Embracing new technology to enhance rhino and elephant monitoring in Mara Landscape, Kenya

With the unprecedented increase in wildlife crime witnessed across the world, conservation agencies around the globe are embracing a different approach that aims to incorporate new technologies to combat relentless poaching. One such innovative technology being steered in Kenya by WWF-Kenya is the Spatial Monitoring and Reporting Tool (SMART) a site-based approach to monitor, evaluate and improve the effectiveness of conservation management that includes frontline law enforcement.

SMART focuses on support for ranger patrols, and utilizes data from wildlife encounters, poaching encounters and threats to biodiversity, collected by the rangers as part of their daily work routine. To enhance wildlife and law enforcement monitoring in the Maasai Mara Landscape in Kenya, training on SMART was conducted in the Maasai Mara National Reserve (MMNR) during December 2015. This landscape is home for two WWF flagship species, the black rhino and the African elephant. With this innovative technology, wildlife managers are able to receive updates daily and based on quantified data know which areas have been patrolled, are under threat and thus (re)-deploy rangers accordingly, and increase efficiency with better implementation of ranger activities.

The aim of the training was to create capacity on SMART functionalities with rangers and community scouts. The outcome of the training was remarkable, as 22 participants are now equipped with skills to collect information in a systematic way using handheld devices (smartphones) and process it using SMART to provide accurate information on the status of key wildlife species; provide their respective protected area managers with timely and accurate information on where, how and by whom, threats are occurring; track progress of law enforcement efforts in addressing these threats; and also train other scouts on the basics of data collection using SMART. This technology has assisted the rangers' work by simplifying the process and reducing the paper work involved, as well as limiting errors during transfer of data from field note books to computer.

SMART is currently being piloted in MMNR and Oloisukut Community Conservancy, one of the Conservancies in the Mara Landscape. The reports emanating from SMART will be reviewed on a monthly basis, not only to assist in planning of the patrols, but also improve on the SMART technology itself and make it more usable by front-line enforcement staff. Funding for this training, equipping the Maasai Mara and Oloisukut observers as well as setting up SMART in these two areas was provided through the WWF Sweden rhino and WWF US Wildlife Crime Technology grants.

Participants at the training were drawn from Kenya Wildlife Service (3), WWF Greater Mekong (1-Trainer), WWF Kenya (8), WWF Cameroon (3), Maasai Mara National Reserve (2), Mara Triangle Conservancy (2), Maasai Mara Wildlife Conservancy Association (Scouts 2), and Oloisukut (2).

The training took a modular based approach, consisting of 10 modules that were delivered in five days with the first 2 days dedicated to theory of SMART (Plate 1), the preceding 2 days for field data collection using smartphones installed with cyber tracker (Plate 2), downloading the same into SMART (Plate 3) and generating reports (Plate 4). The final day was dedicated to aspects of SMART in relation to Law Enforcement Monitoring (LEM); Protected Area Threat Analysis (PATA); Management Effectiveness Tracking Tool (METT); Protected Areas Enforcement Minimum Standards (PA-EMS); Conservation Oriented Patrol Standards (COPS); Law Enforcement Strategy (PA-LES) and Patrol Law Enforcement Assessment (PLEA).

Nelson Keshi, the Narok County Government County Executive Committee member or Tourism and Wildlife together with Willy Loigero Chief Officer, Tourism and Wildlife, presided over the training. They were both encouraged that WWF was bringing new technology in the Mara that will enhance the monitoring of wildlife and security patrols.