

Unit 3

Gorongosa National Park

Learning intentions:

Pupils will be enabled to:

- Consider the link between the wellbeing of people, plants and animals in Gorongosa and elsewhere
- Explore the impact of the Irish Aid supported Gorongosa Restoration Project on the lives of the local people
- Identify the link between the Gorongosa Restoration Project and the United Nations Global Goals for Sustainable Development
- Apply their learning about interdependence between people and planet to their local context
- Reflect on what they have learned in this Unit

Materials:

Activity One: Cause-Consequence-Impact

- Images 1-6 [Gorongosa Photopack](http://ourworldirishaidawards.ie/wp-content/uploads/2017/01/Gorongosa-Photopack-Unit-3-5th-6th-class.pdf) PDF - available: <http://ourworldirishaidawards.ie/wp-content/uploads/2017/01/Gorongosa-Photopack-Unit-3-5th-6th-class.pdf>
- Map of the world
- Mozambique – Country File: Teacher Resource Sheet (page 8)
- Cause-Consequence-Impact: Teacher Resource Sheet (page 9)
- Cause-Consequence-Impact: Pupil Worksheet (page 10)

Activity Two: Gorongosa Timeline

- Gorongosa Time Cards (pages 11-15)

Activity Three: Vinho Stories

- Vinho Stories: Pupil Resource Sheet (page 16)
- Images 7-11 [Gorongosa Photopack](http://ourworldirishaidawards.ie/wp-content/uploads/2017/01/Gorongosa-Photopack-Unit-3-5th-6th-class.pdf) available: <http://ourworldirishaidawards.ie/wp-content/uploads/2017/01/Gorongosa-Photopack-Unit-3-5th-6th-class.pdf>

Activity Four: Our Lion Family

- Our Lion Family, video - 9.44mins available: <http://ourworldirishaidawards.ie/lesson-plans/>

- Our Lion Family Transcript PDF - available: <http://ourworldirishaidawards.ie/wp-content/uploads/2017/01/Our-Lion-Family-Transcript.pdf>
- Our Lion Family: Pupil Worksheet (page 17)

Activity Five: Bioblitz and Habitat Study

- Images 12-18 [Gorongosa Photopack](http://ourworldirishaidawards.ie/wp-content/uploads/2017/01/Gorongosa-Photopack-Unit-3-5th-6th-class.pdf) PDF - available: <http://ourworldirishaidawards.ie/wp-content/uploads/2017/01/Gorongosa-Photopack-Unit-3-5th-6th-class.pdf>
- Gorongosa Bioblitz: Teacher Resource Sheet (page 18)
- Important Insects: Teacher Resource Sheet (page 19)

Activity Six: Gorongosa and the Global Goals

- United Nations Global Goals for Sustainable Development (child-friendly version): Pupil Information Sheet (5th-6th class **Unit 1**, page 17)
- Gorongosa and the Goals: Pupil Worksheet (page 20)
- Gorongosa Mission video, 2.09 mins (available: <http://www.gorongosa.org/our-story>)

Concluding Reflection/Literacy Activities:

- Gathering Thoughts: Pupil Worksheet (5th-6th class Reflection/Literacy Activities, page 2)
- Word Map: Pupil Worksheet (5th-6th class Reflection/Literacy Activities, page 3)

Introduction:

Unit 3 focuses on an Irish Aid supported programme in Mozambique, which is trying to make a real difference in the lives of poor people and communities. The Gorongosa Restoration Project is an initiative of the Mozambican Government, working in partnership with the Carr Foundation, an American non-governmental organization (charity). Since 2008 the Project has sought to restore and conserve (protect) the wildlife and the landscape for the benefit of local communities and for Mozambique. In 2014, Irish Aid began funding the work of the Project with communities living on the northern boundary of the Park. This funding provides small farmers with advice, seeds, fertilizers, tools, and access to markets to sell their crops. It is also used to give local families access to clean water, and to create irrigation systems for school vegetable gardens.

In Activity One, pupils engage with information about biodiversity in Mozambique and Ireland, and consider the implications of situations where the delicate balance of biodiversity is upset. In Activity Two, pupils learn about the history of the Gorongosa National Park and how, with Irish Aid support, the Restoration Project is working to overcome the challenges facing people living on the boundaries of the Park. In Activity Three, pupils use their editorial skills and images to reflect on the human development activities happening as part of the Restoration Project, and consider why these are so important to the health of the Park's

wildlife and landscape. In Activity Four, pupils engage in a literacy activity based on a film about the work of Park rangers with the lions, that were almost wiped out in Gorongosa because of the 16-year long civil conflict in Mozambique. In Activity Five, pupils learn about the diversity of life on Mount Gorongosa, and think about the importance of biodiversity for human wellbeing. In Activity Six, pupils reflect on the different ways that the Gorongosa Restoration Project is working to achieve the United Nation's Global Goals for Sustainable Development.

This Unit ends with two (optional) activities which allow pupils to reflect on their learning and build their vocabulary (Gathering Thoughts and Word Map).

Step-by-Step instructions:

Activity One: Cause-Consequence-Impact

NOTE: During this activity, it would be useful to display the images numbered 1-6 from the [Gorongosa Photopack](http://ourworldirishaidawards.ie/wp-content/uploads/2017/01/Gorongosa-Photopack-Unit-3-5th-6th-class.pdf) available: <http://ourworldirishaidawards.ie/wp-content/uploads/2017/01/Gorongosa-Photopack-Unit-3-5th-6th-class.pdf>

Remind the class that Mozambique, a country in southeast Africa, is one of Irish Aid's 8 partner countries.

1. Ask pupils to locate Mozambique on a map of the world.
2. Ask the class to call out what they already know about Mozambique, and record their responses on the board.
3. Display [Mozambique – Country File: Teacher Resource Sheet](#) (page 8).
NOTE: Depending on your class and internet access, you may wish at this point to facilitate further research into Mozambique. For example, you could set pupils the task of finding out about geographical features, languages spoken, or commonly eaten foods etc.
4. Display the following sentence: '_____ means the variety of different types of animals, plants and sea life' and ask pupils to fill in the missing 12-letter word. [Answer: biodiversity]
5. Ask pupils to name some of the different animals, plants and sea life that can be found in and around Ireland.
6. Locate the Solafa region in Mozambique on the map of the world.
7. Explain that Gorongosa National Park, one of the world's most biodiverse places, is in the Solafa region of Mozambique. So far, 398 bird species, 123 types of mammals, 34 types of reptiles (snakes, lizards, crocodiles and turtles) and 43 types of amphibians (like frogs and toads) have been discovered there.
8. Explain that biodiversity is important because all the different plants and animals (including humans) interact and depend on each other in a very delicately balanced way. If something happens to upset this balance, it can lead to problems for some species.
9. Display [Cause-Consequence-Impact: Teacher Resource Sheet](#) (page 9) on the board and read the information aloud.
10. The biodiversity balance in Gorongosa experienced a major upset during a 16-year long civil conflict in Mozambique. Hungry soldiers killed many of the Park's large animals for meat or for sale. Local farming families moved from conflict areas to

other areas where they cut down trees to clear land for growing food. After the conflict ended in 1992, illegal hunters (poachers) killed more animals. These events caused serious damage to the environment, the animals, and the people living around the Park.

11. Display [Cause-Consequence-Impact: Pupil Worksheet](#) (page 10) on the board.
12. Read through the text on the worksheet and ask pupils to link the three impacts to one of the two consequences.

Activity Two: Gorongosa Timeline

1. Remind pupils that the Mozambican civil conflict lasted for 15 years, from 1977 to 1992. Explain that it is a very sad event in Mozambican history. Not only did it impact on the delicate biodiversity balance in Gorongosa, but about one million Mozambican people died, and several million more were forced to flee their homes, moving to camps in other parts of Mozambique, (as internally displaced people), and to neighbouring countries, Malawi and Tanzania (as refugees). It takes a very long time for a country, the people and the environment, to recover from a conflict like this. For this reason, since 2008, the Mozambican Government has been working with the Gorongosa Restoration Project to restore and conserve (protect) the wildlife and landscape in Gorongosa, and return the Park to its original condition.
2. Explain to the class that to better understand what is happening today in Gorongosa National Park they are going to do a human timeline activity on the history of the Gorongosa area.
3. Divide the class in two.
4. Distribute a set of [Gorongosa Time Cards](#) (pages 11-15) to each group, asking each pupil to randomly select a card.
5. Ask each pupil to read to themselves the information on their card.
6. Invite them to organize themselves in chronological order, based on the date on their card.
7. Choose one group and starting with the card with the earliest date, ask each pupil to present the information on their card to the class. Each group should reorganize themselves if they find their dates are in the wrong order.
8. Facilitate a whole class discussion using the following questions as prompts:
 - What does the information from the various aerial surveys tell us about what was happening in the Gorongosa area in the period 1920-2016?
 - Who (individuals/organizations) is involved in the restoration of Gorongosa National Park?
 - What types of activities have been happening in Gorongosa National Park since 2004? (prompt pupils to look at the Time Cards from 2004 onwards)
 - Which activity do you find the most interesting and why?
 - Which activity do you think is the most important and why?
9. Conclude by highlighting that the Gorongosa Restoration Project team is working to protect the wildlife and environment in the Park, and to improve the health and wellbeing of the people living around the Park.

Activity Three: Vinho Stories

1. Explain to the class that archaeologists (people who study how humans lived in the past by looking at the things they left behind) have found evidence of people living in the Gorongosa area for many thousands of years. Today, the 200,000 people around the Park face huge challenges. They don't have enough land to grow food to support their families, there are many health problems and very few doctors or clinics, and children don't usually get to secondary school. The Gorongosa Restoration Project, with the support of the Mozambican Government and funders like Irish Aid, are working with these communities to try to improve incomes, education and health, because they understand that the Park's wildlife and landscape is directly linked to the wellbeing of the local people.
2. Explain to the class that they are going to imagine that they work as editors for the Our World Irish Aid Awards pupils' magazine. They need to do some work on an article about the Gorongosa Restoration Project and a village called Vinho, located very near to the Park headquarters.
3. Divide the class into small groups.
4. Display [Vinho Stories: Pupil Resource Sheet](#) (page 16) on the board and distribute one copy of the same resource sheet to each group.
5. Ask for volunteers to read aloud the information on the board, and invite pupils to ask for help with any tricky words.
6. Invite each group to use their editing skills to make the article easier to read.
7. Display images numbered 7-11 (inclusive) from the [Gorongosa Photopack](#) PDF - available:
<http://ourworldirishaidawards.ie/wpcontent/uploads/2017/01/Gorongosa-Photopack-Unit-3-5th-6th-class.pdf>
8. As each image is displayed, pause and ask pupils to work together in their group to decide where they would insert that image (they can write the image number beside the relevant paragraph on their sheet), and to come up with a suitable caption in each case.
9. Facilitate feedback from each group about text changes, and location and captions for the images.
NOTE: Depending on your class you might wish to invite pupils to write a concluding paragraph for the Vinho Stories article.

Activity Four: Our Lion Family

1. Ask pupils if they remember Tonga Torcida from the Our World Irish Aid Awards pupils' magazine? [If not, you may wish at this point to access the information and activity on page 8 of the 2017 magazine, available on the OWIAA website].
2. Remind the class that Tonga is a young man from the Gorongosa region, who is a student and works part-time in the Park as a member of the Lion Project team.
3. Explain that they are going to watch a short film about the lions in Gorongosa National Park and answer questions based on what they see/read.
4. Distribute one copy of [Our Lion Family: Pupil Worksheet](#) (page 17) to each pupil.
5. Play the film, '[Our Lion Family](#)' available: <http://ourworldirishaidawards.ie/lesson-plans/>
6. **NOTE:** The film lasts just under ten minutes. It is narrated by Tonga Torcida in Portuguese, with English subtitles. Depending on your class you may wish to distribute copies of the transcript for the film (Our Lion Family Transcript.pdf -

available: <http://ourworldirishaidawards.ie/wp-content/uploads/2017/01/Our-Lion-Family-Transcript.pdf>) and/or show the film a second time to help your pupils to complete their worksheet.

7. Invite pupils to swap completed worksheets for checking.
8. Conclude by asking pupils to discuss what they liked, found challenging/interesting about the film.

Activity Five: Bioblitz and habitat study

NOTE: During this activity, it would be useful to display images numbered 12-18 from the [Gorongosa Photopack](http://ourworldirishaidawards.ie/wp-content/uploads/2017/01/Gorongosa-Photopack-Unit-3-5th-6th-class.pdf) (available: <http://ourworldirishaidawards.ie/wp-content/uploads/2017/01/Gorongosa-Photopack-Unit-3-5th-6th-class.pdf>).

1. Explain that in 2011, a famous biologist, Professor E.O. Wilson from Harvard University, led a bioblitz on Mount Gorongosa with the support of local children.
2. Display [Gorongosa bioblitz: Teacher Resource Sheet](#) (page 18) on the board.
3. Ask for volunteers to read aloud the information on the board, and invite pupils to ask for help with any tricky words.
4. Ask pupils which of the animals from the Gorongosa bioblitz they find most interesting and why.
5. Explain that E.O. Wilson is interested in studying all forms of life, but is especially interested in insects.
6. Write the following quote from E.O. Wilson on the board and ask pupils to explain the quote in their own words:

'Insects are the little things that run the world'

7. Divide the class into pairs and ask each pair to come up with 2-3 reasons why E.O. Wilson thinks that insects are so important.
8. Take feedback, recording responses on the board.
9. Display [Important Insects: Teacher Resource Sheet](#) (page 19) on the board.
10. Ask for volunteers to read aloud the information on the board, and invite pupils to ask for help with any tricky words.
11. Highlight the bullet points that pupils had come up with themselves.
12. Conclude by explaining that insects are a great example of the importance of even the smallest species in keeping our planet and people healthy and well.

Extension activity – Habitat Study:

1. Bring the class outside to carry out a habitat study, focusing on the biodiversity that can be found in the local environs.

NOTE: For a list of the equipment needed and tips for organizing a habitat study see: <http://www.pdst.ie/node/3216>

2. Encourage pupils to record their findings (e.g. dates, locations, measurements, descriptions, photographs, drawings etc) in a scientific manner.
3. Ask pupils to imagine that they are E.O. Wilson and to write a diary entry focusing on their observations about the way that different species interact and depend on one another in the habitat they have studied. Their diary entry should include examples and images from their scientific notes.

Activity Six: Gorongosa and the Goals

1. Divide the class into small groups.
2. Display [United Nations Global Goals for Sustainable Development \(child-friendly version\): Pupil Information Sheet](#) (5th-6th class **Unit 1**, page 17) on the board.
3. Distribute one copy of [Gorongosa and the Goals: Pupil Worksheet](#) (page 20) to each group.
4. Show the 2.09 minute-long [Gorongosa Mission video](#) (available: <http://www.gorongosa.org/our-story>).
5. Invite each group to write down the different Goals for Sustainable Development helped by the various Gorongosa Restoration Project activities on their worksheet.
6. Take feedback from each group.
7. Conclude by explaining that the Gorongosa Restoration Project is an example of how good and lasting ways of bringing about change (sustainable development), because it can make a real difference in the lives of poor people and communities, in terms of their nutrition, health and access to decent work etc., while at the same time benefiting the Park environment and the animals that live there.

Concluding Reflection/Literacy Activities

Gathering Thoughts

- Briefly summarise what has been covered in Unit 3: Gorongosa National Park
NOTE: You may find it useful to either draw on the learning intentions listed at the start of the Unit or to summarise the completed activities/content from this Unit.
- Distribute 3-4 copies of [Gathering Thoughts: Pupil Worksheet](#) (5th-6th class Reflection/Literacy Activities, page 2) randomly. Tell pupils that they should only answer one question on one of the worksheets that have been circulated, before passing it onto someone who has not yet had a chance to answer a question on the worksheet.
- Collect the completed worksheets and ask for volunteers to read the questions and responses aloud.
- Keep the completed worksheets for use during the project planning phase of your involvement in the Our World Irish Aid Awards.

Word Map

- Ask pupils to brainstorm a list of the new words/phrases pupils have come across in Unit 3.
- Invite pupils to complete [Word Map: Pupil Worksheet](#) (5th-6th class Reflection/Literacy Activities, page 3) as a homework task.



- Location:** Southeast Africa
- Population:** 26 million
- Life expectancy:** 55 years
- Currency:** Metical (1 metical = just over 1c)
- Capital city:** Maputo
- Official Language:** Portuguese
- Partner Country with Ireland since:** 1996

Interesting facts:

The population of Mozambique is very young. Half the people are under 17 years of age.

Mozambique is home to a world heritage site – the Bazaruto Archipelago is the largest marine reserve in the Indian Ocean.

Some of the world's richest coral reefs are in Mozambique. There are over 1,200 species of fish in the coastal waters off Mozambique.

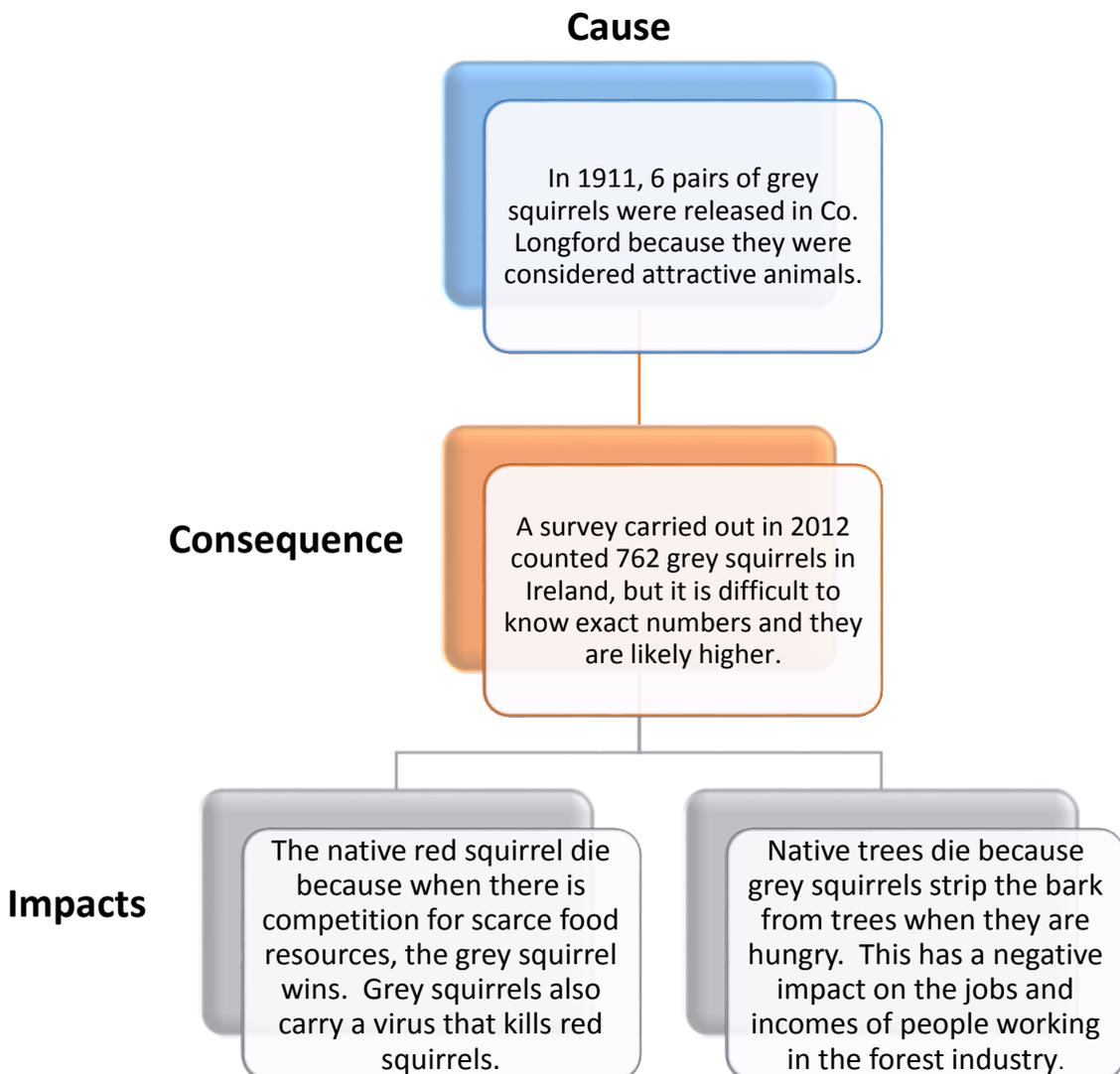
Activity One

Cause-Consequence-Impact: Teacher Resource Sheet

An Irish example of an upset to the biodiversity balance.



Although we often see grey squirrels in Ireland, they are originally from North America. The squirrels that are native to Ireland are red and are smaller than their grey cousins.



Source: Dept of Agriculture, Food and the Marine & Dept of Arts, Heritage and Gaeltacht (2012) Irish Squirrel Survey: <https://www.npws.ie/sites/default/files/publications/pdf/IWM89.pdf>

Activity One

Cause-Consequence-Impact: Pupil Worksheet

Cause

The Mozambican civil conflict which lasted from 1975 until 1992.

Consequences

Local farmers moved up Mount Gorongosa, away from conflict areas, and cut down trees to grow food. About 7,000 people now live on the mountain, many more than before the conflict.

Hungry soldiers killed many of the Park's large animals for meat or for sale. After the conflict ended there was no system in place to stop illegal hunters (poachers), so many more animals were killed.

Impacts

Wildfires broke out more often in the dry season, and were harder to control because there weren't enough large animals, like zebra, to eat the grass and woody shrubs, and keep the ground free of material that can burn. Uncontrollable wildfires are dangerous to humans and animals alike.

Dry seasons became harder for people and animals alike because, without trees on the mountain the soil didn't retain the rain that fell during the wet season, so it was difficult to find water for crops or to drink.

In some forest areas of the Park, without elephants to trample down middle sized trees the sunlight didn't reach the ground. This stopped the growth of plants that had provided food for the smaller animals that lived there.

Activity Two

Gorongosa Time Cards

1505



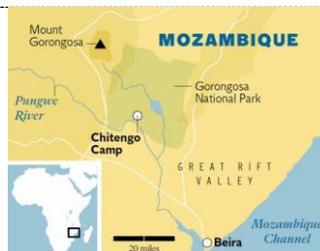
Mozambique was colonized by Portugal.

1920



A private company sets up a hunting reserve in Gorongosa for people who wanted to hunt for sport.

1951



Chitengo camp was built as the new reserve headquarters and it included a restaurant and bar.

1960



The Government of Mozambique declares Gorongosa a National Park.

1966



The Government decreases the size of the Park to provide land for local farmers.

1975



The People's Republic of Mozambique gains independence (freedom) from Portugal.

1976



A survey of the Park finds 6,000 elephants and about 500 lions.

1977-96



The civil conflict, followed by years of illegal hunting, leads to a 90 percent drop in the number of large animals. A survey in 1994 finds only 100 elephants left in Gorongosa.

2004



Greg Carr, an American philanthropist (person who uses their own money to fund good works), visits Gorongosa for the first time and sets up a project to restore and improve the Park.

2005



A large-scale restocking of animals like elephants, buffalo and wildebeest begins.

2006



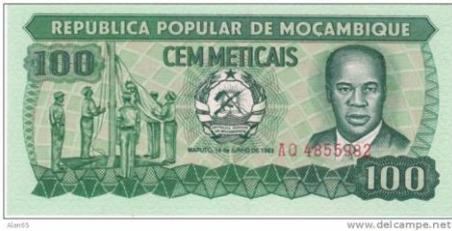
Local people get employment as tourism guides and rangers. A new primary school and healthcare clinic are built in Vinho, a village 2kms from Park headquarters.

2008



The Gorongosa Restoration Project Team signs a 20-year deal to manage the Park with the Government.

2008



A mobile health clinic is established to serve isolated communities in the region.

For the first time, 20 percent of the annual Gorongosa profits from tourism are shared with the 15 communities around the Park.

2010



A community education centre is built, and the Government increases the Park to include Mount Gorongosa.

A survey finds that wildlife has increased by 40 percent in the previous 3 years.

2011



The world-famous biologist (scientist who studies human and animal life), E.O. Wilson, visits the Park.

2013



Scientists discover a new species of bat called the 'Chewbacca bat,' and an ant which is not able to walk on flat surfaces in Gorongosa.

2014



Irish Aid

Government of Ireland
Rialtas na hÉireann

Irish Aid begins to support the Gorongosa Restoration Project, funding a health and education programme aimed at helping communities living on the northern boundary of the Park.

2016



A new 25-year deal is signed between the Government of Mozambique and the Gorongosa Restoration Project.

Activity Three

Vinho Stories: Pupil Resource Sheet

The village of Vinho is in southern Gorongosa, separated from the Gorongosa Park headquarters at Chitengo by the Pungue River. During the 1977-1992 Mozambican civil conflict, many people from Vinho were killed and others were forced to flee. After the conflict, there were less than 50 people living in Vinho. Nowadays, it is a busy community of more than 1,000 people, made up of small farmers, Park employees, and their families.

The Gorongosa Restoration Project staff know that if the local people can make a good living, either from farming or from employment in the Park, then they won't carry out illegal hunting or poaching. In the past, most of the small farmers living near the Park used slash and burn agriculture, meaning they cut trees down and burned the stumps to clear the land for crops. This type of farming damages the soil so that the land can only be used for about 5 years. Farmers then move on to a new field and do the same again. To help farmers get more from the land the Gorongosa Restoration Project introduced a conservation agriculture programme which was first tried out in Vinho. This means that farmers learn different ways to get more from their land without damaging the soil.

People living in the Gorongosa area are at risk of malaria, diarrhea and other water-borne diseases. The Gorongosa Restoration Project supported the building of a health centre in Vinho. Sick people and pregnant women in Vinho and surrounding communities go to the clinic for help and support to get better and stay healthy.

In the past, children from Vinho went to the school in Chitengo. To get to school they had to cross the Pungue River which is filled with crocodiles! The Gorongosa Restoration Project built a new school in Vinho in 2008. The Park's Conservation Education Programme supported the set-up of a school Eco Club with pupils and teachers from Vinho. Club members visit the Park to learn about biodiversity, growing and planting tree seedlings in places where trees have been cut down, and to learn about the danger of wildfires, poaching, and deforestation (removal of trees for firewood, or to make space for farming or building).

Source: Domingos Muala, Gorongosa National Park

Activity Four

Our Lion Family: Pupil Worksheet

1. Lions live mostly on grasslands in the _____. (Fill in the missing word)
2. A male lion can reach _ . _ metres in length, and weigh up to ___ kilograms. (Fill in the missing numbers)
3. As new-borns, cubs are about the same size as a domestic _____. (Fill in the missing word)
4. What age are male lions when they leave their family (pride) to start a pride of their own?

5. Lions are carnivores. What does this mean?

6. Tonga mentions four different herbivores, or plant eating animals, that lions hunt for food. List two of these animals below.

7. Tonga says that the animals you've listed above need lions. What reason does he give?

8. Tonga says that lions are in big trouble because of loss of habitat and prey. In your own words explain what he means:

9. Describe what the Gorongosa Lion Project team is doing to help lions?

10. Why are the lions in Gorongosa National Park so important?

Activity Five

Gorongosa bioblitz: Teacher Resource Sheet

In 2011, Professor E.O. Wilson, a famous **biologist** from Harvard University, and Greg C. Carr, the American **philanthropist** who set up the Gorongosa Restoration Project, organized a **bioblitz** on Mount Gorongosa. Tonga Torcida took on the job of organizing the 30 children aged between 4-12 years who live on the mountain and wanted to take part.

A **biologist** is a scientist who studies human and animal life.

A **philanthropist** is a person who uses their own money to fund good works.

A **bioblitz** is like a giant habitat study! During a bioblitz people volunteer to collect as many species (animals, insects, reptiles, fish etc) as possible in a specific area over a set amount of time. They bring these to scientists who identify and count the number of the species and write all this information down.

The Mount Gorongosa bioblitz took place on 27 July on the eastern slope at 3,600 feet above sea level, just below the rainforest. Conditions weren't ideal because it was the height of the winter dry season and there would be a lot more species around in the wet season. But, it was a very important first step towards helping scientists, like E.O. Wilson, to understand life on Mount Gorongosa and to give good advice about how to take care of the Gorongosa environment.



Prof. E.O. Wilson and the children who took part in the 2011 bioblitz

E.O. Wilson was really impressed with what good hunters the children were. They found 61 different species in just 2 hours, including dragonflies, grasshoppers, cockroaches and termites, beetles, flies, butterflies and moths, spiders and frogs, birds, snakes, turtles and mice. Afterwards the professor maintained that Gorongosa is 'ecologically the most diverse park in the world'!

Activity Five

Important Insects: Teacher Resource Sheet

*'If insects were to vanish,
the environment would collapse into chaos'*. E.O. Wilson



The insects in Gorongosa are important because:

- They find and break down the nutrients left behind in large animal scat or dung (like elephant dung). The soil can then absorb the material that is left and so is better able to support growing plants. Dung-using insects are critically important members of the savanna [geographic area characterised by large, flat grassy plains with few trees, winters that are hot and wet and milder and drier summers] that dominates Gorongosa, and without them and their waste removal service, the place would quickly sink under layers of dung produced by thousands of animals. Examples of dung-using insects include roundworms, beetles, wasps and flies.
- They feed off the bodies of dead animals, breaking down their nutrients into the soil. Examples of corpse-decomposing insects include tsetse flies and blowflies.
- They change the landscape allowing shrubs and trees to grow and birds to nest. For example, termites build cone-shaped hills which act as a type of garden for dependent species.
- They are an important source of food for other species. For example, grasshoppers are eaten by small mammals and birds.

Insects are also important because they:

- filter the water in rivers
- burrow and add oxygen to the soil
- control the spread of some pest species, like weeds
- pollinate plants and flowers
- produce natural products like honey

Activity Six

Gorongosa and the Goals: Pupil Worksheet

