

## Annex C – Final Progress Report June 2022

### 1. Identification: Mitigation of HEC and addressing deforestation & forest degradation, through income generating activities with communities.

**Partners Name:** DNPW Malawi & Wildlife Action Group

**Budget line:** BAC 1&,2,3,4,5,6

**POW 2014-2015 Sub-programme:** *[please complete]*

**Expected Accomplishment(s):** Improve local community co operation and collaboration through Income generating activities such as pruning of miombo woodland inside the protected area and creating tree nurseries and planting seedlings in local community woodlots. and construct solar powered electric elephant fence to enhance Human elephant co existence.

#### Output(s):

**Activity 1 Pruning of regenerating Miombo woodland and creating tree nurseries and planting trees.**

#### 1.1- Pruning of regenerating Miombo woodland -

Pruning took place in 2020 and in 2021,

In 2020 a total of 279 ladies took part in pruning 5 plots with a total of 1852 tasks completed.

In December 2021 we conducted the same activity, over a four day period - 456 tasks were completed over this period by 160 ladies.

One year later we conducted a monitoring exercise, which measured 30 random trees from each plot that was pruned and measured another 30 trees outside of these plots.

Our findings in the table below shows approx 0.5mtr to 1 mtr difference in height and 0.91 to 1.97cm diameter difference

|               | <b>Average Height MTR</b> | <b>Average Diameter CM</b> | <b>Difference Height from unpruned MTR</b> | <b>Difference diameter on unpruned CM</b> |
|---------------|---------------------------|----------------------------|--|---|
| <b>Plot 1</b> | 3.61                      | 5.17                       | 0.48                                       | 0.91                                      |
| <b>Plot 2</b> | 3.45                      | 4.96                       | 1.04                                       | 1.97                                      |
| <b>Plot 3</b> | 3.73                      | 4.24                       | 1.18                                       | 1.26                                      |
| <b>Plot 4</b> | 2.75                      | 3.33                       | 0.6  | 0.94                                      |

This project has shown that with intervention one can promote additional growth.

Complete.

#### Testimonials: Pls see attached testimonial from phase one 2020 support doc

##### 1. Emily is the one of women who was involved in tree pruning project from GVH chikhowe.

She said that the project is good because it have helped them to collect firewood to be used which during the rain season which was really difficult to collect firewood in the community since there is only less trees in the community where they can collect firewood for cooking. Therefore she said to give them opportunity to do pruning and collect firewood in present of scout it is really good intervention to them

2. Justin is one of the women who was involved during pruning project from GVH Mlamba and she has no husband . She said that's the project is good because it have helped her to find MK9000 which she get after selling the firewood which she collected after pruning at MK1500 per bundle, and from this money she said she has been able to buy maize to support her family. she thanked WAG for implementing tree pruning project.

3. Lucia is one of the women who was involved during pruning project from GVH Mapiko. She aid thank you very much WAG because of this tree pruning project because

from this project she have been able to support her family with basic needs such as soap, salts, relish, from the money which she gets after selling the firewood which she collected after pruning.

### **1.2 - Creating tree nurseries and planting trees**

Late 2020 46 clubs were created in 6 GVH areas with a total of 231 beneficiaries.

Each beneficiary was given 100 nursery planting tubes and most planted 2 seeds in each tube as a standard practice. . Over 23100 tree seeds germinated and were planted out. Some tubes had two trees germinate, however we had agreed that we would aim for each beneficiary to have and be paid for max 100 trees as per our budget.

By December 2021 a total of 17500 indigenous trees survived.

Complete

### **Activity 2 - Construction of a solar powered electric fence**

A total of 16km of solar powered electric fence was extended along the eastern boundary of Dedza Salima Escarpment Forest Reserve in December 2020 were they were experiencing elephants crop raiding.

Over 300 communities took part in this effort, clearing, cooking, building the fence.

Zero crop damage in this area since the fence was built

Increased patrol area by 3920 hectares and with that reduction in illegal activity

6 jobs have been created and they have been trained to monitor and maintain the fence in good working condition.

A ranger camp was also built and rangers resident here and conduct daily patrols.

This project activity has been very successful in so many ways, forest and community land protection, wildlife protection.

There have been zero breakouts by elephants since the fence was erected and zero crop damage.

See attached overview of HEC by year plus photos of fence.

This activity is complete.

### **Activity 3 Capacity Building Communities and Rangers**

The forest Act was amended so we conducted a awareness campaign to bring the changes directly to the communities.

Meetings were held in from 4 districts surrounding the forests , met directly with over 300 traditional authorities and distributed over 1000 booklets to chiefs who in turn promised to inform their subjects which is approx 45,500 + communities.

16 Rangers received training from Mellovora Systems. This was a 4 week intensive training on 1st aid, weaponry.

This project is complete and been successful.

### **Activity 4 - Evaluation of fence effect on conflict incidences**

*WAG keep records of all reported HEC cases in a data base.*

*The area where the fence was built was TA Chitkwere on the western side of Thuma forest.*

*The area inside of the forest had suffered massive deforestation due to illegal charcoal burning, By 2018 WAG managed to get the illegal activity under control and all illegal activity had stopped. We quickly started seeing the forest regenerate and elephant and other wildlife started moving back into the area. With this we saw a the HEC peak with 32 reported cases of crop raiding by elephants.*

*In 2019 just prior to building the fence we received 19 reports.*

*Since the fence was extended we have had zero fence breaks or reports of elephants leaving the forest. ie 2021 and 2022 to date.*

*Communities are extremely happy with the fence and several elephant herds now live permanently in the area.*

*This fence to date has proved to be very effective.*

*I have attached and HEC graph by year for your information.*

2. **Title of the approved PRC project:** Mitigation of HEC and addressing deforestation & forest degradation through income generating activities with communities.

**SSFA starting date:** July 2020

**Completion date:** June 2022

**Summary of Status:** . *description of the main achievements, main implementation challenges and lessons learned towards achieving SSFA's objective*

- 3.

Between 2006 and 2018 the Western side of Thuma forest (TA Chitekwere) saw unprecedented deforestation inside the Protected Area. Patrols met with over 60 illegal charcoal burner who were extremely aggressive and camps were attacked and burnt and poaching of wildlife has been so bad that by 2017 it was impossible to see one tree standing or even a scrub hare in this area.

With strong law enforcement patrol, good prosecution rates, a lot of education and sensitization and introducing some income generating activities (IGA) by late 2019 one could see the forest regenerating and wildlife returning to the area.

### **Activity 1 Pruning of regenerating Miombo woodland and creating tree nurseries and planting trees.**

#### **1.1- Pruning of regenerating Miombo woodland -**

An area of 7000 hectares is naturally regenerating after years of being cleared by illegal charcoal manufacturing. In 2019 a solar powered electric fence was extended along the boundary of western Thuma to reduce elephants crop raiding and we scaled up community projects to mitigate dependence upon forest resources. With additional protection we saw the forest bounce back and natural regenerating started. In December 2020 a pilot project started.

With funding from African Elephant Fund we identified 5 areas to conduct the project.

Pruning took place in 2020 and in 2021,

In 2020 a total of 279 ladies took part in pruning 5 plots with a total of 1852 tasks completed.

In December 2021 we conducted the same activity, over a four day period - 456 tasks were completed over this period by 160 ladies.

Ladies were paid for this work plus allowed to take the branches to use in the homestead. Some ladies sold the wood to provide money for basic needs.

Each area was GPS mapped to allow us to return to monitor progress one year later.

In December 2021 rangers returned to the plots and measured pruned trees and also trees which had not been pruned. There is a visible difference between the trees which had been pruned and one that had not been pruned

|               | <b>Average<br/>Height<br/>MTR</b> | <b>Average<br/>Diameter<br/>CM</b> | <b>Difference<br/>Height from<br/>unpruned<br/>MTR</b> | <b>Difference<br/>diameter on<br/>unpruned<br/>CM</b> |
|---------------|-----------------------------------|------------------------------------|--|---|
| <b>Plot 1</b> | 3.61                              | 5.17                               | 0.48   | 0.91  |
| <b>Plot 2</b> | 3.45                              | 4.96                               | 1.04   | 1.97  |
| <b>Plot 3</b> | 3.73                              | 4.24                               | 1.18   | 1.26  |
| <b>Plot 4</b> | 2.75                              | 3.33                               | 0.6  | 0.94  |
| Plot 5        | 3.439                             | 6.62                               | 0.6495   | 0.68  |

This project has shown that with intervention one can promote additional growth.

Pruning took place in dec 2021 and is complete.

Communities have asked if we can repeat this project. It has been beneficial for the forest and for the communities and we have secured funding to repeat this year 2022.

## **1.2 - Creating tree nurseries and planting trees**

Late 2020 46 clubs were created in 6 GVH areas. A total of 231 beneficiaries with an interest in planting trees were supplied with inputs such as seeds and planting tubes, watering cans.

6 different indigenous tree species seeds were provided.

Beneficiaries were trained in nursery preparation and each person given 100 tubes. In each tube we planted two seeds to try ensure maximum chances of germination of at least one tree seedling. We only documented 1 tree per tube but some tubes had more which were planted out.

The total number of tree seedling germinated was over 23100 and all were transplanted out into community land.

Over the year we monitored the clubs, ensuring protection against fires and weeding. We saw the survival rates go from 100% to 82% and finally down to 74.4%.

In December 2021 we visited each site and verified the number of trees that survived. A total of 17192 trees have survived one year later which is a 74.4% survival rate. These trees have been planted in community lands, in wood lots, as boundaries of fields and as wind breaks.

Additionally 3 schools took part in this project and have approx 1000 trees planted in and around the schools.

Although this project is complete we are still visiting these clubs, and encouraging them to do fire breaks etc.

We have seen that for best outcomes one needs to plant in plot / village wood lots, as monitoring and protection is easier and gives better outcomes. Some communities have continued to plant nurseries themselves. We feel this project is worthwhile and have plans to replicate it in several areas in 2022.

## **Activity 2 - Construction of a solar powered electric fence**

A total of 16km of solar powered electric fence was extended along the eastern boundary of Dedza Salima Escarpment Forest Reserve in December 2020 where they were experiencing elephants crop raiding.

Over 300 communities took part in this effort, clearing, building the fence, carrying materials and cooking,.

6 jobs have been created from these communities and trained to monitor and maintain the fence in good working condition.

A ranger camp was also built and rangers now are full time resident there and conduct daily patrols. This is an area which prior to the fence build was not patrolled, the areas now under protection is an additional 3920 hectares of forest. Already we are seeing wildlife return to the area, and illegal activity dramatically reduced. There has been zero gardens damaged since the fence extension however, we are now seeing the elephants walk out at the end of the fence line.

This project activity has been very successful in so many ways, forest and community land protection, wildlife protection.

There have been zero break out and zero crop damage since this fence was constructed. See graph attached.

This activity is complete.

The expenditure for this part of the project was above the approved budget due to two reasons. The proposal was submitted in 2018 but not approved until 2019 and building of the fence in 2020. During this time we saw increases in costs of fence equipment. Also this expenditure included other costs such as community labour.

## **Activity 3 Capacity Building Communities and Rangers**

The COVID pandemic stalled our original plans for these activities, however in mid 2021 we were able to quickly activate them.

In late 2020 the Forest Act was amended. We designed and printed in local language "A community guide to the amended forest Act" . A awareness campaign was rolled out around the four districts surrounding both Thuma and Dedza Salima Forest (Lilongwe, Dowa, Salima and Dedza). This involved holding meetings in every Traditional area, meeting all the chiefs. At these meetings we presented the newly amended forest Act, discussed the drivers of deforestation, showed videos of deforestation and introduced the concerning Illegal wildlife trade of pangolins in Malawi. Malawi police services and judiciary assisted in the facilitation of this. And every chief received a copy of the booklet with the Act.

We distributed over 1000 booklets to chiefs who in turn promised to inform their subjects which is approx 45,500 + communities.

We also up scaled capacity of several income generating clubs involved with bee keeping and poultry through training and providing inputs such as smokers, vaccinations for the chickens.

Rangers received training from Mellovora Systems. This was a 4 week intensive training on 1st aid, weaponry.

This project is complete and been successful.



|   |   |   |   |                 |  |
|---|---|---|---|-----------------|--|
|   | <p>on seeds planting and nursery management</p> <p>Distribution of seeds and tubes, watering cans</p> <p>Planting of seeds and ongoing monitoring</p> <p>Dec 2020 counting of germinated seeds in every area. A total of 23100 seeds were counted</p> <p>Training of planting out stations conducted in every area</p> <p>Planting out areas selected</p>   | <p>total of 17192 and found it to be 74.% survival rate.</p>  |   |                 |  |
| <p>Activity 2 - construct a fence</p>                         | <p>Meeting held in two Traditional areas (Ndindi &amp; Kambalambe)</p> <p>Area surveyed with DOF</p> <p>Meeting with communities</p> <p>Areas surveyed with communities</p> <p>16km of fence line cleared with approx 300 communities</p> <p>16km fence line build</p> <p>2 solar boxes installed</p> <p>Power on fence went live and several tests and checking days to fix small faults.</p> <p>6 local men selected, employed and trained to maintain the fence line and two security men for the solar box areas.</p> <p>One house being built to house rangers/ fence men close to solar box</p> | <p>16km fence constructed</p> <p>Over 300 community beneficiaries assisted</p> <p>6 jobs created</p> <p>Zero fence breaks by elephants</p> <p>Zero gardens damaged along the fence line</p> | <p>23rd Dec 2020</p> <p>12th Dec 2021</p> | <p>Complete</p> |  |
| <p>Activity 3 - Capacity Building communities and rangers</p> | <p>An awareness campaign was carried out in the 4 districts surrounding both forests. All TA's and GVH attended the meetings and we distributed booklets, HEC flyers which explain what to do and who to call if someone sees an elephant outside of the forest and introduced info on pangolins.</p> <p>Community clubs received additional training and inputs</p> <p>Rangers received training on 1st aid and weaponry</p>   | <p>Over 1000 booklets distributed to all chiefs around the forests, met over 350 TA/GVH leaders directly and approx reach is 45k people</p>   | <p>June 2021</p>                          | <p>Complete</p> |  |
| <p>Activity 4 - Evaluation of fence effect on conflict</p>    | <p>The solar powered electric fence was built to reduce HEC along the western boundaries of Thuma FR. Prior to the build in 2018 we saw the HEC peak with 32 cases of crop</p>  | <p>Fence has been built</p>   | <p>2020</p>                               | <p>complete</p> |  |

|            |   |  |  |  |  |
|------------|---|--|--|--|--|
| incidences | damage reported. 2019 saw a total of 19 reported incidences. Since the fence was erected we have had zero break outs in 2021 and to date in 2022. |  |  |  |  |
|------------|---|--|--|--|--|

**4. List of attached documents**

**1. photos**

**HEC log by year by TA**

**Quotations for fence materials**

**Invoice for fence materials**

**Photos of area inside forest showing regeneration.**

**Map showing elephant sightings by year in both reserves.**

**This project has been a major success.**

**The area once a charcoal manufacturing hub, now boasts of a forest regenerating (70 sq kms), HEC a thing of the past. Elephants have moved back into the area full time along with other wildlife Buffalo, kudu, bushbuck.**

**Communities have stopped all charcoal burning, however we do see a growing illegal firewood collecting activity since 2021.**

**Community income generating activities are becoming more important than ever and we plan to upscale tree planting, and other projects over the next year.**

**We wish to take this opportunity to thank African Elephant fund for their support and enabling this to happen.**

**Warmest regards and much thanks**

**Lynn, rangers and communities.**

**Wildlife Action Group**

*(for example, publications, meeting reports, participants list, workshop reports, etc.)*



**Signature:**

**Date: 15/12/2021**

**Name and title of signing officer: Alex CHUNGA, SENIOR PARKS AND WILDLIFE OFFICER**