



TAWIRI

Newsletter



Issue No 10, June 2022

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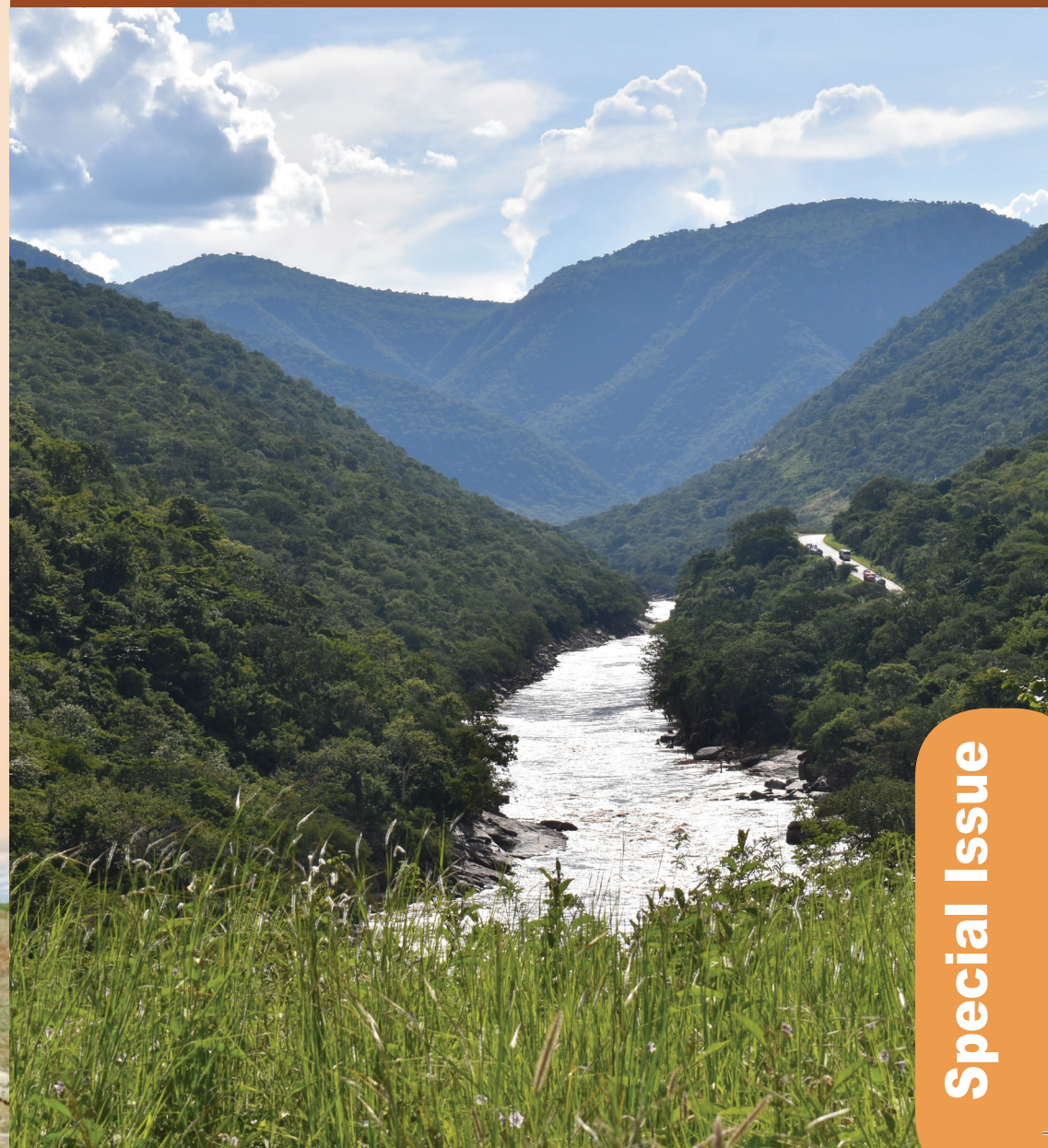
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REGROW PROJECT

The Government Initiative for Boosting Tourism Growth in Southern Circuit



Special Issue



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P. O. Box 661

Arusha - Tanzania

barua@tawiri.or.tz

Editors

Dr. John Bukombe

Dr. Janemary Ntalwila

Dr. Wilfred Marealle

Dr. Jerome Kimaro

Ms. Neema Kilimba

Ms. Cecilia Leweri

Layout, Design & Printing

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Message from Director General



Dr. Eblate E. Mjingo

For the thousands of rural communities around protected areas in Tanzania, access to ecosystems services is critical for their survival and livelihood. Unfortunately, the utilization of the natural resource base within and outside protected areas is unsustainable in many parts, including southern ones. Through REGROW Project, TAWIRI focuses on innovative solutions that enable different project partners to restore healthy ecosystems to benefit local communities and natural systems.

We acknowledge the generosity of the World Bank for funding TAWIRI scientists to conduct research in four critical ecosystems in southern Tanzania. Notably, our assessment of the potential of API tourism has inspired our project partners, local authorities and villagers. Furthermore, we foresee that our reviews form a backbone of various national strategies for improving biodiversity conservation and livelihood in southern Tanzania.

A handwritten signature in black ink, appearing to read 'E. Mjingo'.

Dr. Eblate E. Mjingo
DIRECTOR GENERAL



Message from the Editor's Desk



Dr. Janemary Ntalwila

Dear readers,

TAWIRI, is bringing to you the *special issue* on efforts made by Tanzania Government for boosting tourism in the southern circuit. For decades, tourism has been much concentrated in northern circuit, which has currently been observed to have all the signs of overstressed. Realizing the ecological constraints that are approaching the northern circuit and following the conservation theory of low-volume high-value national tourism approach, the Government is now putting all the efforts to develop and explore new tourism products in “Southern Circuit”. In addition to what the initiatives done by the Government through the promotion of tourism industry, the project thus, will help the country to achieve its goal of doubling the number of tourist arrivals in the next decade. For boosting the number of tourism, there is a need to diversify tourism products without diminishing the natural values in some key hot spot areas. Understanding the rich biodiversity and attractions from the southern circuits which have not been yet fully utilized.

TAWIRI welcomes you to this special newsletter issue that reports activities conducted by four Research Packages (RPs) in the REGROW-TAWIRI Project. This special issue aims to communicate the progress, success, and challenges facing this project since its inception in 2018. Also, to inspire other research groups to share how their research findings have been successfully applied to solve conservation challenges in Tanzania. In this project four Research Programs (RPs) were designed, each with specific tasks and outputs.

We hope you will read and enjoy this issue. We look forward to sharing more information about the REGROW-TAWIRI Project in the coming months. We kindly request you to send us any questions or hear more about this project or other TAWIRI activities, don't hesitate to reach us using the contacts listed on the back cover.

Dr. Janemary Ntalwila

Head - Wildlife Information and Education Unit
wie@tawiri.or.tz

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Research Package 1 (RP1) assesses diversity, abundance and map distribution of mammals and birds species. Additionally, identify factors behind their distribution.



RP2 explored the status and drivers of wildlife habitat dynamics in relationship to conservation and enhanced tourism in four priority protected areas.



RP3: Assesses the influence of socio-economic factors like education, gender and land tenure on promotion of apitourism. Also, their contribution to human-wildlife conflicts in communities located adjacent to protected areas



RP4: Determines the current prevalence, distribution and ecology of skin diseases in Masai giraffe in order to increase visitors satisfaction in Ruaha National Park through sighting of health giraffes.

A word from the Director of Research, TAWIRI

TAWIRI has conducted Several ecological research projects have in Tanzania, but only a few cover the southern parts of the country. REGROW-TAWIRI Project draws specific conservation and development issues in some of Tanzania's less explored ecological landscapes. Indeed, ecosystems around Mikumi, Udzungwa, Nyerere and Ruaha National Parks, respectively, are biodiversity hotspots but highly threatened by increased anthropogenic demands. In this project, TAWIRI will conduct four broad research packages (RPs): Wildlife Population Dynamics, Habitat dynamics and biodiversity conservation, Socio-economic perspectives of human-wildlife interactions and Api-tourism, and wildlife diseases, specifically Giraffe Skin Disease (GSD). In addition, it includes two essential activities: the upgrading of the TAWIRI wildlife database and the construction of a southern circuit wildlife research centre in Iringa municipality.

Since biodiversity resources and cultural heritage can promote tourism activities in cultural landscapes, the successful implementation of the six significant activities will make this project one of the long-awaited projects to solve conservation



Dr. Julius Keyyu
Director of Research

challenges based on holistic approaches. Furthermore, we anticipate that numerous scientific data and research experiences that REGROW-TAWIRI Project will establish will change the way local people manage natural resources around them. It will thus influence decision-makers to reform policies and harmonize their implementation across different administrative levels.



Message from the Project Focal Person

ABOUT THE PROJECT AND OUR PROGRESS

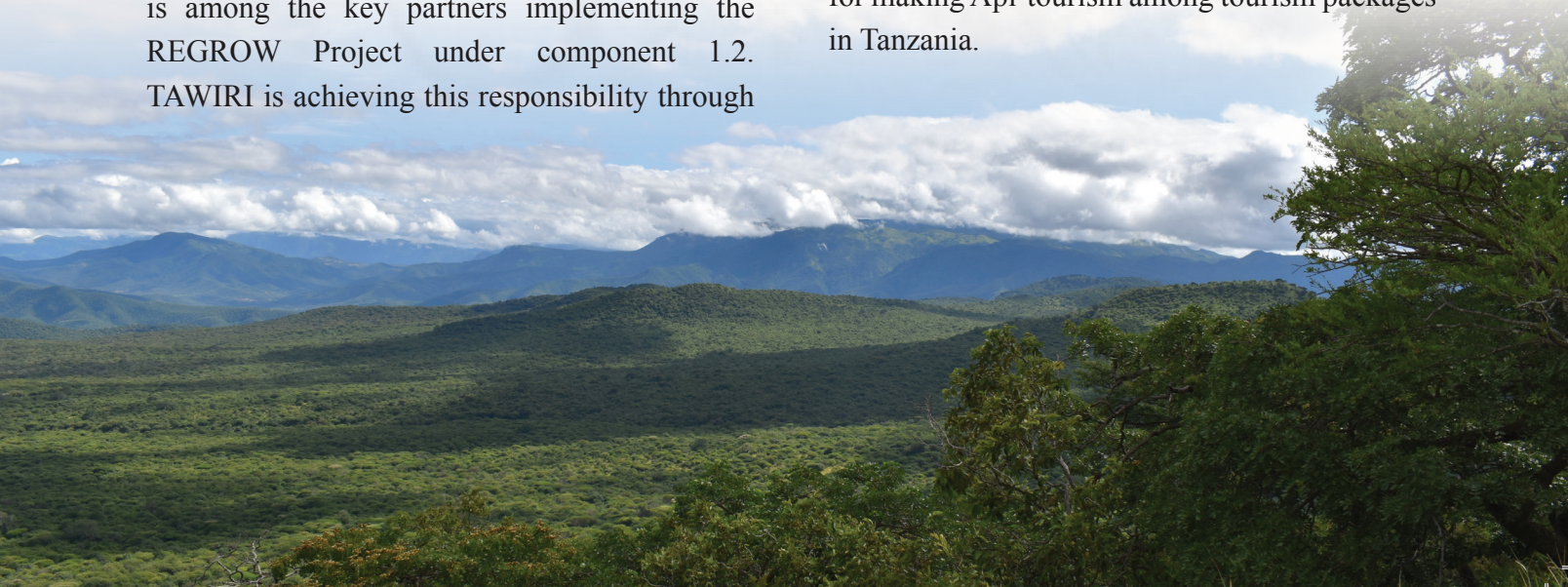


*Dr. Bukombe John, the REGROW
Focal Person-TAWIRI*

Resilient Natural Resources Management for Tourism and Growth, (REGROW) aims to improve the management of natural resources and tourism assets in priority Protected Areas of Southern Tanzania, namely Mikumi, the Udzungwa Mountains, Nyerere and Ruaha National Parks. The project will promote access to alternative livelihood activities for targeted communities under the support of the World Bank.

Tanzania Wildlife Research Institute (TAWIRI) is among the key partners implementing the REGROW Project under component 1.2. TAWIRI is achieving this responsibility through

research in collaboration with researchers from other institutions, including the University of Dar es Salaam, Sokoine University, District councils and local Communities. Between April 2020 and December 2021, during the practical implementation of the REGROW project in 2020, TAWIRI has successfully conducted socio-economic research in villages adjacent to Mikumi and Nyerere National Parks. Additionally, we did some ecological surveys in Mikumi, Nyerere National Parks, Udzungwa-Kilosa-Kilombero Ecosystem; and finalized dry season surveys in Ruaha National Park. So far, we have produced two technical reports for sharing with stakeholders. We developed user specification requirements, project charter documents, and the ToR for consultancy service to upgrade the TAWIRI wildlife research database. We secured the site for the Southern Circuit Wildlife Research Center (SCWRC) at the Kihesa Kilolo area in Iringa Municipality. We finalized the Terms of Reference (ToRs) for consultancies to undertake Environmental and Social Impact Assessment (ESIA) and construction design. We submitted two manuscripts in peer-review journals for publication. We held Round table stakeholders discussions during the 13th TAWIRI Scientific Conference in December, 2021 on the potential for making Api-tourism among tourism packages in Tanzania.



REVEALING THE POTENTIAL OF APITOURISM IN SOUTHERN TANZANIA

Cecilia Leweri, Nicephor Lesio , Emmanuel Mmasy, and Ntiniwa Kipemba

Api-tourism could be a new word to most Tanzania communities, this form of tourism is not well developed in many parts. Apitourism is simply a form of tourism linked to the art of beekeeping. Api-tourism includes visiting beekeeping sites (apiaries) and beekeeping museums. Through this, tourists get the opportunity to learn about bees and their products. Additionally, discuss other potential benefits obtained from bees or beekeeping practices with farmers. In southern Tanzania, a potential for Api-tourism exists, as revealed by TAWIRI-REGROW Research Team. The team found local communities around the Mikumi and Nyerere National Parks who can improve their livelihood and conserve their forest by promoting Api-tourism activities.

The research team conducted an assessment on the sustainability of Api-tourism in 20 community villages and more than 100 farms in

Kilosa, Mvomero and Kilombero districts. They established a set of suitability indicators, including; high diversity and richness of melliferous plants, proximity to National Parks, water availability, the incursion of human activities, presence of permanent roads and willingness of local people to be engaged in beekeeping and API-tourism activities. Based on that, nearly 15 villages across the three surveyed districts indicated a high potential for Api-tourism. Despite the potential in Api-tourism, local communities face challenges of low awareness and poor skills.

Seemingly, efforts to promote cultural tourism around National Parks in southern Tanzania is still lagging. In addition, conservation agriculture needs to be enabled, like agroforestry, to reduce human disturbances in the landscape. Few remaining biodiversity hotspots could vanish in the next few decades without this consideration.



Suitability assessment for Api-tourism the Mbamba Wenyeji village forest reserve





Attractive natural
honeycomb

Bee house in Katurukila
village forest reserve
and the overview of the
village forest reserve



Traditional apiary in
Dimehe Maharaka
village forest reserve



ECO-TOURISM FOR LIVELIHOOD IMPROVEMENT: ARE COMMUNITIES AROUND MUKUMI NATIONAL PARK WELL PREPARED?

Jerome Kimaro, Inocent Babil, Victor Kakengi and Joram Kavana

The landscape surrounding villages adjacent to the Mikumi and Udzungwa National Parks has a diverse cultural heritage that local communities practise in their daily lives. Therefore, our research team assessed how best ecotourism could enhance livelihood and a potential tool for sustainable conservation. We identified a total of thirteen types of ecotourism attractions in both communities. However, only three activities are ecologically and socio-economically important. They include large wildlife species, traditional myths, and unique forests and tree species. The importance of other attractions perceived unequal response from one location to another. It, therefore, suggests that there are livelihood assets that are symbolic and cultural meaning vary slightly within communities in the study villages

Although ecotourism is still an infant in the area, several opportunities exist to enable locals to promote this industry smoothly. A closeness between villages and parks could encourage tour operators to include cultural attractions as a part of their package. The existing land-use plan has in some villages. Thus locations that are potential for establishing campsites and other accommodation facilities have been formally identified. High diversity of cultural heritage exists despite their



Well protect sacred areas benefit conservation efforts

potential being less recognized by the natives. Moreover, we found many enthusiastic young people who are eager to learn and participate in ecotourism activities. TAWIRI-REGROW team has mapped the distribution of all potential sites for Api-tourism



Traditional craftworks, lucrative income source to women

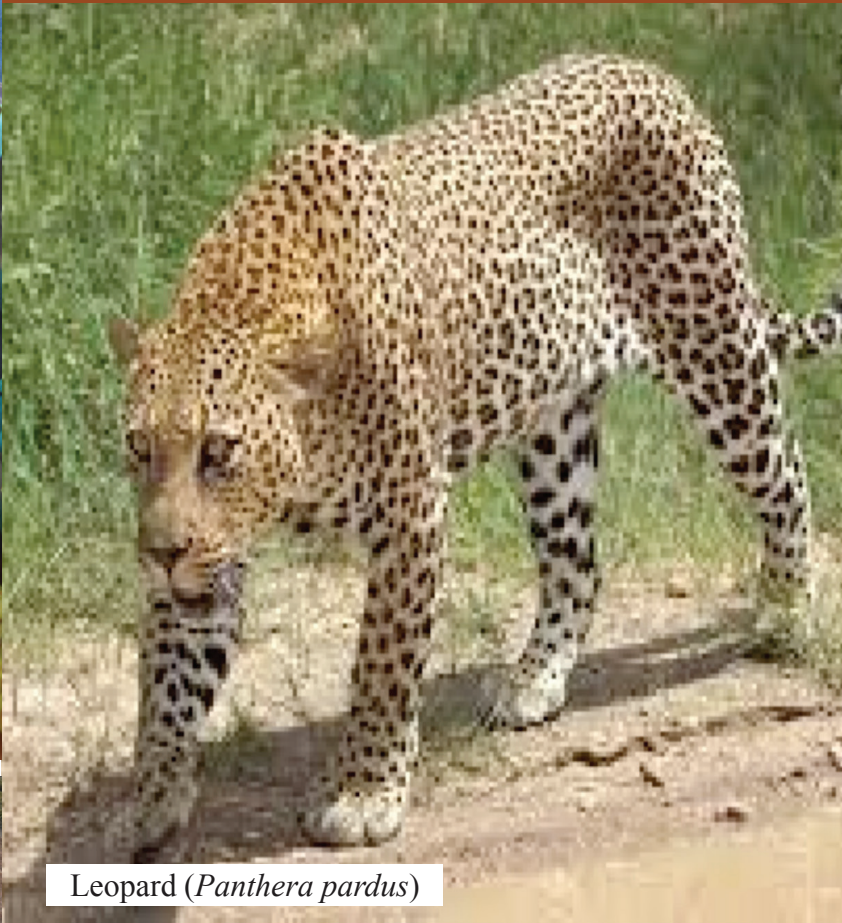


Attractive lower plants for photographic tourism



WILDLIFE RESEARCH: ITS RELEVANCE FOR TOURISM AND LIVELIHOOD IN SOUTHERN TANZANIA

John Bukombe, Ally Nkwabi, Wilfred Marealle and Jerome Kimaro



Leopard (*Panthera pardus*)



Bateleur (*erathopius ecaudatus*)

The tourism industry in Tanzania is wildlife-based; therefore, its growth largely depends on the sustainability of biodiversity conservation. Thus, efforts to preserve species and their habitats aim to sustain the tourism industry and local livelihood.

Research in biological diversity and sustainable use of natural resources should integrate interdisciplinary topics like ecology, ecosystem management and socio-economic. This approach enhances a better understanding of existing interactions between functional ecological processes and human social dimensions, which determine their interdependence

One of our great surveys was the assessment of connectivity between Nrerere National Park (NNP) and Wami-Mbiki Game Reserve (WMGR). We found that the transit between NNP and WMGR harbours more than 20 large mammal species, including those threatened in the IUCN Red List. This includes the African elephant (*Loxodonta africana*), which is listed as Endangered (EN), and the leopard (*Panthera pardus*), listed as vulnerable (VU). Other common large mammals species were the greater kudu (*Tragelaphus strepsiceros*), colobus monkey (*Colobus guereza*) and the common duiker (*Sylvicapra grimmia*). The survey revealed more than 80 species of birds, including the near-threatened (NT) Bateleur (*Terathopius ecaudatus*) and the Critically Endangered (EN) White-backed vulture (*Gyps africanus*).



Magnificent Malundwe Hills

The Malundwe Hill (1,290 m.a.s.l.), in the centre of Mikumi National Park, is the only part of the Eastern Arc Mountains of Tanzania and Kenya with less influence on human activities. However, as a water source, it serves as a central catchment to the Ruaha-Rufiji system and drains into the Great Ruaha River in the west, the Ruvu River in the East, and the Wami River in the north. The Malundwe's biological importance in conservation is due to the concentration of endemic plant species occurring in submontane

forests of the Eastern Arc Mountains, the world's most important biodiversity hotspots. Our surveys in 2020 and 2021 recorded a total of 10 endemic plant species namely, *Uvariodes pycnophyllum* (EN), *Uvariodes oligocarpum* (EN), *Uvariodes usambarensis* (EN), *Isolona heinsenii* (VU), *Isobertia scheffleri* (VU), *Zenkerella perplexa* (VU), *Englerodendron usambarensis* (NT), *Coffea bridsoniae* (EN), *Coffea kihansiensis* (CR), *Allanblackia ulugurensis* (VU), *Diospyros amaniensis* (VU).



The three hills of Malundwe rain forest



Uvariodes pycnophyllum



Uvariodes pycnophyllum (EN)



Allanblackia ulugurensis





Tanzania Wildlife Research Institute (TAWIRI)
P. O. Box 661, Arusha - Tanzania

T: +255 27 254 9571, F: +255 27 254 8240
Email: barua@tawiri.or.tz, Website: www.tawiri.or.tz