



## Successfully and Sustainably Implementing SMART in a Community Conservancy where Rangers are semi-illiterate

### A Pioneering and Replicable Case Study

#### Location

The Maasai Wilderness Conservation Trust (MWCT) at Kuku Group Ranch (KGR), Kenya

#### What was Achieved

Over a period of three years, SMART was successfully and sustainably implemented in a community-based conservation area where lions, elephants, timber and rangelands were under threat.

#### Key Challenges

1. Widespread illiteracy amongst the 101 community rangers.
2. Motivating and managing rangers who might be operating remotely for periods of up to a month at a time.
3. Aggregating and applying a very large, varied data set to inform monitoring and resource allocation decisions regarding wildlife, land-use practices, and threats, especially human-wildlife conflict.
4. Patrolling and monitoring an extremely large conservation area with a low density of rangers.
5. Achieving long-term project sustainability and autonomy in the conservation area.

#### Why this Project was a Success

1. **Illiteracy amongst rangers.** The configured data model was customised with icons to represent animals and threats, rather than text. Two literate rangers (finished primary school) per 6-man ranger team were sufficient to successfully collect data.
2. **Managing and motivating remote rangers.** The rangers were inspired by a supervisor who understood the value of working with SMART. Management training and buy-in was therefore central to the approach. The Operational Commander in this instance, Muterian Ntanin, was from the local community and instrumental in explaining and translating concepts to the rangers and wildlife scouts. Formalised training was also given to the majority of the community rangers, supplemented by regular refresher sessions. Quarterly group feedback meetings, where performance was monitored, then proved essential in engaging rangers - so each person knew the role they played in the wider strategy, and could measure their value against each other (healthy competition). To incentivise good performance, a non-cash reward system was also set in place; each quarter, the best performing team was rewarded with a goat. From a practical perspective, durable, compact, relatively cheap Android smartphones were used for data collection. Electricity was not readily available at the ranger posts, so the smartphones were charged using power packs and solar panels.
3. **Working with a large data set.** Data collection was automated using the Cybertracker plug-in, an application for mobile data capture and visualisation which vastly improves quality and accuracy.
4. **Patrolling an extensive area with a low density of rangers.** Existing teams were made more efficient in patrolling by setting fixed patrol points as targets for each sector, making foot patrols the only option, and creating incentives for performance.
5. **Project sustainability.** The initial 6-12 months required extensive management oversight. Institutionalising SMART, from data collection to decision making, was then reliant on the presence of a trained and admired Operational Commander who believed in the approach, accompanied by a motivated workforce (as outlined in point 2). Moving forward, the Operational Commander has begun to set targets for sectors and create plans in SMART that will be monitored on a quarterly basis.

#### Cost

The cost of implementing law enforcement using the SMART approach for this project (including training, equipment, patrol operations, and incentives) is roughly \$600-700/ranger/year. This does not include salary costs which vary between areas.

#### Over a period of three years:

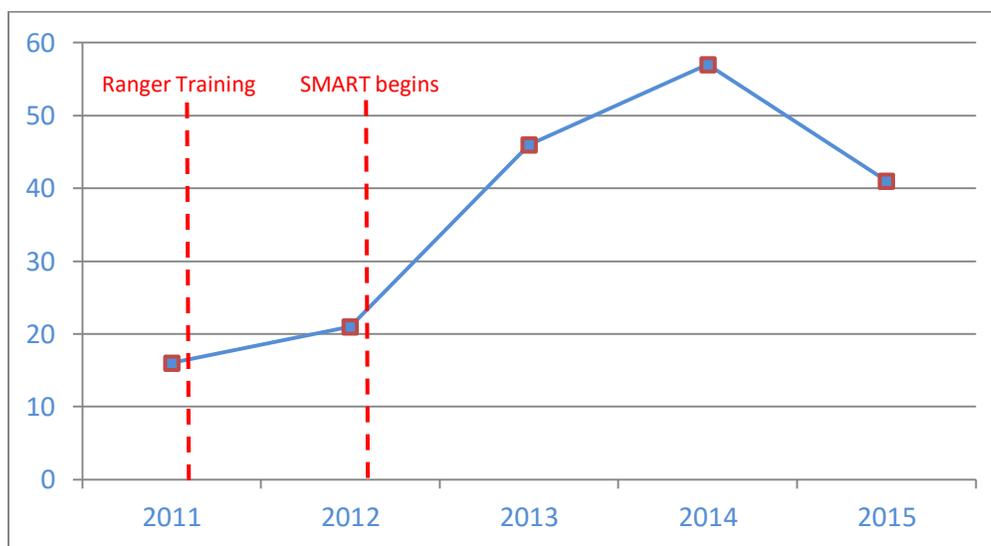
- Distance walked per patrol **tripled**;
- Detections of illegal activity **tripled**;
- Arrest rates **doubled**;
- Serious threats such as poaching and forest encroachment began **trending downwards**.

## Outcomes

In only three years, the project progressed from having undocumented patrols, driven in an ad hoc, uncontrolled and reactive manner to a state where management is using information from patrols on a quarterly basis to identify gaps and other deficiencies in patrolling, and ranger teams are competing to meet performance targets and reach threat hotspots.

The quarterly feedback process of peer-review of patrol results using SMART data was found to motivate the rangers as they could see the impacts of their work, could participate in the planning of the protection strategies for the next three months, and it created healthy competition between ranger sections. Management even reported that rangers were radioing into HQ in the final few weeks of the quarter to check how their sector was ranking.

In addition, a larger proportion of the KGR is now reached by ranger patrols and some threats appear to be trending lower. The relationship with the community has also improved as community rangers now have more interaction with community members and herders while out on patrol, and engage in general security, so are perceived as hard working. This has resulted in more information sharing regarding illegal activities. As a result of all of the above, the number of cases of illegal activity detected tripled, and arrests doubled compared with 2012, as shown in the graph below.



*Trend in number of arrests following ranger training and implementation of law enforcement monitoring using SMART*

Finally, the SMART methodology could effectively control for variables and standardise data over time, therefore allowing for *effort* and *impact* to be recorded. Critically, this meant that funding partners were shown evidence-based return on investment against their donations, which encouraged further funding.

### Key takeaways

- Customising data models with icons, rather than text, to tackle illiteracy
- Utilising the Cybertracker plug-in to improve data collection quality and accuracy
- Using supervisors from the local community, ensuring they are fully trained in and committed to SMART
- Setting fixed patrol points as targets for each sector, and making foot patrols the only option
- Implementing quarterly feedback meetings to motivate rangers
- Providing rangers with formalised training and refresher sessions
- Incentivising good performance with a non-monetary reward system

### More information

Please refer to the in-depth case study for additional detail or contact Chris Gordon on [chris.gordon@zsl.org](mailto:chris.gordon@zsl.org) for more information.