

21 July 2020

# Unlocking Data to Tell the Story of Education in Africa: Webinar Summary & Synthesis



EdTech Hub



# About this document

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ESSA and the REAL Centre at Cambridge University mapped available data sets across education based on research published in the African Education Research Database built as collaboration between ESSA and the REAL Centre at Cambridge University. The mapping covered early childhood education, primary and secondary and into tertiary.

Based on this mapping, we brought together a small group of actors with an interest in increasing data access and use for education in Africa on Tuesday 21st July, 2020. Participants included holders of education data sets, funders of education research and experts in opening and sharing data from other fields.

The aim of this virtual meeting was to understand how we can make progress, focusing on the following questions:

- What are the biggest barriers to sharing more data?
- What is currently being done to overcome these barriers? What more could be done?
- What can we learn from how other sectors have addressed this problem?
- What are effective approaches to increase the use of this data?
- How to work across education as a whole and where to focus on specific elements of the system?

The output from this webinar meeting will feed into an action plan to increase data availability and use in education across sub-Saharan Africa.

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# Core team

Taskeen Adam, EdTech Hub

Samuel Agyapong, ESSA

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Lucy Heady, ESSA

Wairimu Macharia, ESSA

Renaldah Mjomba, ZiZi Afrique

John Mugo, ZiZi Afrique

Faith Mukiria, ZiZi Afrique

Gemma Munday, ESSA



# Webinar in numbers



**49 attendees**

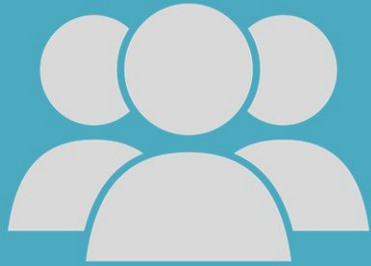


**10+ countries  
4 regions**



**4 main speakers**

# Meeting objectives



**To build a community  
of interest around  
increasing access to  
education data in sub-  
Saharan Africa**



**To understand the  
barriers to access  
and use of data**



**To co-create concrete  
ideas for how we could  
work together to  
improve access to data**



Dr John Mugo is the Executive Director of Zizi Afrique Foundation. Based in Nairobi, John has over 15 years post-PhD experience in generating large-scale data, and advocating for evidence-led policy change in education. Currently, John is leading the Assessment of Life Skills and Values in East Africa (ALiVE), a regional initiative that will produce large-scale evidence to catalyze systemic focus on the critical competences. Previously, John headed the Uwezo assessment in East Africa, and also taught at Kenyatta University in Kenya.

# Welcome

- We welcome every member to this Webinar, and value the attention you have given to this discussion on unlocking data for Africa's education.
- Africa's education continues to face many challenges, but also, many of the solutions and answers lie still in unused datasets, and untold stories.
- We welcome the participants to this discussion, that may be a great beginning of unearthing solutions and telling stories. When we work together, learning outcomes can be better, and achieved faster.



# Introduction



Lucy is the CEO at ESSA. She has over 15 years of experience in generating and using evidence to improve education, both in the UK and internationally. Her previous roles were at Nesta, the UK's innovation foundation, as the Impact Director and at the Children's Investment Fund Foundation leading on assessment of evidence and managing evaluations for the education portfolio.

- We are all here today because we see progress in education held back by a lack of access to data.
- Access to existing data is just one part of a big problem, but it is an important one: and we know it is one that affects African researchers disproportionately.
- Poor access not only prevents useful analysis that could inform policy now, but it is also a barrier to building a new generation of African education experts and analysts in universities, statistical offices, NGOs and ministries. A generation that is needed for sustainable, evidence-driven change.
- The COVID-19 pandemic makes our need for data only more extreme. Data is harder to collect and has never been needed more. Such a precious resource must be used to its full potential.



Dr Samuel Asare is a higher education researcher and currently consulting for ESSA on the African Education Research Database, a joint project with REAL centre at the University of Cambridge. Prior to this, he held a postdoctoral position at the REAL centre. His research focuses on teaching and learning, especially factors that drive students to invest time and effort in their learning. His recent studies have looked at equity in research partnerships and agendas.

# Open Data Use in the African Education Research Database

- The conversation around data sharing or access has been going on for some time and the project to map education data is meant to contribute to this conversation.
- The objectives of the project were:
  - Map existing education data sets in SSS to increase its visibility and use.
  - Advocated for open access policy and practice in the region.
- Findings included:
  - Low numbers of data sets.
  - TVET and early childhood education have lowest numbers of data sets with primary and secondary education having the highest.
  - Data sets from academics are least accessible and used.

# Q & A on African Education Research Database

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Samuel was asked a number of questions after his presentation. The questions were thematically categorised and his answers are presented below.

|    |  |  |
|----|--|--|
| 01 | What is data defined as?                         | According to Samuel, data refers to information collected through research which is stored as numbers or words and can be analysed multiple times. |
| 02 | Why was qualitative data excluded?               | The exclusion of qualitative data was because of its high tendency to create confidentiality concerns.   |
| 03 | Why was North Africa excluded from the analysis? | North Africa is crucial in the development of the region, however the scope of the project was to specifically focus on SSA.                       |
| 04 | Who are the end users of the data sets?          | The data sets from the project will have a wider range of users including researchers, students, and policymakers.                                 |

# Pre-webinar survey reflections

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Before the webinar, participants were sent a pre-webinar survey asking them what issues they face regarding open data on education. The answers were thematically grouped into three categories.

## Data accessibility and analysis



- Finding and sharing data
- Data quality and interoperability

## Data utilisation



- Relevance and packaging
- Nurturing evidence use cultures

## Data capacities



- Capacities for quality and scale
- Capacities for analysis and packaging

# Pre-webinar survey reflections

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In the pre-webinar survey, participants were asked 'How can your organisation contribute?'. These were some of the responses:

**Conduct training on analysis, access, publication UIDs and other interoperability issues**

**Map data use and availability more comprehensively**

**Define benchmarks for increasing confidence in independent data**

**Lobby governments and engage in continuous stakeholder engagement**

**Create a data repository**

**Define good practice norms for sharing data**

# Humanitarian Data Exchange



Obadah Diab is a Research Analyst working with the United Nations OCHA Centre for Humanitarian Data. Over the past year, he has been involved in multiple projects that aim to increase access to data on education in emergencies. Obadah graduated from Georgetown University School of Foreign Service in 2018 where he majored in International Economics.

- The mission of the HDX Centre is to increase the use and impact of data in humanitarian response.
- HDX has over 100,000+ users per month and over 19K+ datasets have been shared from 1200+ sources.
- The challenges facing HDX include willingness in data sharing, timeliness of data and messiness of data.
- Some use cases of the HDX platform include mapping of global school closures due to COVID-19 (UNESCO), mapping of Ebola outbreaks in West Africa etc.
- Effective practices when it comes to data sharing and outreach include increasing access to open, interoperable and timely data critical for understanding various issues and the best strategies for responding in different contexts.
- The challenges they have faces can be overcome through support and cultivation of relationships with data owners.

# Breakout Sessions

Participants were separated into groups, and each group was tasked to respond to three questions. In the first two questions, the responses were grouped into three similar themes that emerged.

Q1.  
Where should we  
aim to get to?

- I. Understanding the data ecosystem
- II. Processes and procedures
- III. Stakeholder Engagement

Q2.  
What are the next  
steps to get there?

- I. Understanding the data ecosystem
- II. Processes and procedures
- III. Stakeholder Engagement

Q3.  
Who else do we  
need?

- I. Stakeholder engagement

# **Q1. Where should we aim to get to?**

## **I. Understanding the data ecosystem**



# Identifying problems

In discussing where we want to get to, the following problems were identified.

Data is often scattered, decentralised, and difficult to disaggregate

There is lack of funds to collect data, promote data literacy, and obtain specialists to analyse data

Lack of quality assurance

- Data may not be cleaned or presentable
- Data may not be accurate and representative
- Data may not be checked for sensitivity and privacy concerns

Data is outdated and not available when needed

There is difficulty collecting certain types of data, e.g., administrative data

# Defining data and quality

Q1.I

Before deciding where we want to go to, we need to properly take stock of where we are.

Define what education data is

Identify our baseline

Identify stakeholders

Identify data uses

We need to define/identify what useful, quality data for education research is.

We need to define the supply and demand of data i.e.

- What types of data exist?
- What types of data do we want/need to collect?

We need to identify

- who data owners are
- who data users are, e.g., researchers, governments, education implementers, journalists

We need to identify:

- What is/will the data being used for?
- Where are there gaps in education data?

**Q1. Where should we aim to get to?**

**II. Processes and procedures**

# Data collection standards and procedures

Q1.II

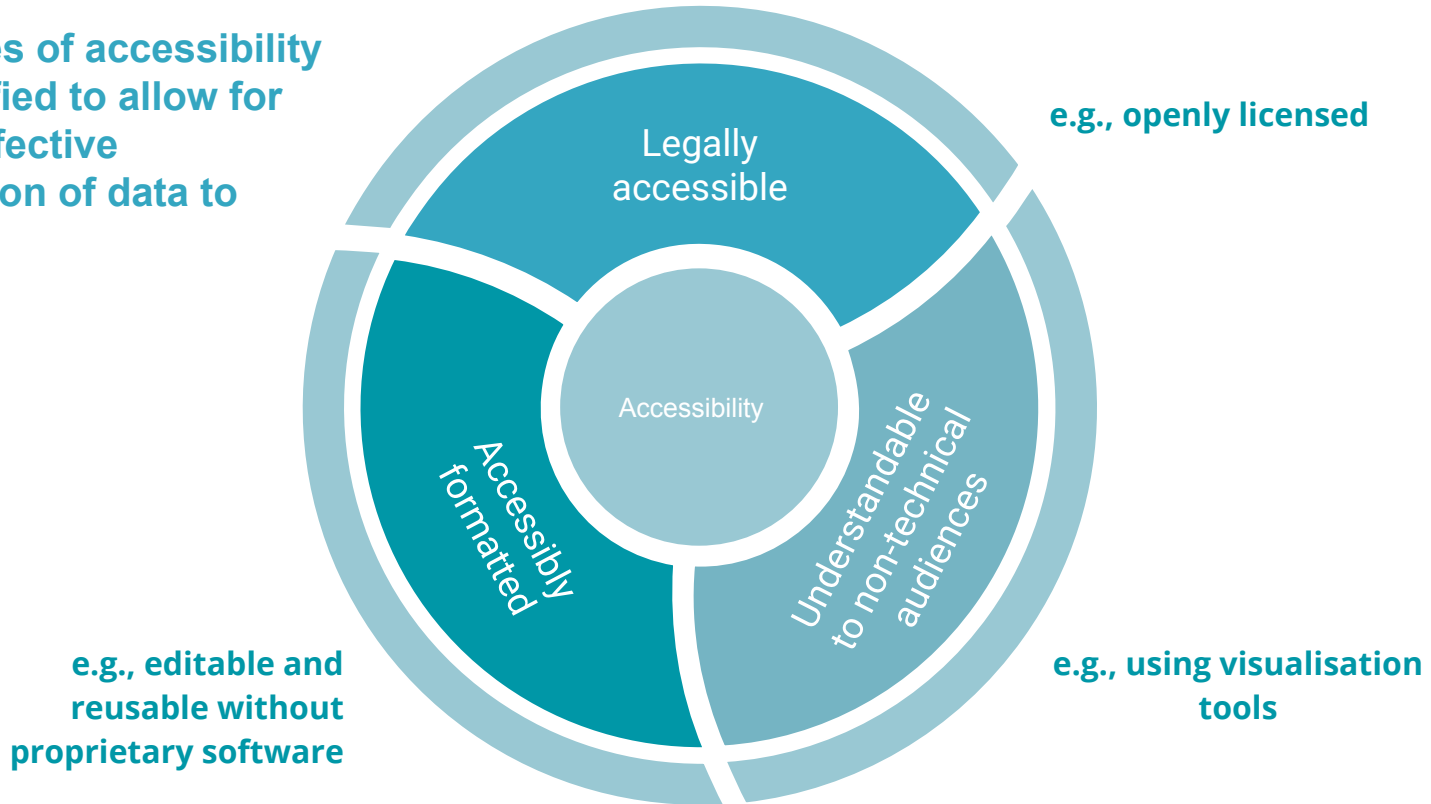
## Participants proposed that to get to where we want to, we should:

|    |  |  |
|----|--|--|
| 01 | Create and improve procedures and standards of data and data collection. | <ul style="list-style-type: none"><li>• We need to have a set of key indicators to guide data collection.</li><li>• Data needs to be cleaned and in the correct format.</li></ul>  |
| 02 | Develop criteria to evaluate if data is fit for purpose                  | <ul style="list-style-type: none"><li>• For example, criteria for<ul style="list-style-type: none"><li>○ Relevance and accuracy</li><li>○ Timeliness</li><li>○ Accessibility/cost of dissemination of data</li><li>○ Interoperability and comparability.</li></ul></li></ul> |
| 03 | Make data available in a timely manner                                   | <ul style="list-style-type: none"><li>• Data need to be available when<ul style="list-style-type: none"><li>○ it is needed, e.g., in response to a crises</li><li>○ it is relevant, e.g., to help make informed decisions</li></ul></li></ul>                                |
| 04 | Change norms of data usage and standards                                 | <ul style="list-style-type: none"><li>• Educational data should be automatically open, unless it needs to be restricted.</li><li>• Data should be used to promote mutual accountability</li></ul>  |
| 05 | Decide conditions for when it is best to keep data restricted            | <ul style="list-style-type: none"><li>• Data may need to be restricted<ul style="list-style-type: none"><li>○ for ethical reasons</li><li>○ for safeguarding reasons</li></ul></li></ul>   |

# Accessibility

Q1.II

Three angles of accessibility were identified to allow for the most effective dissemination of data to users



**Q1. Where should we aim to get to?**

### **III. Stakeholder engagement**

# Visions for open education data

Q1.III

Participants shared specific visions of where we should get to for successful open education data:

## Higher education

Promote open data sharing in higher education. They are currently driven by publication numbers. Data sharing could also become a metric.

## Ministries of Education

Improve capacity of ministries to manage and share education data e.g. through EMIS

## Industry

Harness the bidirectional relationship between market demands and insights from data.

## Data dissemination

A functional, online, interactive data repository specifically for education data sets in sub-Saharan Africa.

## Stakeholder engagement

A network of stakeholders committed to data sharing across sub-Saharan Africa.

## **Q2. What are the next steps to get there?**

### **I. Understanding the data ecosystem**



# Analyse the 'education data' ecosystem

Q2.1

In discussing the next steps, it was realised that the first step is to analyse where we are now.

Identify and address the bottlenecks on the ground.

Identify why there is inertia and/or lack of interest to moving towards open data.

Understand the gaps in education data better and where education data is needed.

Identify the financial barriers such as costs of data collection or preparation.

Learn from institutions that have made data open (e.g., Uwezo or the Young Lives Project).

**Q2. What are the next steps to get there?**

## **II. Processes and procedures**

# Create processes, standards and frameworks

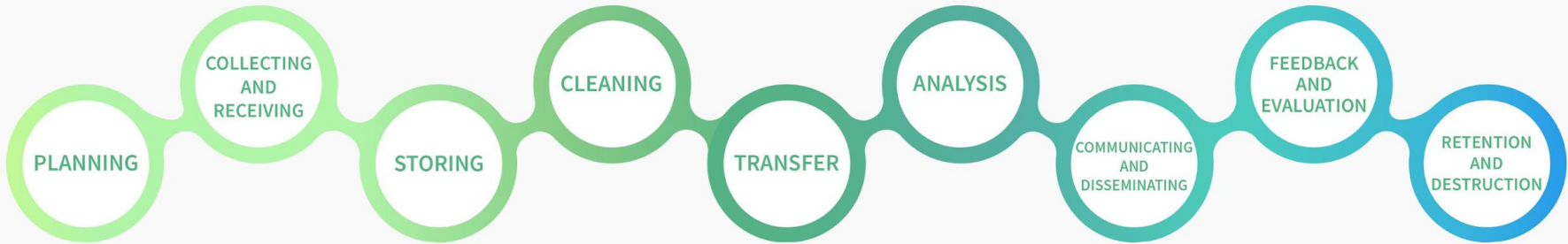
Q2.II

Participants identified that we need to develop processes, standards, frameworks and policies to guide open data collection and utilisation.

Map the data life cycle for education data and outline standardisation processes

Stratify and categorise data to make it appropriate for and useable by different types of users.

Create legal and policy framework that guides data collection and data sharing



**Q2. What are the next steps to get there?**

### **III. Stakeholder engagement**

# Promote skills development

Q2.III

Building capacity of data owners, collectors, handlers, analysers and users was identified.

**Build skills and capacity in data collection**

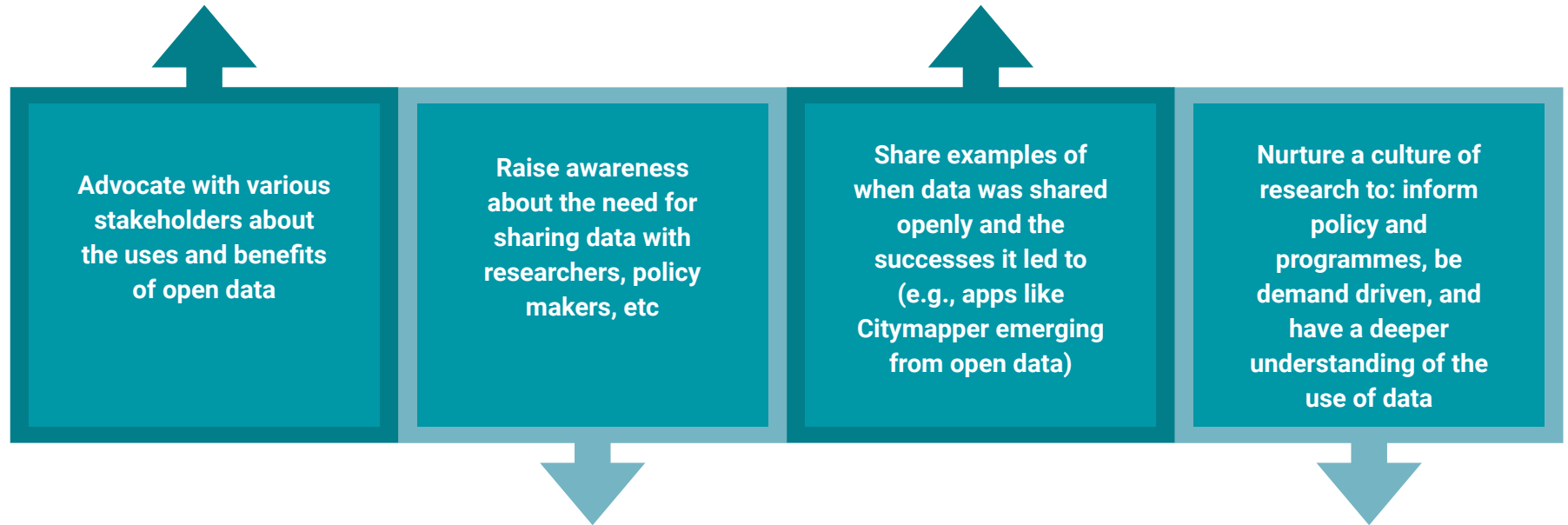
**Conduct workshops on how to collect data**

**Develop data guides on how to handle data**

**Share effective practices to data collection**

**Provide guidelines on how to standardise datasets**

An important next step is to advocate and raise awareness with different stakeholder groups.



# Facilitate stakeholder engagement

Q2.III

Throughout the webinar, it was highlighted that there is a need to bring different actors together. Suggestions relating to stakeholder engagement included:

Establish an education data group with the various stakeholders to

- discuss issues of data accessibility and sharing
- foster collaboration
- Include varied perspectives and gain buy-in from the onset
- Facilitate communication between those who are generating and those who are using the data.



Build links to and learn from other groups/organisations working with other data sets e.g. datasets in health.

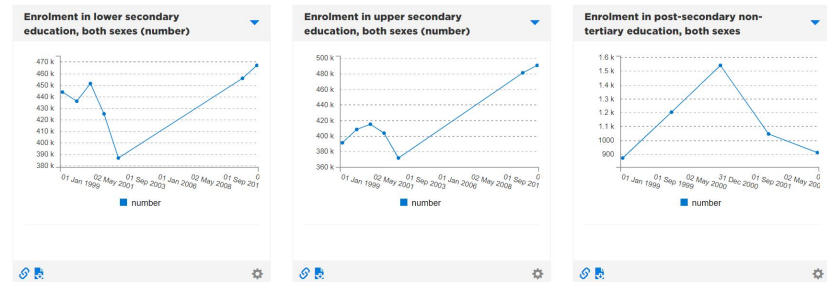


Encourage engagement, utilisation and interrogation of the data by researchers and policymakers as this will lead to improved data quality.

Building stakeholder engagement

# Build a data portal

Creation of a data portal will promote communication and information dissemination. The data portal by HDX (below) provides a good example of how to collate data and present it well.



[MAKE QUICK CHARTS ON HDX | tools](#)

**DOWNLOADS**

**Data and Resources** **Metadata**

**Education Indicators for Zimbabwe (1.3M)**  
Updated: July 28, 2020

HXLated csv containing Education indicators  
Indicators: Adjusted net enrollment rate, Adjusted net ...

[DOWNLOAD](#) [MORE](#)



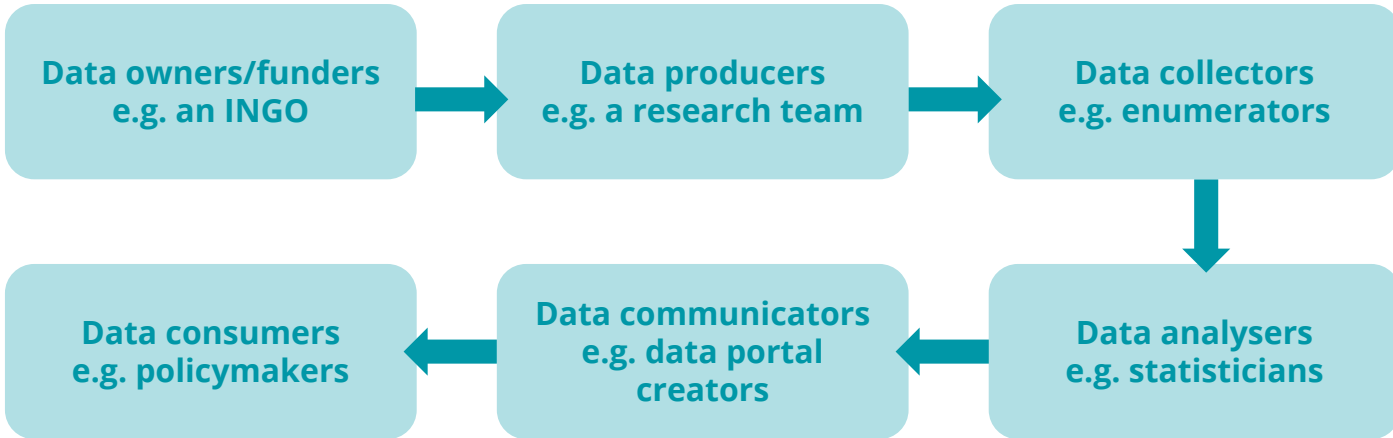
## **Q3. Who else do we need?**

### **I. Stakeholder engagement**

# Types of stakeholders

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Six types of stakeholders who play different roles in the data management process were identified:



# Breakdown of key stakeholders

Many key stakeholders were listed by participants. Due to many of them playing multiple roles (or different roles in different contexts) they are not grouped into the six categories.

|                                     |                               |                         |                              |
|-------------------------------------|-------------------------------|-------------------------|------------------------------|
| Funders                             | Higher Education Institutions | National governments    | Econometricians              |
| NGOs/INGOs                          | Research students             | Ministries of education | Statisticians                |
| Civil society organisations         | Researchers                   | Policymakers            | Data collectors              |
| Data communications agencies/ Media | Academics                     | Districts offices       | Enumerators & Translators    |
| Private sector                      | Academic journals/ Publishers | Bureaus of statistics   | Data brokers/ intermediaries |
|                                     | Scholarship providers         | Education implementers  |                              |

# Key highlights from facilitators



Mrs. Esme Kadzamira  
University of Malawi  
Chancellor College, School of  
Education

We need to reach out to [the data] users and ensuring we are engaging all key stakeholders including teachers.

There should be greater consideration of use of the data even before data collection to ensure we are capturing the right information. If this is done correctly, it can improve learning and teaching.

There should be increased equality in data availability and access. How can we incentivise/encourage data sharing for those who don't necessarily see the benefit in opening up their data?



Dr. Hugues Moussy  
Head of Research &  
Development  
UNESCO



Dr. Moses Ngware  
Senior Research Scientist  
African Population and Health  
Research Center (APHRC)

Open data in the education sector should be the default and not the exception to make access easier for all. Increasing access to education data will allow for greater utilisation for decision making. This is a process that will take time, concerted effort and collaboration.

We should aim to have an online repository of education data with different levels of access for users. We should also work with the wider ecosystem of education data stakeholders/collectors.



Dr. Jean Francois Kobiane  
Associate Professor of Demography  
Institut Supérieur des Sciences de la  
Population (ISSP), University Joseph  
Ki-Zerbo, Ouagadougou





Dr. Mo Adefeso-Olateju  
Managing Director  
Education Partnership Centre

We should put in place Applied Research centres to help solve the existing problems in the education sector and strengthen their capacities in making use of that data to improve education in Africa. This will help to bridge the gap between research and policy.

Let us maintain this momentum  
and energy to build better data  
infrastructure for Africa.



Dr. Björn Haßler  
Director of Research  
EdTech Hub

# Post-webinar survey

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These are some of the responses based on our post-webinar survey

**The event was very informative and well organised!**

**Very pleased with the diversity of the stakeholders.**

**The break out sessions were very well structured and facilitated.**

**Good time management. Time allocated was just enough to tease out the critical issues.**

**Great presentations from the speakers: Dr. Samuel Asare and Obadah Diab.**

**Allocate more time for Q&A and breakout sessions to go deeper into the issues.**

# Thematic working groups

At the end of the webinar, three thematic working groups were set up going forward.

| <b>Data accessibility and analysis</b> <ul style="list-style-type: none"> <li>• Finding and sharing data</li> <li>• Data quality and interoperability</li> </ul>   | <b>Data utilization</b> <ul style="list-style-type: none"> <li>• Relevance and packaging</li> <li>• Nurturing evidence use cultures</li> </ul>  | <b>Data capacities</b> <ul style="list-style-type: none"> <li>• Capacities for scale and quality</li> <li>• Capacities for analysis and packaging</li> </ul>  |
|--|---|---|
| <p>Obadah Diab (OCHA Centre for Humanitarian Data)<br/>           Sosthene Guei (TRECC/JF)<br/>           Taskeen (Edtech Hub)<br/>           Pauline Rose<br/>           Philippe Gafishi (PARIS21)<br/>           David Maxwell Bessah (Ghana Statistical Service)<br/>           Samuel Agyapong (ESSA)<br/>           Maurice Mutisya<br/>           Peter Wanjohi (Kenya National Bureau of Statistics)<br/>           Purity Ngina<br/>           Jamie Proctor<br/>           Esme Kadzamira<br/>           Samuel Asare (ESSA)<br/>           Jean-Francois<br/>           Joyce Malombe</p> | <p>Margaret Irving (GPE)<br/>           Julie Belanger (EPG)<br/>           Modupe Adefeso-Olateju - The Education Partnership (TEP) Centre<br/>           Sosthene Guei (TRECC/JF)<br/>           David Maxwell Bessah (Ghana Statistical Service)<br/>           Jonas Bausch (Decent Jobs for Youth - ILO)<br/>           Zizi Afrique<br/>           Kerubo Okioga<br/>           Dana Schmidt<br/>           Chi-Chi Undie (Population Council)<br/>           Hugues Moussy<br/>           Data interoperability platforms (JET Education Services and merSETA - South Africa)<br/>           Björn (EdTech Hub)<br/>           Joyce Malombe</p> | <p>Obadah Diab (OCHA Centre for Humanitarian Data)<br/>           Nodumo Dhlamini (Association of African Universities)<br/>           Kerubo Okioga<br/>           Peter Wanjohi (Kenya National Bureau of Statistics)<br/>           Björn (EdTech Hub)<br/>           Jean-Francois<br/>           Joyce Malombe</p> |

# Next Steps

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**This meeting has informed the construction of a collaborative initiative that focuses on: Data accessibility, Data Use, and Data capacities. Report to be shared not later than Friday August 21st, 2020.**

**The sign-up of interests will be followed up by smaller, more-focused sessions, between August and September 2020**

**Follow-up meetings to be held with HDX, to explore potential role in catalyzing accessibility to education data**

**Zizi Afrique and Education Sub-Saharan Africa commit to drive the initial phase of this collaborative, until something comes out of it**

**A meeting planned for Thursday September 24th, 2020 will make things more concrete, and clarify interests and partnerships with the potential friends who signed up**

# Attendees/Organisations

Abdulkadir Amin Awes - KNBS  
Adeline Addy - AAU  
Angela Arnott - GESCI  
Björn Haßler - EdTech Hub  
Chi-Chi Undie - Population Council  
Dana Schmidt - Echidna Giving  
David Bessah - Statistics Ghana  
Delali Amuzu - University of Ghana  
Dennis Nyakundi - Pal Network  
Esme Kadzamira - University of Malawi  
Faith Mukiria - Zizi Afrique  
Fredrick Osheku - TEP Centre  
Gemma Munday - ESSA  
Godfrey Otieno – KNBS  
Hannah Itcovitz - The Broker Online  
Hugues Moussy - UNESCO  
Jack Rossiter - CG Dev  
James Ciera - Twaweza

James Keevy - JET  
James Otieno Jowi - EAC HQ  
Jamie Proctor - (DFID)  
Jean-François KOBIANE - ISSP  
John Mugo - Zizi Afrique  
Jonas Bausch - ILO  
Joyce Malombe - WP Fund  
Julie Belanger - Ark Online  
Kerubo Okioga - Porticus  
Lucy Heady - ESSA  
Margaret Irving - Global Partnership  
Mary Goretti Nakabugo - Uwezo  
Uganda  
Modupe Adefeso-Olateju - TEP  
Centre  
Moses Ngware - APHRC  
Mutisya Maurice - APHRC  
Nodumo DHLAMINI - AAU

Obadah Diab - Humanitarian Data  
Exchange (HDX)  
Opeyemi Oluleye - TEP Centre  
Pauline Rose - University of Cambridge  
Peter Wanjohi - KNBS  
Philippe Gafishi - OECD  
Purity Ngina - Zizi Afrique  
Renaldah Mboje - Zizi Afrique  
Roberta Bassett - World Bank  
Samuel Agyapong – ESSA  
Samuel Asare - ESSA  
Sara Ruto - Pal Network  
Sosthène Guei - TRECC Program  
Taskeen Adam - EdTech Hub  
Wairimu Macharia - ESSA  
Wangui Nyaga - Banyan