



# EXAMINING TECHNICAL ISSUES OF THE WORLD DIGITAL LIBRARY IN UGANDA



## CHALLENGES AND PROSPECTS

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# AGENDA

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- Background information on the WDL
- Aim of WDL
- Principle objectives of WDL
- WDL in Uganda
- Objectives of the study
- Methodology
- Findings
- The way forward
- Conclusion

# Background information on the WDL

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- WDL -Internet based information resource co-sponsored by the LC and UNESCO
- In 2005, Dr James Billington approached UNESCO
- with a proposal - an online collection of unique materials - to access the documented heritage
- The LC and UNESCO entered into an agreement to develop a prototype of the Digital Library

# Background information on the WDL cont'd...

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- This prototype was developed by LC and UNESCO
- in collaboration with five others namely: the Bibliotheca Alexandrina of Alexandria, Egypt;
- the National Library of Brazil;
- the National Library of Egypt;
- the National Library of Russia; and
- the Russian State Library.
- The Prototype was launched at the 2007 UNESCO General Conference

# Background information on the WDL cont'd...

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- On 21 April 2009 at the UNESCO Headquarters, UNESCO and 32 partner institutions launched the World Digital Library

# AIM OF WDL

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**Makes available on the Internet, free of charge and in multilingual format, significant primary materials from countries and cultures around the world.**

# PRINCIPLE OBJECTIVES OF WDL

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- Promote international and intercultural understanding and awareness
- Expand multilingual and culturally diverse content on the Internet
- Provide resources to educators and contribute to scholarly research
- Build knowledge and capacity in the developing world and help to narrow the digital divide.

# WDL IN UGANDA

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## General objective:

- To trace Uganda's history- PEST
- Guided by - “Unity in diversity - the coming together as a nation through documentation, preservation and dissemination of Uganda cultural heritage home and abroad”

## Specific objectives:

- Promoting Uganda's heritage worldwide
- Contributing to the promotion of regional cooperation



# Specific objectives of WDL in Uganda cont'd..

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- Bringing together Uganda national heritage in one space for use - intellectuals and the general Ugandan public
- Conserving and preserving Uganda's heritage – presently, documentation of Uganda's history and cultures is in a very bad state.

# Examples of the poor physical state of materials in Uganda

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**Jinja District Archive**

# Examples of the poor physical state of materials in Uganda cont'd...

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**Tooro Kingdom Archive**

# Objectives of the study

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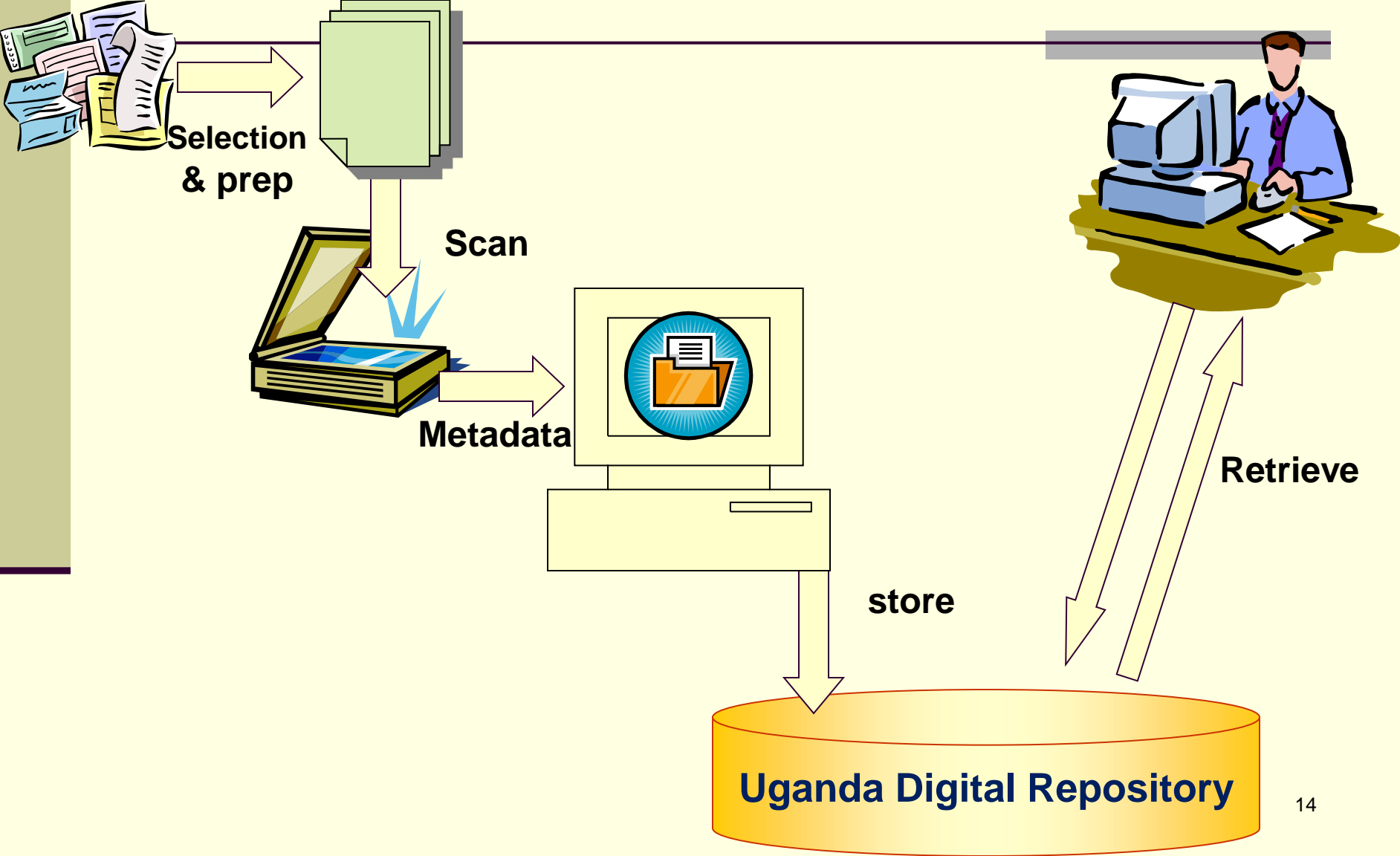
- Examination of the technical services involved in the digitisation process;
- Isolation/identification of challenges faced in executing the technical processes; and
- Identification of strategies for improvement.

# Methodology

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- Through analysis of the WDL relevant literature on the technical processes in general and the WDL Uganda in particular;
- Participant observation of the technical processes;
- Staff /employees Focus Group Discussions and
- The authors' personal experiences.

# TECHNICAL PROCESSES





# Findings- Identification of digitizable cultural materials

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- Discussions with partner institutions
- Meetings with other stakeholders



# Findings- Identification of digitizable cultural materials cont'd...

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- Consultative meetings with the Task Force Committee
- World Digital Library Website should include items related to religion, politics and culture
- WDL (Uganda) Staff visit partner/contributors and potential institutions to sensitize about WDL



# Findings- Identification of digitizable cultural materials cont'd...

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- Meetings are also held - contributors who later formalize the identification process with signing an agreement

## Materials collected include:

- Books from the early missionary travels;
- Agreements signed by the British with the various tribal rulers for example, Muteesa I, the King of Buganda, who wrote the letter to Queen Victoria of England
- the first catechisms in the various Ugandan languages; pictures (drawings and photos) of the 1870s – 1920s; first issues of newspapers – in various languages;

# Findings- Identification of digitizable cultural materials cont'd...

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- First Ugandan money;
- Pictures that show the tribal rulers in the late 19<sup>th</sup> and early 20<sup>th</sup> centuries; traditional dress and Royal regalia of various tribes; pictures from the independence day celebrations,
- Old maps of the original districts of Uganda,
- Maps of Islands such as those around L. Victoria like Mgingo and Ugingo

# Scanning/Digitizing of cultural heritage materials

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- Identified and selected digitizable materials are brought to the NLU to the Conservator to assess their physical state

## He examines:

- whether the items were affected by insects so as to treat them;
- whether the paper is too brittle to be scanned;
- whether scanning could be done without any binding, etc.
- Further instructions are given for the scanners to follow when scanning.

# Scanning /Digitising of cultural heritage materials cont'd...

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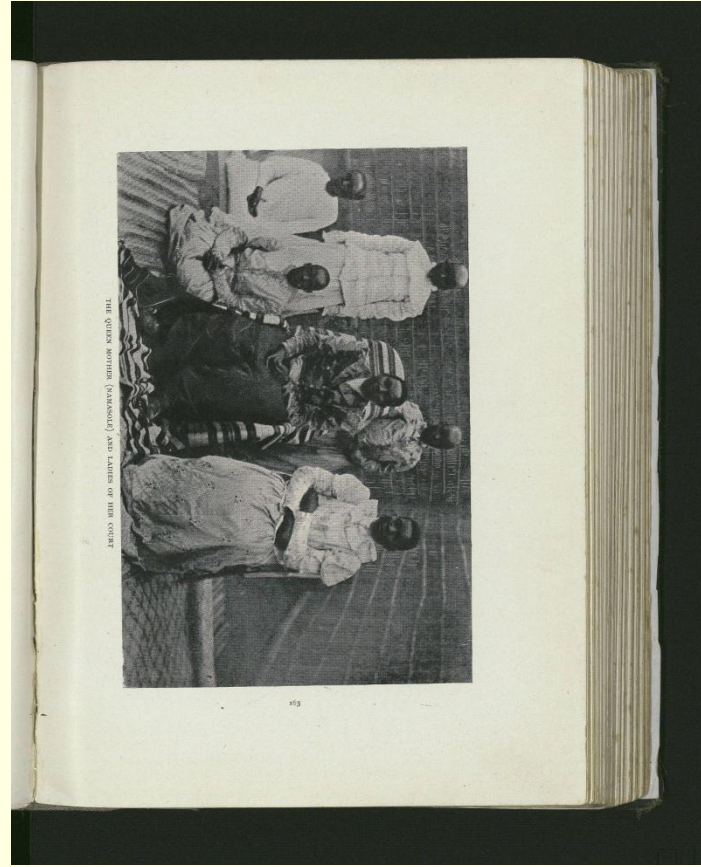
The basic hardware used in scanning include:

- computers to store and display the images scanned.
- Images may be saved to the hard disk of the computer connected to the scanner or to another computer
- Scanners/digital cameras- I2S Suprascan II are used.
- Further, at NLU, Digibook, xnview and Adobe Photoshop software are used.
- Images are saved either in JPEG or TIFF

# Scanners/digital cameras- I2S Suprascan II



# Procedures in post-processing, cont.





# Procedures in post-processing, cont.

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THE QUEEN MOTHER (NAMASOLE) AND LADIES OF HER COURT

# Metadata

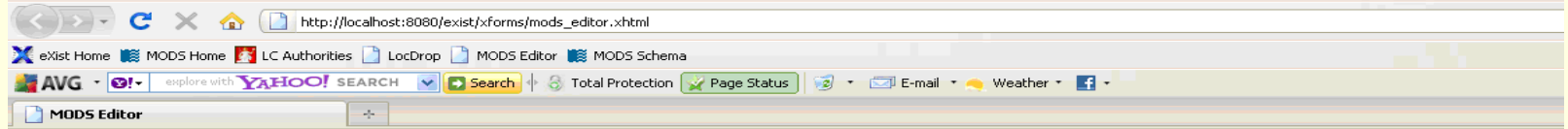
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At NLU, the metadata process requires the Metadata officer to know:

- Ms Access, MODS (Metadata Object Description Schema) - a descriptive metadata standard, Oxygen XML Editor 11.0, Oxygen and Exist XML database (exist XML database).



# MODS



## MODS Editor

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Custodial Institution Code:	<input type="text"/>
URL of Custodial Presentation:	<input type="text"/>
Collection Name:	<input type="text"/>
Rights & Reproductions Statement:	<input type="text"/>

### Digital ID

Digital ID:	<input type="text"/>
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### Creator Info

Type of Name:	<input type="text"/>
Role:	<input type="text"/>
Family Name:	<input type="text"/>
Given Name:	<input type="text"/>
Title (such as Sir):	<input type="text"/>
Birth/Death Dates:	<input type="text"/>
Corporate/Conference Name:	<input type="text"/>

**Add a Creator**

Done

# XML

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  </recordInfo>
  - <name type="personal">
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    <namePart type="given" />
    <namePart type="date" />
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  </name>
  - <role>
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  </role>
  </name>
  - <titleInfo lang="eng" type="">
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    <title />
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  </titleInfo>
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  </language>
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  <abstract>The wonderful story of Uganda traces the inside of Uganda as far as the missionary times in the the Gospel and even a written language now houses more than thirty thousand Christians, Bible being tr receptive of spiritual truth than the stolid, material-minded races nearer the coast. The book also traces the bloodshed in Buganda during the reigns of King Mwanga. In Mwanga's absence after the escape on 2 was made the King.</abstract>
  <note>It is an original book. J.D stand for Joseph Dennis. It's a story of a prominent chief Ham Mukasa.</note>
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  </subject>
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    <physicalLocation>NLU</physicalLocation>
    <url />
  </location>
```

# Preservation and Conservation of Digitizable Materials

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- Preservation, Conservation & Restoration concepts

## **Selection for Preservation**

- Vulnerability to loss or deterioration
- Value or uniqueness
- Condition and use

# Preservation and conservation process at NLU

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- Pre-assesses them before they are scanned.
- Strengthens the items

# Creation of the Uganda Digital Repository

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- NLU is creating a Digital Repository of the WDL (U) output from all stakeholders
- Which will be accessible freely to end-users both within and outside of the institution.

# Challenges

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- Legal Aspects
- Technical Support
- New challenges in metadata creation and management
- Numerous Metadata Standards and Schemas

# Challenges cont'd...

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- Difficulty in digitizing materials

One contributor was clear on this:

**If you want to digitize our materials, you need to do it here. For security reasons, we cannot allow our materials out of our premises (Contributor, 2010).**



# Voice of the Metadata Officer

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Commenting on the metadata process, the Metadata Officer said:

**The Metadata process is very tedious: mastering metadata standards and process is very demanding, good descriptions call for a reading culture, scanty information makes it very difficult to describe the materials comprehensively and some languages in which materials are produced are not comprehended (Metadata Officer, 2011)**



# Other challenges experienced by WDL, Uganda include:

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- Demand for compensation in exchange for ideas and digitizable materials, which drains the limited financial resources.
- Ignorance and negligence of indigenous knowledge and its documentation, leading to unsystematic collection and digitization.
- Harsh climate, that makes materials brittle or susceptible to fire, etc.

# NLU Conservator voice

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Commenting on the preservation and conservation process, the Conservator said:

**I carry out general treatment on dirty documents, insect-infested materials and materials that have been affected by the atmosphere around them. We manually dehumidify documents because we lack special machines that would perform this task (NLU Conservator, 2011).**

# NLU Conservator voice cont'd...

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Asked about the preservation process, the Conservator said:

**Not much preservation takes place at NLU because many people are not aware. Many items received are dog-eared, infected, contaminated with foods and liquid and are dusty, etc. (NLU Conservator, 2011).**

# Other challenges experienced by WDL, Uganda cont'd...

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- Lack of guidelines in applying metadata to African-based information resources
- Maintenance of metadata records e.g failing to put a *see* reference where changes have occurred.
- Lack of preservation materials, tools and equipment, coupled with technical inability.

# Other challenges cont'd...

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- Maintenance of the most essential equipment is limited, with spare parts hardly available.
- The absence of model regional centres that continuously offer training to young professionals (especially conservators)

# The way forward

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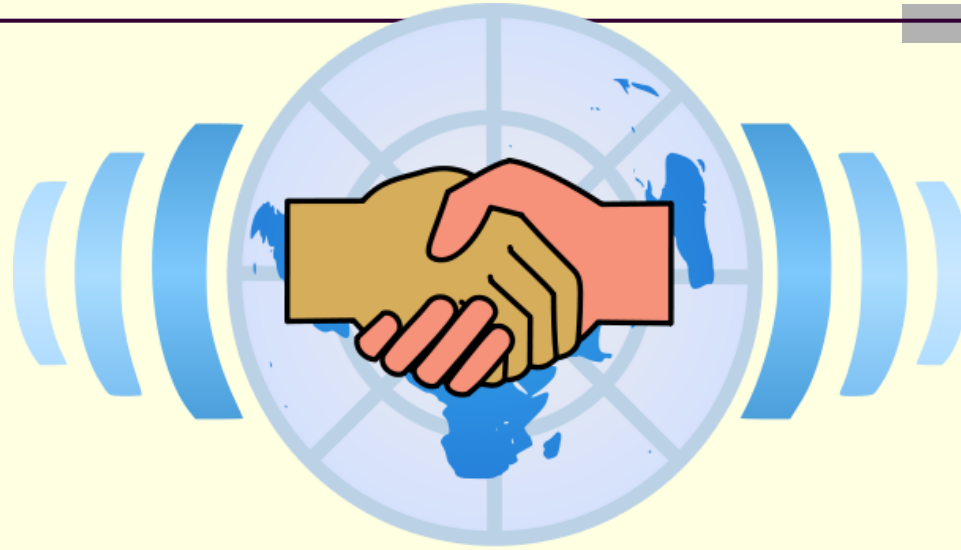
- WDL (U) Marketing and Public Relations
- Participation of key stakeholders
- WDL (U) infrastructure and facilities
- Training of personnel required
- Funding

# Conclusion

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Although there are challenges in WDL (U) Project, Management, staff and other stakeholders are determined to make it successful so that Uganda participates in the international network of cultural exchange and development.

‘The struggle continues’ ‘Alta continua’.



**Thank you for your  
Attention**