The African Academy of Sciences

# Africa Science Desk
## Endline Assessment (2020)


WITH SUPPORT OF THE
BILL & MELINDA GATES foundation

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# Acknowledgement

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Each Editor/Reviewer/Mentor who took time to provide their inputs.

Each journalist who participated in this end line assessment.

The Bill & Melinda Gates Foundation for providing the financial resources to implement the ASD programme and this evaluation.

# Contents

# Acronyms

| | |
|---|---|
| AAS | African Academy of Sciences |
| ASD | Africa Science Desk |
| COP | Communities of Practice |
| FGD | Focus Group Discussion |
| GA | Grants Assistant |
| HIS | Human Interest Stories |
| KII | Key Informant Interview |
| M&E | Monitoring and Evaluation |
| MER | Monitoring, Evaluation and Research |
| OECD/DAC | Organisation for Economic Co-operation and Development/ Development Assistance Committee |
| QA | Quality Assurance |
| SS | Science Story |
| SFA(s) | Strategic Focus Area(s) |
| STI | Science, Technology and Innovation |
| RSA | Republic of South Africa |
| TORs | Terms of Reference |
| UK | United Kingdom |
| UNEG | United Nations Evaluation Group |
| USA | United States of America |

## Executive summary

Since 2017, the African Academy of Sciences (AAS) has been implementing the Africa Science Desk (ASD) as a programme to build the capacity of science journalists in Africa. Focused on a pilot of four countries, Kenya, Nigeria, Senegal and South Africa, the ASD was created to increase the quantity and quality of science stories in a global space where the profession has been seen as dying. A lack of resources, training and support from editors has characterised science journalism in Africa. By providing funding and mentorship, the ASD sought to plug the challenges facing this branch of journalism in Africa. This end line report seeks to assess if the ASD has been successful in addressing the challenges.

The assessment on the ASD particularly reviewed the programmes progress in achieving its outlined objectives. The following key questions were asked: did the programme foster best practice in mentoring journalists during their research and writing process? Have these capacity building initiatives increased coverage in the mentioned regions? Has the quality of the science stories improved over the programme period? What trends were witnessed in covering strategic focus areas within the different regions and what do these trends infer? Are there any tangible outcomes realized by the ASD programme? What challenges, gaps and opportunities were identified by the programme? To what extent has the implementation of ASD considered efficiency, effectiveness and sustainability of the programme results?

Using desktop reviews, a survey and focus group discussions and key informant interviews, the assessment inferred, according to the figures on readership collated from journalists, increased quality and high readership, listenership and viewership of science stories running into millions; the programme motivated more journalists to take up the science beat with editors publishing science stories since there was funding and content available; the mentorship process contributed to recognition and career progression of journalists with ASD funded journalists winning awards, contributing to influencing policy and accessing new writing opportunities. Nevertheless, journalists, reviewers and mentor-editors observed that while most of the initial steps of the pitch process worked well, the structure for subsequent feedback needs improvement, e.g. in communicating grant approval and disbursement of grant funding timelines. These process weaknesses were improved upon mid-programme through the recruitment of the communications assistant but there is room for improvement that can be translated into the second phase.

This assessment concluded that: a needs assessment was necessary to understand the underlying social, cultural, economic, political and other factors that may influence uptake in Francophone Africa; The continuation of mentorship be provided in a tiered approach depending on a journalist's experience and in combination with webinars and training workshops and the continuation of the ASD given its success in impacting the quantity and quality of science stories and in influencing reader engagement and recognition of funded journalists.

The second phase will be built on key learnings derived from the pilot with the purpose of promoting impactful science stories and increasing their quantity, quality and access. Key new initiatives for Phase II will include: a wider scope that is Pan African, creating a community of practice to provide a platform for journalists to interact and learn from each other, exploiting the synergistic relationship with other AAS grants, running longer calls and introducing themed calls and widening partnerships for buy in for maximum impact of the ASD.

# Introduction to the African Science Desk

The African Academy of Sciences (AAS) is a non-aligned, non-political, not-for-profit pan African organisation whose vision is to see transformed lives on the African continent through science. The Academy is implementing a communications strategy focused on three strategic goals: increase visibility of the AAS as a pan-African driver and thought leader of science, technology and innovation (STI) in Africa; showcasing the people and research being funded through the AAS and demonstrating the impact of science in transforming lives on the continent; and engaging the Academy's diverse internal audiences and external key stakeholders.

These strategic goals are underpinned by objectives that enable the AAS to position its brand and itself as a thought leader, create spokespeople or ambassadors and profile its scientific community. These objectives can benefit from media engagement which reaches a wider and more diverse audiences as the media is recognized as a powerful channel for informing, empowering, advocating for change, fostering public debate and policy change. Leveraging on the media enables the AAS to demonstrate its impact and that of science in Africa since one of the objectives for its media engagement plan is to increase the capacity of African journalists to report on science. It is for this reason that the AAS has been implementing the Africa Science Desk (ASD) that seeks to increase the quality and quantity of science journalism in Africa and further ensure science that contributes to the socio-economic development of the Continent remains on the agenda and continues to attract relevant funding.

The AAS' strategic focus on building the capacity of science journalism is influenced by the Global Science Journalism Report's (2013) description of the sector as a dying profession due to newsroom closures of science desks across the globe. Africa is no exception to this state of science journalism. In Africa, and all over the world, science stories are overtaken by politics, sports and business news. Some of the few science stories that are published and/or broadcast sometimes portray a lack of understanding of the issues being addressed due to the 'formal training deficit' on science journalism on the continent. Stories are also often written based on press releases without adding value, providing analysis or further reporting. This has fueled "churnalism", where news organisations republish verbatim press releases issued by public relations agencies and campaign groups, raising concerns of the quality of science reporting. It also puts scientists and the public at considerable risk for commercial interests to exploit the opportunity for earned media by issuing as "news" what is actually a promotion for a product, service or company.

Despite this, there is recognition of the importance of the role science plays in promoting development. China, in particular, has developed at an astounding rate because of its investments in science. Africa's investment in science remains at an average of 0.45%, according to the 2015 UNESCO Science Report, which has resulted in a limited capacity to produce and retain scientists on the Continent and improve the research infrastructure to help in generating the knowledge and data to impact the health and developmental challenges in the Continent. A major purpose of the science in the media programme is to raise public awareness of science and its impact on society, including on the wellbeing of people, animals, crops and the environment, as well as being a driver of economic strength and independence in Africa.

Science stories can be helpful in demonstrating impact, raising awareness and backstopping a subsequent advocacy for more funding. But with cash strapped media organisations not prioritising science stories, it will be difficult to demonstrate the impact of science

perpetuating low levels of scientific literacy among the public and policymakers and thwarting efforts to mobilise support for the sector.

It is for these reasons that over a two-year period, 2017-2020, the AAS through the support of the Bill & Melinda Gates Foundation, has implemented the ASD programme. The goal of the ASD was to build science journalism capacity in Africa by providing funding to journalists in Kenya, Nigeria, Senegal and South Africa to produce quality science stories aimed at local or global news markets. These countries have strong economies, making them good candidates for organisations looking to mobilise funding for science. Not coincidentally, these countries are some of the major producers of Africa's scientific output, a success story that remains under appreciated because of lack of media coverage. Their production outputs meant they provided a resource of stories that could feed into the ASD's goal to change the *status quo* by improving coverage of science.

Journalists and newsrooms were invited to submit pitches through the AAS grant application system, *Ishango*. The submitted pitches were evaluated monthly for the duration of the programme. They were also independently reviewed by senior journalists from across Africa and the globe. Successful journalists were paired with a skilled mentor (all of whom were editors) who hand-held them to refine their pitches, do their research and write stories. Stories focused on one of the five AAS key strategic areas: health & wellbeing; environment & climate change; social science & humanities; policy & governance and natural sciences.

## Programme objectives

The specific objectives of the ASD included:

1. Building the capacity of science journalists through mentorship and hand holding through the pitching and writing process
2. Improving coverage of science stories by availing funding to enable journalists to do their research
3. Raising the profile of science in the media and to the public and policymakers
4. Creating trust between journalists and scientists
5. Building partnerships with newsrooms
6. Igniting conversations about science that would promote prompt policy changes or generate interest in science

To inform the successful planning for and achievement of these objectives, the AAS conducted a Baseline Assessment at the beginning of the ASD's implementation processes in 2017 - it provided a good view of the operating landscape within which the ASD was going to be operating under during the programme's lifetime. The following excerpts from the baseline assessment provide a general overview of the landscape that informed how the ASD programme was to be implemented.

Journalists who participated in the ASD baseline assessment online survey observed that science was not well covered by the media while most members of the public felt that health and well-being, water and sanitation, and food security and nutritional well-being needed more media coverage. This assessment further found that newspapers and radio were the sources that most consumers obtained their science content from. Public perception of science topics was noted as being strongly influenced by media constructs of scientific knowledge and good reporting was seen to enhance the ability to evaluate related policy issues, while poor coverage was reported as misleading and disempowering to citizens[5]. Indeed, the selection of stories by journalists can help

shape public policy as well as influence public support for and prioritization of such measures. Further, establishment of clear connections among science, policy and the broader public interest can and do improve public understanding[6]

Of the journalists who reported covering science stories, 60% did not have a science background with the baseline study advocating for increased training of science journalists in order to build their capacity and increase accuracy and efficiency of covering science in media. Editors' attitude towards science stories was found to be very open. However, good science journalists on the continent were found to be relatively few and respondents attributed this to poor remuneration of science journalists compared to that of journalists covering other newsbeats.

The baseline study found that both scientists and journalists were interested in 'objective' and quantifiable facts but had different definitions of what constitutes a 'fact' and how it is verified. Both valued accuracy highly, and were both in the business of competitive output, albeit via different outlets and with different timeframes. Scientists were reported as being critical of media coverage generally, yet also rated their own experience dealing with journalists favorably, affirming that such interactions were important both for promoting science literacy and for their own career advancement. This relationship must be improved to increase collaboration between scientists and journalists to develop science stories. This, coupled with the capacity building of science journalists, would improve quality and quantity of science covered by media and trust between the two groups. Scientists believed strongly that they should have a role in public debates and viewed policy-makers as the most important group with which to engage. Few scientists viewed their role as an enabler of direct public participation in decision-making through formats such as deliberative meetings. Indeed, scientists rated the quality of science stories in the media as moderate, leaning towards unsatisfactory.

Some key challenges faced by journalists at the time of conducting the baseline study included: lack of basic training in science; inability to understand topical issues in science and lack of cooperation from scientists who lacked a sense of what was newsworthy; poor funding for science journalists to do research and write stories; the media outlets not giving science enough importance; lack of grasp by the chief editor on the importance of science reporting thus leading to other news beats taking precedence in the newsrooms; few media outlets to pitch to, with editors highlighting poor pitching from writers.

Journalists responding to the baseline assessment online survey suggested the following as possible solutions that would help seal the gap in coverage of science stories: creating awareness among scientists on why the media is an important tool to disseminate their findings; providing science journalists with finances to go on field trips for on-the-field and investigative reports for better stories; and build the capacity of journalists through training opportunities as possible ways of improving science coverage in the media. Scientists on the other hand suggested that journalists should work closely with scientists to develop science stories; develop working collaborations between scientists and journalists; to ensure information provided is detailed and comprehensible, accurate and easily understood by the general public; and creating synergistic platforms for scientists and journalists to interact with one another.

With this landscape being well outlined through these and other findings of the baseline assessment, the ASD proceeded with the implementation of the Desk's pilot programme. Two years after the completion of the pilot phase, the overall question is if the ASD has achieved its key objective of improving coverage of quality science stories from within the continent.

This end line assessment therefore sought to find out if the ASD has made progress in achieving the aforementioned objectives.

# Programme process

## Programme launch

The programme was launched in September 2017 with a panel discussion at the Highway Africa, a premium journalism conference attracting participants from across the continent and organised by Rhodes University, that provided a platform to launch the ASD and to discuss ways of building the capacity of African science journalists. With cash-strapped media organisations cutting science stories in favour of politics, business and arts and the formal training deficit in Africa where few journalists have a science background, the ASD was seen as important to sustaining this branch of journalism to ensure quality and objectivity. The launch benefitted from seven stories that were published to highlight the ASD in Kenya and Senegal. Prior to the launch, the AAS, on recommendation of science journalism associations, invited senior journalists who are established senior science journalists and well known in the African science journalism circles to become mentors. The cohort started at 13 but grew to 20 by the end of the programme in March 2020 to include mentors who are editors for Nature (UK), Science (US), Research Africa (South Africa) and SciDev, among others. The AAS also created a scoresheet to enable reviewers to assess the quality of applications, a webpage for applicants to access more details, a scheme sheet outlining the application process and an acceptance letter detailing the conditions of engagement for successful journalists. The acceptance letter was subsequently updated after the AAS standardised its grants and introduced other processes that included quality assurance, Good Financial Grant Practice and grant certificates. The launch also allowed for the opening of the first call for applications.

## Application and review

Calls for applications were sent via the mailing list and social media on the 5th of every month and closing on the 21st of every month. Journalists submitted their applications via "*Ishango*" the AAS grant management portal where they are reviewed by senior science journalists to check on the feasibility to publish and basic eligibility of all the received applications. Each application was allocated two reviewers and a third reviewer where the difference between two scores from two reviewers were too marginal. An average was calculated from the two reviewers and an average score given to each applicant. Those whose scores were above 9 were funded.

## Due diligence

This involved a Good Financial Grant Practice due diligence to ensure successful candidates did not have prior incidents that could bring the AAS or the BMGF into disrepute. Here, the GFGP is a due diligence process normally undertaken for AAS grants before awarding.

## Quality assurance

The quality assurance team is made up of a representative from finance, grants, legal and the deputy director of programmes and their role is to ensure the standard grant management processes are followed before the successful applicant is awarded the grant.

## Review processes

1. Call for pitches via email and social media
2. Pitch application on Ishango
3. Review of application (two reviewers allocated per application)
4. Option of a third reviewer when difference in scores is too significant
5. Scores above 9 selected for funding
6. Due diligence of qualified applicants
7. Quality assurance of successful applications
8. Applicants receive feedback
9. Signing of acceptance letter, grant award documents and introduction to mentor
10. Initial payment, half of the pitched amount
11. Publish story (within 30 days)
12. Final half of payment inclusive of $350 pitch

## Payment of journalists

With a lead from Finance, the ASD established processes for paying mentors and journalists. This entailed the signing of grant award documents: award letter, on-staff payment sheet, reimbursement form and a letter of confidentiality after approval by quality assurance team.
Successful journalists received up to $700 to write print stories and $1500 for broadcast pitches, they equally received a non-receipted $350 pitch fee after successfully publishing their stories. They had a 30-day window to publish after which they would get a $50 dollars deduction from their pitch fee for late submissions. The successful journalists would receive half of the pitched amount to conduct research for their stories and once published they shared a verifiable link to the story and would then be required to fill a reimbursement form and attach all receipts of expenses incurred and receive their final amount.

The Mentors would equally sign a reimbursement form and receive $300 dollars mentors fee once their mentee publishes.

## Resourcing

The implementation of the ASD was delayed in 2018 as the AAS was undergoing a job evaluation process which had an impact on hiring, though the ASD had budgeted for an additional staff member. In lieu of this the research assistant took up the heavy administrative roles namely: review of pitches, allocation of mentors and ensuring timely disbursement of funds and reimbursement of funds to both mentors and mentees as she finalized her baseline report. She executed her roles diligently and left late 2018 as conversations with the AAS to hire an administrator of the programme were ongoing in line with the new HR guidelines. This led to delays and a request for a no cost extension. A grant administrator was eventually hired in May 2019 and ran the programme till its conclusion in March 2020.

# Evaluation methodology

The end line assessment applied mixed methods, triangulating data from three channels: literature review (Annex 1); quantitative sources; and qualitative surveys. An evaluation matrix (*Annex 4*) ensured that questions were framed to cover the key objectives of the ASD.

Quantitatively, a semi-structured questionnaire was administered using an online Survey Monkey platform to journalist mentees, mentors, reviewers and AAS staff (directly providing support to the ASD). Of those who took part in the quantitative survey, 50%were resident in Kenya, followed by those in Nigeria (23%), South Africa(18%) and Senegal (9%). Fifty percent were male, 45% were female and 5% declined to report their gender.

Qualitative assessment data was derived from Key Informant Interviews (KIIs) and Focus Group Discussions (FGDs) used to collect data from the 25 selected participants who included ASD journalists, mentors and key AAS staff. Interviews of selected mentors and most journalists were conducted remotely via video conference and/or telephone calls for greater cost efficiency. One face-to-face FGD and some KII's were conducted at the ASD offices.

Quantitative data was downloaded into MS Excel output files and analyzed using Ms Excel while qualitative data was analyzed using NVIVO-10.

## Limitations of the assessment

**Language barrier**: Since there were few pitches and only one publication submitted in French, the assessment was largely limited to English-speaking countries, however Francophone respondents received an equal opportunity to respond via translated French self-administered qualitative questionnaires.

**Survey Monkey licence**: The Survey Monkey corporate licence available to AAS was the highly limited basic package that allows for basic inquiry and analysis functionality. This became clear only at an advanced stage of the process with qualitative data already collected. The consultant and staff agreed to work with the version available in the interest of time.

**Unforeseen events**: Scheduling of interviews with some of the key informants in Kenya were affected by state activities related to the funeral of Kenya's late second president during the assessment period. The interviews were thus conducted almost two weeks after planned dates occasioning extension of timelines to allow for transcription, analysis and report writing.

## Ethical considerations and quality assurance

The evaluation was carried out following the United Nations Evaluation Group (UNEG) Ethical Guidelines[1] for Evaluation, ensuring that informed consent and voluntary participation were offered to every assessment respondent. In addition, quality assurance reviews of the evaluation design and data collection tools were conducted by the evaluation management group. A pre-test of the data collection tools validated effectiveness; tools were updated before actual interviews were conducted.

1 United Nations Evaluation Group: http://www.unevaluation.org/document/detail/102

## Key lessons from the programme

Assessment findings are based on data obtained from grey literature, qualitative and quantitative enquiries. They combined responses from mentors (who served as editors and pitch reviewers) from across South Africa, the UK, Cameroon, the US, Nigeria and Kenya. Mentors worked for various international media outlets including the UK-based *Nature*, US-based *Science*, Nation Media Group (NMG) and the South African Broadcasting Corporation. One mentor serves as the Secretary General of the World Federation of Science Journalists. Journalists who participated were from diverse media outlets, including a science communication company in South Africa, The East African, Citizen, Reuters and freelancers.

1. Building the capacity of science journalists through mentorship and hand holding through the pitching and writing process
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| Evaluation Questions | Evaluation Findings (pros + cons) |
|---|---|
| **ASD Objective 1:** Build the capacity of science journalists through mentorship throughout the pitch and writing process. | |
| Did the ASD foster best practice in mentoring journalists during their research and writing process? | • Journalists confirmed mentorship and ASD processes were highly fulfilling with some mentors providing their expertise purely on voluntary basis.<br>• 100% of the survey respondents indicated that mentorship is the most effective way of learning. However, webinars, peer-to-peer learning and face-to-face classroom trainings can be provided as additional learning avenues, according to respondents.<br>• Mentors felt that the mentorship process is effective and noted improvements in the quality of stories and subsequent pitches from mentees who incorporate mentor feedback.<br>• Interviewed mentors indicated there were no standardized guidelines on their roles as expected by the ASD although ASD staff reported that these had been shared at the pilot programme inception. These are needed for each category (reviewers, mentors and mentees) to clarify expectations and establish criteria upon which the progress and performance of the aforementioned groups is monitored and measured. A solution would be to develop and share these and organise regular mentor forums to share experiences. The Kirkpatrick model will be a good assessment tool that can be incorporated into the assessment processes.<br>• 77% of the ASD journalists did not have science backgrounds underscoring the value of mentorship and the need for the ASD to build the capacity scientists, who can competently write about the field, as initially identified during the baseline survey. |

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| | • To assess the long-term impact of the ASD, it is essential to monitor the progress (outputs, professions) of journalists following their participation in the programme and make use of mentors to promote international publication of ASD stories.<br>• Journalists suggested experienced mentees can be invited or required to "pay forward" by mentoring inexperienced grant applicants, including meeting physically for those within proximity.<br>• The ASD programme achieved unanticipated positive outcomes that included: trust cemented in journalist – mentor – editor – partner relationships; mentees research skills were sharpened in the process; two editors/mentors published stories done by their mentees; journalists who had previously done three pitches unsuccessfully reported that they gained significant pitch writing skills from the reviewers' feedback thereby submitting an excellent and successful fourth pitch; and indeed, the ASD has filled a growing gap in the media industry by supporting and increasing opportunities for good science journalism. |
| **ASD Objective 2:** Improving coverage of science stories by availing funding to enable journalists to do their research | |
| Assess the current coverage of science stories in Kenya, South Africa, Senegal and Nigeria: Has the ASD achieved its key objective of improving coverage of science stories from within the continent? | • 74 stories were published representing an 83% publication rate against a target of 90 stories on the back of efforts made by the AAS to raise the profile of the ASD. Uptake was driven by the fact that successful journalists also became free goodwill ambassadors for the ASD due to the inherent value gain, but also due to the success that was apparent to their peers.<br>• By December 2018, print media had reached approximately 50.9 million readers; broadcast media had reached almost 50 million viewers and internet-based platforms reached approximately 40 million[2]. These figures are collated from those provided by funded journalists on readership, listenership, and viewership.<br>• The stories were published as follows: Kenya (36), Nigeria (19), South Africa (19) and Senegal (1).<br>• Senegal only published one story despite a training workshop and a campaign spearheaded by a Dakar based Public Relations agency due to inaccessibility of the Ishango grant application system to French speakers, the platform is currently solely in English. The ASD factsheet and website were translated into French, but all platforms require to be translated to improve participation of Francophone countries.<br>• The ASD faced challenges in Senegal. However, the statistics from journalists on readership, infer success in engaging readers. |

2 ASD internal January 2019 quarterly report

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|---|---|
| Has the ASD achieved its key objective of improving the quality of science stories in the continent? | • 82% of survey respondents agreed that the ASD had improved their ability to write better quality science stories. Mentors observed that there was more data and verifiable facts included in stories, well identified sources that distinguished from personal views making stories unbiased and the use of a human-interest angle to make stories engaging. Two editors/ mentor published stories done by their mentees who didn't necessarily work in their newsrooms because they were confident of their quality.<br>• An ASD journalist won the Michael Elliot award while others had their work published in numerous international media and quoted by many media houses globally. Journalists witnessed growth in their personal portfolios with one South African journalist having their stories featured by international online journals and magazines and was later contacted to write for other media houses.<br>• The ASD Journalism Awards introduced in 2019 and reviewed by an independent panel of senior science journalists, also yielded three winners who were ASD alumni with one of the winning stories directly funded by the ASD.<br>• A quality science story is defined as having text meeting the acceptable standards for spelling (Brill and Moore, 2000), grammar (Tetreault and Chodorow, 2008; Rozovskaya and Roth, 2010) and discourse organization, including a well-structured narrative that use people (Barzilay et al., 2002; Lapata, 2003); interleaves research information with details about its relevance to the reader (Louis and Nenkova, 2013). From the above definitions of quality science stories in line with the listed above findings, this assessment infers that the ASD had achieved positive outcomes in improving the quality of reporting. However, the ASD can make use of its mentors to put together a document on how to submit a good pitch to help would be applicants and increase the number of applications. The Desk has made significant achievements in treading uncharted territories of funding and mentorship, which led to all (100%) respondents who participated in this study to unequivocally express their complete support for the ASD receiving a new cycle funding. |
| What trends have been witnessed in covering the SFA's at different regions and what do these trends infer? And what challenges, gaps and opportunities can be identified from the programme? | • Health & Wellbeing and Environment & Climate Change (including food security and nutrition) received the most coverage at 32 and 36 stories, respectively. 82% and 91% survey respondents indicated their preference for pitching Health & Wellbeing and Environment & Climate Change, respectively while 94% of respondents said they did not voluntarily write natural science stories.<br>• Journalists indicated that the obstacles preventing coverage of Natural Sciences included: the lack of training in these fields, the ASD grant funding cap (of $700-$1,500), and pitch to publication time restrictions. As journalists lack knowledge in these fields they need more funding for research, time to write the stories and training provided in the form of webinars to introduce the topics. |

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| **ASD Objective 3:** Raising the profile of science in the media and to the public and policymakers | |
| **ASD Objective 4:** Creating trust between journalists and scientists | |
| **ASD Objective 5:** Building partnerships with newsrooms (& other key Stakeholders): | |
| How can partnerships enhance the delivery of the ASD? | • During the programme implementation, the ASD achieved 10 stakeholder engagements to raise awareness these included Kenya Media for Health, Environment and Science association, the World Congress of Science Journalists and one on one meetings with South Africa editors and science journalists. For the future, these can be augmented by greater engagement with Editors and media houses, universities, and colleges to develop science journalism curriculums and research institutes to enrich the mandate of the desk. Partnerships with Editors should focus on them providing feedback on the improvement of the quality of science stories coming to their desks from the ASD.<br>• Journalists and mentors also viewed themselves as key partners needing to be strategically integrated through a community of practice that will allow them to interact, share experiences and contribute ideas to the programme. |
| **ASD objective 6:** Ignite conversations about science that would promote prompt policy changes or generate interest in science | |
| What instances are you aware of when science stories documented by journalists in the ASD ignited interest in science or resulted in informed policy dialogue or change? | • According to the data collated from journalists on readership, listenership and viewership, ASD stories published on various print and broadcast media led to millions of readers engaging with the science stories. This engagement informed public discourse which although cannot determine causality, saw positive impact on policy directives. Science stories from ASD on medicine procurement process and maize seeds saw the Kenyan Ministries of Health and Agriculture improve on the health procurement processes and regulation of maize seeds for farmers. It may be difficult to say for certain if the ASD supported stories were the only influencing factor as there could have been many others that contributed to the policy changes. |

# Implications of findings

The results above indicate the ASD's effectiveness in building the capacity of science journalists and an inferred contribution to policy change. The results indicate that incentivizing this branch of journalism and providing mentorship enables quality journalism that equally attracts others into the field as they note the inherent value of such a programme. The readership engagement shows the possibility of a correlation between availability of science stories and impact on public's consumption of science. This cannot be understated, particularly, during these tense global times characterized by the COVID-19 pandemic. The ASD has shown potential to showcase the value of science and equally science journalism.

This assessment's findings underscores the need of continuing the momentum in providing science journalists with the support to continue to increase quality and quantity of science stories, increase public consumption of science, improve the capacity of journalists in science reporting and the opportunities provided for promoting a culture of continuous learning and a strong community of African science journalists.

## Programme set up

| ASD set up | Key lessons (pros + cons) |
|---|---|
| Resourcing | • Although journalists reported that development of some science stories required more resources than were provided by the ASD, the programme still produced quality stories. Administrative efficiency was, however, affected by limited human resources (the initiative is coordinated by one Grants Assistant) and the one-month pitch cycle proved to be too short to ensure that reviews, feedback and disbursement of funds occurred in a timely manner. The implementation of the ASD coincided with an AAS job evaluation exercise, which halted new recruitments and required that administrative duties be picked up by the AAS communications manager in the interim. The hiring and on boarding of the fulltime Grants Assistant resulted in significantly notable improvements in the delivery of reviews, documentation, archiving and uploading publications, processing applications, mentor-matching, orientation, and reimbursements. |
| Application and review | • Journalists reported inefficiencies of the Ishango portal, and requested better instructions on the use of the platform, especially for new applicants. Users reported frustration trying to upload documents and frequently being locked out of the system. A longer pitch cycle, for example, once every quarter, will allow for user training and more time for applicants to learn the system.<br>• Effective communication with all key players (Mentors, Reviewers, Mentees) is amongst the core foundational aspects that ensures the ASD programme runs efficiently. There is a major opportunity to streamline the various communication channels for effective feedback. |

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| Delivery times for stories | • Journalists are required to submit stories within a month, which some said made them rush through key aspects, or not pitch altogether because their ideas needed more time than was allocated. Production of broadcast media, for instance, inherently requires more time than print media. However, a standardized delivery timeline is considered necessary to administer programmes. The solution may ideally be to extend the pitch cycle from one month to three to allow full development of stories. Consideration of time required for the research process would also need to be assessed on a case-by-case basis. The extra time would particularly allow for cross border stories, which require collaboration between journalists in different countries and so will need time. |
| Payments | • The extra financial controls, though improving financial rigor and transparency in the use of funding, resulted in a cumbersome experience for participants. |
| Internal engagement | • Some AAS staff were not fully aware of some key implementation aspects of the ASD, indicating that organisational learning and knowledge management options within the AAS need to be improved to ensure that the larger AAS family are aware of the ongoing programmes. Beyond being mentees, journalists felt that they were key partners that the ASD needed to strategically integrate into its programming. Some observed that due to the pan-African nature of the ASD, an organized ASD journalist alumni network could provide mentorship to upcoming mentees across Africa. |

## Conclusion, recommendations and next steps

The ASD pilot has made significant progress in building the capacity of journalists and increasing the quality of science stories produced by journalists across three countries (Kenya, Nigeria and South Africa) out of the four targeted countries in Africa. As uptake from Senegal was low, the results, outcomes and learnings have been documented from the three countries. The next phase of the ASD will enable scaling up these gains and optimizing ASD's impact through:

- **An expanded remit**: Currently the ASD covers four countries but the impact calls for wider geographic scope to make it Pan African. To ensure the uptake of ASD programmes in francophone countries, a needs assessment is highly recommended to understand the underlying social, cultural, economic, political and other factors that may influence uptake. All programme materials starting with the ASD webpage, calls and emails need to be offered in English and French. An expanded remit should also include an annual science journalism award to recognise journalists producing quality and impactful science stories.
- **Tiered granting** that introduces: quarterly instead of monthly calls, grant allocations based on a journalist's experience and funding more grantees per call (up to 25). This would enable journalists more time to do their research.
- **Themed calls** focused on different strategic focus areas and topical issues to ensure they are all equally covered. Topics provided by journalists for inclusion in the second phase covered information technology/ computer based aspects (e.g. cyber space, cyber security/safety/ fraud, hacking, Artificial Intelligence (AI)/ facial recognition, digital footprint), agriculture and sustainable energy, gender equality, migration, and the ballooning youth populations.
- **Promoting a culture of learning** through tiered mentorship as follows 1-3years experience: Junior journalist, 4-6: mid-level journalist, 7 years and above is a fully experienced journalist who can be entrusted to deliver a quality story on their own. The AAS can leverage on mentors to develop mentorship and pitching guidelines and to facilitate webinars and workshops that would be organised to enable journalists to learn how to use the AAS Ishango grant application system, pitch about new disciplines, science frontiers and soft skills that can widen their coverage of science and grow their careers. These can also be added to Youtube as tutorials and shared on other social media networks as well. Additionally, the integration of the Kirkpatrick Model is needed to develop a basic mentor-mentee evaluation system that allows for mentors to assess the progress of their mentees and to document programme progress; mentees also assess their mentors on a given criteria. This would provide a formal case for 'graduating' mentees into mentors.
- **Internal coherence** within the AAS to provide a formal process which allows the ASD to access support from other grant officers to ensure there is no human resource constraints and sharing of ASD reports on the intranet for greater awareness among staff.
- **Consolidating existing and creating new partnerships** with stakeholders that include Editors for buy in, universities, governments, and research

institution for strategic collaboration to promote science journalism.

- **M&E implementation**: The new programme funding needs to have a clear MER plan and the requisite budgetary and human resource to ensure continuous learning within the programme and to enable annual rapid assessments that ensure that emerging gaps and opportunities are flagged early in the programme, thus effective and timely evidence based decisions are made for greater efficiency.

These recommendations can be implemented successfully with the creation of cognitive cities-network of journalists and mentors under ASD to interact and share ideas and to network with AAS science community.

# Annexes

## Annex 1: Documents and publications

1. Rist and Kusek, 2004: Ten steps to a Results-Based M&E System, The World Bank.
2. ASD Oct-Dec 2017 internal report, AAS, 2017
3. AAS/ASD RFP for End line assessment, AAS 2019
4. Africa Science Desk Baseline Assessment report
5. Africa Science Desk Report Jan - Mar 2018 Quarter
6. Africa Science Desk Report Jan 2019
7. Africa Science Desk Report Oct - Dec 2017
8. Africa Science Desk Report Sept - Oct 2017
9. ASD Quarterly Report July- 2019 1
10. ASD reports on Every Call. Round 4
11. First Quarter 2019 Africa Science Desk Report
12. Grant Proposal Narrative -Africa Science Desk
13. ASD Mentors and Mentee (freelance & employed) contacts
14. ASD Reimbursement Form (004) & Non staff Claim form
15. ASD Results Framework Report 2020

## Annex 2: Tables

### Table 2: Respondents

| Country | Mentors | Journalists | Staff | Total |
|---|---|---|---|---|
| Nigeria | - | 2 | N/A | 2 |
| South Africa | 2 | 1 | N/A | 3 |
| Kenya | 3 | 6 | 6 | 15 |
| Senegal | 0 | 3 | N/A | 3 |
| UK, USA | 2 | N/A | N/A | 2 |
| Total | 7 | 9 | 6 | 25 |

### Table 2: Demographic characteristics of the respondents

| Country | Per cent | Gender | Per cent |
|---|---|---|---|
| Kenya | 50 | Male | 50 |
| Senegal | 9 | Female | 45 |
| South Africa | 18 | Prefer not to say | 5 |
| Nigeria | 23 | **Total** | **100** |
| **Total** | **100** | | |
| **Education background** | **Per cent** | **Age** | **Per cent** |
| Academic PhD | 5 | 18 – 30 | 19 |
| University second degree | 27 | 31 – 40 | 36 |
| University first degree | 59 | 41 – 50 | 32 |
| Higher diploma | 5 | 50 and above | 14 |
| Diploma/certificate | 5 | **Total** | **100** |
| **Total** | **100** | | |

## Annex 3: Evaluation matrix

Overarching strategic priorities: health and wellbeing; environment and climate change; social science and humanities; policy and governance; and natural sciences

| Key Objectives | General ELA Questions | Sub Questions Data collection tools | Indicator(s) *(Proposed) | Data Collection Method(s) | Data Source | Assumptions |
|---|---|---|---|---|---|---|
| 1. Assess the current coverage of science stories in Kenya, South Africa, Senegal and Nigeria.<br>To provide information base for monitoring effectiveness in Africa. | i. Has the Africa Science Desk achieved its key objective of improving coverage of quality science stories from within the Continent?<br>ii. Strategic Focus areas- what trends have been witnessed in covering these at different regions and what do these trends infer?<br>iii. What challenges, gaps and opportunities can be identified from the Program? | 1. The Africa Science Desk key objective is to improving the coverage of quality science stories from within the Continent? In what ways has the ASD worked towards achieving this?<br>2. In your opinion, has the ASD achieved this objective?<br>1. what key trends have been witnessed in covering these at different regions<br>2. what do these trends infer<br>3. Which two of the strategic Focus areas have seen the greatest coverage<br>4. Which three areas do you find yourself covering the most<br>5. Which other strategic focus areas do your foresee having the largest coverage in the next 5 years? (probe for AI/ tech, Security,<br>What areas do you find yourself writing about the most? Are they writing on contemporary health issues more? AI? Technology based health delivery | | FGD's, KII's<br>Desk review<br>Desk review<br>KIIs & FGDS | **ASD staff**<br>**Mentors**<br>**Journalists** | |

| Key Objectives | General ELA Questions | Sub Questions Data collection tools | Indicator(s) *(Proposed) | Data Collection Method(s) | Data Source | Assumptions |
|---|---|---|---|---|---|---|
| 2. Increase the quantity of science stories and improving coverage of science funding by journalists to do their research | i. Are there any tangible outcomes realised by the Africa Science Desk Program? | 1. What three tangible benefits have resulted from the funding of journalists to cover science stories<br>2. Which two strategic focus areas are the least covered and why?<br>3. What can be done to improve on the quantity of stories written and the coverage? | | **FGD's, KII's** | **ASD staff**<br>**Mentors**<br>**Journalists** | |
| 3. Build the capacity of science journalists through mentorship throughout the pitch and writing process. | i. Mentor/Mentee engagement: is the Program fostering best practice in mentoring journalists during their research and writing process. (check the strategic focus areas coverage).<br>ii. Training and workshops- have these capacity building initiatives increased coverage from the mentioned regions?<br>iii. Has the quality of the science stories improved in over the programme period? | 1. What type of capacity building initiatives have you been part of within the ASD programme?<br>2. How do you measure your progress as a result of these initiatives in section 1 above?<br>a. Mentors: Which tools do you have to record progress of your mentees?<br>b. In your opinion, what areas of the mentorship program work well and which do not work very well<br>c. What can be done to improve for greater efficiency<br>3. In what ways has the quality of science stories improved<br>4. Would you say there has been increased coverage from the mentioned regions as a result of the mentorship program specifically? | | **FGD's, KII.s**<br>**Quant. Survey** | **Mentors**<br>**Journalists** | |

| Key Objectives | General ELA Questions | Sub Questions Data collection tools | Indicator(s) *(Proposed) | Data Collection Method(s) | Data Source | Assumptions |
|---|---|---|---|---|---|---|
| 4. Building partnerships with newsrooms | | 1. In what ways have you seen improvements as a result of your higher quality science stories? (Probe for additional interests from other newsrooms)<br>2. What two instances are you aware of when science stories documented by journalists in the ASD ignited interest in science or resulted in informed policy dialogue or change<br>3. What can be done to improve the used of ASD science stories to better inform policy dialogue and change | Policy conversations influenced by ASD journalists | Quant Survey<br>KII's, FGD's | | |
| OECD/ DAC Criteria<br>Sustainability<br>Gender Equality (GE) & Human rights (HR) | i. To what extent has the implementation of the ASD programme taken into account efficiency, effectiveness and sustainability of the programme results?<br>ii. Is the Program worth a new lifeline (renewal)?<br>iii. Igniting conversations about science that would promote prompt policy changes or generate interest in science<br>iv. To what extent has the implementation of the ASD programme taken into account GE/HR in the implementation of the programme modalities? | 1. What works well during the grant application process?<br>2. Are there areas that do not work well and what can be done better in these areas?<br>1. Overall, what has worked well in the ASD programme and should be further entrenched?/ what are the two greatest results that the ASD has achieved<br>2. Overall, what may not have worked very well and what should be done to improve/ if any, which is the greatest area that needs improvement?<br>3. Is the program worth a new cycle of funding?<br>4. If the program received new funding, what three aspects would you want to see implemented as a matter of priority? | | KII's, FGD's<br>Quant Survey | Journalists<br>Staff<br>Mentors | |

## Annex 4: Box A: Pitch to publication process

The monthly call is opened by the ASD [Open: 21st of each month - closes 5th of the following month] and targets journalists from Kenya, Nigeria, South Africa and Senegal. These calls are made in English language with the link available on The AAS/ASD portal and social media (twitter, face book, YouTube) call closure of call a production schedule/ review process (reviewers allocated stories as per number of pitched/applications received - each application has two reviewers' to reduce bias à email sent to all mentors informing of a call closing next week. Mentors review applications received (all mentors Editors and are all potential reviewers)in 4-10 days depending on the amount. The reviews are done on the Ishango portal - all the reviewers have an account in the Ishango hence allocation of pitches by grants administrator (GA) is straightforward. [Journalists also need to create an account to Ishango for the application process]. Reviewed pitches return to grant administrator who cross checks scores and averages the two reviewers scores. Awards are granted to any application scoring 9 and above to meet the grants management requirements, due diligence and Quality Assurance (QA) follow. Due diligence verifies credibility of successful applicants (requiring their national identity card/ passports - The AAS due diligence department conducts the process that ensures no pending conflicts etc thus 'a clean bill of health' and QA process is overseen by head of finance and grants, senior grants officer, deputy director of programmes, and the head of legal of grants and report for the given call is done detailing e.g. how many applications received, those successful and further explains to the journalists reasons for their success or lack thereof. They (QA) review the report and the scoring is done. Emails sent to successful journalists, email also sent to unsuccessful applicants having reviewers feedback e.g. the story had a good pitch but the packaging was not right. Grant document produced for signature, Grant certificate issued and a grant letter signed by the ED of the academy containing a clause of confidentiality and the journalist can proceed with the story upon signature of confidentiality clause – they receive a congratulatory email & Introduction/linkage to their mentor for the story. The application they used to pitch is attached hence mentor allocated can read through it and know exactly what story this person is giving and how best they can help them through the process. The grant document is collected, a non staff payment sheet is attached to the grant document and the signed report from Q&A. All documents needed for the initial payment are collated, signed by GA and finance processes the first payment, which is half of what a journalist pitched for. *"the finance process is normally long because finance also has its processes and there are several people who have to sign that paper so it can take even a week".* Having a production schedule makes it shorter, but the availability of those signing and their other workloads pose delays. Journalists are emailed by GA to confirm payments are reflected - some may choose to update the GA on progress with mentors, option also given to mentors to contact GA should they feel the journalist is not responsive – GA then makes follow-up calls with these journalists. The Converse also occurs where "sometimes the journalist cannot find the allocated mentor" thus GA also supports this. Journalists have thirty days from the time they receive a "go-ahead" which should coincide with the time when the first reflection of their pay occurs and receive the full amount upon submission based on the grant amount signed for by both parties. The journalist will then submit a link to the final story – includes social media reach on the various platform and if it's on print, how many copies were sold, the newspaper and day of publication, all receipts are required & must tally with the budget – this documentation is submitted to finance and balance is paid (including $350 "Pitch fee" to journalists and Mentors payments follow immediately after mentor attaches the same links to the story they mentored. Reviewers also receive their $300 Reviewers fee for all reviews done per call if they didn't proceed to mentor.

The African Academy of Sciences

# Africa Science Desk

## Funding African journalists to produce science stories


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