Knowledge Exchange: **Human-wildlife conflict databases**

Wednesday, July 31, 2024

SUPPORTED BY LED BY IN PARTNERSHIP WITH

Global Wildlife Program · gef · WORLD BANK GROUP · ADB · CONSERVATION INTERNATIONAL · IUCN · UNDP · UNEP · WWF · CITES · CMS · TRAFFIC the wildlife trade monitoring network · WCS · WILDAID

Objectives

- to **share successful examples** from countries that have created a state or national level database.

- to **discuss challenges** across GWP countries around setting up a database and **what the GWP can do to support.**

UGANDA HWC DATABASE

Presented by Sharon Kamuganga Kagwisa, *Ag. Manager*
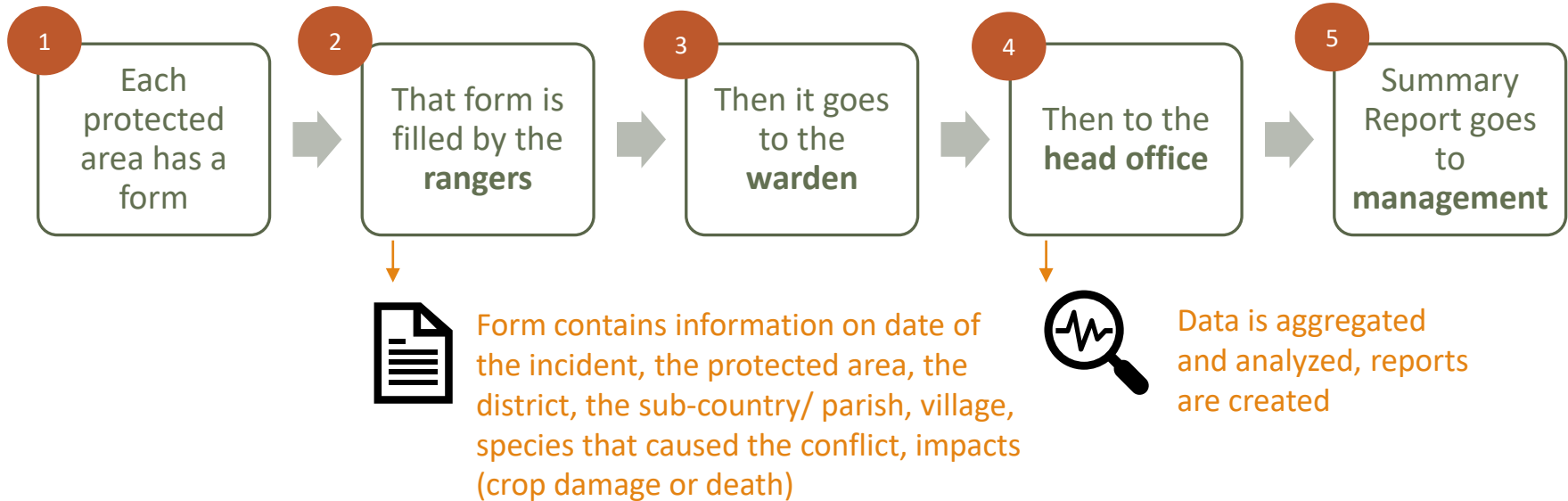*Human-Wildlife Conflict, Uganda Wildlife Authority*

Why does Uganda have a national level HWC database?

A database allows for systematic collection and organization of data related to incidents of human-wildlife conflict. This can include information on the types of conflicts, locations, species involved, and frequency of incidents.

1. **Analysis and Trends**: A database enables analysis of patterns and trends over time. By identifying hotspots and trends, authorities can implement targeted and effective mitigation strategies.

2. **Resource Allocation**: With detailed data, resources can be allocated more efficiently. For example, if a certain area is identified as a conflict hotspot, more resources can be directed to that area for prevention and mitigation. Authorities can have a basis for requesting for funding if they have proper data showing the extent of the problem.

3. **Monitoring and Evaluation**: A database helps in monitoring the effectiveness of implemented strategies and policies over time. It provides a basis for evaluating the success of different approaches and making necessary adjustments.

How does the database work?

1 Each protected area has a form

2 That form is filled by the **rangers**

3 Then it goes to the **warden**

4 Then to the **head office**

5 Summary Report goes to **management**

Form contains information on date of the incident, the protected area, the district, the sub-country/ parish, village, species that caused the conflict, impacts (crop damage or death)

Data is aggregated and analyzed, reports are created

HWC Database – Input in Excel

Copy of PROBLEM ANIMAL DATA FOR DECEMBER 2020 FOR MFCA (1) [Compatibility Mode] - Excel

PAC DATA FOR DECEMBER 2020 FOR MFCA

S/NO.	DATE	PA	DISTRICT	S/COUNTY	PARISH	VILLAGE	SPECIES INVOLVED	NATURE OF DESTRUCTION	ACTION TAKEN	REMARKS
1	01/12/2020	MFPA	Masindi	Kiruli	Kyatiri	Nyakarongo	10 Elephants	Crop destruction	2 rangers from Nyakarongo used 16 Ammos to scare Elephants back into the park	2 rangers from Nyakarongo used 16 Ammos to scare
2	01/12/2020	MFPA	Nwoya	Gotapwoyo	Barlyec	Katinya	04 Elephants	Crop destruction	3 rangers from Kololo outpost used 5 ammos to scare away the Elephants back to the	3 rangers from Kololo outpost used 5 ammos to scare away the
3	01/12/2020	MFPA	Buliisa	Buliisa	Bugana	Beroya & Katalyeba	08 Elephants	Crop destruction	3 rangers & 04 scouts used Vuvuzelas to scare them back into the park	
4	01/12/2020	MFPA	Kiryandongo	Karuma TC	Karuma Central	Karuma Central	01 Hippo	Threat to human life and property	The Hippo was killed in order to save life	
5	01/12/2020	MFPA	Kiryandongo	Kiryandongo	Kyankende	Kisweka & Kihura	07 Elephants	Crop destruction	2 rangers from Kihura used 03 ammos to scare shoot together with 03 scouts &12	2 rangers from Kihura used 03 ammos to scare shoot together with 03
6	01/12/2020	MFPA	Oyam	Kamdini	Juma	Apala B	10 Elephants	No destruction	2 rangers responded from Dufile using 02 ammos to chase the Elephants back	
7	01/12/2020	MFPA	Oyam	Kamdini	Juma	Bombey	25 Elephants	Crop destruction	2 rangers from Nora used 20 ammos together with 03 scouts and 07 locals	2 rangers from Nora used 20 ammos together with 03 scouts and 07 locals
									2 rangers from Nora used 08	2 rangers from Nora used

DECEMBER 2020

HWC Database – Outputs

HUMAN WILDLIFE CONFLICT REPORT DEC 2020

HOT SPOT AREA	
NATURE OF CONFLICT	DAMAGE
ANIMAL MOST INVOLVED	ELEPHANT

NATURE OF CONFLICT	LMCA	KCA	MFCA	QECA	BMCA	MECA	KVCA	HQ	TOTAL
Crop Damage	6	60	124	92	10	2	37	6	337
Human Injury	0	0	1	3	0	0	0	0	4
Human Death	0	0	1	3	0	0	0	3	7
Livestock Death	0	8	3	3	1	0	0	3	18
Destroying Water Dam	0	0	0	0	0	0	1	0	1
No damage	0	64	34	0	5	0	0	3	106
Human Threat	4	0	2	1	0	1	5	5	18
Property damage	7	0	0	3	0	0	0	0	10
TOTAL	17	132	165	105	16	3	43	20	501

ANIMAL INVOLVED	LMCA	KCA	MFCA	QECA	BMCA	MECA	KVCA	HQ	TOTAL
Elephant	0	113	148	87	12	0	35	0	395
Baboon	5	2	1	7	4	0	1	0	20
Hippo	5	3	6	4	0	2	0	2	22
Serval Cat	0	1	0	0	0	0	0	0	1
Buffaloes	4	0	7	3	0	0	7	0	21
Lion	0	13	1	1	0	0	0	0	15
Pangolin	0	0	0	0	0	0	0	2	2
Hyena	0	0	0	2	0	0	0	0	2
Tortoise	0	0	0	0	0	0	0	1	1
Leopard	0	0	0	0	0	0	0	0	1
Chimp	0	0	0	0	0	0	0	0	0
Waterbuck	1	0	0	0	0	0	0	0	1
Monkeys	0	0	0	0	0	0	0	6	6
python	0	0	0	0	0	0	0	3	3
Crocodile	0	0	1	1	0	0	0	6	8
Zebra	2	0	0	0	0	0	0	0	2
Shoebill Stork	0	0	0	0	0	0	0	0	1
TOTAL	17	132	165	105	16	3	43	20	501

HWC Database – Outputs

Monthly HWC trend 2020

Recommendations

When setting up a database for managing human-wildlife conflict (HWC), there are several important considerations to take into account:

1) **Establish a clear HWC Policy or strategy:** A formal policy or strategy is crucial as it provides the legal and institutional framework for data collection and management. This ensures that relevant stakeholders are mandated to collect and share data. Example: Uganda's HWC strategy mandates that wardens collect specific data, ensuring consistent data flow into the database.

2) **Standardize Data Collection Methods:** Ensure that data collection methods are standardized across regions and stakeholders. This allows for consistent, comparable data.

3) **Use Technology for Data Collection:** Leverage modern technology such as mobile apps and GPS for real-time data collection and geotagging of incidents.

4) **Training and Capacity Building:** Train field staff and stakeholders on data collection and database management to ensure accurate and efficient data entry.

Questions?

NAMIBIA HWC DATABASE

Richard Fryer,
Ministry of Environment, Forestry and Tourism
Control Warden – Human Wildlife Conflict and
Conservation Hunting, Namibia

Innocent Haingura
Senior Technical Advisor – Community Conservation
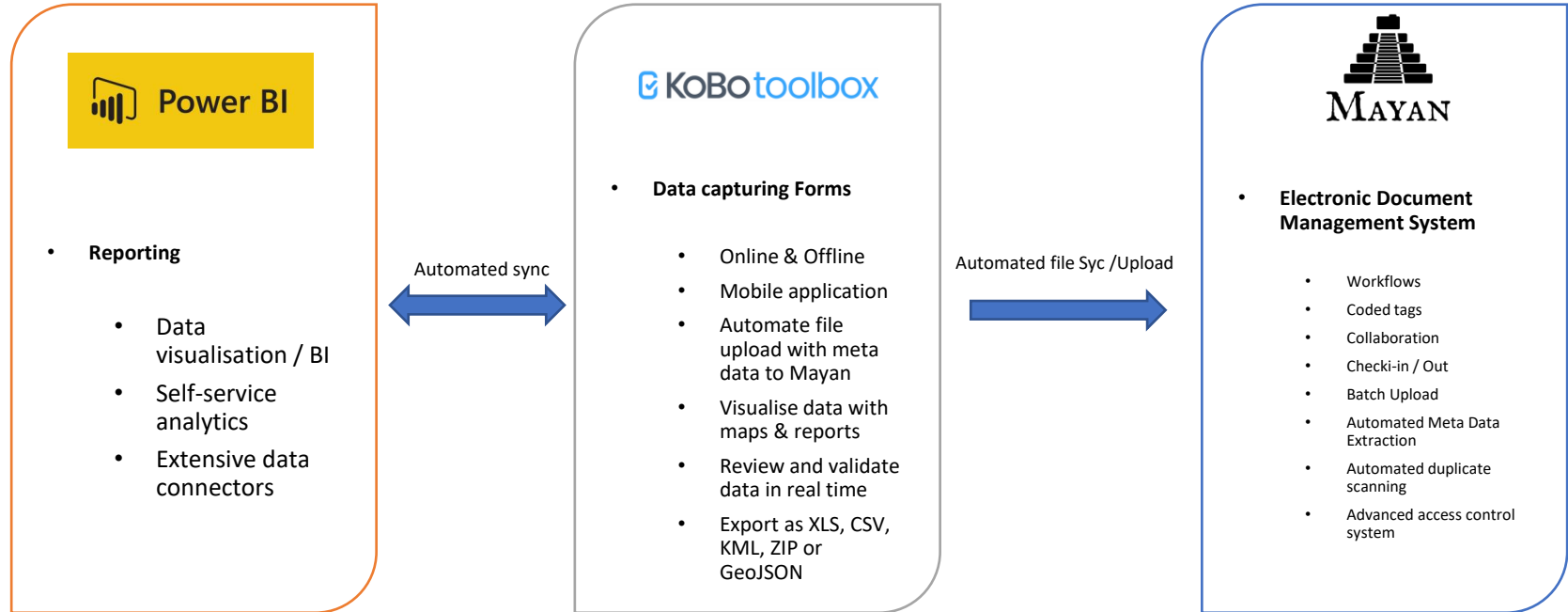Governance and Livelihood Diversification, GIZ,Namibia

DWNP CBNRM Digital Monitoring System

Richard **FRYER**
MEFT – WSS (HWC & WILDLIFE UTILISATION)
&
Innocent **HAINGURA**
**GIZ – CCIU Project**

Overview

Power BI

- **Reporting**

  - Data visualisation / BI
  - Self-service analytics
  - Extensive data connectors

Automated sync

KoBo toolbox

- **Data capturing Forms**

  - Online & Offline
  - Mobile application
  - Automate file upload with meta data to Mayan
  - Visualise data with maps & reports
  - Review and validate data in real time
  - Export as XLS, CSV, KML, ZIP or GeoJSON

Automated file Syc /Upload

MAYAN

- **Electronic Document Management System**

  - Workflows
  - Coded tags
  - Collaboration
  - Checki-in / Out
  - Batch Upload
  - Automated Meta Data Extraction
  - Automated duplicate scanning
  - Advanced access control system

Integrated Dashboard

Data Collection: Web Application

MENU   **ADMIN**

DWNP ONLINE

DATA CAPTURING FORMS

EDMS DATA MANAGEMENT

REPORTING & VISUALISATIONS

CONSERVANCIES AGM CALENDAR

USER MANUALS

Annual Financial Statement Assessment Form

Annual General Meeting (AGM) Assessment Form

Conservancy Human Wildlife Conflict (HWC) Register

Conservancy GMU Assessment Form

Conservancy Management Committee Elections Assessment

Income & Benefit Distribution Assessment Form

Data Collection: Mobile Application
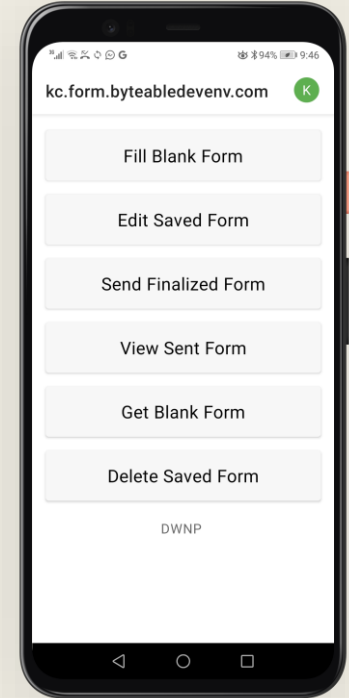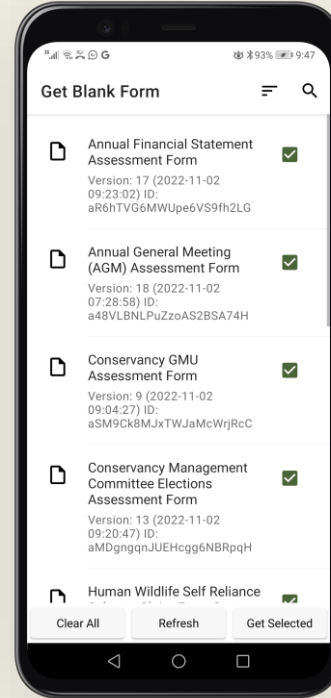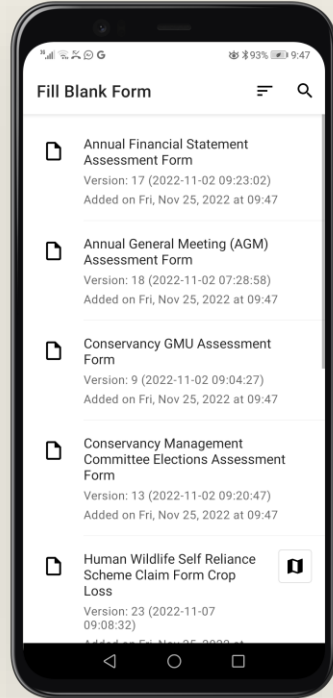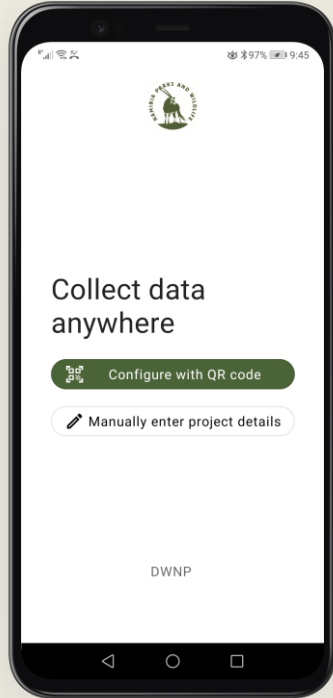
EDMS Document Management

EDMS Document Management

Documents ◀

Workflows

Cabinets ◀

Checkouts

Indexes

Tags ▼

　🏷 All

　🏷⊕ Create new tag

🏷 Tags

Total: 24

☐ | ⊞ | ‹‹ | 1 | ›› | List filter | | Select items to

| Label ⑦	Preview	Documents		
☐ AGM Minutes	AGM Minutes	22	🔒 ACLs	📖 Documents
			✏ Edit	
☐ Additional Docs	Additional Docs	117	🔒 ACLs	📖 Documents
			✏ Edit	
☐ Annual Financial Statement	Annual Financial Statement	30	🔒 ACLs	📖 Documents
			✏ Edit	
☐ Annual Report	Annual Report	8	🔒 ACLs	📖 Documents
			✏ Edit	
☐ BDP	BDP	18	🔒 ACLs	📖 Documents

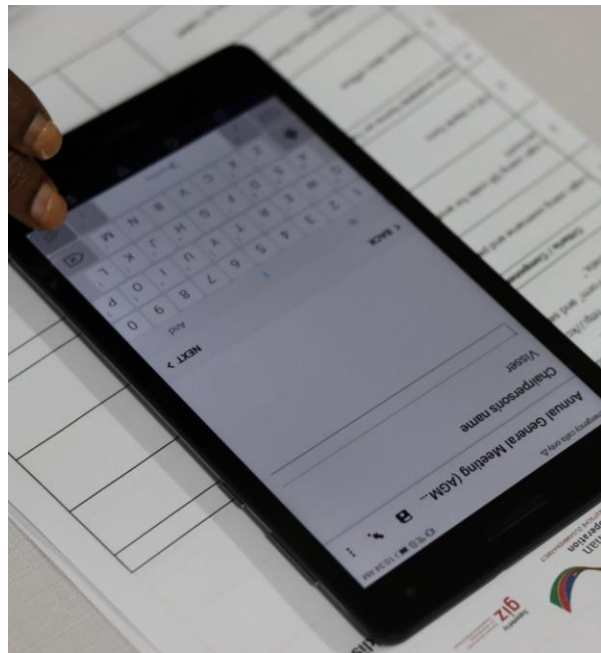MAYAN

Reporting and Visualisation

Power BI

Reporting and Visualisation: E.g., HWC inside conservancies
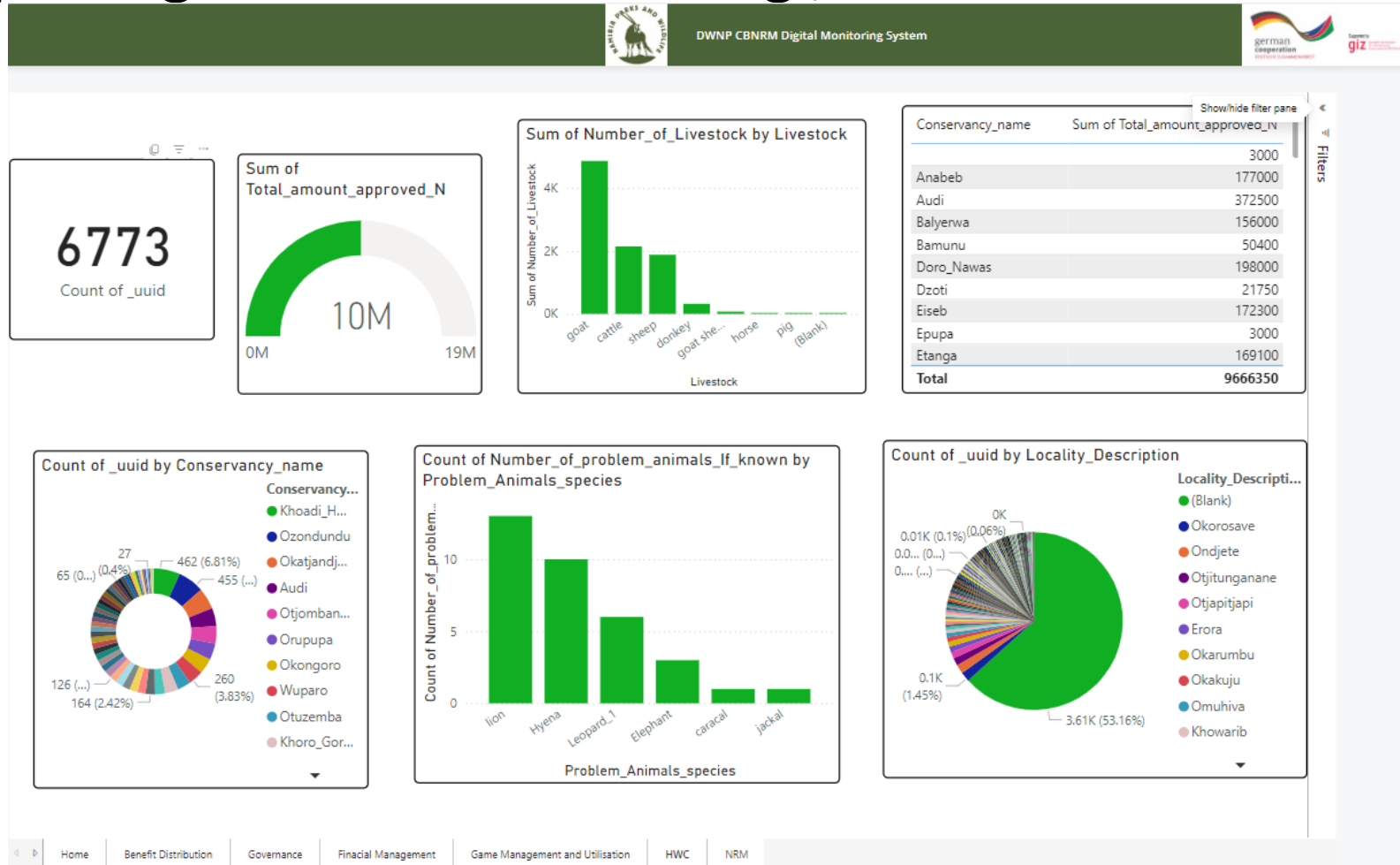
Training Workshops in regions

System Deployment steps

System hosting at OPM – dual server (can host up to 6 applications), SSL & Power BI licenses (renewable) procured

Admin training for MEFT – HQ

Training of regional staff in regions not visit yet

System launch

Exploring partial integration with other relevant tools / applications

Thank you!

Website: https://www.worldbank.org/en/programs/global-wildlife-program.

Email gwp-info@worldbank.org