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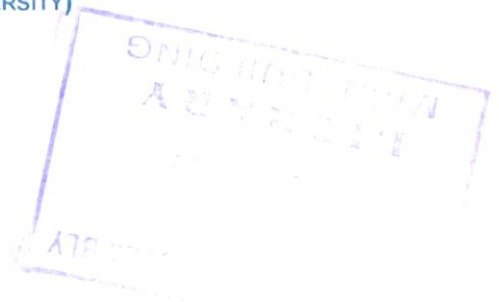### STRATHMORE RESEARCH AND CONSULTANCY CENTRE
(A SUBSIDIARY OF STRATHMORE UNIVERSITY)

Kenya National Assembly Library

LIBRARY HOLDINGS CATALOGING PROJECT

19/09/2007 – 21/12/2007 (extended to 29/02/2008)

ASSIGNMENT COMPLETION REPORT

OVERVIEW

The object of this document is present, in summary, the execution and outcome of the cataloging of the holdings of the Library of The Kenya National Assembly (hereafter referred to as either the library or simply the client) as commissioned by the client with the cooperation of the United Nations Department of Social and Economic Affairs (UNDESA) under the aegis of the Africa i-Parliaments initiative. It is divided into a 'main' section highlighting the areas of primary interest and a 'discussion' section that presents the rationale behind decisions made during the exercise and the specific action areas that need to be addressed by the Parliament staff. The signing of duplicate copies of this document by both parties marks the formal conclusion of the exercise

BROAD AIM OF EXERCISE

The broad aim of the exercise was to enhance the information service delivery capacity of the parliament library through the use of ICT within the confines of existing IT infrastructure.

IMPLEMENTATION OBJECTIVES

The specific objectives of the implementation exercise were:
- To catalogue the holdings of the library according to the Anglo-American cataloging rules.
- To classify the holdings using the Dewey Decimal Classification scheme
- To index the holdings using a combination of controlled and natural language terms.
- To aid storage of holdings by application of relevant physical markings
- To re-generate an authoritative accession register of the library's holdings.

DELIVERABLES

The specific deliverables were:
1. An estimated 10,000 items fully catalogued, classified and indexed.
2. An electronic copy of the library catalog in a format(s) easily compatible with any Integrated Library Management System.
3. A copy of a register listing all the items ordered by accession number.

METHODOLOGY

The exercise was conducted as follows:
1. Two contact persons were nominated by the client to be consulted during the duration of the exercise as listed below:
    - Isaac Songoro – Senior Librarian/Head - Continental House Branch
    - Grace Mwakio – Senior Librarian/Head - County Hall Branch
2. A proposed workplan was prepared, circulated and agreed upon with minimal amendments. This has been attached as an appendix.
3. The ICT training room in continental house was availed to the consultant's team for the duration of the exercise together with workstations and network/internet connectivity.
4. A thrice-per-week schedule was established for the transfer of holdings from the County Hall Library to the Continental house working area to expedite the expressed desire of the client to keep the library operational during the duration of the exercise.

5. An estimated 14,000 items were processed follows:
   - All holdings were sorted into books, periodicals and reports/government publications.
   - Bibliographic description was done to level two of the AACR2 with reference the Library of Congress and the British Library as well as manually in the absence of the preceding two options.
   - Where applicable, subject descriptors were appended using a combination of Natural Language, Sears Subject Headings List and the Library of Congress Subject Headings.
   - Where applicable, additional indexing was done to the publications by way of inclusion of the table of contents of the item.
   - Though not in the original scope of work, printed labels bearing the accession number, the call number and a barcode of the accession number were affixed on all the items.
   - Spine marking was done to all items processed using adhesive labels bearing the call number. Ordinary cello-tape was applied over the labels as a guard against wear and tear.
   - All processed items were returned to the County Hall library for re-shelving by library staff.

6. Quality control was done on an ongoing basis with items with specific focus on classification as this relates directly to shelf storage of holdings. All 'faulty items' or at least one sample (for voluminous items) was returned for correction. Links to web-based interfaces to the databases in use by the team were also circulated to facilitate on-going review of the work. Short-cuts to these were also placed on the desktops of the PCs of two staff members in county hall to help synchronize the quality review process.

7. Though not part of the TORs, ad-hoc training on the use of USMARC-based tools in cataloging was given to any of the Library Staff who availed themselves during the exercise.

8. A vmware image of the Integrated Library Management System was created and deployed on the client's servers. A copy is included with the printed version of this report.

9. The bulk of the data entry effort was completed on Thursday 13/12/2007 and the final major movement of materials between County Hall and Continental House was done on Friday 14/12/07. However, the lead consultant assigned to exercise remained on site till Tuesday 18/12/07 finalizing the cleanup exercise and attending to issues raised during the course of the exercise. In light of the issues arising, the data-entry team was re-deployed to site for a period of two weeks (22/02/2008 – 07/03/2008) to attain a definitive resolution as per the agreements reached.

10. With the completion of data entry the exercise is essentially complete. The specific deliverables have been met in excess in some instances – eg. a total of 14,000 items were worked on which is actually 40% in excess of the quantity cited by the client at inception and barcode labels have been affixed on all processed materials paving the way for library automation.

OBSERVATIONS

- *Policy Documents*: Given the very great diversity of the application of standards in library management, it is necessary that some guidance be provided to ensure uniform local application of global standards and continuity of the effort that has just been expended in the hiring of a consultant. However, the policy documents that would have provided this guidance were lacking during the course of the cataloguing exercise. This being the case, it may be difficult to sustain the work done thus far, more so given the structure of the library with regard to the number of branches and distribution of staff.

- *Physical storage of Periodicals and Grey Literature*: After a post-cataloguing review of the shelves it was realized that these materials have been re-shelved with general publications. During the course of the exercise it had been agreed that general class numbers would be applied to these materials to facilitate the organisation of these materials along identified patron interest profiles using options such as boxing of items and or article extraction as is the general practice. This agreement was reached due to the physical format and transient nature of these items which respectively make ordinary shelve retrieval difficult and long term storage unnecessary. It is recommended that these materials be first weeded, and the remainder boxed appropriately. These boxes should be regularly reviewed.

- *Contents Management/Indexing*: During the exercise, it was observed that contents abstracting was applied only to newspapers in the form of newspaper cuttings. Given the very specific nature of the clientele of the library, it would also have been preferred to have similar treatment given to periodicals and grey literature by way of cataloguing of specific articles of interest within the said publications in addition to the whole. In some instances, it might actually be more worthwhile to simply photocopy and store the specific article and discard the holding publication. Since an Integrated Library Management System will be included with the data, it is hoped that this (enhanced content abstraction) may emerge as one of the value adding services that will be adopted by the library.

EXERCISE NOTES

1. *Accession Numbers:* As mentioned earlier, the existing accessions register was unreliable and un-authoritative. A new 8-digit accession scheme was therefore applied to the holdings in the format "*1nnnnnnnn*" with "n" representing a number or a zero. The reconstituted accession register is included. It may be noted that some gaps exist in the reconstituted register. This was occasioned by the discarding of some items such as multiple duplicate copies of periodicals on the request of the client. Some of them had already been accessioned and were therefore simply deleted from the database.

2. *Koha Vmware Image:* The koha vmware was installed on the server IBMSERVER3 and accessible via the network on the url http://172.16.0.70 for the OPAC and http://172.16.0.70:8080 for the staff interface. The specific configuration/credentials for the application are included in the appendix.

KEY PROCESS AGREEMENTS REACHED

During the exercise, the following agreements were reached and acted upon:

1. **Accessioning of loose materials:** After due consideration of the high susceptibility of loose

materials to wear and tear, Staff at County Hall and the Consultant together agreed to exclude such items from the process. Most affected were the Hansards and the PAC/PIC reports. Given the very high likelihood of damage in-transit, this was collectively considered to be in the best interests to both preserve the integrity of the documents and to avoid defeating the accession process by losing the accession label. Also, most of the items awaiting binding already have entries in the database and it was equally felt that the appendage of the new copy information to the database after binding is a task sufficiently trivial to be undertaken by the library staff as part of their daily routine.

2. **Abstracting:** In light of the lack of subject specialization among the team as well as the unfamiliarity with of the needs of the end-users of the client, it was agreed that only the tables of contents would be for the periodicals would be included in the bibliographic record rather than in-depth analyses. This would meet the multiple objectives of improving accessibility and maintaining relevance of content while avoiding scenarios of information overload.

3. **Newspaper Cuttings:** The nature and state of the newspaper cuttings have rendered them generally unclassifiable. The Chief Librarian and the Consultant agreed that digitization be preferred over hard-copy. Being beyond the scope of the current exercise, it is to be done by library staff. Two possible e-repository software solutions – dspace (www.dspace.org) and greenstone (www.greenstone.org) were identified to hold the data, each with its pros and cons. However, meetings with UNDESA have since established that the matter will be included in the UNDESA sponsored 'Bungeni' project and it remains for the client and UNDESA to work out how best to work the matter out.

KEY DISPUTE ITEM(S) AND RESOLUTION

During the exercise, the following item(s) were disputed and resolved as indicated:

1. **Erroneous classification:** While every effort was made to ensure as high degree of accuracy as possible, it was been realized that some of class numbers assigned did not properly reflect the core contents. It was therefore agreed that samples of such items be submitted to the consultant, who made the corrections in the database and submitted the corrected sample together with correctly marked spine labels for correction of the physical items by library staff. A copy of the corrections has been included as an attachment. The actual corrections were printed on adhesive labels and submitted.

2. **Mis-classification:** A distinct characteristic of the general practice of classification is the diversity in the assignment class numbers. As far as possible – as mentioned earlier, the model adopted in the course of the exercise has been to classify items based on subject and where the content proved too diverse by general class numbers as was the case of most periodicals, annual reports and papers laid. These items have however been labelled misclassified by the quality review team on account of their not conforming to undocumented forms of co-location. Given the essential correctness of the assigned class numbers and the inherent difficulty of satisfying individual opinion in this regard, such items will be left as-is.

3. **Length of extensions:** It is a fact of classification that the more specific the contents of an item, the longer the class number that will be assigned. While majority of the items could be effectively defined by a minimum of digits, some could not. Given that this is ultimately a policy issue, it was resolved that corrections would only be applied to core information

resources such as the hansard. A copy of the corrected spine labels have been included as an appendix – while the actual corrections printed on adhesive labels have been submitted for correction of actual physical items by library staff.

CONCLUSION

During the exercise, a general tendency was observed to view the effort as a replacement for the general effort that must be expended in the provision of an effective and efficient library service. It should therefore be clarified that this primary objective of this exercise was to expedite the transition of library services from a manual centered mode to an electronic centered mode of operation and the library is still responsible for the leveraging of the key outputs of the exercise i.e labeled books and bibliographic details in electronic format - in the best interests of the users.

WAY FOWARD

From the general observations during the course of the exercise, the following items have been identified for the immediate attention of the client:

1. *Staff Training:* Given that the library is now moving from a manual mode of operation to an ICT enabled mode of operation, it is necessary that some refresher training be conducted for staff with the primary objective of building capacity in the use of the Integrated Library System deployed during the course of the exercise. This training may also be used to review and improve current computer literacy levels and enhance the general usage of ordinary desktop applications in information dissemination.

2. *Customization of ILMS:* The key objective of the current deployment of the integrated library management system was to facilitate access to the bibliographic records of the library as per the terms of reference for the exercise. For the application to effectively meet the operational requirements of the library some additional work is required by way of customization of the user interfaces and application logic thus allowing the library to make maximum utilization of the software.

APPENDIXES

KOHA-VMWARE CONFIGURATION

KOHA-HTTPD.CONF

```
<VirtualHost *:80>
    ServerAdmin webmaster@kna.go.ke
    DocumentRoot /opt/koha/opac/htdocs
    <Directory "/opt/koha/opac/htdocs">
        #DirectoryIndex index.html
        Options FollowSymLinks
        AllowOverride All
        Order allow,deny
        Allow from all
    </Directory>
    ServerName 172.16.0.70
    ScriptAlias /cgi-bin/koha/ /opt/koha/opac/cgi-bin/
    <Directory "/opt/koha/opac/cgi-bin">
        AllowOverride All
        Options FollowSymLinks +ExecCGI -Includes
        Order allow,deny
        Allow from all
    </Directory>
    Redirect permanent index.html http://172.16.0.70:80/cgi-bin/koha/opac-main.pl
    ErrorLog /opt/koha/log/opac-error_log
    TransferLog /opt/koha/log/opac-access_log
    SetEnv PERL5LIB "/opt/koha/intranet/modules"
    SetEnv KOHA_CONF "/opt/koha/etc/koha.conf"

</VirtualHost>

# KOHA's INTRANET Configuration
<VirtualHost *:8080>
    ServerAdmin webmaster@kna.go.ke
    DocumentRoot /opt/koha/intranet/htdocs
    <Directory "/opt/koha/intranet/htdocs">
        #DirectoryIndex index.html
        Options FollowSymLinks
        AllowOverride All
        Order allow,deny
        Allow from all
    </Directory>
    ServerName 172.16.0.70
    ScriptAlias /cgi-bin/koha/ "/opt/koha/intranet/cgi-bin/"
    <Directory "/opt/koha/intranet/cgi-bin">
        AllowOverride All
        Options FollowSymLinks +ExecCGI -Includes
        Order allow,deny
        Allow from all
    </Directory>
    Redirect permanent index.html http://172.16.0.70:8080/cgi-bin/koha/mainpage.pl
    ErrorLog /opt/koha/log/koha-error_log
    TransferLog /opt/koha/log/koha-access_log
    SetEnv PERL5LIB "/opt/koha/intranet/modules"
    SetEnv KOHA_CONF "/opt/koha/etc/koha.conf"

</VirtualHost>
```

KOHA.CONF

```
database=Kohav
hostname=localhost
user=kohaadmin
pass=<suppressed>
intranetdir=/opt/koha/intranet
opacdir=/opt/koha/opac
kohalogdir=/opt/koha/log
kohaversion=2.2.9
httpduser=apache
intrahtdocs=/opt/koha/intranet/htdocs/intranet-tmpl
opachtdocs=/opt/koha/opac/htdocs/opac-tmpl
```

OTHER CONFIG

```
Operating System:   CentOS Linux 4.4
Hostname:           koha.kna.go.ke
root pwd:           supplied by IT <here suppressed> as
IP Address:         172.16.0.70
Mysql:              port = 3306, root pwd = same as systems
VMware Host:        OS = Ubuntu Server, IP Address = 172.16.0.41, port = 5900, login as root,
```
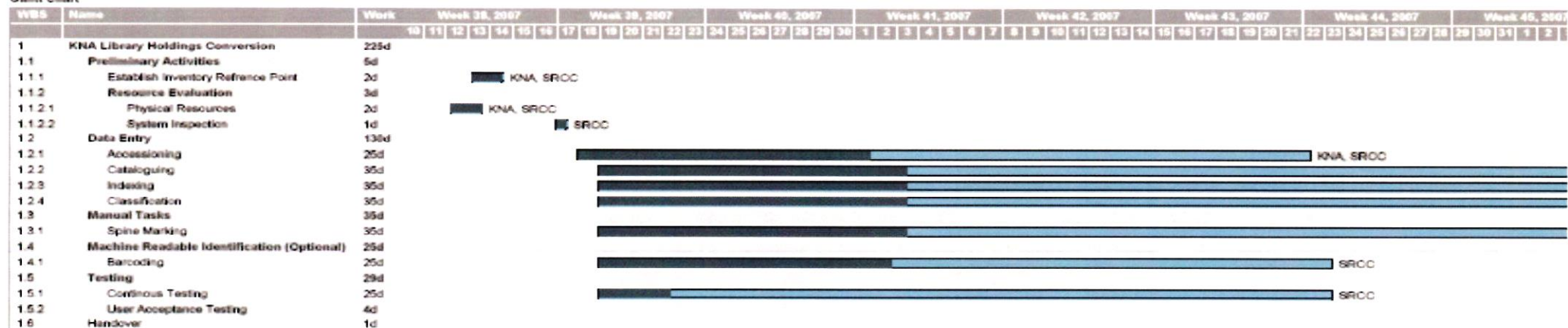
1: Project Implementation Schedule

KNA Library Cataloguing - Planner

KNA Library Cataloguing

Company:	Strathmore Research & Consultancy Centre
Manager:	Paul Maina
Start:	September 10, 2007
Finish:	November 13, 2007
Report Date:	October 8, 2007

Gantt Chart

WBS	Name	Work
1	KNA Library Holdings Conversion	225d
1.1	Preliminary Activities	5d
1.1.1	Establish Inventory Refrence Point	2d
1.1.2	Resource Evaluation	3d
1.1.2.1	Physical Resources	2d
1.1.2.2	System Inspection	1d
1.2	Data Entry	130d
1.2.1	Accessioning	25d
1.2.2	Cataloguing	35d
1.2.3	Indexing	35d
1.2.4	Classification	35d
1.3	Manual Tasks	35d
1.3.1	Spine Marking	35d
1.4	Machine Readable Identification (Optional)	25d
1.4.1	Barcoding	25d
1.5	Testing	29d
1.5.1	Continous Testing	25d
1.5.2	User Acceptance Testing	4d
1.6	Handover	1d

Tasks

WBS	Name	Start	Finish	Work	Priority	Complete	Cost
1	KNA Library Holdings Conversion	Sep 12	Nov 13	225d			
1.1	Preliminary Activities	Sep 12	Sep 17	5d			
1.1.1	Establish Inventory Refrence Point	Sep 13	Sep 14	2d		100%	
1.1.2	Resource Evaluation	Sep 12	Sep 17	3d			
1.1.2.1	Physical Resources	Sep 12	Sep 13	2d		100%	
1.1.2.2	System Inspection	Sep 17	Sep 17	1d		100%	
1.2	Data Entry	Sep 18	Nov 6	130d			
1.2.1	Accessioning	Sep 18	Oct 22	25d		40%	
1.2.2	Cataloguing	Sep 19	Nov 6	35d		30%	
1.2.3	Indexing	Sep 19	Nov 6	35d		30%	
1.2.4	Classification	Sep 19	Nov 6	35d		30%	
1.3	Manual Tasks	Sep 19	Nov 6	35d			
1.3.1	Spine Marking	Sep 19	Nov 6	35d		30%	
1.4	Machine Readable Identification (Optional)	Sep 19	Oct 23	25d			
1.4.1	Barcoding	Sep 19	Oct 23	25d		40%	
1.5	Testing	Sep 19	Nov 12	29d			
1.5.1	Continous Testing	Sep 19	Oct 23	25d		10%	
1.5.2	User Acceptance Testing	Nov 7	Nov 12	4d		0%	
1.6	Handover	Nov 13	Nov 13	1d		0%	

Resources

DOCUMENT ATTACHMENTS

1. Printed Copy of Library Accessions Register
2. DVD Image containing zipped VMware Image of Koha and copy of
   Library Accessions Register in pdf and Microsoft Excel
3. Approx 240 barcode labels left over from exercise
4. Printed spine labels for application on holdings to reflect
   corrections made in database to cataloguing errors.

READ AND APPROVED

SUBMITTED BY: STRATHMORE RESEARCH AND CONSULTANCY CENTRE	
NAME:	
DESIGNATION:	
SIGNATURE:	
DATE:	

RECEIVED BY KENYA NATIONAL ASSEMBLY	
NAME:	
DESIGNATION:	
SIGNATURE:	
DATE:	