



IPRC KITABI

Integrated Polytechnic Regional College

DEPARTMENT OF WILDLIFE MANAGEMENT

2nd YEAR

**INDUSTRIAL ATTACHMENT REPORT CARRIED OUT AT BIODIVERSITY
CONSERVATION ORGANISATION**

FROM 25-JAN-2021 TO 05-MARCH-2021

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INTRODUCTION

This internship was carried out in Biodiversity Conservation Organization (BIOCOOR) from 25th January 2021 to 05th March 2021. BIOCOOR is implementing a project entitled “Community led planning and management for biodiversity protection and resilient communities in Southern Rwanda” it is a four-year project supported by Jersey Overseas Aid (JOA) through Trócaire Rwanda. The project is located in Nyamagabe and Nyaruguru Districts specifically in UWINKINGI, BURUHUKIRO and KIVU Sectors respectively.

One of the core outcomes of the project is “Community members, especially women and young people from the targeted communities are equipped with knowledge in, - and are actively promoting environmental protection and conservation in their communities”.

This outcome goes hand in hand with my expected learning outcomes which are:

- Community awareness on biodiversity conservation,
- Youth engagement in biodiversity conservation,
- Biodiversity species (birds and plant) identification and
- Leadership and management.

The general objective of this internship was to practice what we have seen in classroom as theories and to become professional in biodiversity protection and conservation.

During the internship period we have got the opportunity of preparing and organizing different activities including Teachers and Students training about environmental clubs establishment to their Schools, Journalists field visit around Nyungwe National Park for linking media and biodiversity conservation promotion, Community Conservation Volunteers training, establishment of environmental clubs to targeted Schools, distribution of environmental club’s materials, identification of biodiversity species and WIRENGUTAMBWIYE quiz event.

The following pages explain in details a brief description of BIOCOOR, realized activities, lessons learnt and conclusion and recommendations. (IMANISHIMWE, 2020)

SECTION 1: BRIEF DESCRIPTION OF BIOCOOR

1. BIOCOOR history

Biodiversity Conservation Organization (BIOCOOR) has been created mainly by young people dedicated to act and to advocate for biodiversity conservation, ecotourism promotion, community health, environmental management, and climate change mitigation and adaptation. The BIOCOOR headquarters is in Nyamagabe district of the Southern Province of Rwanda. The organization's geographical focus is five districts near the Nyungwe National Park. It integrates conservation projects and sustainable economic development for the communities surrounding Nyungwe National Park. The organization has started in 2012 as a social enterprise called BIOCOOP and recently in June 2020 has shifted to a local NGO current BIOCOOR but keeping the same focus. Its mission is to build a nation that is environmentally and socio-economically stable through its resources and skills.

2. Vision

Contribute to the development of Rwanda to the level of middle-income countries using its resources and skills.

3. Mission

Build a nation that is environmentally and socio- economically stable through its resources and skills.

4. Goals

- Increasing the livelihoods of community and put them at the good standards of physical and financial capacity;
- Creating jobs to the local communities around Nyungwe National Park;
- Restoring and regenerating the natural ecosystem;
- Enhance youth involvement in the implementation of our country priority programs;
- Promoting integrated biodiversity conservation and development;
- Promote entrepreneurial leadership;
- Integrating biodiversity conservation and health for the sustainable social welfare.

5. Current organization and functioning

Biodiversity Conservation Organization is implementing the following simultaneous steps:

- Enhancing community awareness;
- Improving soil quality;
- Integrating biodiversity conservation and development projects;
- Training local youth to use technology to communicate effectively;
- Youth entrepreneurship to inspire business ownership and effective;
- economic development for the local villages;
- Educating the youth to access finances and capital;
- Connecting youth to job training and scholarship opportunities.

BIOCOOR is also implementing a project entitled “Community led planning and management for biodiversity protection and resilient communities in Southern Rwanda” this four-years (From July 2020 to 30th June 2024) project is supported by Jersey Overseas Aid (JOA) through Trocaire and implemented in partnership with other local organization, UNICOOPAGI and ICRAF, targeted Districts are Nyamagabe and Nyaruguru specifically in Uwinkingi, Buruhukiro and Kivu Sectors respectively. The overall objective of the project is rural, poor communities living around the Nyungwe National Park are empowered to assess, plan and sustainably manage their land and common natural resources leading to more environmentally and economically sustainable and resilient communities.

This project has 3 outcomes:

- Community members, especially women and young people from the target communities are equipped with knowledge in,-and are actively promoting environmental protection and conservation in their communities;
- Targeted communities are taking ownership in planning, managing and protecting local natural resources towards biodiversity conservation;

- Target vulnerable groups, especially women, youth and historically marginalized people are engaging in alternative livelihood strategies to reduce pressure on natural resources and thus conserve biodiversity.

SECTION 2: PRESENTATION OF INDUSTRIAL ATTACHMENT ACTIVITIES

Industrial Attachment Work Plan

Date	Activity	Location
From 25 to 29 January 2021	- Identification of Teachers and Students for heading the environmental clubs -Teachers and Students training -Community Conservation Volunteers training	-Uwinkingi and Buruhukiro Sectors -Nyungwe Conservation Leadership Center-Kitabi
From 01 to 05 February 2021	-Environmental club's establishment -Preparation of Journalists field visit	Buruhukiro and Uwinkingi Sectors
From 08 to 12 February 2021	-Journalists field visit -Environmental club's establishment	-Kitabi Sector -Kivu Sector
From 15 to 19 February 2021	Plant and bird 'species identification in Nyungwe National Park Buffer Zone	Kitabi and Uwinkingi Sectors
From 22 to 26 February 2021	-Plant species identification around Nyungwe Conservation Leadership Center -Database of all plant species around Nyungwe Conservation Leadership Center	Nyungwe Conservation Leadership Center-Kitabi
From 01 to 05 March 2021	-Distribution of environmental club's materials -Preparation of Wirengutambwiye Quiz -Wirengutambwiye quiz event	-Kivu and Uwinkingi Sectors -Nyungwe Conservation Leadership Center-Kitabi

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Table 1: Industrial attachment work plan

2.1. Industrial Attachment Activities Carried Out

2.1.1. Teachers and Students training

Before inviting Teachers and Students heading the environmental clubs from 12 targeted Schools, we selected them based on the following criteria:

Teacher’s selection criteria	Student’s selection criteria
<ul style="list-style-type: none"> -Teacher already heading the club; -Someone teaching environmental related topic; -Being honest; -Highly motivated Teacher who understand the role of biodiversity conservation; -Being loved by students; -Someone who received any training on environmental issues. 	<ul style="list-style-type: none"> -Any student not in final sections; -Disciplined Student; -Having a leadership capacity; -A successful student; -Highly motivated Student who understand the role of biodiversity conservation.

Table 2: Selection criteria for Teachers and Students

The overall objective of the training was to raise awareness of students and teachers on biodiversity conservation and discuss on how the targeted schools can support biodiversity conservation journey through environmental clubs.

The session was highly interactive, encouraging discussions and opportunities for interactions between Teachers, Students and facilitators, reason why, after the training Students and teachers were aware of:

- The importance of biodiversity conservation;
- Their role in environmental protection and in engaging the People to protect the wildlife surrounding them (awareness);
- The methodologies to use to establish effective and efficient sustainable environmental clubs at primary and secondary schools (establishment of environmental clubs, awareness on identification of biodiversity to be protected, leadership structure and instructions on those environmental clubs, Tutorials related to biodiversity and how to protect them) and its deliverables;
- BIOCOOR was aware of the existing gaps and what kind of support is needed to strengthen the new or existing environmental clubs.



Photo 1: Teachers and Students training

2.1.2. ANICOs training

ANICOs (Animateurs de la Conservation which means Community Conservation Volunteers).

The objective of the training was to ensure long time community mobilization for mindset change because they will act as ambassadors for conservation and biodiversity protection and will play a role of liaison between the communities and park management stakeholders including BIOCOOR.

After the training ANICOs were aware of:

- Being an example by conserving the biodiversity network in and outside Nyungwe National Park;
- Organizing meetings to communities on biodiversity conservation;
- Providing advice to those who are destroying the biodiversity network;
- Respect and work with environmentally responsible agencies;
- Reporting on the activities done on time;
- Provide information and work effectively with the Government and private sectors.



Photo 2: ANICOs training

2.1.3. Journalists field visit

The field visit was attended by 13 Journalists (from RBA, Radio Salus, Celebzmagazine, Ukwezi, Umurava.rw, Kigali Today, Bwiza.com, Intyoza.com and Hafiyawe.com).

The objectives of the field were to get a closer look and experience at the biodiversity network around Nyungwe National Park for being able to apply what they covered theoretically in the previous training and also helping journalists to write and tell true stories of what they saw and what they were able to experience with the right people on the site. Journalism for Sustainable Biodiversity Conservation and Natural Resources Management in Rwanda.



Photo 3: Journalists field visit

2.1.4. Plant and bird ‘species identification in Nyungwe National Park Buffer Zone

The table below shows some plants we identified

No	Local names	Scientific names	Family	Function
1	Indondori			Used as food for human.
2	Igicumucumu			Used to treat pneumonia
3	Indengarutare			They were used during the period of king as their mulches.
4	Akaramata	<i>Lindernia nummularifolia</i>	Scrophulariaceae	Used as sharpening of body.
5	Umushabarara			Its fruits are eaten when they are ripening

6	Inkeri	<i>Rubus steudneri</i>	Rosaceae	Used to treat Intestinal disease and smoothen intestinal track.
7	Iminaba	<i>Triumfetta cordifolia</i>	Tiliaceae	Used to make baskets but traditionally for fruits with their bristles are adherent to animal cloath or human clothes and are thereby dispersed.
8	Umuhanurankuba	<i>Solanum plousianthemum</i>	Solanaceae	The leaves are used in traditional medicine against poisoning. They are further more used as an abortifacient agent.
9	Umuhororo	<i>Cleledendron Johnstonii</i>	Lamiaceae	Are used in traditional medicine to treat poisoning, abdominal colic and malaria.
10	Umutarishonga	<i>Clucia abyssinica</i>	Euphorbiaceae	The leaves are used in traditional medicine in various way, to treat sciatica, rheumatism and gravidity problems the leaves are further more used as an abortifacient agent.
11	Irebe	<i>Begonia meyeri-johannis</i>	Begoniaceae	Leaves are used to treat wound injuries and stop

				breeding.
12	Umufumba	<i>Plantago</i>	<i>Palmate</i>	Eaten by animals and by human as vegetables and in addition used as medicine in intestine as smoothing agents during constipation.

Table 3: Plants identified

We also identified some birds in Nyungwe National Park Buffer Zone: Cape Robin Chat, African Pied Wagtail, Brimstone Canary, African Golden –Breasted bunting, Grassland pipit, Ashy flycatcher, Common stonechat, Streaky seed eater, Cinnamon Bracken warbler, Variable sunbirds and Black headed waxbill.

2.1.5. Plant species identification around Nyungwe Conservation Leadership Center

Around Nyungwe Conservation Leadership Center, there are 34 agroforestry trees (*Polyscias fulva*, *Sinarundinaria alpine*, *Psychotria mahoni*, *Myrsine melanophloeos*, *Hypericum revolutum*, *Macaranga kilimandscharica*, *Syzygium rowlandii*, *Harungana Montana*, *Keetia gueinzii*, *Solanecio mannii* *Helichrysum foetidum*, *Dracaena afromontana*, *Prodocarpusfalcatus* *Kotschya aeschynomoides*, *Xymalosmonospora*, *Dalberia lacteal*, *Clutia abyssinica* *Hagenia abyssinica*, *Maesa lanceolata*, *Ocotea usambarensis*, *Flaurea saligna*,) ,and 14 indigenous plant species (*Gladiolus dalenii*, *Ardasia kivuensis*, *Loberia gibberoa*, *Impatiens niamniamensis*, *Isoglossa laxiflora*, *Alectra sessiliflora*, *Justicia flava*, *Ranunculus, multifidus* *Sebaea leiostyla*, *Rumex abyssinicus*,).



Photo 4: *Flaurea saligna*

2.1.6. Distribution of environmental club's materials

After setting up environmental clubs at 12 targeted Schools and after working with the management of each Schools to look at the equipment they needed, we found that we have to give them books and pens for the first time for registering the environmental Committee, club members and report on what they do. We distributed to all Schools 2 Register books and 5 pens; other materials will be distributed accordingly.



Photo 5: Distribution of environmental club's materials

2.1.7. Wirengutambwiye quiz event

After talking to a number of young people about Nyungwe National Park and protecting the biodiversity network, it is clear that they do not have enough information, it is in this context that BIOCOOR organized a talk called Wirengutambwiye quiz by using the old men and women who lived on the outskirts of Nyungwe National Park to share information to Young people.

The objective of the talk is to increase the knowledge of young people and others who do not have enough information about Nyungwe National Park.

The talk was highly interactive and encouraging discussions, after discussions the participants were aware of:

- The importance of Nyungwe National Park;
- Threats to Nyungwe National Park and the role of youth in its conservation;
- Animals, trees, grass, birds that lived in Nyungwe National Park which are no longer exist;
- Materials used to damage Nyungwe National Park;
- Understanding their role in environmental protection.



Photo 6: Wirengutambwiye quiz event

SECTION 3 : LESSONS LEARNT (max-3 pages)

3.1. In line with the programme

This internship was very fruitful as new skills were learnt throughout the internship period like:

- Methodology used to identify Teachers and Students for heading the environmental clubs;
- Methodology used to prepare, organize and conduct a meeting or a training;
- Knowing what ANICOs is: Community Conservation Volunteers, ambassadors for conservation and biodiversity protection, they play a role of liaison between the communities and park management stakeholders including BIOCOOR;
- Knowing the importance of media in biodiversity conservation;
- Experience on identifying different plants and bird's species: collecting the samples on field and checking exactly the name of plants in the book called Plants of Nyungwe;
- Methodology used to establish environmental clubs;
- Knowing ways of raising community awareness through meetings, training, social media, posters, signposts;

3.2. Gaps between knowledge acquired in the classroom and field realities

According to my field, I saw that there is gap between knowledge acquired in the classroom and field realities which are the following:

Knowledge acquired in classroom	Field realities (gaps)
Community conservation awareness and management (theoretically)	I saw different methodologies of doing awareness and I was put it into practice
Identification of birds (theoretically and low practically)	I was identified different birds by using book called (birds of RWANDA) through nature walk in NYUNGWE buffer zone and taking pictures, and using binocular and bird sound software.
Environmental legislation and management	I was practiced what I studied in classroom

(theoretically)	through establishing environmental club with purpose of environmental management
Plant species identification	I was identified different plant species practically and making data base of those plants around Nyungwe conservation leadership center
We haven't seen different between indigenous plant species and agroforestry plant.	I have seen the difference between agroforestry plants and indigenous plant species through identifying them practically by using book (plants of Nyungwe)

Table 4: Gaps between knowledge acquired in the classroom and field realities

3.2. Challenges met and how they were overcome

Challenge	Overcome
Stay in the district challenge due to Covid-19	I was taking a private car from home to the internship site.
Covid-19 Challenge	We overcome this challenge through: <ul style="list-style-type: none"> • Wearing masks • Social distancing • Hand sanitizer
Climate change (heavy rain)	Wearing personal protective equipment (raincoats, boots and gloves)

Limited financial resources (transport)	Support from family, friends and relatives.
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Table 5: Challenges met and how they were overcome

SECTION 4: CONCLUSION AND RECOMMENDATIONS

This internship has helped me learn a lot about biodiversity conservation network, doing it in Biodiversity Conservation Organization would be good for every student studying lessons in relation to forestry, natural resources and wildlife management.

After carried out this internship, we recommend IPRC Kitabi to:

- ✓ Send more interns to work with BIOCOOR during the period of industrial attachment program;
- ✓ Visit their interns to the internship site during the period of industrial attachment;
- ✓ Strengthen environmental club at School and planting different indigenous plant species around the School.

We recommend BIOCOOR to partner with Universities and College of Environmental studies to accommodate more interns.

References

Birds of RWANDA (BOOK)

Plants of NYUNGWE (BOOK)

www.biocoor.rw