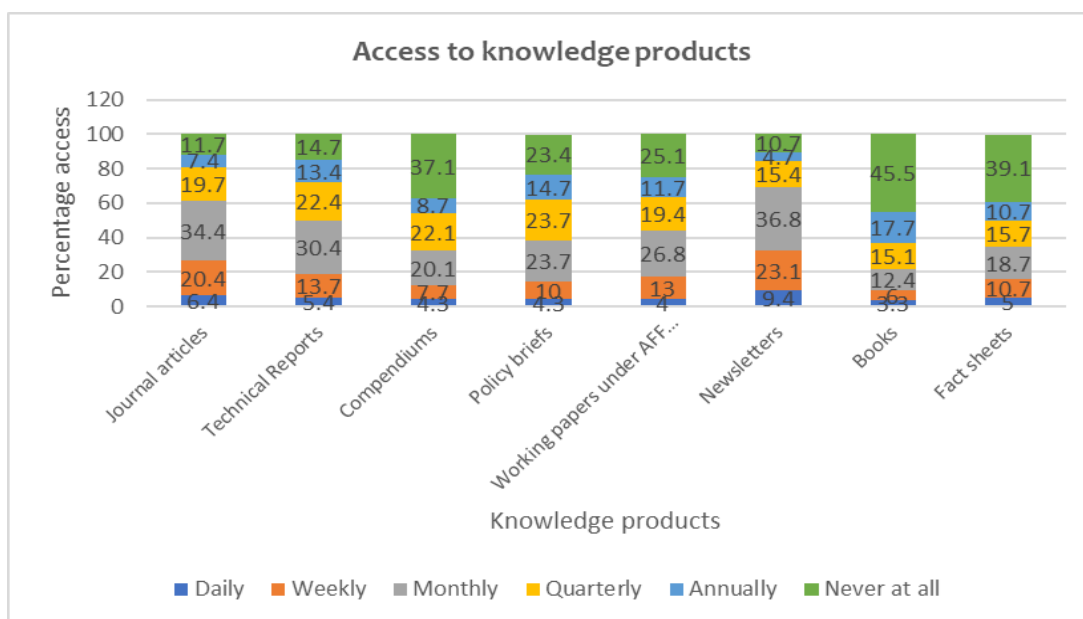


Figure 8: Level of Access to different type of AFF’s knowledge products by members

As a whole variation in frequency of access to all these knowledge products could partly be explained by the frequency with which the various products were shared with the members.

*(b) Type of knowledge products accessed*

Secondly the respondents were asked to indicate the types of knowledge products shared by AFF which they accessed during 2008-2018; the results are presented in Figure 9.

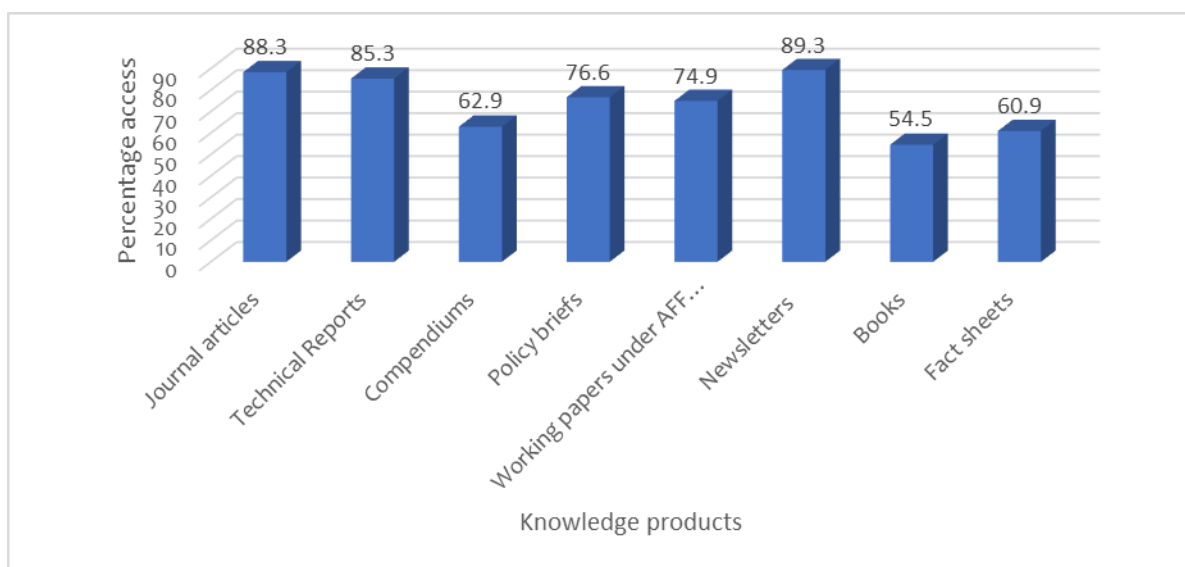


Figure 9: Access to knowledge products by AFF members in the last 10 years

Access to knowledge products shared by the AFF secretariat to the members during 2008-2018 was high, with 74.09% of the members reporting being capable of accessing information frequently and in a consistent manner. With respect to knowledge products they accessed, these were : newsletters (89.3%), journal articles (88.3%), technical reports (85.3%), policy briefs (76.6%), documents published under AFF Working Papers Series (74.9%), compendiums (62.9%), fact sheets (60.9%) and books (54.5%). It is apparent that there is a correlation between the type of knowledge products shared overtime and the rate at which the members accessed them. Since about 60% of the stakeholders surveyed belonged to the 'scientific community', (students, researchers and lecturers), naturally they would access most of the information on the website, because a significant part of it is scientific and the bulk of them have good internet facilities. However, it would appear that many stakeholders were interested in the newsletters, which were brief, in simple language, and provided varied information on AFF and its activities.

The trends in access to the knowledge products during the 10-year survey are corroborated by a few annual surveys. For example, according to African Forest Forum (2018a) a survey undertaken in 2018 indicated that access to newsletters was also high, at 70.9%; while documents published under AFF Working Papers Series was at 59.7%, technical reports at 55.2% , journal articles at 40%, factsheets at 23.9% and compendiums at a low of 8%. Again, most of the information shared by AFF being scientific, it is mostly accessed by the scientific community, while the general public, and also including the scientific community, access newsletters for similar reasons. Also an annual survey by African Forest Forum (2016) indicated an almost similar pattern of access: newsletters (26%), journal articles (23% ), , training manuals (14%), policy briefs (13%), documents published under AFF Working Paper Series and compendium, at 9% each. Another survey undertaken in 2015 by AFF indicated that respondents accessed, almost equally, all the publications produced by AFF: journal papers (16.7%), books (16.7%), technical papers published under AFF Working Papers Series (16.7%), fact sheets (14.8%), policy briefs (14.8%), and training manuals (7.4%).

### **3.3 Thematic areas of information access and use**

Much as it was not possible to gauge access and use of every piece of information that AFF shared during this ten year period, only information on issues that belong to the following broad areas was targeted: forest governance and management, forest contribution to green economy, public-private-partnerships in forestry, forest certification, multi-lateral environmental agreements, tree germplasm and tree seed management, forest and tree pests and diseases, and climate change. These were the areas that AFF did considerable work in those ten years and sought to find out how the information generated and shared was accessed and used.

For information that was shared mostly to create awareness on forest contribution to green economy, public-private partnerships in forestry, tree germplasm and tree seed management, and forest and tree pests and diseases, the interest was only on the uptake

of this information because more work is on-going on these areas that could build up a better basis for the eventual use of such information and impact.

The respondents were asked to state the thematic areas in which they accessed this information as shared through AFF communication tools; and the findings are presented in the subsequent sections.

### 3.3.1 Extent of “access” on information on green economy, PPPs in forestry, tree germplasm, pests and diseases

#### 3.3.1.1 Accessed information on forest contribution to green economy

Another evolving area that is of interest to the forestry sector and on which AFF has initiated some work is ‘green economy’. The interest at AFF has been to examine how the forester sector can contribute to the development and growth of a green economy in individual African countries. The information generated by AFF on this broad area was shared and in this survey the respondents were able to state the actual areas in which they have accessed this information, as presented in Table 1.

*Table 1: Accessed information on forestry sector contribution to green economy*

Type of information accessed	Proportion (%)
The role of forests in provision of environmental/ ecosystem services (watershed protection, biodiversity conservation, carbon cycle management, renewable energy)	226(75.6)
Increased value of natural resources in the national economy	178(59.5)
Equity in benefit sharing of natural resources	162(54.2)
Contribution of forests to rural livelihoods, poverty eradication	206(68.9)
Increased economic opportunities and revenue from green jobs	156(52.2)
Other (Specify)	0(0)

A total of 299 respondents were surveyed, however, not all of them accessed each of the information types in Table 1. For each of the five areas broached, between 50-60% of the respondents confirmed having accessed information on them on the AFF website. However, 75.6% were interested in the role of forests in contributing to green economy through a variety of pathways and another 68.9% on how green economy through forests and trees can contribute to rural livelihoods and poverty eradication. This high level of interest in these broad areas underlines the potential for AFF to cultivate interest and develop capacity and skills for its stakeholders on how to orient the forestry sector (which is largely green) to capitalize on its inherent capacity to enhance the greening African economies.

### 3.3.1.2 Accessed information on public-private- partnerships in the forestry sector

Another area that AFF promoted during this period was the potential for strengthening public-private-partnerships (PPPs) in forestry. The 299 respondents were able to state the topical areas in which they accessed information on this as shown in Table 2.

*Table 2: Accessed information on public -private-partnerships in forestry*

Type of information accessed	Proportion (%)
Trends in the production and processing of timber and non-timber forest products in Africa	143(47.8)
Industry type and actors (primary and secondary) in forest production industry	110(36.8)
Organization of primary and secondary actors in forest production industry	104(34.8)
Market dynamics in timber and non-timber forest products	105(35.1)
Priority species for commercialization in forest production	105(35.1)
Public private partnerships in forestry	141(47.2)
Private forest sector contribution to rural livelihoods	146(48.8)
Private forest sector contribution to national economies	133(44.5)
Other (Specify)	0(0)

As can be discerned from Table 2, less than half of the respondents accessed information on either of the eight areas broached on public-private-partnerships in the forestry sector, with most of them interested information on private forest sector contribution to rural livelihoods. The reason could be that the information shared touched mainly on industrial wood and non-wood forest processing, marketing and trade. These are the areas in the forestry sector that remains fairly weak in terms of investments and development, as evidenced from the poor state, on the continent, of the mechanical timber industry, development of the non-timber industry and the largely informal marketing and trade in products thereof.

AFF has much more work planned and ongoing along these lines, the aim being to facilitate the development and growth of the timber and non-timber products value chains on the continent in ways that enhance the efficiency and effectiveness with which the forestry sector is being developed and managed, in addition to making forest production and use sustainable.

### 3.3.1.3 Accessed information on tree germplasm and seed management in Africa

The 299 respondents indicated which information on tree germplasm and seed management in Africa they accessed as shown in Table 3.

*Table 3: Accessed information on tree germplasm and seed management in Africa*

Type of information accessed	Proportion (%)
Current situation on tree breeding, improvement, demands and supply	85(28.4)
Effect of climate change on tree germplasm production	105(35.1)
Priority species for industrial plantations, community woodlots and agroforestry	106(35.5)
Institutional, technical, and infrastructural capacity required for sustainable tree germplasm production	220(73.6)
Tree germplasm distribution and supply	74(24.7)
Enhancing cross country collaborative research on tree production	85(28.4)
Other (Specify)	0(0)

About one third (37.62%) of the respondents informed that they accessed information on tree germplasm and seed management in Africa on the AFF website, with nearly three quarters of the respondents reporting having accessed information related to institutional, technical and infrastructural capacity required for sustainable tree germplasm production. Apart from that, all the other information was accessed by between a quarter and a third of the respondents. The implication is that not many of the respondents could have been working on tree germplasm issues. This could be confirmed by the fact that only 23.1% of the respondents were practicing foresters (forest officers) (Fig.4), some of whom could have been interested on how to sustainably supply tree germ plasm. Also, tree germ plasm and seed management are specialized areas catered for by few people in the forestry sector.

### 3.1.3.4 Accessed information on forest and tree pests and diseases

The respondents indicated which information they accessed on forest and tree pests and diseases as shown in Table 4.

*Table 4: Accessed information on forest and tree pests and diseases*

Type of information accessed	Proportion (%)
Occurrence, distribution and management of forest and tree pests in Africa	102(34.1)
Occurrence, distribution and management of forest and tree diseases in Africa	99(33.1)
Economic impact of forest and tree pests and diseases in Africa	93(31.1)
Regional cooperation in the management of forest pests and diseases in Africa	83(27.8)
Status and capacity of relevant institutions for forest pest and disease control and management in Africa	75(25.1)
Development of disease surveillance mechanisms	72(24.1)
Other (Specify)	0(0)

About one third of the respondents accessed information on forest and tree pests and diseases. Most of these respondents accessed information on occurrence, distribution and management of forest and tree pests and diseases in Africa, as well as their economic implications. As was in the case of access to information on tree germplasm, the implication is that not many of the respondents could have been working on issues of forest pests and diseases. This could be alluded to the fact that only 23.1% of the respondents were practicing foresters (forest officers) (Fig.4). Also, forest and tree pests and diseases are specialized areas catered for by few people in the forestry sector.

### 3.3.2 Extent of “access and utilization” of information on FLEGT, forest certification, MEAs and climate change

In this section efforts were made to establish the extent to which knowledge gained on FLEGT, forest certification and MEAs was utilized/applied by the members, in addition to how it was accessed. The assessment was carried out based gender, sub-region and profession of the respondents.

### 3.3.2.1 Accessed information on forest governance and management-FLEGT

The 299 respondents were able to state the actual areas in which they have accessed different types of information on forest governance and management that was shared during this period, as shown in Table 5. The information shared was on forest law enforcement, good forest governance and fair trade in forest products (abbreviated as FLEGT in this report).

*Table 5: Accessed information on forest governance and management-FLEGT*

Type of information accessed	Proportion (%)
Regional collaboration and networking on forest governance including illegal trade in forest products	208(69.6)
Role of professional forestry associations in advocating for good forest governance and fair trade in forest products	189(63.2)
Status and experiences of national professional forestry associations in Africa	155(51.8)
The role of regional economic commissions in forest governance beyond national boundaries	145(48.5)
Other (Specify)	0(0)

On average, close to half of the respondents accessed the different types of information on forest governance and management that was shared; with information relating to regional collaboration and networking on forest governance, that included aspects of illegal trade in forest products, being the most accessed by almost 70% of the respondents. The roles of professional forestry associations as well as those of regional economic commissions like EAC, ECOWAS, ECCAS and IGAD, and including their activities in the areas of forest governance and management were also of interest to about half of the respondents.

As a whole, the respondents appeared to be very interested in aspects of collaboration, either nationally through national professional forestry associations or regionally through relevant regional institutions in strengthening forest governance and management. An annual survey by African Forest Forum (2018a) also confirmed this, in that on average about 53% of the respondents reported to have accessed information shared by AFF related to forest governance and management.

#### *(a) Extent of use of knowledge gained on FLEGT by gender*

Only 81.3% (243) of the respondents indicated to having used the information they accessed, with the information having been reasonably used (moderate to most used) by



about 76.6% of the respondents (Table 6). Also, only 23.5% of all respondents (male and female) reported to have 'least utilized' the knowledge gained.

*Table 6: Extent (%) to which knowledge gained on FLEGT was applied by different gender*

Gender	Least used	Moderately used	Most used
Male	50 (20.6)	87 (35.8)	68 (28)
Female	7 (2.9)	16 (6.6)	15 (6.2)
Total	57 (23.5)	103 (42.4)	83 (34.2)

Further, the information was moderately used by majority of the male respondents at 35.8%; however, it was mostly used by 28% of them, giving the impression that the information was reasonably used (moderate to most used) by about 64% of the male respondents. A similar trend was noted with respect to the 38 female respondents, where about half of them reported to have moderately used the knowledge, and slightly less than half of them had mostly used the information. The general impression is that the shared information was reported to have been well accessed and used. The other issues of interest were on how the knowledge products were used and by who in the different African sub-regions.

*(b) Extent of use of knowledge gained on FLEGT by region*

The majority of respondents, 76.6%, used the information on FLEGT well (moderate to most used), (Table 7), with most of them being from Eastern Africa (32.5%) followed by those from Western Africa at 26%.

*Table 7: Extent (%) of use of knowledge gained on FLEGT by region*

Region	Extent of utilization (%)			
	Least utilized	Moderately utilized	Most utilized	Total
Eastern Africa	15 (6.2)	52 (21.4)	27 (11.1)	<b>94 (38.7)</b>
Central Africa	5 (2.1)	11 (4.5)	7 (2.9)	<b>23 (9.5)</b>
Southern Africa	6 (2.5)	10 (4.1)	7 (2.9)	<b>23 (9.5)</b>
Western Africa	29 (12)	24 (9.9)	39 (16.1)	<b>92 (38)</b>
Northern Africa	1 (0.4)	1 (0.4)	3 (1.2)	<b>5 (2)</b>
Beyond Africa	1 (0.4)	5 (2.1)	0	<b>6 (2.5)</b>
<b>Total</b>	<b>57 (23.6)</b>	<b>103 (42.4)</b>	<b>83 (34.2)</b>	<b>243 (100)</b>

The other subregions had fewer respondents who used the information to a similar extent, ranging from a low of 1.6% in Northern Africa to about 7% for both Central and southern Africa, and perhaps this could be explained by the small number of respondents from these sub-regions as compared to those from Eastern and Western Africa. A larger representation probably holds potential to encounter people who have reasonably used the knowledge products. The general observation from Table 8 is that, despite the low representation of some sub-regions, most of the respondents have reasonably used the information shared by AFF on forest law enforcement, good forest governance and fair trade in forest products (FLEGT). This is confirmed by the observation on Table 6 that most of the respondents accessed the same information from AFF.

*(c) Extent of use of knowledge gained on FLEGT by profession*

The other area of interest in this assessment was on who used the information. From Table 9, this information was reasonably used (moderately to most) by lecturers, researchers and forest practitioners (forest officers), with about 56% of the respondents in these three categories affirming that. This was followed by students and others in the public domain, at close to 7.5% each. Further analysis indicates that lower utilization was recorded amongst the consultants and journalist, and this can be attributed to the very few numbers of respondents who came from these two areas.

*Table 8: Extent (%) of use of knowledge gained on FLEGT by profession*

Profession	Extent of utilization			
	Least utilized	Moderately utilized	Most utilized	Total
Student	5 (2.1)	12 (4.9)	6 (2.5)	<b>23 (9.5)</b>
Research Scientist	21 (8.6)	22 (9.1)	17 (7)	<b>60 (24.7)</b>
Lecturer	11 (4.5)	25 (10.3)	26 (10.7)	<b>62 (25.5)</b>
Forest officer	13 (5.4)	26 (10.7)	19 (7.8)	<b>58 (23.9)</b>
Consultant	2 (0.8)	3 (1.2)	3 (1.2)	<b>8 (3.2)</b>
Journalist	0	2 (0.8)	6 (2.5)	<b>8 (3.3)</b>
Other	5 (2.1)	13 (5.3)	6 (2.5)	<b>24 (9.9)</b>
<b>Total</b>	<b>57 (23.5)</b>	<b>103 (42.3)</b>	<b>83 (34.2)</b>	<b>243 (100)</b>

Overall, forest officers, lecturers and research scientists formed the bigger proportion of respondents who utilized the knowledge on FLEGT (Table 8). Lecturers and researchers used knowledge on FLEGT, most probably because FLEGT issues are continually evolving, necessitating more research on them by researchers, as well as updating of lecture notes and training curricula by lecturers, most probably because the information on FLEGT shared by AFF is by design up to date and therefore providing the lecturers the much-needed current information for their work.

### 3.3.2.2 Accessed information on forest certification

The respondents reported on topical areas they accessed information on forest certification as shown in Table 9.

*Table 9: Accessed information on forest certification*

Type of information accessed	Proportion (%)
Opportunities and benefits from forest certification	157(52.5)
Status of forest certification in Africa	141(47.2)
Potential of forest certification in sustainable forest management	141(47.2)
Capacity building for actors in forest certification	113(37.8)
Legal and institutional arrangements necessary for forest certification	93(31.1)
Forest management practices required for forest certification	123(41.1)
Market structures and information systems for certified forest products and services	203(67.9)
Other (Specify)	0(0)

Slightly less than half of all the respondents (46.40%) accessed information on forest certification. Specifically, information on market structures and information systems for certified forest products and services was the most accessed, at 67.9%, followed by information on opportunities and benefits from forest certification at 52.5%. There was less access to information on how to undertake forest certification, like that on capacity, legal and institutional arrangements and forest management practices. Most probably people were more interested in the general aspects of forest certification perhaps for use in teaching and also evaluating its potential by forest practitioners (forest officers) and few could have been actively involved in forest certification.

#### *(a) Extent of use of knowledge gained on forest certification by gender*

In general, majority of the respondents, about 6% (both male and female), used the information reasonably well (moderate to most), while 35.1% least utilized the knowledge gained on forest certification (Table 10).

*Table 10: Extent (%) to which knowledge on forest certification was used by women and men.*

Gender	Least used	Moderately used	Most used
Male	66 (28.6)	62 (26.8)	66 (28.6)
Female	15 (6.5)	10 (4.3)	12 (5.2)
Total	81 (35.1)	72 (31.2)	78 (33.8)

About 52% of men least used the information, with the corresponding figure for women at about 41%. The implication could be that there is need to increase efforts on raising awareness on forest certification, and especially its wide adoption in the forestry sector which could incentivize many people to look for information to guide them on how to practice it.

*(b) Extent of use of knowledge gained on forest certification by region*

Overall, knowledge on forest certification was much more used in the eastern and western Africa regions. This could be attributed to the high number of respondents, in the sample, who come from these two sub-regions; that could have included more people involved in forest certification. The trend further shows that majority of the respondents in western Africa (13%) reported as having mostly utilized the knowledge compared to those from eastern Africa at 15.2% (Table 11). These could be attributed to growing interest on certification as stakeholders in the regions are increasingly becoming aware of interest in certified timber in the international markets.

*Table 11: Extent of use of knowledge gained on forest certification by region*

Region	Extent of utilization (%)			
	Least utilized	Moderately utilized	Most utilized	Total
Eastern Africa	35 (15.2)	32 (13.9)	27 (11.7)	<b>94 (40.8)</b>
Central Africa	7 (3)	8 (3.5)	8 (3.5)	<b>23 (10)</b>
Southern Africa	6 (2.6)	4 (1.7)	8 (3.5)	<b>18 (7.8)</b>
Western Africa	29 (12.6)	25 (10.8)	30 (13)	<b>84 (36.4)</b>
Northern Africa	3 (1.3)	0	2 (0.9)	<b>5 (2.2)</b>
Beyond Africa	1 (0.4)	3 (1.3)	3 (1.3)	<b>7 (3)</b>
<b>Total</b>	<b>81 (35.1)</b>	<b>72 (31.2)</b>	<b>78 (33.9)</b>	<b>231 (100)</b>

*(c) Extent of use of knowledge gained on forest certification by profession*

Forest certification knowledge is reasonably used (moderate and mostly utilized) by lecturers (17.3%), followed by forest officers at 16.1%, and research scientists at 15.6%. Utilization is much lower among consultants and journalist simply because of the fewer number of respondents from these two professions (Table 12), and the fact that their daily work might not always be in the forestry sector and on certification.

Table 12: Extent of use of knowledge gained on forest certification by profession

Profession	Extent of utilization (%)			
	Least utilized	Moderately utilized	Most utilized	Total
Student	9 (3.9)	7(3)	4 (1.7)	<b>20 (8.6)</b>
Research Scientist	24 (10.4)	20 (8.7)	16 (6.9)	<b>60 (26)</b>
Lecturer	16 (6.9)	19 (8.2)	21 (9.1)	<b>56 (24.2)</b>
Forest officer	21 (9.1)	14 (6.1)	23 (10)	<b>58 (25.2)</b>
Consultant	4 (1.7)	0	2 (0.9)	<b>6 (2.6)</b>
Journalist	0	3 (1.3)	4 (1.7)	<b>7 (3)</b>
Other	7 (3)	9 (3.9)	8 (3.5)	<b>24 (10.4)</b>
<b>Total</b>	<b>81 (35)</b>	<b>72 (31.2)</b>	<b>78 (33.8)</b>	<b>231 (100)</b>

The impression that one gets from these results is that forest certification appears not to receive appreciable attention in forestry education as well as in research activities.

### 3.3.2.3 Accessed information on multi-lateral environmental agreements

The respondents reported on the topical areas in which they accessed information on multi-lateral environmental agreements, as indicated in Table 13.

Table 13: Accessed information on multi-lateral environmental agreements

Type of information accessed	Proportion (%)
Theory, elements and basic steps in negotiations	91(30.4)
The process of negotiating for multilateral environmental agreements (MEAs) and other instruments	91(30.4)
Collaborative partnerships on forests	125(41.8)
Challenges of African delegates in international forestry related negotiations	111(37.1)
AFF's technical contribution to negotiations by African delegates in international MEAs and other instruments	104(34.8)
Other (Specify)	0(0)

Slightly more than one third (34.90%) of the respondents accessed information on multi-lateral environmental agreements with higher access on collaborative partnerships on forests. There were 23.1% forest officers (Fig. 4) in the sample, and most country representatives to global discourse related to MEAs come from this small group. It is therefore most likely that many of the respondents are not aware of or do not work around issues of MEAs in their places of work, largely because most decisions from MEAs are probably not shared widely in individual country forestry and related sectors. As a result, there is little/limited awareness on these agreements and consequently the need to mainstream them in the various institutions working on forestry.

*(a) Extent of use of knowledge gained on MEAs by gender*

Much as not many respondents accessed information on MEAs as seen in Table 14, the few that accessed them appear to have used it reasonably, i.e. about 70% reported to have reasonably used (moderately to most) this information, with a higher proportion being male (Table 14).

*Table 14: Extent (%) to which knowledge gained on MEAs was applied by different gender*

Gender	Least used	Moderately used	Most used
Male	61 (25.8)	60 (25.4)	75 (31.8)
Female	7 (3.0)	19 (8.1)	14 (5.9)
Total	68 (28.8)	79 (33.5)	89 (37.7)

*(b) Extent of use of knowledge gained on MEAs by region*

Overall, knowledge on MEAs was reasonably (moderately to most) utilized in the eastern African region (31%) followed by western African region at 25% (Table 15). The other regions appear not to have used much of this information, perhaps because of their low representation in the sample size, size of their delegations to these discourses and their frequency in participating and probably sharing the information from the meetings with colleagues. A deeper analysis through a follow up survey could be done to determine the most probable reasons for this trend.

*Table 15: Extent of use of knowledge gained on MEAs by region*

Region	Extent of utilization (%)			
	Least utilized	Moderately utilized	Most utilized	Total
Eastern Africa	21 (8.9)	41 (17.4)	32 (13.6)	<b>94 (39.8)</b>
Central Africa	9 (3.8)	7 (3)	7 (3)	<b>23 (9.8)</b>
Southern Africa	7 (3)	5 (2.1)	9 (3.8)	<b>21 (8.9)</b>
Western Africa	28 (11.9)	23 (9.7)	36 (15.3)	<b>87 (36.9)</b>
Northern Africa	0	2 (0.8)	3 (1.3)	<b>5 (2.1)</b>
Beyond Africa	3 (1.3)	1 (0.4)	2 (0.8)	<b>6 (2.5)</b>
<b>Total</b>	<b>68 (28.8)</b>	<b>79 (33.5)</b>	<b>89 (37.7)</b>	<b>236 (100)</b>

*(c) Extent of use of knowledge gained on MEAs by profession*

Knowledge gained on MEAs was reasonably used (moderately to most) by lecturers, researchers and forest officers at about 17% each. However, the information was mostly utilized by lecturers at 11.9% followed by research scientists and forest officers at 8.1% each (Table 16). Generally, lower utilization of knowledge on MEAs was evident among

consultants and journalists due to low number of respondents from the two areas of work and that they probably do not work around these issues so often as compared with the other professions. Also, opportunities for them to participate in global negotiations leading to MEAs are very low.

*Table 16: Extent of use of knowledge gained on MEAs by profession*

Profession	Extent of utilization (%)			
	Least utilized	Moderately utilized	Most utilized	Total
Student	8 (3.4)	10 (4.2)	5 (2.1)	<b>23 (9.7)</b>
Research Scientist	21 (8.9)	23 (9.7)	19 (8.1)	<b>63 (26.7)</b>
Lecturer	14 (5.9)	14 (5.9)	28 (11.9)	<b>56 (23.7)</b>
Forest officer	17 (7.2)	21 (8.9)	19 (8.1)	<b>57 (24.2)</b>
Consultant	1 (0.4)	2 (0.8)	3 (1.3)	<b>6 (2.5)</b>
Journalist	0	3 (1.3)	4 (1.7)	<b>7 (3)</b>
Other	7 (3)	6 (2.5)	11 (4.7)	<b>24 (10.2)</b>
<b>Total</b>	<b>68 (28.8)</b>	<b>79 (33.3)</b>	<b>89 (37.9)</b>	<b>236 (100)</b>

Lecturers used knowledge on MEAs the most, probably due to the fact that exposure to this information provided them with the much-needed content for their lectures. Some participants (e.g. from University of Eldoret in Kenya and University of Ibadan in Nigeria) have introduced modules on international agreements and negotiation skills in their universities.

#### 3.3.2.4 Accessed information on climate change adaptation and mitigation

The respondents reported on information they accessed related to climate change adoption and mitigation as shown in Table 17.

*Table 17: Accessed information on climate change adaptation and mitigation*

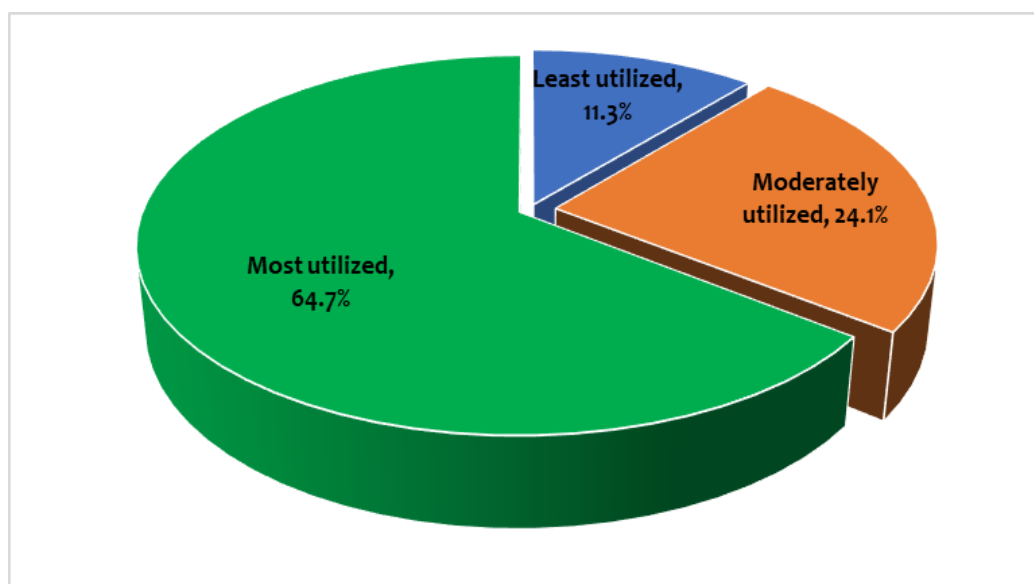
Type of information accessed	Proportion (%)
Forest carbon measurement techniques	186(62.2)
Drivers of deforestation and land degradation	212(70.9)
Risks, challenges and opportunity costs of reducing emissions from deforestation and forest degradation (REDD+)	181(60.5)
Uptake of voluntary carbon offset activities	135(45.2)
Voluntary carbon offset projects and clean development mechanism (CDM)	141(47.2)
Designing and implementing carbon projects	141(47.2)
Carbon markets and carbon trading	151(50.5)
Climate change modelling and scenario building	137(45.8)
Other (Specify)	0(0)



More than half (53.69%) of the respondents accessed information on climate change adaptation and mitigation, with most of the information related to drivers of deforestation and land degradation, forest carbon measurement techniques, risks and opportunities in REDD+, as well as information on carbon markets and carbon trading. This was followed by information on designing and implementing carbon projects and that on voluntary carbon offset projects and CDM. The impression is that respondents were looking for information to help them design carbon projects and trade in forest carbon, while at the same time looking for ways to secure the forest carbon pools through a better understanding of the drivers for deforestation and forest degradation. Further, this interest was confirmed through an annual survey by African Forest Forum (2018a) that indicated that information on climate change adaptation and mitigation was the most accessed by 67.9% of the respondents.

*(a) Extent of use of knowledge gained on climate change adaptation and mitigation*

Findings from the survey indicate that knowledge on climate change was reasonably used (moderately to most) by majority of the respondents (88.8%) as indicated in Fig. 10. This could be a pointer to the growing interest and need for information on climate change adaptation and mitigation, and especially so in Africa where forests sequester CO<sub>2</sub>, and during this period there was some awareness on trade in forest carbon which they wanted to take advantage of.



*Figure 10: Extent of use of knowledge on climate change adaptation and mitigation*

Also, during this period some African countries were putting in place, while some were reviewing, structures for implementing their climate actions, as well as generating information to inform their Nationally Determined Contributions (NDCs).

*(b) Extent of use of knowledge gained on climate change adaptation and mitigation by gender*



The knowledge on climate change mitigation and adaptation was reasonably utilized (moderately to most) by majority of the respondents (88.7%); with nearly all females (96%) using the information reasonably well, the corresponding proportion for males being about 87%.

*Table 18: Extent (%) of use of knowledge on climate change adaptation and mitigation by gender*

Extent to which knowledge was used	Least used	Moderately used	Most used
Male	28 (10.5)	53 (19.9)	139 (52.3)
Female	2 (0.8)	11 (4.1)	33 (12.4)
Total	30 (11.3)	64 (24)	172 (64.7)

*(c) Extent of use of knowledge gained on climate change adaptation and mitigation by region*

Much as the knowledge gained on climate change adaptation and mitigation appears to have been mostly utilized by respondents in eastern Africa (26.7%) and western Africa (24.8%), and less so by those in Central and Southern Africa at 4.9% each; this mimics the regional representation in the sample size, with eastern Africa at 42.1% and western Africa at 35.1%; Southern and Central Africa were at 10.4% and 8.0% respectively (Table 10).

*Table 19: Extent of use (%) of knowledge on climate change adaptation and mitigation by region*

Region	Extent of utilization (%)			
	Least utilized	Moderately utilized	Most utilized	Total
Eastern Africa	11 (4.1)	26 (9.8)	71 (26.7)	<b>108 (40.6)</b>
Central Africa	5 (1.9)	5 (1.9)	13 (4.9)	<b>23 (8.7)</b>
Southern Africa	3 (1.1)	10 (3.8)	13 (4.9)	<b>26 (9.8)</b>
Western Africa	10 (3.8)	22 (8.3)	66 (24.8)	<b>98 (36.9)</b>
Northern Africa	1 (0.4)	0 (0)	4 (1.5)	<b>5 (1.9)</b>
Beyond Africa	0 (0)	1 (0.4)	5 (1.9)	<b>6 (2.3)</b>
<b>Total</b>	<b>30 (11.3)</b>	<b>64 (24.2)</b>	<b>172 (64.7)</b>	<b>266 (100)</b>

*(c) Extent of use of knowledge gained on climate change adaptation and mitigation by profession*

Overall, knowledge products shared by AFF on climate change adaptation and mitigation and taken up by the 299 respondents was reasonably (moderately to most) utilized by majority of lecturers (23.3%), research scientist (23.3%) and forest officers (20.3%).

Table 20: Extent of use of knowledge on climate change mitigation and adaptation by profession

Profession	Extent of utilization			
	Least utilized	Moderately utilized	Most utilized	Total
Student	3 (1.1)	6 (2.3)	16 (6)	<b>25 (9.4)</b>
Research Scientist	5 (1.9)	23 (8.6)	39 (14.7)	<b>67 (25.2)</b>
Lecturer	9 (3.4)	14 (5.3)	48 (18)	<b>71 (26.7)</b>
Forest officer	8 (3)	16 (6.0)	38 (14.3)	<b>62 (23.3)</b>
Consultant	1 (0.4)	1 (0.4)	6 (2.3)	<b>8 (3)</b>
Journalist	0 (0)	1 (0.4)	7 (2.6)	<b>8 (3)</b>
Other	4 (1.5)	3 (1.1)	18 (6.8)	<b>25 (9.4)</b>
<b>Total</b>	<b>30 (11.3)</b>	<b>64 (24.1)</b>	<b>172 (64.7)</b>	<b>266 (100)</b>

This could be because this information was useful to lecturers in preparing lesson contents, research scientists in their research work, while the forest officers could have been using it in assessing and responding to climate change challenges and opportunities, specifically in activities like developing sector contributions to NDCs. Lecturers, scientists, and forest officers comprised most of the respondents, at 73.1% (Figure 4).

### 3.4 Utility of AFF's knowledge products

This section answers the second question of the assessment: *what is the level of utility of AFF's knowledge products among AFF members?*

#### 3.4.1. Utility of communication tools

The respondents were able to indicate how useful they found the communication tools; the results were as shown in Figure 11.

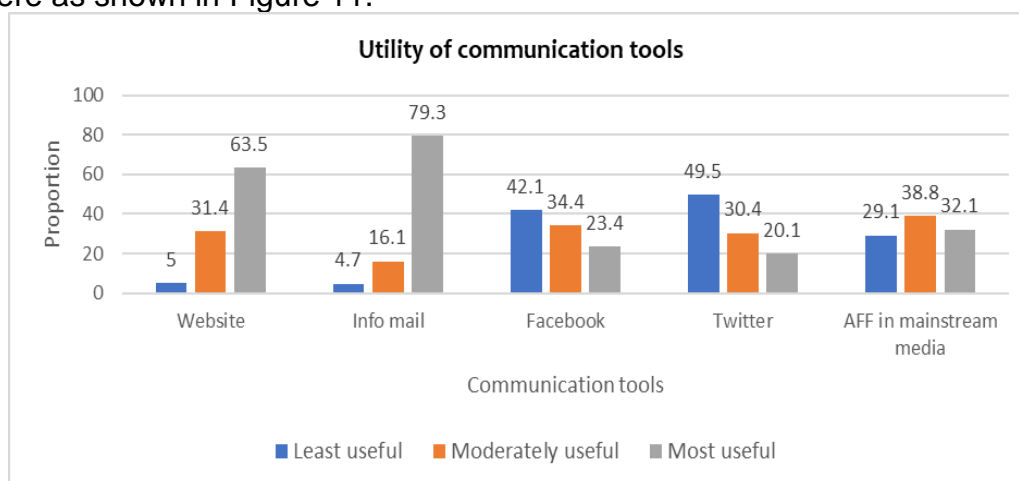


Figure 11: Utility of communication tools

Information shared on info mail was most useful as indicated by more than three quarters of the respondents, followed by information shared on AFF’s website that was also rated highly in terms of utility by nearly two thirds of the respondents. Information shared on twitter was rated least useful.

The findings of this survey corroborate that of an annual survey reported by African Forest Forum (2017b) in which the respondents found the information to be relevant to their day to day work within their institutions. Information from infomail and publications were rated as more relevant compared to information from social media and the intranet.

The findings of this survey is also supported by another survey as reported by African Forest Forum (2017a) that informed that at least 85% of respondents using the website expressed satisfaction with performance of various aspects of the site including accessibility, content, coverage, navigation, and interactivity. Further, from Fig. 11 it can be seen that most of the respondents who accessed info mail at 38.1% did so weekly; this was also the case for website at 28.1%, most probably because they found the information useful hence the noted frequency to these communication tools. Also, from Fig. 11, Twitter was not accessed by most members at 68.2% and also lagged behind mainstream media.

### 3.4.2 Utility of knowledge products

The respondents were able to indicate how useful they found the knowledge products; the results were as shown in Figure 12. The most appreciated knowledge products were technical reports, newsletters and journal articles, and this could explain why they were most accessed (Fig.12), while the least appreciated knowledge products were compendiums, books and factsheets perhaps because there were few of each on the website and this reduced variety or options on subject areas of information available, as well as due to the fact that few respondents accessed them.

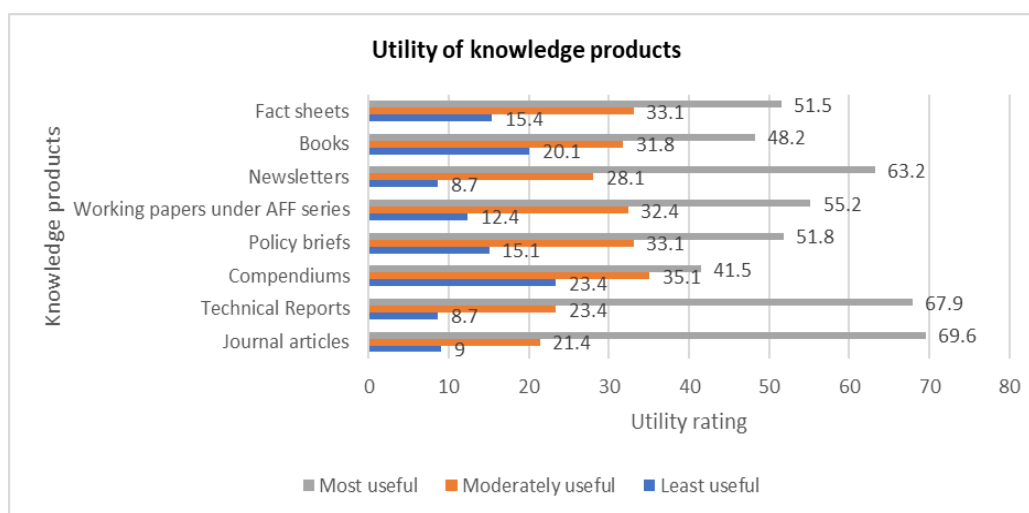


Figure 12: AFF members’ appreciation of the utility of knowledge products

### 3.4.3 Utility of AFF events

The respondents also indicated how useful they found AFF events as shown in Figure 13. More than three quarters of the respondents reported that all the three types of events organized by AFF were useful; with information sharing and training workshops being the most popular, followed by meetings of all AFF members. The slightly lower score on meetings of all AFF members could be due to some members having not participated in them, hence they did not have a basis to evaluate them. The last of such meetings was held in 2017 and attended by 371 members.

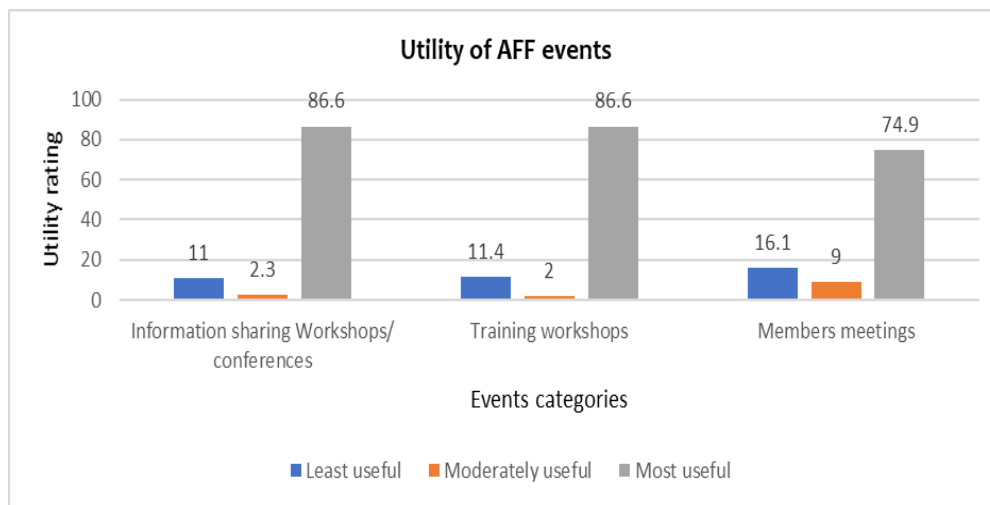


Figure 13: Members' appreciation of the utility of AFF events

## 3.5 Quality of AFF communication tools and knowledge products

This section answers the third question of the assessment; *how informative are the AFF's communication tools among AFF members?*

### 3.5.1 Quality of knowledge products

The respondents reported on the quality of knowledge products produced by AFF as shown in Figure 14.

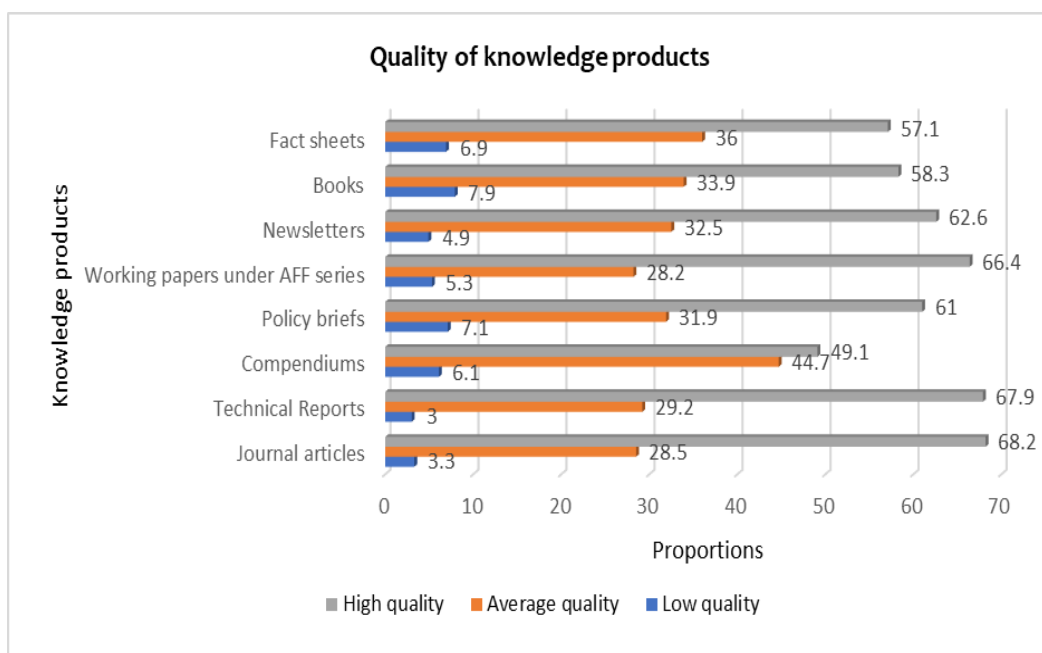


Figure 14: Members' appreciation of the Quality of knowledge products

Majority of the respondents rated the quality of each of the knowledge products as high, with journal articles, technical reports and documents published under AFF Working Papers Series ranking highest. The observed differences may be due to the bulk of information and volume of the knowledge products shared with the AFF members.

### 3.5.2 Quality of AFF events

The respondents also reported on the quality of events organized by AFF as presented in Figure 15.

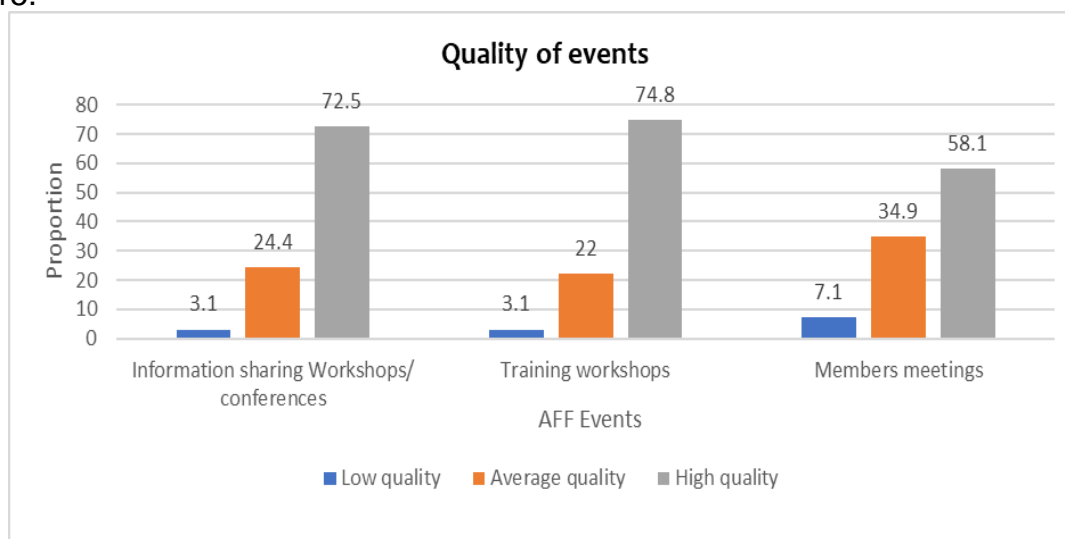


Figure 15: Quality of events

All the three AFF events, namely, information sharing workshops, trainings workshops and AFF members' meetings were noted to be of high quality by most of the respondents. With respect to capacity building activities, another survey by African Forest Forum (2017a) indicated that overall, participants were satisfied with the knowledge and skills gained from the trainings AFF organised between 2012 and 2016. Further, an analysis of the participants' ratings from selected countries indicated that almost all participants (85% to 97%) rated highly their satisfaction with knowledge and skills gained from these capacity building activities.

### 3.5.3 Correlation between Quality and Utility of Knowledge Products

A correlation analysis between utility and quality of knowledge products showed a significant strong positive correlation  $r= 0.693^{**}$   $p<0.001$  (Table 21). This implies that the perception of members on the usefulness of the knowledge products would influence their perception on the quality of the same.

Table 21: Correlation between quality and utility of knowledge products (KP)

			Quality KPs	Utility KPs
Spearman's rho	Quality KPs	Correlation Coefficient	1.000	0.693**
		Sig. (2-tailed)	.	.000
		N	299	299
	Utility KPs	Correlation Coefficient	0.693**	1.000
		Sig. (2-tailed)	.000	.
		N	299	299
**. Correlation is significant at the 0.01 level (2-tailed).				

## 3.6 Utilization of knowledge products

This section answers the fourth question of the assessment: *to what extent has information shared by AFF been put into use?*

### 3.6.1 Extent of information use

The respondents were asked to state whether they had utilized the information accessed through AFF's tools of communication, the results were as indicated in Figure 16.

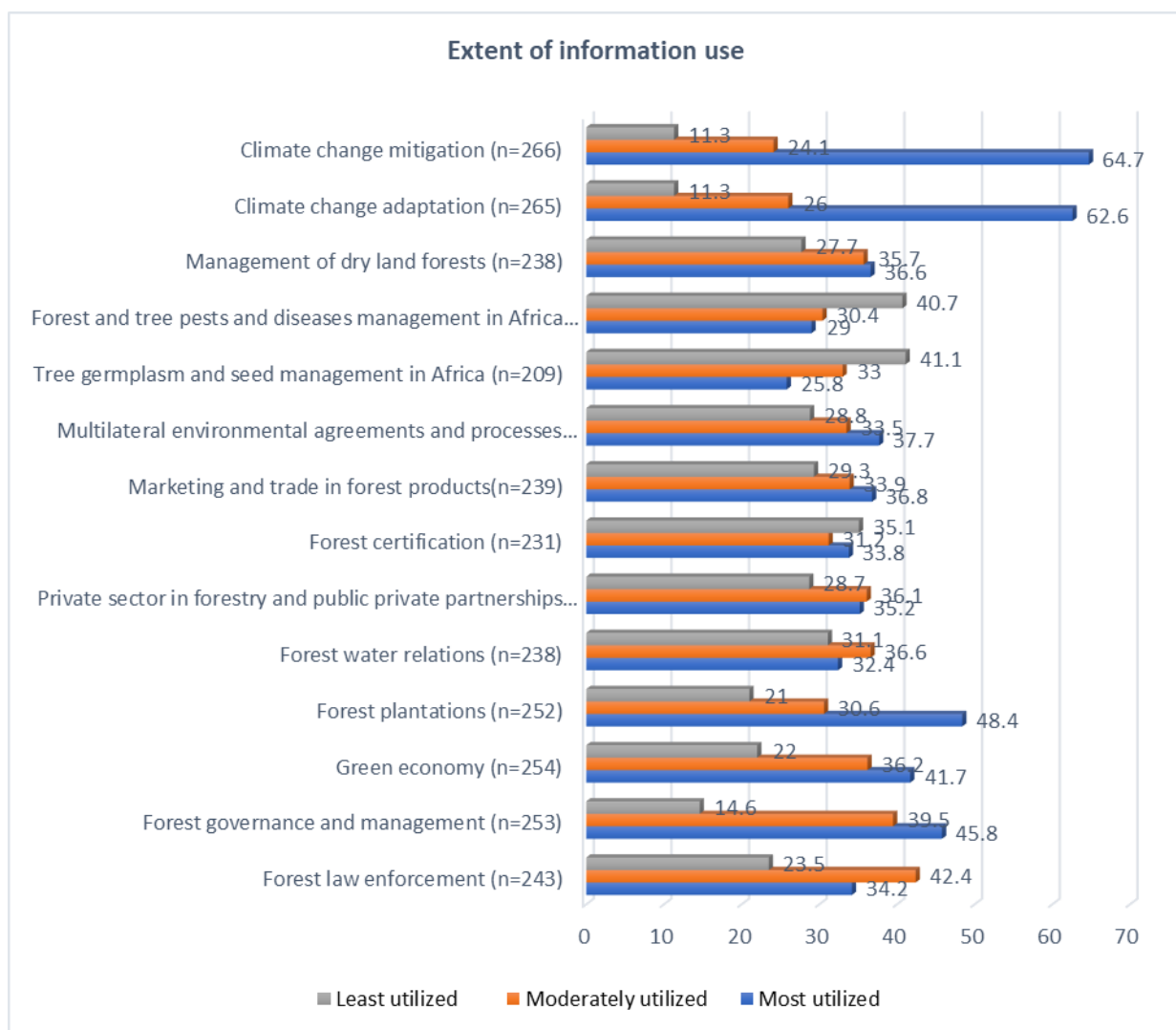


Figure 16: Utilization of Knowledge Products

The most utilized information was on climate change mitigation and adaptation as reported by almost two thirds of the respondents. In fact, in 2016 and 2017 six out of ten most downloaded documents from the AFF website each year were on issues related to climate change, with the most downloaded document being on “Training modules on forest-based climate change adaptation, mitigation, carbon trading, and payment for other environmental services” in 2017.

From Fig.16, the second most utilized knowledge products were on forest plantations forest governance, with forest plantations featuring among the top ten most downloaded documents from the AFF website in 2016 and 2017. The least utilized information was on tree germplasm and seed management, forest and tree pest and disease management in Africa and this also mimics the trends in accessing this information as reported earlier (see Tables 3 and 4).

A regression analysis was done to relate information use to quality and utility of knowledge products as presented in Table 23.

*Table 22: Relationship between information use, quality and utility of knowledge products*

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	6.917	1.846		3.746	.000
Perception on Quality of KPs	2.295	.390	.410	5.883	.000
Perception on Utility of KPs	.469	.602	.053	.779	.437
Access Knowledge Products	-.619	.245	-.146	-2.530	.012
Dependent Variable: Information Use					

The regression analysis indicated that perception on utility of knowledge products ( $\beta=0.469$ ,  $p=0.437$ ,  $CL=0.05$ ) and quality of knowledge products ( $\beta=2.295$ ,  $p<0.001$ ,  $CL=0.05$ ) positively influenced information use among the respondents. Access to information on the knowledge products is an important aspect that secured/guaranteed information use ( $\beta= -0.619$ ,  $p=0.012$ ,  $CL=0.05$ ). The model showed that perception of the members on the quality of knowledge products had the greatest contribution information use.

The regression model showing the relationship between the predictor variables and outcomes was expressed in an equation as follows:

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \varepsilon$$

This is substituted as:

$$Y = 6.917 - 0.619X_1 + 0.469X_2 + 2.295X_3 + 3.083$$

whereby:

Y = Information use

$\beta_0$  = Constant

$X_1$  = Access Knowledge Products

$X_2$  = Perception on Utility of KPs

$X_3$  = Perception on Quality of KPs

### 3.6.2 Information use by key strategic areas

The respondents were asked to indicate how they had put the information they accessed from the knowledge products into use, the findings were as shown in Figure 17.



The information shared by AFF on the various topics/issues was predominantly used to create/raise awareness on these aspects. It was also used in structured training by various institutions at different levels. Considerable information has been used to inform research and development, and this was most pronounced in tree germplasm and seed management in Africa, as well as in forest and tree pests and diseases. Some information was also used in policy advocacy and policy formulation, and less so in facilitating fund raising.

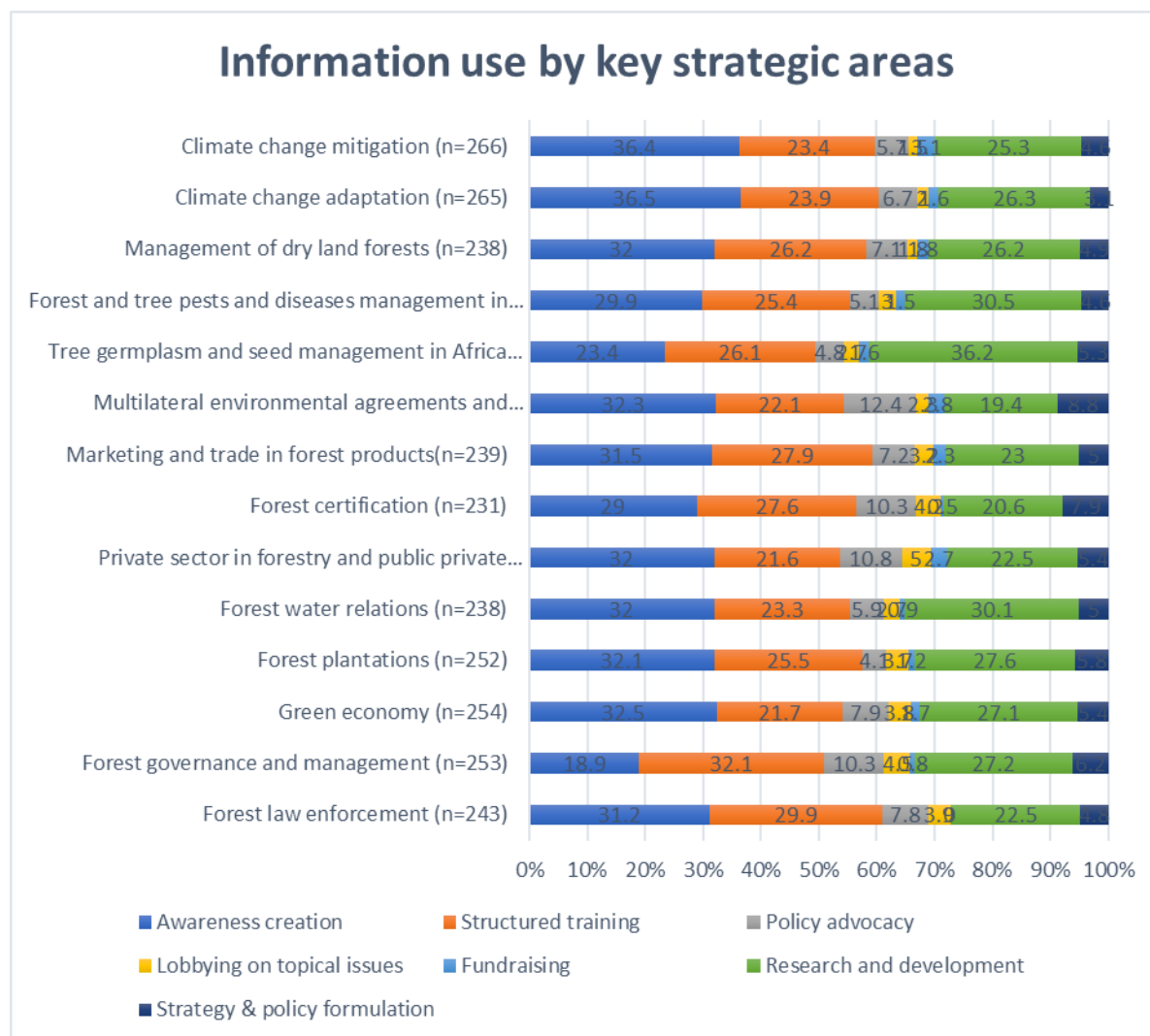


Figure 17: Key strategic areas of AFF information use by members

Most information used that was related to forest governance and management was mainly in facilitating capacity strengthening. Another survey reported by African Forest Forum (2017a) also informed that most stakeholders used information for raising awareness on the subject areas/issues, facilitate trainings and input into research, while low information use was reported in facilitating raising funds.

### 3.6.3 Summary of information use by strategies

An analysis was done to summarize the information use by strategic area, and the findings are as shown in Figure 18.

Considering use of information across all the thematic areas, awareness creation/raising leads at 30.69%, followed by research and development (26.04%) and structured training (25.48%). Least use was recorded in fundraising (1.61%), lobbying on topical issues (3.16%) and policy advocacy (7.58%). The low involvement in fundraising could be explained by the fact that most of the respondents (at 60%) were in academia and most probably not used to raise funds for their teaching activities and could also probably have low incentive to raise funds, as well as low awareness on the funding options and how to access them, even for their research activities.

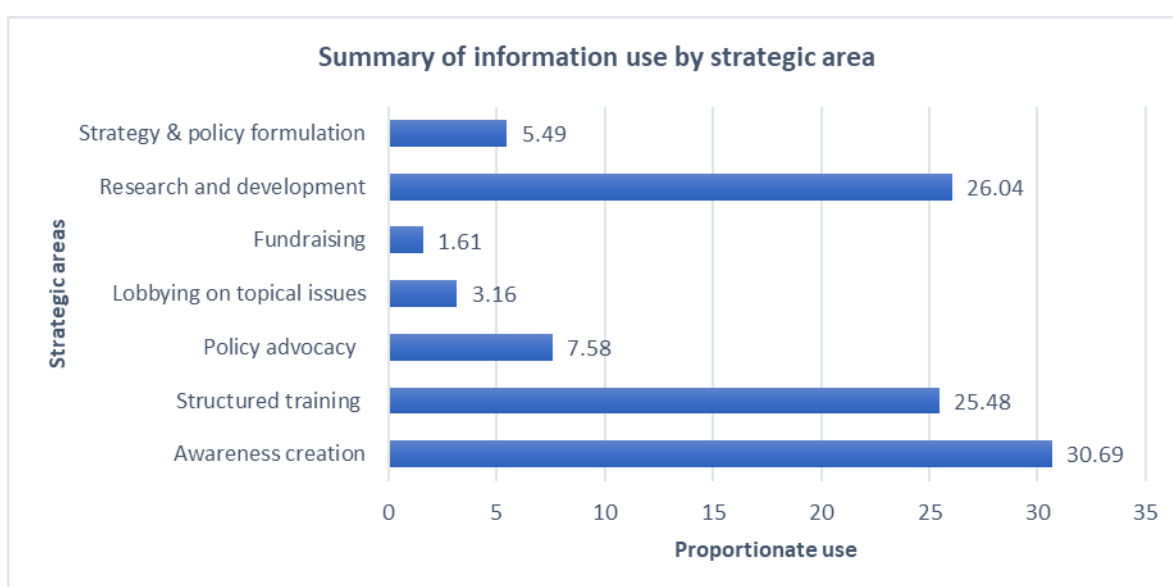


Figure 18: Summary of information use by strategic area

Lobbying and advocacy is largely undertaken by forestry practitioners (forest officers) and civil society organizations who formed a small proportion of the respondents.

## 4. CONCLUSIONS

### 4.1 Access to knowledge products

The access to knowledge products shared by AFF secretariat to its stakeholders during 2008 to 2018 was high; with about three quarters (74.09%) of the members reporting to have accessed the knowledge products regularly and in a consistent manner. The ranking of the knowledge products accessed was as: newsletters (89.3%), journal articles (88.3%) and technical reports (85.3%), policy briefs (76.6%), publications under AFF Working Papers Series (74.9%), compendiums (62.9%), fact sheets (60.9%) and books (54.5%).

With respect to *type of information accessed*, information on forest contribution to green economy was most accessed at 62.08%, followed by that on forest governance and management at 58.28%, and climate change adaptation and mitigation at 53.69%. Information on forest and tree pests and diseases was least accessed at 29.22%.

As regards the *most utilized information*, this was on climate change mitigation and adaptation as reported by almost two thirds of the respondents. The second most utilized knowledge products were on forest plantations and forest governance, while the least utilized information was on tree germplasm and seed management, forest and tree pest and disease management in Africa.

With respect to the *use of information* accessed, most of the information was used for awareness creation at 30.69%, followed by research and development (26.04%) and structured training (25.48%). Least use was recorded in fundraising (1.61%), lobbying on topical issues (3.16%) and policy advocacy (7.58%).

Info mail and website respectively have been the *most accessible communication tools* to the AFF member, while social media and mainstream media have remained low since 2015.

### 4.2 Utility of AFF's knowledge products

The utility of AFF's knowledge products was found to be moderate [mean of means= 2.39, where 1=least useful, 2=moderately useful,3=most useful].

### 4.3 Quality of AFF's knowledge products and events

The quality of AFF's knowledge products and events was found to be high [mean of means= 2.53, where 1=low quality, 2=average quality,3=high quality].

There was a significant strong positive correlation between quality and utility of knowledge products,  $r= 0.693^{**}$   $p<0.001$ , this meant that the perception of members on the utility of the knowledge products would influence their perception on the quality of the same.

## 4.4 Use of information shared by AFF

The *use of information shared by AFF* was to a moderate extent [mean of means= 2.13, where 1=least utilized, 2=moderately utilized, 3=most utilized]. Information was largely used in awareness creation, research and development and capacity strengthening. Least use was recorded in fundraising, lobbying on topical issues and policy advocacy.

## 4.5 Recommendations

- The use of better or improved communication tools should be explored in order to enhance information reach; and this should target info-mail and the AFF website. Most members either don't access social media or they don't prefer it. AFF could increase generation and share more information on themes that are least accessed such as tree pests and diseases, on multi-lateral environmental agreements and tree germplasm and seed management Africa.
- In order to improve the utility rating even further, AFF has to continuously identify informational needs of its stakeholder, because they change with time, and based on temporal requirements and region-specific attributes and developments and share such information in a timely manner.
- The AFF Secretariat should sustain the high quality of knowledge products and event content by continuing to ensure high quality standards and improved perception on usefulness which would translate to increased use. The findings indicate that perception on quality of knowledge products is positively associated with perception of their usefulness.
- AFF should ensure greater use of information by sustaining relevance, high quality of the knowledge products and strengthening follow-up on how information is used. AFF could explore how to generate and promote information that can be used in fundraising, lobbying on topical issues and policy advocacy among its stakeholders.

## REFERENCES

African Forest Forum (2016). *Outcome Survey Report on the Use of African Forest Forum Online Information Resources*. Nairobi, Kenya. Planning, Monitoring, Evaluation and Reporting Unit. *Retrieved from the internal database.*

African Forest Forum (2017a). *An assessment of efforts made by the African Forest Forum from 2012 to 2016*. Nairobi, Kenya. Planning, Monitoring, Evaluation and Reporting Unit. *Retrieved from the internal database.*

African Forest Forum (2017b). *Highlights on Uptake and Impact of African Forest Forum Knowledge Products and Services in 2017*. Nairobi, Kenya. Planning, Monitoring, Evaluation and Reporting Unit. *Retrieved from the internal database.*

■ African Forest Forum (2018a). *Communication and knowledge management at AFF: Achievements made in 2018*. Nairobi, Kenya. Knowledge Management and Communications Unit. *Retrieved from the internal database.*

African Forest Forum (2018a). *Information Management and Impact*. Nairobi, Kenya. Planning, Monitoring, Evaluation and Reporting Unit. *Retrieved from the internal database.*

Krejcie, R.V., & Morgan, D.W. (1970). Determining Sample Size for Research Activities. *Educational and Psychological Measurement*, 30, 607-610.

# APPENDICES

## Appendix I: Questionnaire



Communication  
Tools and Knowledge

## Appendix II: Sample size determination table

Table for Determining Sample Size for a Given Population

N	S	N	S	N	S	N	S	N	S
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	290	165	850	265	3000	341
20	19	120	92	300	169	900	269	3500	246
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	351
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	181	1200	291	6000	361
45	40	180	118	400	196	1300	297	7000	364
50	44	190	123	420	201	1400	302	8000	367
55	48	200	127	440	205	1500	306	9000	368
60	52	210	132	460	210	1600	310	10000	373
65	56	220	136	480	214	1700	313	15000	375
70	59	230	140	500	217	1800	317	20000	377
75	63	240	144	550	225	1900	320	30000	379
80	66	250	148	600	234	2000	322	40000	380
85	70	260	152	650	242	2200	327	50000	381
90	73	270	155	700	248	2400	331	75000	382
95	76	270	159	750	256	2600	335	100000	384

Note: "N" is population size  
"S" is sample size.

Source: Krejcie & Morgan, 1970





# African Forest Forum

A platform for stakeholders in African forestry



## For more information please contact:

The Executive Secretary  
African Forest Forum  
United Nations Avenue, Gigiri  
P.O. Box 30677-00100, Nairobi, Kenya  
Phone: +254 20 722 4000, Fax: +254 20 722 4001  
Email: [exec.sec@afforum.org](mailto:exec.sec@afforum.org); Website: [www.afforum.org](http://www.afforum.org)

