DIGITALIZATION OF ARCHIVES, THE LIVINGSTONE MUSEUM EXPERIENCE

INTRODUCTION
The Livingstone Museum is one of the four national museums managed by the National Museums Board of Zambia. Opened in 1934, Livingstone Museum has a vast collection of artefacts of different disciplines ranging from Archaeology, Natural History, Ethnography, and History. The Museum also houses a unique collection of memorabilia used by David Livingstone during his exploration journeys in Africa in the 19th century and has also a vast collection of archival materials.

THE ROLE OF THE LIVINGSTONE MUSEUM
Because of its unique collections the museum plays a very vital role in ensuring preservation of the country’s cultural and natural heritage. Located in the tourist capital city of Zambia, Livingstone, the Livingstone Museum also attracts a good number of foreign tourists thus contributing to the cultural and historical awareness of the Zambian people. The Livingstone museum also play an important role in disseminating information to the general public on important topical issues such as HIV and AIDS, climate change, war and peace, democracy, waste management and many other topics which are of national interest. The dissemination of information is conducted through exhibitions and outreach programs.

THE ARCHIVES
The Livingstone museum has a vast collection of archival material which has accumulated over the years. The information contained in the archives is derived from official documents generated by various administrators before and after independence beginning with the British South Africa Company administration in the 1890s, colonial administration and the post independence period to date. There are also private papers of some individuals and organisations, church records, maps and photographs.

IMPORTANCE OF ARCHIVES
Archives serve as the nation’s memory and enable society to plan intelligently for the future based on an awareness of the past experience. Through the use of reliable records and information, the government can enhance its ability to formulate, implement and sustain effective polices. Archives have been
successfully used in Zambia to provide information used in settling succession disputes of chiefs, settling land and boundary disputes.

**STATE OF THE ARCHIVES BEFORE THE DIGITALISATION PROJECT**
Most of the archival materials had started to become brittle and fading out hence making it impossible for researchers to access and use these materials. Over time some of information in the archives would be lost due to fading and brittleness. In addition, the materials were not stored properly due to lack of proper storage facilities like shelves. Archival materials were stored in unlabeled box making it nearly impossible to locate documents when needed. Lack of catalogue made it even more difficult to locate and retrieve information easily and efficiently.

**DIGITALISATION OF ARCHIVES IN PARTNERSHIP WITH NATIONAL ARCHIVES OF ZAMBIA**
In order to preserve and conserve this important archival collection, the Livingstone museums found it necessary to digitalise this collection. As a result the Livingstone museum partnered with the National Archives of Zambia to caring out the digitalisation of archives at the museum. The digitalisation project at the museum was funded by Finnish Fund for Local Cooperation through the National Archives of Zambia. The National Archives of Zambia was able to source funds from the Finnish embassy to carryout digitalisation of archival material in its custody and extended this project to Livingstone Museum. The total cost of the digitalisation project at the museum is about $ 75,000. The project began in 2010 and is expected to end in August 2013

**OBJECTIVES OF THE DIGITALISATION OF THE ARCHIVES**
- Preserving the archival material which has become brittle and begun to fade.
- Reorganizing of the archival material and creation of new catalogue for easy retrieval of information.
- Sharing of information between Livingstone museum, National Archives of Zambia and other public and private institutions.
- To ensure that many people have access to digital information beyond the walls of the
EXPECTED OUTCOME

- After digitization the original documents will no longer be exposed to physical consultation and can be safely stored.
- The digitization of the unique collections and those that are currently not accessible will increase the relevance of the Livingstone Museum to researchers.
- Making available archival information through database for consultation will increase the number of students, researchers, and tourists coming to the Livingstone Museum and this will in turn result in increased revenue for the institution.
- Setting up of a media room that will allow among other things for research to search for information on the database for the digitalized collection. The medium room will also provide facilities like photocopying, printing and access to the Internet.
- Installation of new aluminium shelves in the archives storeroom to facilitate easy storage of archival material
- Production of a catalogue facilitating easy access and retrieval of information in archives storeroom
- The museum hopes to make available this information on the internet through the museum website

The National archives of Zambia has the sole mandate of caring and preserving of Zambia’s records and have vast experience in managing archives. National Archives of Zambia successfully completed digitalization of the archival material in its custody in 2010. Consequently the museum benefited from this partnership from National Archives through human resource and technical advice on the process of digitalisation of the archives.

In addition the National archives of Zambia with financial assistance from the Finnish Embassy in Zambia has been instrumental in digitalising old music records from analogue to digital format at the biggest media institution in Zambia which is the Zambia National Broadcasting Cooperation (ZNBC). Another digitalisation project was carried out by the National Archives of Zambia at freedom house, the headquarters of the former ruling party, United National Independence Party (UNIP) which was in power in Zambia from 1964 to 1991. Currently the National Archives of Zambia is working with
National Assembly of Zambia to digitalise the archival material which contains mostly parliamentary procedures and debates.

With the financial assistant from the Finnish Embassy the Livingstone museum acquired equipment necessary to digitalise the archives. Equipment acquired include;

- Three computers
- One A3 scanner (scan 100 pages per minute)
- One digital camera
- One A3 printer
- External storage capacity (1 terabyte)
- Aluminium shelves
- Carton boxes for storing archival materials

Due to inadequate funding, the museum could not acquire the much needed equipment to enable it fully carry out the digitalisation of the archives. However, through the collaboration efforts with National Archives of Zambia, the museum has been able to get some of the equipment on loan from National Archives of Zambia to facilitate the smooth digitalisation of the archives. Such equipment include

- A1 map scanner
- Book scanner
- Record player digital converter
- VHS-DVD recorder

Some museum staff tasked with the responsibility of the digitalisation process have attended in house training at National Archives of Zambia to enabled the staff have the knowledge and skills necessary to carry out this important process of digitalization.

**PROGRESS ON THE DIGITALISATION OF THE ARCHIVES**

Livingstone museum has made tremendous progress in the digitalization process. From 2010 to date the museum has so far digitized over:

- 4000 photographs covering different aspects of Zambian history,
- 600 maps,
- District note books- outlining boundaries of different chiefdoms and districts in Zambia
- Paris Missionary Society-First missionaries in Western Province of Zambia
- Livingstone mail-First newspaper to printed in Zambia (1907)
• Origin letters by Dr. David Livingstone
• Digitalize rare and out of print books
• Over 30 books since April 2012

A database has since been created were all the digitalized material is be systematically arranged and stored. The database will enable researchers easily access and retrieve information. The database will enable multiple users access the information from different computer terminals at the same time. The database was created using Captaris Alchemy 8.3 software. On the other hand the museum uses oracle software database system to store its data of museum collection.

The Livingstone museum and National Archives through their collaboration efforts have exchanged archival material which either institution may not have had. This will ensure that researchers who need information from National Archives in Lusaka may not have to travel to access information in Lusaka but just come to the Livingstone museum to access this information. The exchange of information has made the museum to have additional information made available to researchers. The access to information in the archives database will be free for museum staff while researchers from other institution will be made to pay in order to access the database.

The museum completed successfully rearranging the archives storage facility. With support from the Finnish Embassy, the Livingstone museum procured aluminum shelves to replace the plank shelves which were used to store the archival documents. The new shelves are much strong and much lighter in weight.

Carton boxes were also procured and were used store archival material systematically for easy retrieval. The boxes have since been properly labeled and making it possible to locate information in the archives.

A catalogue has since been produced containing accession numbers which make it possible to access and retrieve information in the archives without problems. The catalogue has been helpful for easy identification and retrieval of information from the archives.
With the financial assistance from the Finnish Embassy, the museum has procured security system to reduce theft in the library and also digitalize rare books which are fading and are out of print. Digitalization of books in the library is being undertaken with a book scanner got on loan from the National Archives of Zambia. The collection of the main library includes artefacts of pre-history (archaeology), ethnography and art, history, entomology, mammology, herpetology, ornithology, taxidermy, botany, collection of maps and other reference materials.

CHALLENGES
The Livingstone museum has faced a lot of challenges in carrying out the digitalisation of the archives. Notable among the challenges is the issue of human resource. The museum has very limited staff levels at the moment. The museum staff carrying out the digitalisation process is drawn from other departments within the museum who also have their core functions to perform. This has lead to the delay in the digitalization process.

Another challenge that may arise is the compatibility of the database software being used to store archival information and the database system which the museum is currently using to store its information. There was no deliberate move at the inception of the project to look at the compatibility of the two different database systems to see if they were compatible

CONCLUSION
In conclusion, Livingstone museum being a public institution has an obligation to care and preserve the archival material in its custody. The museum recognises the need and importance of partnership in undertaking important projects like digitalization of museum collection hence its partnership with the National Archives of Zambia. Livingstone museum is highly indebted to the Finnish Embassy for the financial support it has been rendering towards the digitalisation project of the archives since 2010 to date.

Most of the objectives set at the beginning of the digitalisation project were met and the museum intends very soon to put in place a media room were researchers would be able to access information from the digitalized archival material in the museum database. The museum is very positive that digitization of the archives will greatly enhance the museums capacity to provide information to its clients more efficiently and effectively.