

# How to Protect Wildlife AND Human Health

A Transnational African Zoonosis Education Campaign

In cooperation with



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# 1. Introduction

Commercial wildlife trade for consumption as food (known as “bushmeat”) or traditional medicine and keeping of wildlife as pets is prevalent in West, Central, and Southern Africa, posing a serious threat to a large range of species (e.g. Bachmann *et al.* 2020; Wilkie *et al.* 2016; Lindsey *et al.* 2015; Soewu *et al.* 2012). In addition to conservation concerns from over-exploitation and often illegal hunting, **this wildlife trade also results in the emergence of zoonotic diseases, such as Ebola, Lassa fever, or Mpox**, with the most spillover events counted in Africa (Milbank & Vira 2022; Okareh & Morakinyo 2018). A review of global bushmeat studies (with a focus on Africa) found that of the 58 species of bushmeat investigated, 48 were found to host one or more pathogens (Peros *et al.* 2021).

While there is plenty of scientific evidence for risks of zoonotic diseases related to wildlife trade (e.g. Akem & Pemunta 2020; Kurpiers *et al.* 2015; Schneeberger & Voigt 2015), awareness and acceptance among suppliers and local consumer groups remains low (e.g. Lucas *et al.* 2022; Douno *et al.* 2021). Instead, **bushmeat is still seen as a healthy food and consumer choices ignore the risks associated with zoonotic diseases** (Nguyen *et al.* 2021; Chausson *et al.* 2019). Increasing demand and commercialization of bushmeat is exposing more people to pathogens and facilitating the geographic spread of diseases (Kurpiers *et al.* 2015). The need for education programs to include understanding of the risks of zoonotic diseases, and to stimulate behaviour change is obvious (MacFarlane *et al.* 2022; Veríssimo *et al.* 2018; Moorhouse *et al.* 2017).

Our *Transnational African Zoonosis Education Campaign* (ZEC) aims to **raise awareness in different populations living in urban and rural communities in Cameroon, Liberia, Nigeria and Zambia** for the public health risks from known or yet unknown pathogens associated with bushmeat consumption and keeping of wildlife as pets. ZEC aimed to achieve three objectives:

- Significantly increase the number of people reached through the zoonoses education program;
- Create a modular concept for individual set-up or extension of education programs on wildlife trade-linked health risks;
- Increase awareness, resulting in a lasting behavioural change among consumers.

All partners in our consortium have a focus on wildlife conservation. We aimed to use rescue centres in various African countries with established wildlife conservation education programs to expand their messages to include health aspects and present the *One Health* approach and its direct benefits to people’s daily lives. This approach illustrates the urgent need to recognize that the health of people is closely linked to the health of animals and our shared environment.

**Based on the results of a 20-month education campaign we have put together most relevant challenges and lessons for Do’s and Don’ts in the local context, which can be used as a guideline for people working in the field to develop similar education programs in other regions of Africa and even elsewhere.**





## 2. CAMEROON

### Country-specific key aspects

Human population	30 million people (World Factbook 2024)
Language(s)	<ul style="list-style-type: none"><li>■ 24 major African language groups, Pidgin (widely spread creole language)</li><li>■ Official: English, French</li></ul>
Prevalence for zoonotic diseases	<ul style="list-style-type: none"><li>■ From 2000 to 2022, 35 zoonoses (viral, bacterial, and parasitic) were reported in Cameroon (Tahmo <i>et al.</i> 2022)</li><li>■ Mpox outbreak 2022 (IFRC 2023), and as of Aug 2024 in Southwest Province</li><li>■ The neighbouring country Nigeria is among the top ten countries with the highest burden of infectious and zoonotic diseases globally.</li></ul>
Most relevant zoonotic diseases	Anthrax, Rabies, Ebola, Marburg, Lassa fever, Highly Pathogenic Avian Influenza (HPAI), Zoonotic Tuberculosis, Trypanosomiasis, Salmonellosis, Mpox and Brucellosis (Nkuo 2023, Tahmo <i>et al.</i> 2022, ZBRA 2024)
Relevant wildlife species	Chimpanzee, western gorilla, other primates, antelopes, bats, porcupines, rodents, squirrels, snakes, pangolins (Tahmo <i>et al.</i> 2022, Nguyen <i>et al.</i> 2021)
Government prevention measures	<ul style="list-style-type: none"><li>■ Risk assessments for Mpox, bovine tuberculosis, brucellosis, Lassa, Ebola</li><li>■ Strengthening of eco-guards on wildlife surveillance in protected areas</li><li>■ Rumour management to improve early detection (see Nkuo 2023)</li></ul>

Full country profile: <https://www.prowildlife.de/1-cameroon-country-profile/>



## Bushmeat

The forests along the Cameroonian-Nigerian border represent the largest remaining areas in the entire *West African Biodiversity Hotspot* (Myers *et al.* 2000); the forests of southern Cameroon are even larger. Forest exploitation contributes to increased poaching, thereby supplying uninspected bushmeat to rural and urban populations. Individuals living near or within protected areas are particularly recognized as high-risk groups for zoonotic diseases (Republic of Cameroon 2012). Exploitation of wildlife for bushmeat is intense, with income generation being the main reason for hunting (e.g. Maurice *et al.* 2017).

Many Cameroonians still consider (mostly) primate bushmeat a delicacy (Mbun & Nguemwo 2021; Williams 2012). Great apes and other primates are hunted for their meat despite being protected (Tagg *et al.* 2018) and offspring is sold and kept as pets (e.g. Tahmo *et al.* 2022). According to a recent survey by TRAFFIC primates of the family Cercopithecidae account for more than 10 % of species on sale at markets in Lom and Djérem and 5.7 % in Wouri (Feussom *et al.* 2024).



Recent political and armed conflict in the Anglophone areas, including Limbe's Southwest region, has weakened effective law enforcement. Indirectly, this encourages animal trafficking, consumption of bushmeat and the transmission of zoonoses (Harvey-Carroll *et al.* 2022). A 2020 study using the *One Health* approach found that risks associated with bushmeat were poorly understood by most market actors (Saylor *et al.* 2021). Moreover, a new analysis by TRAFFIC highlights the lack of knowledge of involved actors and warns that poor enforcement and risk management of bushmeat markets in Cameroon prevent the early detection of zoonotic disease outbreaks (Feussom *et al.* 2024).

## Overview

**Local partner:** Our partner organisation in Cameroon is the *Limbe Wildlife Centre* (LWC) in Southwest Cameroon, a rescue centre for primates and other wildlife that was established in 1993 as a partnership between the Government of Cameroon and the NGO *Pandrillus*. The centre welcomes up to 50,000 visitors per year, around 95 % of them are Cameroonian. It also runs an education outreach program to schools and has established a "Nature Club", where about 600 local children aged 6 to 16 years are enjoying a combination of weekly fun activities and conservation education.

Furthermore, the LWC closely works with the community of Batoke, a former hunting hotspot close to the *Mount Cameroon National Park*. With its 'Green Project' the LWC offers former poachers and their families a sustainable alternative livelihood and at the same time provides its endangered primates with healthy greens.



**Target groups:** The campaign in Cameroon focused on education measures for primarily urban citizens of different ages, starting with school children. Moreover, several measures, including workshops and the placement of billboards, were specifically targeted to rural communities in hunting hot spots.

**Challenges:** Extensive bad weather during the rainy season disrupted several activities and caused some delay and lower numbers of visitors in the rescue centre than usual. Some stakeholders, such as council representatives or community leaders, could not be reached because they expect expensive gifts at a meeting, which are not covered by funding. The low literacy of rural target groups required increased efforts in visualization of the educational material.

## Sustainability

A zoonoses workshop for the full LWC staff, including educators, animal keepers etc., ensures that future visitors to the centre will benefit from their knowledge.

The team has incorporated health aspects in their permanent education program, including their exhibition centre and teaching material for schools. Hence health messaging, including the use of posters and weather-resistant and stable banners, will continue even beyond the end of the funding period.

The billboards are in place and their installation period is unlimited. However, both the transport of groups to the rescue centre for education and workshops in rural communities will only be able to take place after the project period if there is follow-up funding.

### **Quote from a workshop participant in a hunting hot spot close to the Mt. Cameroon National Park:**

*"This lesson has made me understand certain things I never knew. I have been empowered by this sensitization team to educate other people who do not have the opportunity to be part of today's program. In conclusion I will say No to deforestation and the killing of protected species."*

## Outcome

In total, close to 496,000 people were reached by different education measures in Cameroon:

- Billboards placed at key locations:  
~ 408,000 views
- Guided tours in the rescue centre with almost 26,000 visitors
- Social media: > 22,100 views
- Radio, TV & print media: > 21,400 listeners & viewers
- Urban events: > 13,500 attendees
- School program: close to 4,000 children of different age
- Outreach in rural communities (often a combination of workshops, cultural festival, sport events, theatre groups):  
~ 870 attendees
- 20 representatives from local authorities were involved in education campaign





## Activities in Cameroon

The *Limbe Wildlife Centre (LWC)*, a long-standing partnership between the *Ministry of Forestry and Wildlife* and *Pandrillus*, already had an experienced team of educators. For the zoonoses campaign, the Agricultural Ministry was also involved and helped to outreach and distribute material.

To integrate the topic of zoonoses into the existing activities, in a first step **40 staff members of the LWC were educated** in a workshop. This included the team of animal keepers as well as the educators for outreach and those responsible for visitors to the centre.

Roll-up **banners**, a large weatherproof banner in landscape format as well as **leaflets** in English and Pidgin were produced as education material. Zoonoses themed **t-shirts** were printed for all education measures, whether for teaching in school classes or events on site or in communities elsewhere.

LWC is running an extensive school program, in which around **2,000 children per year** were taught about nature conservation, the risks of zoonoses and prevention strategies. The children's great interest in animals and nature was already known beforehand. However, the immense interest and their many questions now made it clear that the origin of **zoonotic diseases from the forest was one of the most important messages** for the children. Over the course of the ZEC, two large annual graduation ceremonies were held, where the children surprised the education team with their own developed texts and songs. They were proud to present their knowledge about zoonoses, which means the kids took the messages home and integrated them into their everyday lives.

Located in Limbe, a city with around 72,000 residents, the Cameroonian team focused on urban residents in recognition of the high bushmeat consumption volume in African cities.

With message banners the team attended the **large street parades** on *International Labour Day* (1st May) in Limbe and the *Women's Day* (8th March) with together 7,000 attendees. They also installed **two permanent billboards** at a main traffic road and in the community of the hunting village Batoke, which are estimated to be seen by 44,000 people each month. In addition, 144,000 people saw the zoonotic disease prevention messages on a temporary leased electronic billboard in Limbe's popular central business district "Half Mile".



Education banner for outreach activities



Annual school graduation ceremony 2023



Street parade on International Labour Day, May 2024



Billboard at the road to hunting community Batoke





Workshop at Batoke community



Zoonoses education at Ndambe Island



Workshop with women's group, Caterpillar Farms



Football play during outreach to Bakingili

As the country's most important tourist destination, the LWC used the personal contact and tours through the rescue centre to **educate close to 26,000 visitors** about zoonoses and spread the message with their popular branded shirts. Additional events like the annual 'Beach Clean' attracted school children and adults from the local area.

The 30th anniversary of the LWC and accompanying **celebration activities** in 2023 were a unique opportunity to present the zoonoses campaign to invited guests from politics and the media at the celebrations. The event was attended by the British High Commissioner, the Senior Divisional Officer of Fako, the City Mayor of Limbe and numerous other regional VIPs.

Several **newspapers and local TV and radio** formats reported about the LWC's zoonoses campaign, which was also highlighted in articles on the LWC's 30th Anniversary. More than 22,100 users were informed by the LWC's accounts at Facebook and Instagram.

*"With this campaign, we are providing people compelling reasons to refrain from hunting. They recognise the tangible personal benefits of giving up bushmeat while feeling valued within their community. This approach is truly transformative as the new knowledge encourages people to conserve the wildlife we are working to protect."*

(Laura Praill, ZEC project manager at LWC)

The LWC is cooperating with the community of Batoke, which has been a **traditional hunting hotspot**. The 'Green Project' successfully replaced hunting activities by providing alternative income through delivering greens for the endangered primates of LWC. Providing a new workshop on zoonoses turned out to be a very powerful tool which takes away the finger pointing of conservation campaigns and helps the community. A **new approach that works in other places as well:**

Outreach to the villages of Etome, Bakingili, Bimbila and Idenau, all hunting areas near protected areas, and in the community on the island of Ndambe met with an overwhelmingly positive response. Women were especially very interested and involved.

Here the outreach activities were often a **combination of a workshop, theatre (in the form of traditional storytelling) and a football match** to appeal to the different target groups in the community. The outreach team reported that the *Zoonosis Education Campaign* worked much better than all previous conservation campaigns due to the direct benefits for people.





### 3. LIBERIA

#### Country-specific key aspects

<b>Human population</b>	<ul style="list-style-type: none"><li>■ 5.4 million people (The World Factbook 2024)</li><li>■ ~ 1/3 of population are living within an 80-km radius of Monrovia</li></ul>
<b>Language(s)</b>	English 20 % (official), 27 indigenous languages
<b>Prevalence for zoonotic diseases</b>	<ul style="list-style-type: none"><li>■ Majority of Liberia's population depend on the forest and its resources for their livelihood</li><li>■ 80 % of Liberia is estimated as Lassa fever risk area</li></ul>
<b>Most relevant zoonotic diseases</b>	<ul style="list-style-type: none"><li>■ Outbreaks of Ebola (2014), Mpox (2017), Lassa fever (2018)</li><li>■ Other priorities: Marburg disease, Rabies, bovine tuberculosis, Anthrax, Brucellosis, Rift Valley fever (Republic of Liberia 2022)</li></ul>
<b>Relevant wildlife species</b>	Chimpanzees, several primates, bats, duikers, red river hog, rodents, civets, pangolins
<b>Government prevention measures</b>	<ul style="list-style-type: none"><li>■ Ban of hunting and bushmeat sale (since July 2014)</li><li>■ Case management for Mpox, raising awareness in the community, early reporting</li></ul>

Full country profile: <https://www.prowildlife.de/3-liberia-country-profile/>

## Bushmeat

Over-hunting remains one of the principal threats for wildlife in Liberia and has resulted in local extirpation of large-bodied species (Jones *et al.* 2019; Junker *et al.* 2015; Hoyt 2004). With an estimated 100 kg per capita a year on average the bushmeat consumption in Liberia is one of the highest in Africa (Staal *et al.* 2021). For instance, Covey & McGraw (2014) estimated a minimum of 9,500 primates being annually traded at one single bushmeat market in eastern Liberia. While adult primates and other wildlife are killed for the bushmeat trade, offspring is often kept as pets (Greengrass 2015). The vast majority of rural hunters' catch is sold to traders and subsequently transported to urban markets (Jones *et al.* 2019).



In 2015, after an outbreak of Ebola and a ban on the sale of bushmeat, overall bushmeat consumption temporarily dropped, while chicken and fish consumption increased. Remarkably, the decline was far bigger in poorer households than in wealthier ones and the demand among urban dwellers remained higher (Ordaz-Németh *et al.* 2017).

A high scepticism by many citizens that Ebola comes from bats or other wildlife led to a continued hunting and consumption of bats (Machalaba 2022). A survey in 2018 in Liberia found that trust in educational interventions after the Ebola outbreak was significantly higher for NGOs than for governmental measures (Arthur *et al.* 2022).

While the exact source of an Mpox outbreak in 2017 in Liberia could not be verified, the son and wife of a hunter were infected (Larway *et al.* 2019).

## Overview

**Local partner:** The *Libassa Wildlife Sanctuary* (LiWiSa), our partner in Liberia, is based in Gbono Town, near the capital Monrovia, and is Liberia's sole wildlife rescue centre. The centre was established in 2017, in collaboration with the *Liberia Forestry Development Authority*. LiWiSa is caring for wildlife confiscated from the bushmeat and pet trade in Liberia, with a focus on pangolins and primates but also taking in ungulates, birds and reptiles.



At the rescue centre visitors of different ages and groups of school children are informed about national laws and the need for threatened wildlife to be protected. The topic of zoonoses was already integrated in their messages.

**Target groups:** The campaign in Liberia focused on outreach to schools, workshops with authorities, stakeholders and students, as well as visitors (urban, all age) to the rescue centre. Establishing contact and cooperation with the *Forest Development Agency* (FDA) and other authorities was an important factor in spreading the message.

**Challenges:** People's knowledge of zoonoses is particularly low in Liberia – despite outbreaks of Ebola, Mpox, and Lassa fever over the last decade. The team of LiWiSa was already aware of zoonosis, but none of the staff had experience in teaching, talking to schools or using computers. To overcome these hurdles, they collaborated with the local NGO *Nature Compact*, which has supported them in the development of educational materials and messages, and in outreach activities to schools and communities.

In late 2023, the project manager had to leave the country due to serious health issues and could not be replaced in time. The reduced team did not reach a status to be ready for full action. They had to scale back and stop their own outreach program after 12 months.



## Sustainability

At the beginning of the campaign knowledge on zoonotic diseases was almost zero among attendees of education measures. In particular, the repetition of lessons has led to lasting knowledge and awareness. The involved schools will try to get zoonotic awareness in the curriculum, which changes every 5 years.

The flipbooks will continue to be used in schools and communities, also by the education team of *Nature Compact*. Printed material will be further used in the awareness program of the sanctuary. The LiWiSa team has a good knowledge in zoonosis awareness and will continue to educate visitors during guided tours.

The authorities welcomed more education about the relationship between humans and animals coming into the country. A meeting with the Minister of Agriculture was the beginning of a relationship that did not exist before the campaign. The promising start of the *Zoonoses Education Campaign* has shown how important the topic of zoonoses is for Liberia. With the foundation already laid, a future campaign can build on the existing concepts and scientific background and count on the support of the authorities.

## Outcome

The activities of the Liberian team ended in December 2023, six months before the end of the project, except for the visitor tours.

Altogether, more than 184,000 persons were reached by the education measures in Liberia:

- Billboards at two key locations: ~ 180,000
- School program: lessons for up to 1,600 children of different ages in cooperation with the NGO Nature Compact
- Social media: 1,327 users
- Guided tours in the rescue centre: > 1,000 visitors
- Urban events with 105 attendees
- 39 representatives from local authorities were involved in the education campaign





## Activities in Liberia

Early on, the team in Liberia approached health and conservation authorities, presenting the concept of the campaign and asking for approval of education material. In total, **39 representatives of local and regional authorities** (*Forest Development Authority* and *Society for the Conservation of Nature Liberia*) were involved in the education campaign, with a workshop and a guided tour through the sanctuary as first steps.

The country profile prepared by Pro Wildlife for this campaign was an important companion and reference book: it summarises the scientific facts about zoonotic diseases, relevant wildlife species and potential spillover pathways specifically for Liberia on 50 pages.

The **approval of the educational material** provides the basis for the awareness campaign to be active in schools, communities and public spaces and gives the campaign additional credibility.

The team of LiWiSa had already a good knowledge of zoonoses, but no experience of teaching. They cooperated with the local NGO *Nature Compact* to develop education materials and perform outreach to schools.

**Questionnaires before and after the first training measures** showed that almost nobody knew anything about zoonoses. However, the first lessons with pupils showed that messages had to be further simplified (e.g. the word “zoonoses” was replaced by “sickness caught from animals”) and the original concept for education material had to be reviewed.

This resulted in **a flipbook with catchy drawings and easy-to-understand statements for pupils**, which was supplemented with further information for educators and teachers. Stickers with messages were printed in large numbers as give-aways for school children and were enthusiastically received. **Games were developed for young children**, providing information on wildlife conservation, Ebola, and prevention strategies. Those games have proven to be very popular with younger children, who take the messages home to their families.

**The team also made use of special days to raise awareness of the zoonoses issue.** On the *World Habitat Day* (2nd Oct), for instance, they educated the attendees of an event, which was organised by the *Liberian Geographical Society* in collaboration with the *University of Liberia*. All ZEC-partners produced a joint video for the *World Zoonoses Day* (6th July).



Workshop with authorities at Libassa Wildlife Sanctuary



Guided tour with authorities through the sanctuary



Simplified illustrations for schools and outreach



Game with zoonoses messaging for young children





Presentation at event on World Habitat Day, Monrovia



Community children, visiting the Libassa Wildlife Sanctuary



Educator with flipbook, Effort Baptist School, Monrovia



Billboard at main road and large market in Monrovia

A **PowerPoint presentation** was developed for workshops and other events in urban areas, while pre-printed mobile flipcharts with simple messages proved to be ideal for schools, being independent from power supply, and were provided to teachers.

**Roll-up banners** were created for long-term use at schools, workshops, events and in the education centre of the sanctuary.

LiWiSa set up its own small **outreach team to schools** and together with the local NGO *Nature Compact* close to 1,600 children were reached. As children were often shy at the first visit and did not actively communicate, **repeated courses were offered to some schools** to make the children feel more comfortable. These repeated visits showed a very good, sustainable learning success.

The **exhibition area at the Libassa Wildlife Sanctuary** was improved and equipped with roll-up banners on zoonoses. More than 540 adults and the same number of children attended guided tours – including the opportunity to see orphans from the bushmeat trade with their own eyes and a walk to the forest to make the *One Health* principle easier to understand through the experience of nature.

Thanks to the authorities' support of the *Zoonoses Awareness Campaign*, **two billboards could be installed for three months at main traffic locations** in central Monrovia (at Omega Market and at the busiest road in Monrovia). Together, an estimated 180,000 people were reached with facts about zoonoses.

Building a new program with a very small team makes every team member an important pillar of success. The loss of the project manager after three quarters of the project duration was not manageable for the young program. Therefore, the Liberian team had to limit its own educational work to the sanctuary.

For instance, the plan was to outreach to communities on the edge of Monrovia Metropolitan, with a focus on women (which had proven particularly promising in other awareness-raising campaigns in Liberia), but this ultimately could not be realised.

Nevertheless, **the Zoonoses Education Campaign has shown how important and welcome education about zoonoses is for the people of Liberia**. The foundation has been laid so that the campaign can be revived at any time.



## 4. NIGERIA

### Country-specific key aspects

Human population	<ul style="list-style-type: none"> <li>■ ~ 237 Mio people (World Factbook 2024), Africa’s most populous country</li> <li>■ more than 250 ethnic groups</li> </ul>
Language(s)	<ul style="list-style-type: none"> <li>■ Official language: English</li> <li>■ 500 additional indigenous languages</li> <li>■ Pidgin is commonly used in several areas</li> </ul>
Prevalence for zoonotic diseases	Nigeria is among the top ten countries with the highest burden of infectious and zoonotic diseases globally (Ihekweazu <i>et al.</i> 2021)
Most relevant zoonotic diseases	Anthrax, Rabies, Ebola, Marburg fever, Lassa fever, Avian bird flu, zoonotic tuberculosis, Trypanosomiasis, yellow fever, COVID-19, Brucellosis
Relevant wildlife species	Great apes, other primates, antelopes, bats, rodents and squirrels, ungulates, snakes, turtles
Government prevention measures	<ul style="list-style-type: none"> <li>■ Workshop in 2017 to prioritize zoonoses (Ihekweazu <i>et al.</i> 2021)</li> <li>■ In June 2022, the Nigerian Government has banned the sale of bushmeat as a precaution to stop the spread of Mpox</li> </ul>

Full country profile: <https://www.prowildlife.de/4-nigeria-country-profile/>



## Bushmeat

Across southern Nigeria, the bushmeat trade is rampant, leading to considerable loss to biodiversity (Oates *et al.* 2016; Bergl *et al.* 2016; Akani *et al.* 2015). Moreover, wildlife is used for traditional medicine and kept as pets (Friant *et al.* 2015, Soewu *et al.* 2012). Concern about massive wildlife extirpation in Nigeria was already expressed in the 1970s (Olayemi *et al.* 2011) and commercialization of bushmeat further exacerbated the situation (Gadsby 1990). A recent study in six western states found more than 80 % of hunters hunted for income generation and less than 20 % for subsistence (Alarape *et al.* 2021).



*WildAid* (2021) describe a growing appetite for bushmeat among Nigeria's urban residents. While no link between income and consumption of bushmeat was found, taste and cultural habits are main drivers for consumption (Iwajomo & Ogunsola 2024). Gender differences in bushmeat consumption are not generally important but young people consistently avoid eating bushmeat, and in urban areas (Luiselli *et al.* 2019).

Although the steady demand for bushmeat in Africa's most populous country increases the risk of zoonotic disease transmission (Kia *et al.* 2021, Meseko *et al.* 2020) there is little awareness about zoonosis: not only among hunters, and traders (Ozioko *et al.* 2018), but also even among health professionals in Nigeria (Nigeria Centre for Disease Control and Prevention 2023). Hunters and traders are still the most familiar with Ebola and Lassa and name monkeys as the main vectors (Omonona *et al.* 2018).

Accordingly, technologies for surveillance, early and accurate diagnosis, biosecurity and preventive vaccination are insufficiently deployed in Nigeria (Uba 2024; Meseko *et al.* 2021). Hence, demand reduction should be a key priority to reduce health risks.

## Overview

**Local partner:** Our partner in Nigeria is *Pandrillus Nigeria*, located in the capital city of Cross River State in the South of Nigeria. Pandrillus operates the *Drill Ranch*, a rehabilitation and breeding centre for the endangered drill, founded in 1991; however, it is also home to orphan chimpanzees.

The centre and its field site, the *Drill Ranch Afi Mountain*, are open to the public free of charge, 365 days a year. With thousands of visitors (mostly local citizens), who receive a guided tour and free handouts, it carries out extensive educational work. For instance, the centre is a popular excursion for nursery, primary and secondary school students, and undergraduate and graduate students from the *University of Calabar* and beyond.

**Target groups:** The team in Nigeria focused on urban residents of different age, with a maximum outreach into different states and regions. Through cooperation with universities, educated young adults have been motivated to outreach to schools, communities and to local markets. By visiting those markets meat traders and their customers were addressed in a targeted manner.

**Challenges:** Nigeria, a federation of 36 states, is by far the most populous country in Africa and ranks sixth on a global scale. The sheer size of the country and the heterogeneity of ethnic groups and languages was one reason to develop the concept of ambassadors:



In Nigeria, it is extremely difficult to follow schedules. For example, at the beginning of the project, the banks brought the flow of money to a standstill and many planned activities were delayed as a result. Permits from authorities are extremely time-consuming, but necessary, for example to erect billboards.

## Sustainability

Before the start of the ZEC project *Drill Ranch* focused its education work on wildlife conservation aspects. With the start of the ZEC project the centre permanently integrated the *One Health* approach and the risks of zoonotic diseases in its educational area of the centre and its education program. Hence, visitors will also be educated about zoonoses in the future.

T-shirts and caps with zoonoses messages are very popular and, although they are not cheap to produce, they are worn for years to come. Printed products such as calendars, brochures and handouts are present in everyday life and also last a long time.

The ambassador program enabled the Pandrillus team to reach out to target groups far beyond their own contacts, including ethnic and religious groups as well as universities and triggering discussions among broad sections of the population across the large country.

### ***Quote from a woman at a meat market in Calabar:***

*"You put so much effort in this that it must be really important, please tell me more."*

The team in Nigeria has shown that even in a large country, the topic of zoonoses can be made visible nationwide and supporters of the *One Health* approach can be successfully mobilised.

## Outcome

The education measures in Nigeria reached more than 6.8 Mio persons in total:

- 13-episode radio show on 2 radio stations with authorities joining the show, plus a 30 minutes interactive radio interview, summing up to over 6.3 Mio listeners
- 2 billboards: with ~ 420,000 views
- Social media: reaching close to 74,000 views
- 14 workshops and lessons at universities, reaching 1,927 students
- Guided tours in rescue centre: 4,900 visitors
- School program reaching > 4,500 children
- Community outreach to 850 rural citizens
- 46 volunteer ambassadors in 21 of Nigeria's 36 States
- 7 urban events, with > 3,500 attendees
- 26 representatives of local authorities were involved in zoonoses campaign





## Activities in Nigeria

The challenge of reaching many people in such a populous and ethnically diverse country has led the team in Nigeria to develop different designs. The *One Health* approach and recognisable symbols should work for billboard, promotional items, various print products and social media series. Campaign T-shirts and caps for staff, volunteers and workshop participants are important accessories for the joint mission.

Education material, including wall banners and roll-ups, were produced in English and Pidgin English. **As everyday objects, printed calendars and jotters with zoonotic messages have ensured a constant presence in households.** Stickers were used as giveaways in larger events, handbills and flyers for outreach to markets.

The team of Pandrillus performed a **multi-part radio show with two popular radio stations, which was broadcast over four months.** The special interview with the campaign manager on the topic „Protect wild animals – Prevent Zoonoses“ received many questions from the audience. The messages were strengthened with short jingles in other formats of the radio stations. The different episodes were also made available on Spotify, as the Podcast series “Bushmeat Longthroat and the One Health Concept”, addressed to mostly urban citizens. In total, more than 6.3 million listeners were reached.

**Two billboards in strategic, frequented locations** (at a big market in Calabar and at an important connecting road) made the campaign visible to expected 420,000 viewers and support the engagement with the topic of zoonoses already triggered by the radio programs.

*“People, especially in towns, heard about several diseases, such as COVID-19 or Ebola. They know about potential severe impact but don’t know the origin. The message that those can be caught from bushmeat is essential and very well received.”*

(Dr. Dauda Onawola, project manager at Pandrillus)

While the impact of the messages on the radio or billboards was difficult to measure, the interest and learning success of the visitors to the rescue centre was impressive. **Over two months, the daily visitors were interviewed before and after the education measure.** It became evident that such personalised guided tours in smaller groups have the deepest impact, resulting in the highest knowledge and awareness increase, compared to other education measures.



Billboard on zoonotic risks at Calabar's largest market



ZEC design for jotters, in local Pidgin language



T-Shirts with different zoonoses messages



Broadcast series on zoonoses in popular radio formats





School class receiving calendars during their visit at Drill Ranch



Lesson at Usmanu Danfodiyo University Sokoto, North of Nigeria



Rally at a market in Calabar, Cross River State, Southern Nigeria



Ambassador outreach in Kaduna State, central Nigeria

**Pandrillus reached out to several universities of Nigeria, involving representatives from authorities, universities, and other stakeholders.** For example, a professor from *Usmanu Danfodiyo University Sokoto* hosted the event 'A one day public awareness outreach' with 200 students from four different faculties (health, medical, agriculture, pharmaceutical). The students not only received a lecture on the topic of zoonoses, but also spread the message at the meat market in Sokoto.

**The main key for spreading the message through this huge country was setting up an ambassador program and involving 46 specially trained volunteers.** Ambassadors were recruited via an open call on social media with a Google form attached, which was shared widely. This approach enabled the team in Nigeria to go far beyond their own capacities and expand to 21 different states across the country. The largest outreach was achieved in the states of Cross River, Kano, Kogi, Sokoto, Kaduna, Kwara, Ogun, Lagos. This included outreach to local communities, religious groups, markets, universities and schools.

The committed young ambassadors also did not fear challenging encounters: They **visited four markets in Calabar and Zango to inform bushmeat traders and their customers about zoonoses in a direct dialog.** This led to lively discussions and longer conversations – some of them controversial.

Moreover, they held workshops in a hospital in Kogi State and with the *National Park Service of Nigeria* in Calabar. In addition, one of the ambassadors initiated a presentation on zoonoses at the *Delta Youth Conference*, with almost 300 young adults attending.

**Almost 74,000 people were reached via the ambassadors' personal accounts and Pandrillus' social media accounts,** as well as via webinars.

The ambassadors' manifold activities were assessed using a points system based on outreach efforts. The highlight of the program was the drive and creativity of the ambassadors. They were highly motivated, as they saw themselves as **part of something big, given the consortium of five countries under the umbrella of the *International Health Alliance*.**

Even though the program ended, many young, well-educated people are now in a position to raise awareness of zoonoses and will support the *One Health* approach as a global movement.





## 5. ZAMBIA

### Country-specific key aspects

<b>Human population</b>	20.8 million people (The World Factbook 2024)
<b>Language(s)</b>	<ul style="list-style-type: none"><li>■ English (official)</li><li>■ &gt; 70 languages and dialects</li></ul>
<b>Prevalence for zoonotic diseases</b>	<ul style="list-style-type: none"><li>■ High risk for Marburg disease and for importing Ebola and Mpox from DRC (WHO 2024, Okoror <i>et al.</i> 2020; WHO 2018a)</li><li>■ Recent outbreak of Anthrax in 2023 (WHO 2023a)</li></ul>
<b>Most relevant zoonotic diseases</b>	Trypanosomiasis, Anthrax, Enteric Diseases (Salmonellosis), Viral Haemorrhagic Fevers (Ebola), Rabies, Plague, Zoonotic Avian Influenza, Zoonotic Tuberculosis (ZTB), Cysticercosis and Brucellosis (WHO 2023b)
<b>Relevant wildlife species</b>	Ungulates, primates, bats, rodents, snakes
<b>Government prevention measures</b>	Training of provincial and district health promotion officers in emergency risk communication (WHO 2018b)

Full country profile: <https://www.prowildlife.de/5-zambia-country-profile/>

## Bushmeat

The thriving bushmeat hunting and related trade is the greatest threat to wildlife in Zambia (Sosnowski *et al.* 2021, Lindsey *et al.* 2015). Law enforcement as a main intervention measure against wildlife poaching fails to adequately deter local hunters because it does not address the main root causes of illegal hunting (Zyambo *et al.* 2024): Few livelihood options intensify wildlife utilisation in rural households (Sakala 2016).

Commercial bushmeat trade supplies both local and urban areas (Lindsey *et al.* 2013). In rural areas affordability is the main reason why households consume wild meat (Booker 2019), while urban bushmeat consumption is rising with increasing human population and wealth (Tan 2020). Urban consumers are willing to pay high prices (Sosnowski *et al.* 2021, Kurpiers *et al.* 2015). Bushmeat consumption in Lusaka and across Zambia is traditionally seen as healthy (originating from free ranging animals); residents of just Lusaka consume tens of thousands of kg of bushmeat each year (Nguluka 2018). Moreover, the keeping of primates as pets is common in some areas, as indicated by the number of rescued animals (GRI 2024).



According to a 2017 survey by Zambia's Department of National Parks and Wildlife, 63 % of Zambian adults believe that it is legal to keep primates as pets, while 46 % of adults believe that it is legal to eat baboon meat.

In December 2017, the *Wildlife Crime Prevention* (WCP) project launched the "This Is Not A Game" public awareness campaign to help end the illegal bushmeat trade (Graham & Ferguson 2020). However, the project mainly focuses on conservation and legal aspects, while further public awareness on zoonotic pathogens is still required.

## Overview

**Local partner:** Our local partner in Zambia is *Game Rangers International* (GRI) with their *Zambia Primate Project* (ZPP), based in Lusaka. With its *Resource Protection Program*, the NGO empowers government and community rangers to better secure Zambia's protected wildlife areas, via support to anti-poaching. Moreover, GRI runs a *Community Outreach Program* to raise conservation awareness and support sustainable livelihoods in communities contiguous to Zambia's Protected Areas. The ZPP is aiming to change deep-rooted behaviours and reduce poaching and illegal trade. GRI is reaching thousands of visitors via its *Wildlife Discovery Centre* in *Lusaka National Park*.

**Target groups:** The community outreach team in Zambia is operating in four key landscapes for biodiversity: a) *The Greater Kafue Landscape*, including *Kafue National Park* plus nine surrounding Game Management Areas; b) *Rufunsa Game Management Area*, an important 'buffer' for the *Lower Zambezi National Park*; c) the capital city of Lusaka, where illegal bushmeat consumption is rife and wildlife products are processed and d) and Zambia's Copperbelt Region as a hotspot for deforestation, with many primates kept as pets. Key target groups in rural communities are women's groups, young men (as consumers and being involved in hunting), and school children of different ages.



**Challenges:** Logistics in rural and remote areas with poor infrastructure had to be well prepared. Outbreaks of anthrax and cholera led to temporary school closures. An electronic billboard received much less viewers than expected due to unstable power supply. Another challenge was the low literacy that hampered understanding of text. The team had to further simplify messages and create more visualized material.



## Sustainability

Due to the strong positive feedback from participants in the educational measures, zoonosis education was firmly integrated into the outreach program. Large parts of the campaign (except give-aways) will continue beyond the funded period as the team now has the knowledge and is equipped with sturdy, weather-resistant material and an improved education centre. In addition, authorities, teachers, local peer-educators and other multipliers were involved who will continue spread the word.

The intensive and trusting dialogue between the GRI team and the rural women as the main target group has laid the foundation not only for raising awareness, but also for creating a deep understanding of the health risks in daily life – and thus the prerequisite for real behavioural changes.

In remote communities, peer-educators were trained in five-day workshops to ensure that the messages remain in the communities long after the project cycle.

***“The Zoonoses Education Campaign is definitely crucial, especially after seeing in practice the impact and relevance in new outbreaks. It should go hand in hand with any bushmeat program as it gives focus on the ‘why’ and an extra dimension to all messaging!”***

(Jeni Vanhoucke, project manager at GRI)

## Outcome

In total, the GRI team reached more than 720,000 people:

- 15 radio shows, with > 657,500 listeners
- 58 outreaches to rural communities, with > 25,400 participants (~ 20,000 as spectators attending large sport events)
- Training of 41 peer educators in remote communities to sustain the message
- Newsletter, reaching 15,110 subscribers
- 1 electronic billboard with 10,000 views
- Visitors in the education centre: over 5,000 urban citizens of all ages
- 54 visits to schools, with > 5,400 children
- Training for 142 staff members & educators
- 58 immersive *Discovery Days* at the centre for 140 teachers and 1,235 school children
- 10 representatives from local authorities were involved in the education campaign





## Activities in Zambia

As a first step, GRI approached relevant authorities and Ministries in the fields of conservation, health and education to inform about the planned campaign, to receive feedback and to seek support at different levels. The table of all health risks of the produced country profile was the key element in gaining partners for the ZEC campaign.

The team worked with a local artist to develop educational materials with simple illustrations. **Materials were printed in English and three local languages (Ila, Nyanja, and Bemba)**, including banners, posters, bumper stickers, an interactive display, teachers' guides, flyers, and mobile flipcharts (for areas without power supply). T-Shirts with messages were used by the education staff and as give-aways for multipliers.

Training of 28 staff members and over 40 local and influential peer-educators has helped not only to increase trust and acceptance but to also ensure continuous messaging even in remote areas and beyond the project course. **Moreover, 200 local teachers attended zoonoses workshops**, who are helping with spreading the message.

The GRI team integrated the zoonoses topic in its ongoing comprehensive community outreach program. Using law enforcement data, they selected poaching hotspots near protected areas to reach the relevant target groups. High-risk demographic groups, such as hunters' groups as suppliers of bushmeat were reached with special meetings.

**In the four rural areas visited, the communities targeted mostly consisted of low-income low-education households.** Women play an important role here, as they purchase and prepare the food and look after up to 10 other people's children as well as their own. With this high level of responsibility, the health aspect was of great interest. The events were welcomed as specifically organised for them, bringing useful knowledge. The workshops with small women's groups led to an open, trusting discussion about the specific health risks in their everyday lives and led to reflection on their own risks in preparing bushmeat and preventive measures.

While networks and awareness programs were already in place in three of the rural target areas, the Copperbelt region was included in the program for the first time as **a hotspot for deforestation and the keeping of primates as pets.**



*Educator wearing T-Shirt with awareness message*



*Mobile flipchart presentation, Musungwa Community*



*Kalulushi Chembe community, Copperbelt region*



*Shachiwodwe women's group, Lusaka community*





Outreach to urban school in the city of Lusaka



Outreach to rural school near Kafue National Park



Education at the Wildlife Discovery Centre



Radio broadcast in urban and rural areas

*“Instead of saying “do this, don’t do that” we offer how people can save their loved ones, something positive to their daily life. We wouldn’t have been that successful without the One Health aspect.”*

(Jeni Vanhoucke, ZEC project manager at GRI)

The **large portable banners** were not only present at all events but were also requested by hospitals to emphasise the health message. They drew attention of over 7,000 visitors to the topic of zoonoses at special events, e.g. the *World Tuberculosis Day* (24th March), the *Vulture Awareness Day* (1st Saturday in September) and the *ITT Agricultural District*.

Especially in schools, the **print material was essential** and received a lot of positive feedback. The GRI team visited **54 schools in the key areas** and educated more than 5,400 children, teachers and other adults involved about zoonotic risks, bushmeat as a possible transmission route, alternatives and preventive measures.

58 *Discovery Days* were facilitated at GRI’s *Wildlife Discovery Centre* with 1,235 school children and 140 teachers attending. After implementing the health messages at the exhibition centre more than 5,000 visitors learned details about zoonoses.

With **large-scale football tournaments** near to protected areas, the campaign attracted close to 20,000 spectators of all ages from surrounding communities, who appreciated the mix of fun and education. Hereby young male athletes were reached in particular, who represent a key target group as bushmeat hunters and consumers. Following training by GRI, the Shachiwondwe women’s football team helped to spread the word within their sporting community.

Unfortunately, the promising use of an **electronic billboard, where videos and text information** were combined, did not lead to the expected reach: visibility was repeatedly interrupted due to district-wide load shedding.

In contrast, nine **radio programs on zoonoses** were a great success: Broadcasts in the community radio station Adroit reached more than 57,500 listeners, and six broadcast in ITT Radio an estimated 600,000 listeners in more urban areas. Engaging representatives of authorities and the NGO *Conservation Lower Zambezi* strengthened confidence in the messages of the radio programs on zoonoses and *One Health*.

## 6. Conclusions

During the project period from November 2022 to June 2024, the Zoonosis Education Campaign reached more than 8.2 million people in four African countries with a total of 1,460 educational activities.

Radio has proven to be the most cost-effective tool when it comes to raising public awareness of zoonotic disease risks. However, the success of this measure is difficult to quantify, meaning that the physical outreach into rural areas and hunting hot spots scores points for its more sustainable impact despite its smaller reach. It has been shown that addressing and convincing key consumer groups personally has the strongest effect, as it was more intense and provided the opportunity for real dialogue, trust-building and understanding.

For evaluation purposes close to 4,000 attendees of different ages, sex and background were interviewed before and after education measures about their knowledge on zoonotic risks, pathways and preventive measures.

Before the measures, only 7 % of respondents were already aware that they could get a disease from handling wild animals. As a result of the campaign activities, an average of 84 % were aware of the health risks posed by zoonoses. The learning success was particularly high with guided visitor groups (> 90 %) and school visits (> 85 %) due to a more personal approach.

Our insights for all stakeholders planning an awareness campaign on zoonoses are summarised as follows:

### 1) Target groups & messaging

**Local adaptation of global information:** Scientific findings must be harmonised with country-specific situations, including key species in local bushmeat consumption, zoonotic outbreak events in the region and impact on daily life of people. This is vital to increase acceptance and practicability of education measures.

**True-to-life messages:** The people addressed need to see the connection between the supposedly theoretical messages and their daily lives. With helpful instructions, e.g. how to bat-proof homes and vaccinate livestock etc., zoonotic disease prevention is more likely to be taken up than focusing solely on bushmeat hunting and consumption. Local outbreaks of e.g. anthrax highlighted the relevance of the topic for daily life and personal health of local people, led to increased support from stakeholders and contributed a sense of urgency to the messaging.

**Be convincing & persistent:** The campaign has focused on places with high bushmeat consumption and keeping of wildlife as pets. Mistrust and rejection can be overcome in many places if pupils, teachers and rural people become more involved and learn how to protect themselves from zoonoses.

**Listen to your audience:** Listeners of live radio shows are often calling in and participating in discussions on air. This is a strong indicator of interest, and the questions provide important information on what moves people and how they can be reached.

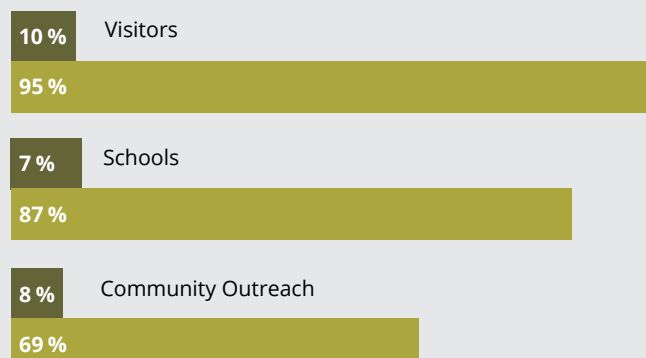
#### IMPACT OF ACTIVITIES

■ before & after ■ activity

##### *Can you get a disease from handling wild animals?*



Source: LiWiSa (Liberia) n = 420;  
Pandrillus (Nigeria) n = 653;  
GRI (Zambia) n = 2,564





## 2) Tools & strategies

**Rescue centres** are a perfect place for positive messaging as visitors see the wildlife and the topic is less abstract. With the *One Health* concept, conservation messages can be combined with the protection of human health in a highly valuable and less accusatory way.

Increased awareness of zoonoses could eventually lead to wild animals kept as pets being abandoned or surrendered. Rescue centres in the region should therefore be informed about the awareness campaign in advance if they are not participating in the campaign themselves.

**Detailed science-based country profiles**, providing an overview on most relevant zoonotic diseases, history of outbreaks, relevant wildlife species, potential partners from different sectors etc., were the starting point for all education teams for their campaign concept. It was also an important reference work throughout the entire project period.

**Involvement of stakeholders:** Approval from relevant authorities and involvement of other stakeholders (from different sectors, e.g. education, health, communities, protected areas) is needed to expand all channels of outreach and build trust in the messages. Most of the stakeholders approached have made helpful suggestions improving the campaign strategy and adaptation to the local context. Convincing and engaging traditional and community leaders and educators increases acceptance, reach and intensity of the campaign.

**Be creative with incentives:** Large sport events are attracting thousands of people from the wider region. Stickers, T-shirts, and posters as give-aways or rewards have proven to be extremely helpful spreaders of messages. Jotters and calendars are very popular gifts and are used for a long time.

**Fill your toolbox:** The course of the project has shown that there are often opportunities to participate with the zoonosis campaign. It is therefore helpful to prepare the developed messages and layouts for different formats and educational levels. Combine print products and training courses with various activities such as sporting events, dance or theatre performances, market visits or public parades.

**Multipliers are key:** The ambassadors' program in Nigeria has proven its worth as the campaign has been expanded to many states across the country. The Zambian team trained peer-educators in rural communities to ensure messaging continues in remote communities long after the project cycle.

## 3) Optimal impact & sustainability

**Fruitful collaboration:** Working in a consortium, supported by regular video conferences, is an inspiring chance to combine different skills (e.g. technical or design), experiences and ideas, to improve activities and outreach. Joint webinars increase visibility and reputation.

**The big picture:** The recognition that one's own local activities are an important and effective part of the global *One Health* effort is encouraging. Appearing as a consortium (e.g. by presenting all logos) was perceived by members as an added strength and value, e.g. in dialogue with governments, authorities and the public.

**Sustainability for behavioural change:** To ensure a change of behaviour and a reduction of consumption of bushmeat in the long-term, the program must remain operational beyond the introductory period: Stable and weatherproof information material, as much as a well-trained and highly motivated staff are crucial to ensure sustainability of the campaign.

**Women are the key:** Due to their central social role in the family and the community women's groups in rural communities have shown to be ideal contacts for the messages. Convincing them of the *One Health* approach and its benefits to their daily lives has the greatest chance of bringing about real change in daily consumption.

**One Health approach:** "We wouldn't have been that successful without the One Health aspect" is the conclusion of GRI in Zambia, which was confirmed by the other three in situ partners. Hence, by including the health aspect in the educational work, especially in more rural areas, mistrust and resistance were significantly reduced and instead a higher level of acceptance and willingness to change behaviour was achieved.

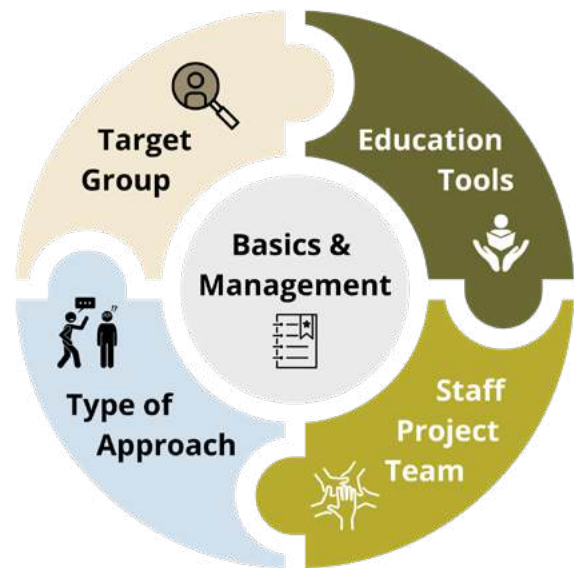
# 7. How to start your own campaign

## A checklist

The basis of our zoonoses awareness campaign was an existing rescue centre in each selected country, which had education programs of varying size.

We would like to provide you with recommendations on how to make zoonoses education an effective part of your conservation education.

The modules can be individually combined depending on the target group or your own framework conditions.



### Basics and project management

#### 1. Create your country profile

*A country profile should provide a scientific overview of the current situation in the country about zoonoses and will be an important reference book during the entire campaign. Consider having such a scientific document written in co-operation with a university, for example as a term paper.*

##### ☐ Highlight the national characteristics

- including population, languages, religions, ethnic groups, age structure; Legislation on trafficking of endangered species

##### ☐ Identify the relevant zoonotic diseases and their extent in your country

- Table of zoonotic health risks: good for approach authorities and conservation partners; use as start for a conversation, to outreach to local stakeholders and potential partners
- Scientific background important to have references in discussions

##### ☐ Which wildlife species are locally consumed / kept as pets? What zoonosis risks are associated?

##### ☐ What are the most relevant spillover pathways?

- e.g. bushmeat, wildlife as pets, traditional medicine, religious rituals

##### ☐ Identify the most relevant media used in the country

- e.g. urban / rural radio stations, TV, social media channels

##### ☐ Figure out the range of potential influential stakeholders & identify potential partners

- Who is the influencing part in your target group, from Grandma to Doctor



## 2. Good project management is a key

- ❑ **Appoint a project manager with sufficient working hours**
  - You need to have a committed person with several skills
  - Financial and strategic adjustments should be made at an early stage
- ❑ **Set up a detailed but flexible year plan including relevant events from the beginning**
  - Consider national and international holidays, e.g. One Health Day, World Zoonoses Day
  - Identify events and festivals in your area
  - Can rural people attend your events during planting season?
  - Which activities are doable during rainy season?
- ❑ **Don't underestimate the time required for preparation and production**
  - Consider a longer planning period and allocate the available funds at an early stage
  - It might take 6 months to develop the campaign and to produce the material
  - Allocate enough time build relationships with authorities, stakeholders, religious groups or community chiefs
- ❑ **Identify authorities you need for the campaign**
  - e.g. head vet of Agriculture Ministry, Forest Development Authority, Ministry of Health
  - Which contacts to governments already exist, which can be expanded in realistic time?
  - Who approves educational material?
  - Who could be interested in joining e.g. radio shows?

## 3. Evaluation of measures

- ❑ **Develop evaluation forms**
  - e.g. questionnaires, surveys, quiz
  - Keep questions simple and easy to answer with yes or no
  - Use words that your target group understands and uses itself
- ❑ **Maximise the reliability of your survey**
  - Try to interview smaller groups to get fewer randomised answers
  - Enable your team to recognise whether surveys/questionnaires are useful and meaningful in the activity (e.g. community meeting vs. large events)

# The Project Team

## 1. Own Staff

### ❑ Specify capacities in your core team

- Size, knowhow, skills, mobility
- Different talents needed (including layouts, organisation, teaching), for smaller organisations capacities for such a campaign are a challenge >> see (3) Ambassadors.
- In case capacities, skills and experience in the team are limited, would a part time consultant or employing a local person be an option?

### ❑ Which team member is suitable for which target group?

- Good demeanour with leaders, at universities or in front of authorities
- Are women better suited for women's groups?
- Speaking well in front of school classes
- Confident on the subject in radio/tv interviews

### ❑ Training of the trainers

- Adapt the country profile to a script for the trainers
- Prepare them for approaching different target groups
- Hold workshop for staff to explain content and how to deliver what is needed

## 2. Identify local partners and relevant stakeholders

### ❑ Identify leaders of relevant groups and find out what motivates them to support the campaign

- Religious leaders, wildlife rangers

### ❑ Look at stakeholders who are specialised in what you are interested

- e.g. organisers of football tournaments / festivals, market security associations, media persons

### ❑ Schools: Find the person responsible and adhere to the hierarchies

- e.g. administrators, teachers, after school clubs, school headmaster

### ❑ Community leaders

- family members or contacts over friends might be helpful to outreach

### ❑ NGOs (also organisations with other thematic focuses)

- A more formal approach for a partnership can encourage support (portray goal of the project, measures, steps, timeline) but needs an early approach
- Receive information about e.g. local traditions, use of wildlife for medicine and target areas

## 3. Voluntary ambassadors and peer-educators

### ❑ Build a network of ambassadors to generate a greater reach (higher level of knowledge)

- Train motivated & educated young people
- Give an incentive and award the best performance

### ❑ Train peer-educators in communities (lower level of knowledge)

- Permanent contact person to the community
- Anchors the topic of zoonosis and one health remains visible in daily life



## Target Groups

*Identify the target groups that you can best reach with your resources. If a target group can only be reached with a great deal of additional effort, focus first on a group that is easier to reach and only consider the other target group when producing education material in order to reach them later.*

### ❑ Visitors to your own rescue centre

- Can you host school classes or do you have an existing youth club?
- Improve your exhibition area or pathways through the centre
- Consider small events at the centre

### ❑ Schools

- Outreach to schools might be the easiest start for your campaign
- Check whether you need permission to reach out to local schools
- Do you have educators in your team and travel options?

### ❑ Rural Communities (including hunters and processors)

- Women are key: health aspect especially important, caring for family and communities
- Start with existing networks: Reach out into new areas not as a first measure but after establishment of campaign
- Council representatives or community leaders are not easy to reach and may expect gifts
- Pre-visit communities to find someone who identifies potential partners

### ❑ Urban people (consumers)

- Identify festivals and national events in your area
- In TV & radio formats for modern urban audience you need a more scientific approach
- Busy areas and meat markets, for direct approach but also with billboards
- Do you have educators in your team and travel options?

### ❑ Universities

- Involvement of younger high education people in health discussions
- The topic of zoonoses is relevant for various faculties (health, environment...)
- Professors can host awareness days and sustainably integrate the topic into the curriculum

### ❑ Authorities & Stakeholders as multipliers

- Ministries / departments of Health / Forest / Agriculture / Veterinary
- Hospitals can support in spreading flyers and hanging banners
- Hunters' associations

## Approach – Communication methods

- ☐ **Presentation, Lectures** (e.g. Universities, conferences, authorities)
- ☐ **Workshops** (for own staff, authorities, peer-educators in communities, local teachers)
- ☐ **Meetings** (e.g. rural communities, leaders, women's groups, hunter's groups)
- ☐ **Events (sport, theatre, dancing, market rallies)** (urban people, rural communities, authorities, schools, universities)
- ☐ **Parades, Festivals** (primarily for urban people)
- ☐ **Public Space (traditional & social media, billboards)** (Both urban and rural people)

## Education Tools

*In terms of type and design consider where the education material is to be used and how it will get there: travelling e.g. by motorcycle or bus restricts the quantities and types of materials you can use.*

### 1. Design and messaging

- ☐ **Develop non-contradicting messages**
  - Create short slogans with simple wording, which can be used in various formats
  - Focus on the country-specific way of life
  - Add information on hygiene and "how to keep you safe" to raise acceptance and sustainability for your project
- ☐ **Choose the right language(s)**
  - e.g. Pidgeon or local language instead of English
- ☐ **Design elements**
  - Design a project logo to ensure recognition on different layouts
  - Visualize the key messages with photos or animations
  - Work with emotions: funny – sad – scary

### 2. Fill the toolbox for your campaign

*Combining education with fun elements (e.g. football tournaments) attracts a larger audience. Probably a mixture of cheap and expensive but long-lasting measures is recommendable to achieve sustainable awareness results. What suits your strategy best?*

- ☐ **Posters** (low costs – broad uses – medium lasting)
- ☐ **Flyers, handouts** (low costs – broad audience)
- ☐ **Roll-up banners** (high costs – broad uses – long-lasting)
- ☐ **Large Banners** (high costs – broad uses – long-lasting)
- ☐ **Notebooks, Jotters** (high costs – works well in schools – long-lasting)
- ☐ **Calendars** (low costs – medium range – popular for taking home)



- ❑ **Flipbooks** (low costs – important tool for schools)
- ❑ **Flipcharts with big visuals and simple messages** (long-lasting, for low education target groups)
- ❑ **T-Shirts with message** (high costs – long-lasting, powerful tool)
- ❑ **Stickers** (low costs – high reach, very popular, especially for kids – long-lasting)
- ❑ **Billboards** (high costs – broad audience low – personnel deployment)
  - ➔ Authorities need to be involved, plan time for permission
- ❑ **Radio broadcast** (high costs for jingle production & airtime – broad audience)
  - ➔ Which radio stations are relevant for your target groups? Which program is suitable for messaging?
  - ➔ presence in radio gives higher reputations, especially with external speakers
  - ➔ Develop scripts for the show
- ❑ **TV interviews** (low costs – broad audience)
  - ➔ “Dr. John, our vet” or other experts are attractive interview partners
- ❑ **Social Media Campaign (no quick successes - only a long-term tool)**
  - ➔ It’s time, capacity & budget intense to get followers (mainly urban people)
  - ➔ Influencers & VIPs as ambassadors helpful to increase reach

### 3. Which measures and tools are best suited for which target group?

	Presentation / Lectures	Work-shops	Meetings	Events	Parades Festivals	Public Space
Visitors to Rescue Centre	Exhibition, posters, stickers, flyers, T-shirts			Roll-up banners, large banners		
Schools	Posters, notebooks, jotters, flyers, calendars, flipbooks, T-shirts			Graduation / awards, stickers, dancing		
Rural communities (including women`s groups)		Roll-up banners, T-shirts	Roll-up banners, T-Shirts, stickers, sport events, theatre	Roll-up banners, large banners, T-Shirts, sport events, theatre	Roll-up banners, large banners	Billboards
Urban people		Power Point Presentation, T-Shirts	T-Shirts	Roll-up banners, posters, large banners, flyers, stickers, T-shirts, sport events, flyers	Roll-up banners, large banners, stickers, flyers, T-shirts	Billboards, Radio / TV print & social media
Universities	Roll-up poster, flyers, large banner, Power Point Presentation, T-shirts	Power Point Presentation		Roll-up banner, large banners, flyers		Social Media
Authorities & Stakeholders	Roll-up banner, Power Point Presentation	Roll-up banner, Power Point Presentation		Roll-up banner		

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