

Issue N° 007 April-June 2018

LAFRE **C**Magazine

Landscape Approach to Forest Restoration and Conservation Project



Surveying the Gishwati-Mukura **BIODIVERSITY**

A study commissioned by REMA through LAFREC Project reveals the Gishwati-Mukura National Park is home to a diverse plant and animal life. The study – the most extensive scientific research commissioned to study the biodiversity of the Gishwati-Mukura- was able to identify unique plants, mammals, birds and herpetofauna existing in the Park.

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This Newsletter is a Quarterly publication of the Landscape Approach to Forest Restoration and Conservation (LAFREC) Project. LAFREC is a 5 year Project implemented by Rwanda Environment Management Authority (REMA) with funds from The GEF, LDCF and NDF through the World Bank

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FOREWORD

Dear Readers,

Dear Stakeholders,

It is our great pleasure to bring to you the 7th Edition of LAFREC Magazine, our quarterly newsletter dedicated to the activities of the Landscape Approach to Forest Restoration and Conservation.

LAFREC is a five year Project implemented by Rwanda Environment Management Authority (REMA) and works to rehabilitate and restore the Gishwati-Mukura Landscape.

This new issue explores our efforts to conserve the Gishwati-Mukura landscape through a set of activities that aim to rehabilitate this highly-degraded but most important area.

Specifically, after years of work to rehabilitate the Gishwati-Mukura National Park, we have undertaken an extensive study to identify the park's biodiversity. This is particularly important in developing conservation programmes, encouraging research and designing tourism activities within this new Park. This is thus a great contribution for both the proper management of the Park and tourism development.

In addition, we also explore our education programme which is working to raise awareness among members of the community on the benefits of conservation and the roles they must play to ensure the sustainable management and utilisation of the country's resources. Also, this edition looks at other developments in the protection, rehabilitation and conservation of the Gishwati-Mukura landscape and the improvement of livelihoods of local communities.

We hope that you will find this issue interesting and look forward to your continued support and feedback.

Enjoy!



PATRICK NSABIMANA
LAFREC Project Coordinator



Surveying the Gishwati-Mukura Biodiversity: Extensive study identifies the Park's plant & Animal life

A study commissioned by REMA through LAFREC Project reveals the Gishwati-Mukura National Park is home to a diverse plant and animal life. The study – the most extensive scientific research commissioned to identify the biodiversity of the Gishwati-Mukura- was able to identify unique plants, mammals, birds and herpetofauna existing in the latest National Park.

For the first time since the establishment of the Gishwati-Mukura National Park, a comprehensive biodiversity survey has identified a diverse plant and animal life despite years of degradation and human encroachment which resulted in the loss of the forests' major parts.

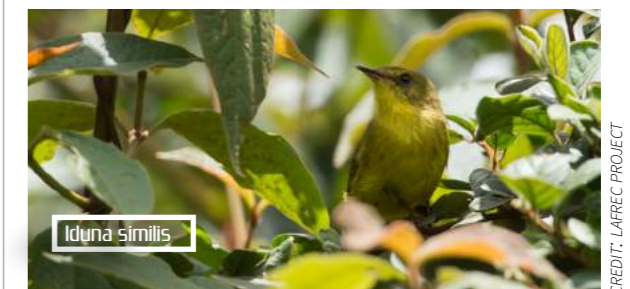
The Gishwati-Mukura National Park is Rwanda's newest and fourth national park, established by a 2015 law. The Park is composed of montane tropical vegetation, ranging in elevation from approximately 2000m to 2600m along the Congo-Nile Divide within the Albertine Rift biodiversity hotspot. The two forest patches that comprise the park, Mukura and Gishwati, were most probably connected as part of one larger forest block extending to the north towards Volcanoes National Park, and south towards Nyungwe National Park.

Efforts to rehabilitate the highly-degraded Park are currently undertaken by the Landscape Approach to Forest Restoration and Conservation (LAFREC)- a five-year project implemented by Rwanda Environment Management Authority (REMA).



Golden Monkey

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Iduna similis

CREDIT: LAFREC PROJECT



Symphonia globurifera

CREDIT: LAFREC PROJECT



Rapanea melaphloeos

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Albizia gummifera

CREDIT: LAFREC PROJECT



Umushabarara w'umushirabatema

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Tabernaemontana stapfiana

CREDIT: LAFREC PROJECT

Surveying the Gishwati-Mukura rich biodiversity

A degraded biodiversity hub

The survey is the first and most extensive scientific research commissioned to identify the biodiversity of the Gishwati-Mukura. The identification used a variety of tools and techniques and followed a rigorous protocol to ensure the identification captures most of the existing plant and animal life.

The study presents findings from surveys of plants, mammals, herpetofauna, and birds, involving data from forest surveys, interviews with people living around the forests, and literature reviews. The report also includes a review of available information on bryophytes and lepidoptera, a threats analysis based on a synthesis of the survey findings and literature reviews, and recommendations for further research and management.

Generally, it was noted, the park protects a number of endemic and threatened plant and animal species despite having experienced significant damages over time causing changes in land cover and habitat quality.

One of the greatest challenges facing Gishwati Forest is the fragmentation and forest cover loss it has experienced resulting in the presence of essentially two distinct forest sections, Kinyenkanda, the more degraded part, and the main forest section which is less degraded.

Mukura has experienced severe habitat degradation due in large part to illegal mining activities as well as other human activities.

The two forests are isolated from each other.

Identified species

The results from the survey of plants in the new park show a total of 252 and 244 species recorded in Mukura and Gishwati forests, respectively.

Seven plant communities were identified in this survey, and the majority of the communities identified are indicative of forest degradation. Some of the plant communities are more degraded than others, including the Polyscias fulva-Maesa lanceolola community, while others like the Myri-

Surveying the Gishwati-Mukura rich biodiversity

anthus holstii-Symphonia gobulifera community constitute dense vegetation with large lianas like Schefflera goetzenii indicative of a healthier forest community.

Macaranga capensis var. kilimandscharica, an early successional or pioneer tree species, is the most common species in both Mukura and Gishwati Forests. Setaria megaphylla, a grass, was found to be very common in Gishwati forest and is an attraction to farmers that use it to feed their cattle. Among flowering plants, Neoschumannia gishwatiensis is a local endemic recently identified from Gishwati Forest.

18 mammal species were identified in the Gishwati-Mukura Park based on direct and indirect observations as well as interviews with local people. The Park offers an ideal opportunity to contribute to the conservation of the eastern chimpanzee and the Albertine Rift endemic golden monkey.

There are several other Albertine Rift endemic mammals present in the GMNP that merit special conservation attention, including Carruther's mountain squirrel and the near endemic L'Hoeft's monkey.

The survey of birds revealed 42 species considered endemic or near-endemic to Albertine Rift forests.

A total of 124 species were identified in Gishwati and 71 in Mukura. Eight species were previously unrecorded for Gishwati and four were unrecorded for Mukura. Both forests were found to still harbor a significant and important representation of the diversity of Albertine Rift endemic bird species, with 17 species still present in Gishwati and 14 in Mukura. Two threatened species were recorded

Amphibian surveys revealed a total of 13 species of amphibians and six reptile species were found in Gishwati Forest while for Mukura 10 amphibian species and five reptile species were recorded. Given its small size GMNP was found to have a relatively high number of amphibians, when compared to the nearby forests of Volcanoes National Park and Nyungwe National Park.



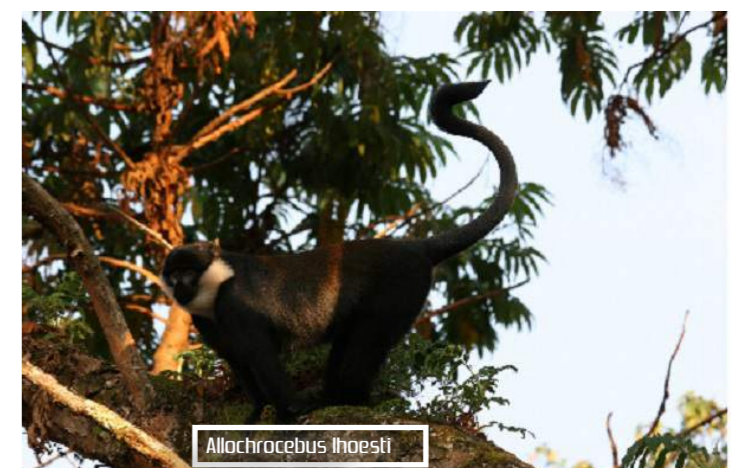
Arizelocichla kikuyensis

CREDIT: LAFREC PROJECT



Canis adustus

CREDIT: ALLTHINGSANID.ORG



Allochrocebus lhoesti

CREDIT: LAFREC PROJECT



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Surveying the Gishwati-Mukura rich biodiversity

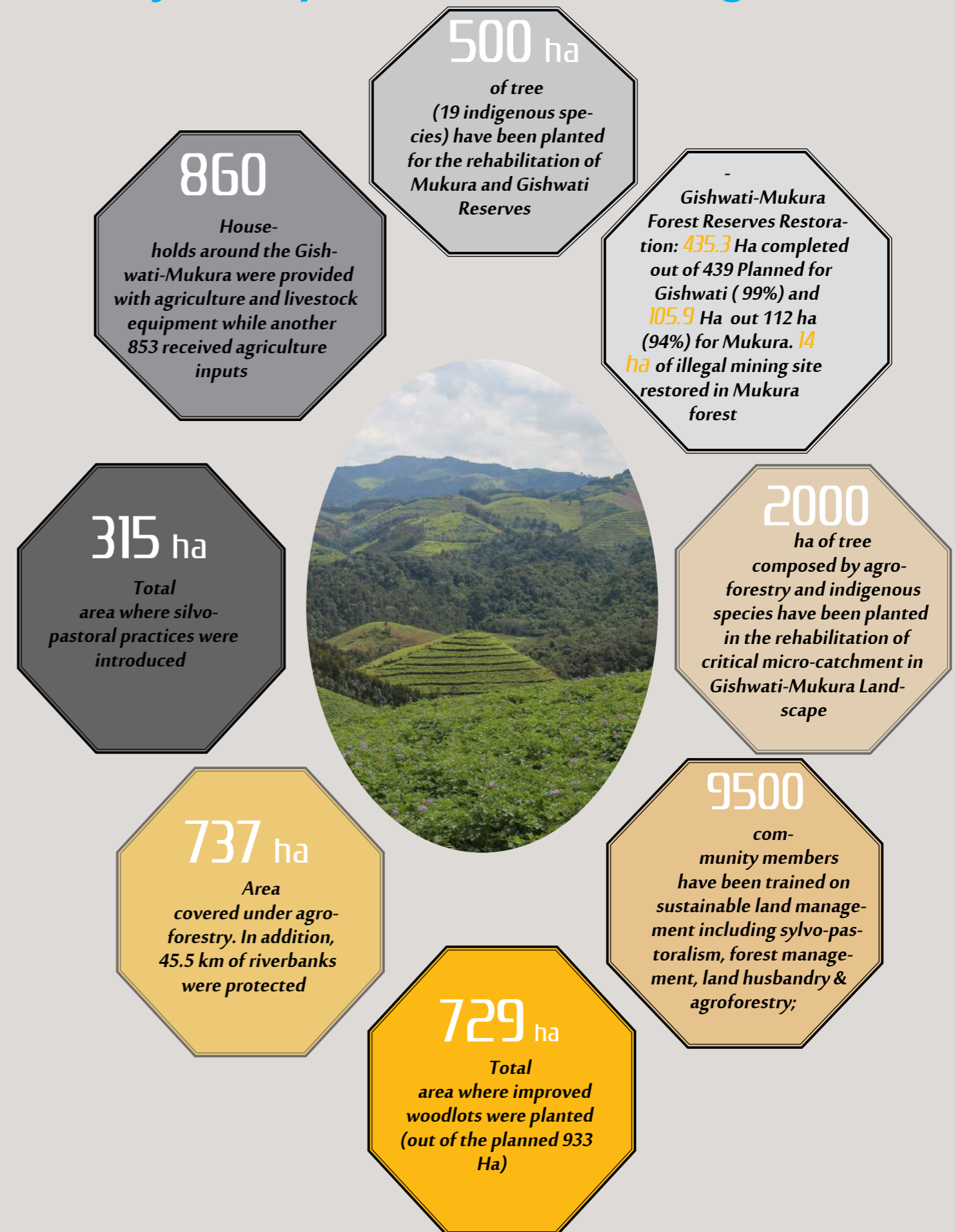
The GMNP is relatively rich in terms of endemism, with four amphibian species endemic to the Albertine Rift including the following frog species: *Xenopus wittei*, *Xenopus vestitus*, *Leptopelis kivuensis*, and *Leptopelis karissimbensis* which were all recorded during this survey. *Leptopelis karissimbensis* is listed as a Vulnerable species. *Atheris nitschei*, the Great Lakes Bush Viper, was the only endemic species found in both forests. Generally, the GMNP deserves conservation attention to maintain its rich herpetofauna and endemism which highlight the conservation value of the park.

We also reviewed existing literature for two other taxonomic groups that were not surveyed in this study. The literature review revealed that 37

species of bryophytes are reported in GMNP, but only in Gishwati Forest, and no data for Mukura Forest. For the lepidoptera, the review of published works shows that 33 species have been recorded in GMNP, all from Gishwati Forest. These findings indicate the need to carry out in-depth field investigations in both forests to evaluate the current status of bryophytes and lepidoptera distribution in GMNP

Lastly, the analysis of threats indicate that forest fragmentation and mining constitute the major threats in Gishwati and Mukura respectively. The assessment of mammal conservation targets showed that the Eastern Chimpanzee and Golden Monkey rank first in Gishwati and Mukura forests respectively.

Project key achievements in figures





Winners of school environmental competitions awarded

Minister BIRUTA presents trophy to GS Bwiza from Rutsiro District as the overall winner in this year's Environmental School Competitions

For the second consecutive year, we have awarded winners of schools environmental competitions. They were organized in the build up to the World Environment Day.



Officials award some of the winners of this year's competitions on World Environment Day



LAFREC awards students winners of environmental competitions

The competitions are organized annually by the Landscape Approach to Forest Restoration and Conservation (LAFREC) Project and are part of a larger environmental education programme that targets communities and schools around the Gishwati-Mukura Landscape. This is the 2nd year in a row that the competitions are held.

Students competed in songs, poems and drawings. Out of the over 40 students from 14 schools that participated in the competitions, nine (9) winners from six schools in Rubavu and Rutsiro Districts, Western Province and one singing group were awarded on World Environment Day (June 5)

Awards were presented to the top three performers in each category. The competition focused on this year's theme: Beat plastic Pollution- If you can't reuse it, refuse it. This theme calls upon governments, industries, communities, and individuals to come together to combat disposable plastics.

"The young students who made posters, poems and songs with a message of ending plastic waste for the World Environment Day schools competition demonstrate a level of passion and dedication that should inspire us all," said Vincent Biruta, the Minister of Environment, after presenting the awards to the winners.

"I congratulate all those who participated in the competitions and encourage the winners to keep up their dedication to environment protection. Your contribution shouldn't go beyond these songs, poems and drawings," Minister Biruta told the winners.

The Minister further thanked REMA and LAFREC for organizing the competitions, which he said, are raising awareness on environment protection among students.

"Students, and the youth at large, are the future leaders of our country. Empowering them is

empowering our nation," Minister Biruta said.

In the individual category, each winning student received prizes that included backpacks, notebooks, pens, wall watches, bed-sheets, T-shirt and caps, courtesy of LAFREC Project. In the group category, the winning song- *tungabunge ibidukikije* (let's protect our environment, literary) by Nyundo Music School students group - received the biggest prize: a Rwf3.2million cheque, also courtesy of LAFREC Project. Their song calls upon all Rwandans to contribute to environment protection and to end plastic pollution.

The Director General of REMA, Eng. Coletha U. RUHAMYA, said: "These students have demonstrated a level of understanding of issues related to environment protection and pollution control. We should all encourage them to take the leadership in protecting our environment."



L-R: DG Ruhama & Minister Biruta award Nyundo School of Music at the celebration of World Environment Day

THE WINNERS



Olivier MURWAMASHYAKA



Aline GISA MUKAMANA



Jean Luc HIRWA

In each category, the top three winners were awarded. In poetry, the winners are Aline Mukamana Gisa of GS Bwiza in Rutsiro District followed by Theogene Uwimana of GS Nyakiliba (Rubavu District) and Samuel Mugenzi of GS Shwemu (Rubavu District). In the songs category, Olivier Murwanashyaka of GS Kazo (Rutsiro District) claimed the top spot followed by Gabriel Niyomugabo of GS Bwiza (Rutsiro) in the second position and Jackson Hategekimana of GS Kanzenze (Rubavu).

In drawing, Jean Luc Hirwa of GS Bwiza (Rutsiro) took the first position followed by Moise Kalinijabo of GS Nyakiliba (Rubavu) and

Janvier Twibanirenimana of GS Umubano 1 (Rubavu) in third position. Overall, GS Bwiza took two winning trophies for winning the top two first positions in two categories (Songs & Drawing) and GS Kazo took one trophy. The top six schools received certificates in recognition of their efforts. They are: GS Bwiza, GS Nyakiriba, GS Shwemu, GS Kazo, GS Kanzenze and GS Umubano I.

In the groups category, Nyundo Music School band took the top prize for their educative song *Tungabunge I bidukikije*. They were awarded a Rwf3.2million cheque and a trophy.



1 Pictorial :Awarding the winners



2. Kigali City Vice Mayor for Economic Development awards one of the winners;
 3. Teachers from best Schools lift their trophies and certificates in celebration;
 4. Minister Biruta awards one of the top performing schools;
 5. Mukamana Gisa Aline, who emerged the best singer in the single category performs at the celebration of World Environment Day;
 6. DG Ruhamyia presents the award to one of the winners;
 7. Mayor of Kicukiro Dr Jeanne Nyirahabimana awards one of the winners;
 8. Fatina Mukarubibi, Permanent Secretary in thw Ministry of Environment, awards one of the winners;
 9. School representatives in a group photo wih some of the guests
 10. Best winners in the drawing category present their creations





The participating students in a group photo with trainers

University students pledge action for environment conservation

Members of environmental clubs at several universities and higher learning institutions across the country have pledged to be actively engaged in efforts aimed at conserving Rwanda's environment.

The pledge was made following a 2-days training targeting students to build their capacity to initiate and implement actions and initiatives that contribute to building a better and safer environment and encourage other members of the community to adopt environmental-friendly practices.

The training took place between March 29 and March 30, 2018 in Rubavu. It was organised the Landscape Approach to Forest Restoration and Conservation (LAFREC) Project and brought together 30 students representing 13 Universities/ Higher Learning Institutions from across the country.

For 2 days, the students discussed their roles in environment conservation and how they can better contribute to greening their campuses. The training covered several topics including environment and biodiversity con-

servation, landscape restoration, greening universities, environmental outreach and awareness raising interventions, research and environmental management, climate change mitigation and Multilateral environmental agreement. It also discussed the ongoing efforts to restore the Gishwati-Mukura landscape, which are currently led by LAFREC Project. Further, the role of students and environmental clubs in proper management of natural resources, environmental management and biodiversity conservation was discussed in details.

After the training, the students resolved to play an active role in promoting environmental-friendly practices among their colleagues at school, at home and elsewhere. They also vowed to work hard in order to enhance the role of environmental clubs at universities/Higher learning institutions in raising awareness among students, academic staff and surrounding communities on the roles and responsibility to conserve the environment as well as play an active role in encouraging the adoption of green actions.



Youth in Rutsiro District take part in the sports competitions organised by LAFREC Project

ENVIRONMENT CONSERVATION: Raising awareness through sport

The Landscape Approach to Forest Restoration & conservation (LAFREC is teaming up with sports clubs and sporting events to raise awareness on the need to protect our natural environment.

Through its environment education programme, the Project is working with communities around the Gishwati-Mukura National Park to build support for environment protection and biodiversity conservation in the park and surrounding areas.

Through sport days, competitions, public campaigns and community meetings, the LAFREC Project is involving communities in the good management of the park's natural resources and is encouraging communities to adopt best practice environment management.

The LAFREC Project is using sporting events to reach out to communities in and around Gishwati-Mukura National Park to discuss their roles and responsibilities in conservation, as well as the benefits that

come with protecting nature. The awareness events target young people, women, leaders, opinion leaders and students, among others.

"The world of sport provides a natural platform for exchange, participation and inclusion, and is an effective tool for social mobilisation. Sport brings individuals and communities together to discuss environment conservation and protection, and provides a platform to learn new skills, share experiences and agree on ways to contribute to the proper management of the environment and natural resources," said Patrick Nsabimana, LAFREC Project Coordinator.

"Through sporting events, information about environment conservation can reach a large number of people with the potential to impact the mindset, beliefs and actions of the community towards our environment," he added.

On 16 March 2018, hundreds of young people gathered at Kayove Stadium on the outskirts of Gishwati-Mukura in Rutsiro

District for an athletics competition. After the competition, participants gathered for an interactive discussion on their role in protecting the park.

Djuma Nsanzimana, the Environment Education Officer at REMA who led the discussions, told the group that they are key players in environment conservation.

"Without a properly managed environment, we couldn't be here today competing. If today we are healthy and able to compete, it is thanks to collective efforts to protect our environment. The environment is the foundation of healthy lives and sustainable development," Nsanzimana said. "As leaders of tomorrow, your actions and decisions will determine the kind of environment we shall have in the future, so make wise decisions."

The environment education campaign through sport competitions tar districts bordering Gishwati-Mukura National Park.



Youth in Rutsiro District give ideas on conservation and environment protection after participating in sports competitions

LAFREC's ENVIRONMENTAL EDUCATION PROGRAMME AT A GLANCE

Our environment education programme is aimed at supporting the implementation of the Project activities in the project's implementation areas around the Gishwati-Mukura National Park.

Environmental Education is a process that allows individuals to explore environmental issues, engage in problem solving, and take action to improve the environment. As a result, individuals develop a deeper understanding of environmental issues and have the skills to make informed and responsible decisions.

The involvement of local population is essential for a long-lasting management of protected areas in developing countries including Rwanda. Otherwise, local population will always consider the protected areas as a source of problems or as a concept that has been imposed to them by the government or restoration and conservation partners. That is why education is key to convey crucial information to intended users.

LAFREC interventions in schools around the Gishwati-Mukura landscape focus mostly on raising the understanding of students and school authorities on their role in the project implementation and the proper management of the new park- and its landscape. This is done through support to school-based eco-clubs activities to improve their efficiency and capacity to influence local communities' actions and advance the conservation agenda through their activities.

Among the activities targeting students school leaders and communities include study tours, support to activities of eco-clubs, trainings, capacity building programmes and competitions, among others.



Members of LAFREC National Policy Steering Committee after their meeting

NATIONAL STEERING COMMITTEE CONVENES

The National Policy Steering Committee (NPSC) of LAFREC Project convened in Kigali on the 10th May 2018 to discuss the progress implementation of the project.

The Meeting was chaired by Mrs Juliet Kabera, DG-Environment & Climate Change at the Ministry of Environment on behalf of the Permanent Secretary of the Ministry of Natural Resources Mrs Fatina Mukarubibi who did not attend the meeting due to other responsibilities.

The meeting aimed to introduce members of the NPSC to the new 3.7 m Euros NDF-funded Project which implementation is integrated into LAFREC and targets improved woodlot and charcoal value chains and to discuss implementation progress and Action Plan for LAFREC.

The Committee is responsible of providing national-level project operational policy guidance as well as approving national project investments, plans and budgets.

IN BRIEF



DG Kabera chairs the meeting



Members of LAFREC NPSC during the meeting



The NPSC discusses the project implementation and provides guidance to the Coordination Team



The Landscape Approach to Forest Restoration and Conservation (LAFREC) Project

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