



WAVOC

Serengeti Development, Research and Environmental Conservation Centre (SEDEREC)

NGO

NGO

1

	2015			2016	
	8	9	11	1	4
	7	3	2	6	3
	27	-	5	21	4
	2000	-	450	1200	300
	12	-	2	7	2
	-	3	-	-	-



SEDEREC

SEDEREC

NGO

SEDEREC

4

36km
8
7200ha
36km
450 3600
2



180km 1/5

38

38

Development of a Cooperative Model Between Residents and External Agencies Toward Living with African Elephants

The Hirayama Ikuo Volunteer Center, Waseda University (WAVOC)
Yukino Iwai
Serengeti Development, Research and Environmental Conservation Centre (SEDEREC)
NPO AFRIC Africa



Study

1. Background and objectives

In recent years, crop damage caused by elephants has become an increasingly serious problem in various parts of Africa, and is threatening the lives of the local residents. On the other hand, governments of African countries as well as the global community regards the elephant as a “star” animal for tourism and wish to protect it, as it is also a protected species under CITES. For that reason, measures to counter the various forms of damage caused by the elephants are being implemented by governments, international NGOs, and tourism companies. Serengeti is home to a wide range of organizations engaged in the protection of elephants as well as in implementing damage mitigation measures. The stakeholders involved include international conservation NGOs, international tourist hotels, development aid organizations, the central government of Tanzania, and local governments. Of these external organizations, this study places the focus on local governments (= Serengeti district government), which plays the role of mediator between residents and the state/international organizations. Action research (providing support while recording the process) was conducted in cooperation with local government staff and residents.

2. Outcome

With regard to the current situation confronting local government staff, there is difficulty in obtaining a budget to implement damage mitigation measures, and they are not even able to obtain a budget of transportation from their district office in town, to the fields damaged by the elephants in the villages. Support provided in this project has enabled local government staff to participate more actively in residents’ meetings, as well as to attend the funerals of victims in elephant attacks.

Table 1: Outcome of support to promote cooperation between local government staff and residents

	August 2015	September	November	January 2016	April
No. of villages that activities were implemented in	7	3	2	6	3
Total no. of meetings and collaborative work	27	—	5	21	4
Approximate no. of residents who participated (No. of people)	2000	—	450	1200	300
Total no. of local government staff who participated (No. of people)	12	—	2	7	2
Total no. of local government staff who attended the funerals of victims in elephant attacks (No. of people)	—	3	—	—	—



↑ Sharing of meals after a residents’ meeting funeral



↑ Local government staff paying their respects at a funeral

For the local government staff, it may sometimes also be difficult to attend meetings and funerals as an outpouring of discontent and demands from residents may confront them, or they may be put under intense pressure. SEDEREC is providing support and assistance, including in this aspect.

3. Observations

Based on the outcome of the action research, we found that some of local government staffs have high motivation to put in place mitigation measures of damage caused by elephants. These capable staffs are applying fund for residents’ activities to mitigate the damage. It has also become clear that under the current situation, our project team has taken on the role of bridging communication between the local government and village residents. Damian from SEDEREC visits frequently both Serengeti district office in town and the site of damage in the villages to facilitate cooperation between the two.

Going forward, it is necessary to put our sights on providing support for the local government to acquire support funds from foreign donors and NGOs, and on establishing a system that can provide support to residents through district’s self-funding. However, for the immediate future, it is likely that SEDEREC will have to continue serving as the bridge connecting the two parties.

Activities

1. Objectives

In order to mitigate damage caused by elephants in Serengeti, four methods were combined in the implementation of measures. These were: (1) The use of wire fences; (2) Setting up beehives and using bees to chase the elephants away; (3) Using torchlights and moving in a group to chase the elephants; (4) Development of residents’ organizations that are able to implement these measures continuously.

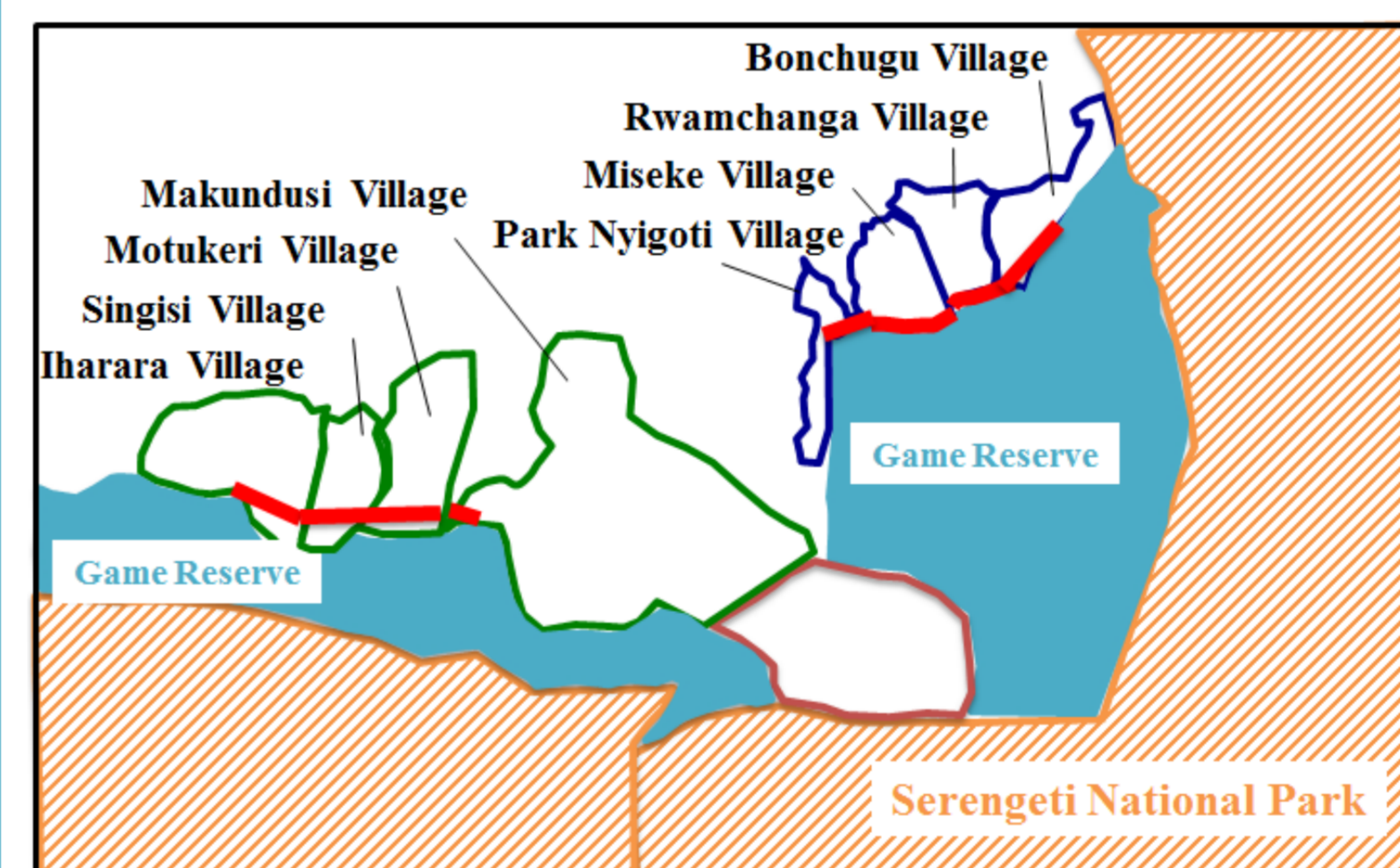
2. Outcome of the activities

1.) Setting up a wire fence spanning 36 km

A wire fence spanning a total length of 36 km was set up across eight neighboring villages in the animal conservation area. This enabled the protection of 7,200 ha of agricultural fields from elephants. The number of beneficiaries is estimated to be 3,600 people in 450 households.

Table 2: Status of setting up wire fences

Blocks	Villages	Length of wire fence set up (km)	Surface area of agricultural fields protected (ha)	Beneficiary population
East	Miseke Villages	7.5	150	750
	Rwamchanga Villages	7.0	140	700
	Bonchugu Villages	4.5	90	450
	Park Nyigoti Villages	3.2	60	300
	Robanda Villages	1.6	30	150
West	Mtukeri Villages	4.4	90	450
	Singisi Villages	3.2	60	300
	Iharara Villages	2.8	60	300
	Makundusi Villages	2.0	40	200
Total		36.2	720	3600



The wire fences were able to cover about 1/5 of the 180km connecting the protected areas and the villages.



The wire fences prevented the elephants from entering the fields, resulting in the successful harvesting of a large quantity of corn this year.

(2) Harvesting of 38 liters of honey

This is the third year since the beehives have been set up as a measure to counter damage caused by the elephants, and it is finally possible to harvest the honey. 38 liters of honey was collected. Of these, there were also villagers who missed the timing for harvesting the honey as their beehives were ravaged by honey badgers. However, the beekeeping skills of villagers are improving. They are observing the bees and learning about their ecology, and acquiring knowledge on how to live side-by-side with them.



3. Future outlook

Although they struggled to acquire beekeeping knowhow, the residents have finally succeeded in improving their skills and harvested honey. The wire fences are also demonstrating great effectiveness. The measures to counter damage caused by elephants are finally producing tangible results, and there is a need to collect data on the effectiveness of these measures and provide empirical proof.

The wire fence is the greatest area of concern. This fence is a fragile structure, and can easily be destroyed if the elephants become too aggressive. As the material is still unfamiliar to them, the elephants are afraid of the wire for now. However, it is unclear how long this effect will last. There is a need to continue collecting information and conducting tests for future measures to be implemented when that time comes.