



## THE FINAL PROJECT REPORT

*Enhancing the contribution of religious identities in supporting sustainable conservation of Areas of Zero Extinction (AZE) sites in Rwanda, case of Nyungwe National Park*

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## LIST OF ACRONYMS AND ABBREVIATIONS

**NBSAP:** National Biodiversity Strategies and Action Plan

**NNP:** Nyungwe National Park

**REMA:** Rwanda Environment Management Authority

**RBINS:** Royal Belgian Institute of Natural Sciences

## ACKNOWLEDGEMENT



We are extremely grateful and indebted to the Royal Belgian Institute of Natural Sciences (RBINS) for generously funding this project.

We would like to thank the Rwanda Environment Management Authority (REMA) for providing critical guidance, comments, and technical assistance that enabled this project to be completed successfully.

We thank the local government at the sector and district levels, as well as representatives of the faith-based associations at the district level, for their assistance and support in all project stages.

Finally, our heartfelt gratitude goes to religious leaders and their followers, as well as everyone who directly or indirectly contributed to the successful implementation of the project's components.

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## EXECUTIVE SUMMARY

Over the last decades, the Government of Rwanda together with environmental stakeholders worked tirelessly to engage local communities in sustainable protection and management of protected areas. To achieve that, many public awareness programs were implemented to raise knowledge and skills, inspire positive attitudes and behavior, and motivate community members to become conservation partners. However, there was a gap in understanding the holistic impact of these awareness programs. Hence, in 2020 Nature Rwanda conducted a study with the aim to assess the level of awareness, attitude and community participation in supporting biodiversity conservation around protected areas in Rwanda using seven main indicators developed in the previous project (*Suitable Indicators for a baseline study of public awareness campaign in Rwanda*). The level of awareness, attitude and community participation in supporting biodiversity conservation was found to be generally low at all protected areas, but lower at Rugezi wetland and Nyungwe National Park (NNP) (6.713% each), and lower among church leaders (0.00%). Therefore, in 2021 Nature Rwanda enhanced religious identities in biodiversity conservation of Areas of Zero Extinction (AZE) sites in Rwanda, case of NNP. The project's target audience was the local communities in their respective religious service categories. To achieve the target, 60 religious leaders from two sectors (Gatare and Nkomane) which are adjacent to NNP were trained, so as to be able to reach the community through their religious services. The trained religious leaders subsequently conducted awareness campaigns at their respective worship houses. Awareness campaigns prioritized the use of more inclusive modes of communication, such as the use of Kinyarwanda language, and educational materials, such as posters, banners and green bibles verses... The message was technically and scientifically relevant in order to bridge the skills and knowledge transfer gap in order to inspire community commitment and participation in addressing conservation issues at the local level. After conducting Pre- and Post- assessments, it was seen that the level of awareness, attitude and community participation in supporting biodiversity conservation has gradually increased.

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## 1. GENERAL INTRODUCTION



Public awareness forms the basis of public capacity, which enables the public to undertake actual actions of each element of biodiversity conservation. Such actions consequently become the inputs for the advancement or “performance” of conservation initiatives that benefit both people and nature. They deliver appropriate skills, knowledge, attitudes, behavior and best practices for biodiversity conservation that becomes the basis for sustainable societies. The target 1 of the National Biodiversity Strategy and Action Plan (NBSAP) stated that “by 2020, at the latest, Rwandan people in at least Districts that are adjacent to protected areas would be aware of the values of biodiversity and ecosystem services and understand the steps for its sustainable use and conservation”. To achieve this target, the government together with conservation partners has put much effort into achieving this target through different public awareness activities. The baseline survey conducted in the previous project (*Baseline study on the level of public awareness on Biodiversity conservation around protected areas in Rwanda*) by using Suitable indicators for public awareness in Rwanda developed by Nature Rwanda in the previous project (*Suitable Indicators for a baseline study of public awareness campaign in Rwanda*), has revealed that despite the efforts and investments made to achieve target 1 of the NBSAPs, the level of awareness, attitude and community’s participation in supporting biodiversity conservation is generally low at all protected areas (10.185%) and lower at Rugezi wetland and Nyungwe National Park (6.713% each). This hinders conservation results of AZE sites, which require special attention to ensure the survival of present threatened species. More than 90% of Rwandans belong to a certain religious service. This highlights the contribution of faith-based leaders in raising conservation awareness in their teachings to reach the hearts and minds of their followers to inspire changing skills, knowledge, attitudes, behavior and best practices in relation to everyday actions.

Thus, Nature Rwanda enhanced religious identities in biodiversity conservation of Nyungwe National Park in 2021, with financial support from the Royal Belgian Institute of Natural Sciences, by using seven main indicators developed in the previous project (*Suitable Indicators for a baseline study of public awareness campaign in Rwanda*) that helped determine the level of awareness, attitude, and community participation in supporting biodiversity conservation in previous project (*Baseline study on the level of public awareness on Biodiversity conservation around protected areas in Rwanda*). This was accomplished through two main goals: 1. Provide a capacity pool for collaboration with faith-based organizations in raising community awareness about NNP conservation, and 2. Strengthen faith-based organizations’ integration in raising community awareness about NNP conservation.

## 2. PROJECT APPROACH



### 2.1. Overview of the project area

This project was implemented in Nyamagabe district, one of the five districts where NNP is located. The project area falls into two sectors, Gatare and Nkomane, which are adjacent to the park. As shown on the map below, 30 leaders representing 30 worship houses were selected in each sector (*red dots representing religious leaders in Nkomane sector and blue dots representing religious leaders in Gatare sector*).

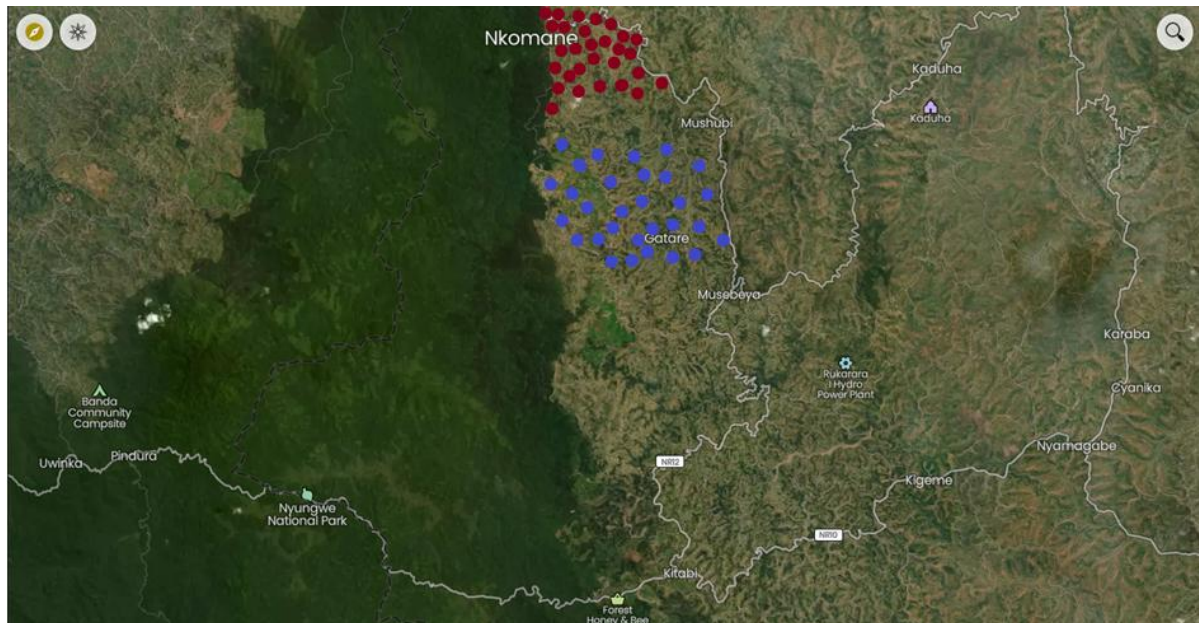


Figure 1: Project area

Following a collaborative meeting with district officials and representatives from faith-based organizations at the district level, we were advised to work in two sectors adjacent to NNP (Gatare and Nkomane) because (1) there are limited district partners in conservation working in that area, (2) those sectors are ranked as the top to have many people living below the poverty line in the whole district, (3) the area is inaccessible due to topographic characteristics and poor infrastructures, and (4) most of poaching and tree forest cutting case reported at district level were from these two sectors. In this regards, we identified that working in these two sectors can amplify the impacts of the project.



## 2.2. Training/ Awareness (Methodology)



Prior to the trainings, consultation meetings were organized at District and sector levels to discuss about key project activities, and how they can be related to the District's plan of human-wildlife conflict management in the target area. In addition, we had meetings with Rwanda Interfaith Council representatives at the district level which helped in the process of selecting target religious leaders in worship houses. The selected leaders were from 6 most popular churches in the area; the Catholic Church, Anglican Church, Seventh-day Adventist Church, Église Methodiste Libre au Rwanda (EMLR), ADEPR church, and New Apostolic Church. A two-day training workshop was organized for selected leaders to improve their knowledge, skills, attitude, their capacity in the area of biodiversity conservation, and give them an insight on how conservation can be successful when it is supported by religious identities. To ensure the training efficiency and effectiveness, and in order to abide to the Covid-19 prevention rules and regulations, the training was organized into three separate groups of 20 trainees for 2 days per group. Because the primary objective of training was to build the capacity of religious institutions to integrate nature conservation message into their preaching agendas in a standardized manner, we have developed a training manual based on seven indicators developed in the previous project (*Suitable Indicators for a baseline study of public awareness campaign in Rwanda*). The training manual was prepared to ensure uniformity in the content, accuracy and presentation of material. Evaluation has also been a component of the training to assess participants' level of understanding, competence and reactions to training. Trainees were evaluated on a number of levels:

- Attendance and participation in the training
- Pre- and post-training test scores derived from comparing Day 1 to Day 2
- Ability to lead discussion through demonstration in front of participants
- Ability to complete the reporting tool effectively and efficiently
- Certificates were presented to participants who successfully complete the training.

## 2.3. Indicators framework

Seven main indicators used in the previous project (*Baseline study on the level of public awareness on Biodiversity conservation around protected areas in Rwanda*) were used to measure the level of biodiversity awareness among the target group, before and after the project. This was an important component of the project in order to engage religious leaders in biodiversity conservation of Nyungwe National Park. All project materials and training courses were developed to reflect to those indicators and specifically emphasize on the role of religious leaders to support and reflect the level of awareness, attitude and community participation in supporting biodiversity conservation of Nyungwe National Park.

- KNOWLEDGE INDICATOR-accurate knowledge on term biodiversity; was constructed based on knowledge of the term Biodiversity, and the ability to explain what it stands for.
- KNOWLEDGE INDICATOR-ability to describe main challenges of biodiversity; was constructed based on knowledge of the term Biodiversity, ability to mention at least one component of biodiversity, and the ability to give at least one main challenge to biodiversity.



- **KNOWLEDGE INDICATOR**-ability to link biodiversity and livelihood; was constructed based on knowledge of the term Biodiversity, ability to mention at least one component of biodiversity, ability to give at least one main challenge to biodiversity, informed that the biodiversity is declining, and/or knowledge of the importance of NNP and why it needs a special protection.
- **ATTITUDE INDICATOR**-personal or group commitment to conserve biodiversity; was developed based on the participation in conservation activities, and whether the motivation was moral or socio-economic.
- **BEHAVIOR INDICATOR**-ability to make positive decisions on the sake of biodiversity; was constructed based on ability to link biodiversity and livelihood (knowledge indicator), commitment to live in harmony with wildlife, and participation in conservation activities.
- **SKILLS INDICATOR**-ability to acknowledge sustainable use of natural resources; was developed considering the respondents' ability to describe ecosystem goods and services and how they can be utilized in a sustainable and equitable manner.
- **THE OVERALL INDICATOR**-level of awareness, attitude and community participation in supporting biodiversity conservation; was constructed by only considering respondents who have good knowledge on biodiversity, skills on sustainable use of natural resources, positive behavior and attitude towards conservation, and play active participation in supporting biodiversity conservation, i.e. who positively categorized by each of the six above indicators.

### 3. THE PROJECT RESULTS

This section describes the results from the project. It also contains two tables that (1) shows the public awareness indicators scored against gender in trained religious leaders in a pre-and post-training assessment, (2) shows the public awareness indicators scored against gender in reached and not reached followers.

#### 3.1. Result One: Improved capacity of religious leaders in mobilizing their followers towards conservation of NNP through the integration of moral religious values

60 posters, 15 banners, 2 pull-ups, and 1500 brochures were produced and distributed to various worship houses to communicate conservation messages to local communities. All of these educational materials were created with a focus on the role of religious identities in supporting sustainable conservation of Nyungwe National Park.

60 representatives of worship houses; 54 men and 6 women from Nkomane and Gatware sectors completed a two-day training workshop.

The table below gives us an overview of the pre and post training level of awareness, attitude and participation of trained religious leaders in supporting biodiversity conservation.

**Table 1: Indicators scored against gender in trained groups in a pre-and post-training assessment (%)**

Indicators	Pre-training test			Post-training test		
	Male	Female	All	Male	Female	All
Ability to link biodiversity and livelihood	98.46	92.42	95.44	98.13	99.12	98.63
Personal or group commitment to conserve biodiversity	93.39	90.41	91.90	98.72	97.74	98.23
Ability to make positive decisions on sake of biodiversity	71.10	65.67	68.39	94.56	93.61	94.09
Ability to acknowledge sustainable use of natural resources	66.99	70.08	68.53	95.16	94.20	94.68
Ability to describe main challenge to biodiversity	54.30	49.77	52.04	93.07	92.14	92.61
Accurate knowledge on term biodiversity	7.31	5.09	6.20	88.22	87.33	87.78
<b>Level of awareness, attitude and participation in supporting biodiversity conservation</b>	<b>1.00</b>	<b>0.00</b>	<b>0.05</b>	<b>86.23</b>	<b>85.37</b>	<b>85.80</b>

The pre-training assessment showed that the level of awareness, attitude and participation in supporting biodiversity conservation (the overall indicator) was found low among trained groups (males: 1.00%, females: 0.00%, both genders: 0.05%). This means that to support the activities of religious leaders in conservation and environmental education, the group needed knowledge on the environment. As noted, the leaders' religious knowledge is generally sufficient. However, their knowledge of the environment leaves much to be desired.

The post-training assessment showed that the level of awareness, attitude and the willingness of trained religious leaders to participate in supporting biodiversity conservation (the overall indicator) has remarkably increased (males: 86.23%, females: 85.37%, both genders: 85.80%). In this case, religious leaders were equipped with proper conservation knowledge and were expected to act in an eco-friendly manner. They also showed a willingness to use their knowledge to raise conservation awareness and practice, starting with their own followers and spreading it to the local community.

### **3.2. Result Two: Established local collaborative work with religious leaders to raise community awareness on the conservation of NNP and care for creation.**

After the training, together with trained church leaders and the local administration, we went through a joint action planning for worship houses in the same sectors. As a result, new initiatives have emerged and implemented by trained religious leaders and their followers. Ten eco-groups were formed and are fully functioning at the church level, two fruit tree nurseries were established and seedlings are distributed among follows. Up to now more than 2500 fruit trees were planted in the local community. Over 800 campaigns under the theme "***As master of creation, defend nature***" were organized and reached to over 3000 women and 5000 men in Nkomane and Gatere sectors. If such an effort is kept being implemented correctly in collaboration with the local government, then the desire to improve environmental literacy of the communities around Nyungwe national park will be achieved.

We assessed level of awareness, attitude and community participation in supporting biodiversity conservation (the overall indicator) among the followers reached by conservation campaigns organized

at worship houses and to another group of community members who have never reached by such campaigns ( control group) to assess the impact of those initiatives taken by religious leaders after training.



**Table 2: Indicators scored against gender in reached and not reached people (%)**

Indicators	Not reached people			Reached people		
	Male	Female	All	Male	Female	All
Ability to link biodiversity and livelihood	76.37	73.94	76.35	76.90	79.30	78.90
Personal or group commitment to conserve biodiversity	74.71	72.33	73.52	78.98	78.19	78.58
Ability to make positive decisions on sake of biodiversity	56.88	58.14	54.71	75.65	74.89	75.27
Ability to acknowledge sustainable use of natural resources	53.59	56.06	54.82	76.13	75.36	75.74
Ability to describe main challenge to biodiversity	43.44	39.82	41.63	74.46	73.71	74.09
Accurate knowledge on term biodiversity	5.85	4.07	4.96	70.58	69.86	70.22
<b>Level of awareness, attitude and community participation in supporting biodiversity conservation</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>68.98</b>	<b>68.30</b>	<b>68.64</b>

The Level of awareness, attitude and participation in supporting biodiversity conservation (the overall indicator) was low among community members who have never reached by conservation campaigns organized by church leaders (control group) (females: 0.00%, males: 0.00%, both genders: 0.00%), while it was moderate among the followers reached by conservation campaigns organized at worship houses (females: 68.30%, males: 68.98%, both genders: 68.64%). This shows that positive impact of religion on conservation can be greater through cooperation and engagement of religious leaders.

## CONCLUSION

Religion and its various principles shape the human worldview and thus influence human-nature relationships. Therefore, nature- friendly principles of religion should be conveyed to all adherents. Towards this end, religious leaders have profound duties to communicate religious principles on the nature, and to persuade as well as convince their followers take part in various conservation activities. Religious leaders must play a vital role to ensure that nature-friendly religious principles can be conveyed accurately to the public, who will then be able to appreciate the importance of conservation. Such commendable efforts may hopefully generate action to conserve nature. As religion plays a pivotal role in the effort of conserving, attempts to unite all religions into the mainstream of conservation activities should be strongly supported. Ultimately, the success of the integration of religion and conservation highly depends on the capability of religious leaders to create awareness regarding the importance of conservation to religious communities.

This project is a proof that engaging religious leaders is a sustainable approach to increasing the level of awareness, attitude and community participation in supporting biodiversity conservation. This is owing to the large influence of trained religious leaders in changing the community's mindsets and behaviors, as well as the fact that more than 90% of Rwandans attend religious services. This coupling of conservation and duty of care is the cornerstone for inclusive conservation that enhances the role of religion in sustainable conservation results. Thus, enhancing religious identities in biodiversity conservation can bring long-term contribution to conservation of key biodiversity areas. This can be a sustainable way to reach a wide audience and the long-term impacts.

As recommendations, (1) conservation awareness programs should be planned, implemented, monitored, and evaluated in accordance with the 21 national targets. (2) The local government should be involved in all stages of the project and play an active role in developing public awareness of biodiversity conservation among local people, as conservation institutions cannot achieve success on their own. (3) Public awareness campaigns should highlight the use of more inclusive modes of communication, such as Kinyarwanda language, and educational materials, such as posters, banners, and green bibles... The message must be technically and scientifically appropriate in order to overcome the skills and knowledge transfer gap and motivate community commitment and engagement in tackling conservation concerns at the grassroots level. After participating in awareness activities, the majority of the project's beneficiaries were able to provide accurate responses to questions about biodiversity conservation. There is still much work to be done in terms of educating everyone about environmental conservation, but with the help of each partner and stakeholder; we believe we can achieve more.