

## Original Research Article

### **Environmental Justice and Women Empowerment in Nyungwe National Park (Rwanda): Case Study of Kitabi Women Handcrafts Cooperative**

#### **Abstract**

In the framework of the community participation in conservation in Rwanda, a women handcraft cooperative was established in 2011 in the surrounding of Nyungwe National Park in Kitabi sector and Nyamagabe District. It aimed to empower economically and socially wives of former hunters who were themselves relying on natural resources and involved in harvesting different resources in park for making handcraft products. The empowerment was intended to reduce the reliance to natural resources and to contribute to the protection of the park. The objective of the study was to investigate and examine women's experiences about their empowerment through environmental justice, in terms of distributive and procedural justice and challenges faced by women. In doing so, participants were purposively selected in women handicraft cooperative and in administration bodies. With regards to data collection and analysis, semi-structured interviews and content analysis were used. The findings showed that women are socially and economically empowered. In terms of economic empowerment, access to financial loans, savings, employment and income generating projects are the major indicators of the empowerment. Improved capacity building and family relations are major concerns of social handicraft cooperative members. Regarding the participation of women in decision-making process, the findings are controversial. However, it is still limited because of the dominance of top-down approach that does not consider enough women's voices and suggestions in decision making. Cooperative women members perceive and consider the process of communication and decision-making as passive because they are almost absent in the monitoring and evaluation processes. The participation of the community members including women only appears through meetings with or without elected representatives. The process of women empowerment is still limited by some challenges such as crop raiding, complicated and slow compensation process, high interest rate and slow process of loan and inadequate communication. The partnership approach is then recommended so as to consider women's needs and voices in the implementation of natural resources conservation policies.

**Key words:** *Nyungwe National Park, Women handcraft cooperative, Environmental justice, Women empowerment, Rwanda*

## 1. Introduction

Worldwide, protected areas are recognized as important to host the biodiversity considered as living and economic resource. In this regard, their management is likely to face conflicts between policy makers, technical administration and surrounding communities. In Africa, protected areas are delimited and placed under state control with highly monitored human impact. In most of protected areas, local people are excluded from the use of natural resources and customary rights are ignored [1] to achieve natural resources conservation goals, on the basis of the perceptions that local communities are ignorant and destructors of environment. However, over the last 25 years, the image of the conservation has shifted from wildlife protection to people-centred conservation. The new approach came up with the concept of environmental justice [2, 3] that seeks for better conservation outcomes by involving all people and treating them fairly in all activities regarding the environment [4]. The concept of environmental justice deals with the inequities perceived and experienced by diverse stakeholders as they are subjected to activities that affect their lived environments. This is very relevant especially when certain communities are subject to inequities in the distribution and consumption of environmental 'ills' and 'benefits' [5] like in Rwanda, specifically for communities surrounding national parks who are the poorest [6-8]. Environmental injustice occurs from human activities that harm the nature and in other forms such as gender and class discrimination [9]. This is the reason why the present study is focused on women's experiences and empowerment as a key social category through environmental justice.

In the context of improving natural resources conservation policies and practices, people living in the adjacent to protected areas have to abandon some of the activities which had been long their source of income. In return, the former income has to be compensated by conservation revenue sharing through social and economic empowerment, especially in Rwanda, where protected areas based tourism is among the top priorities in political debates whereby it has become the first sector contributing to the GDP for 12.7% [10]. The decentralization policy adopted in Rwanda since 1998 and the new approach of reconciling environment and community needs through eco-tourism and tourism revenue sharing have considerably improved the community participation [11]. The contribution from income generated in tourism activities has increased from 5 to 10% of the total gross revenue earned in national parks to assist local communities based projects in socio-economic development. The studies on the impact of tourism revenue sharing on social and economic development of local communities indicated that tourism revenues contribute to socio-economic development in different ways [12-13]. However, other empirical studies indicated that community based projects are failing to achieve their goals because of insufficiency of revenues, top-down governance system, lack of business skills and conflicting stakeholder interests [14-20]. Due to the controversial results, the implementation of the aforesaid strategy might therefore be an issue of very large and inclusive debate.

Beside quantitative studies, lived experiences of local communities in regard to their participation in the implementation of the community conservation policy are missing in scientific researches in Rwanda. For participation to be effective, local communities have to be empowered in term of knowledge, income and trust just to name few. Community participation can be manipulative, passive, consultation, material incentives, functional and interactive [21]. Though no form can fit all contexts, interactive participation might be important [15]. In principle, empowerment can be considered as mean of enabling a social environment in which one can make decisions and make choices either individually or collectively for social transformation by acquiring skills, knowledge, power and experience [22]. There two important dimensions of empowerment are: (1) the creation of conducive environment enabling responsible individual and (2) collective decision-making. The approaches of community participation that are likewise relevant for natural resources management are: (1) top-down, (2) bottom-up and (3) partnership approaches [15, 23]. Currently, the partnership approach is proposed so as to mitigate the limitations of the previously mentioned other approaches. So far as women empowerment is concerned, it is the process through which traditionally underprivileged women are uplifted for more improved economic, social and political status [24]. In the context of nature conservation, empowering women is a key to sustainable policies and programs without compromising socio-economic development initiatives [25-26]. Women are expected to be independent and make decision on their own by building trust in such a way that they can empower themselves [27-28]. Women participation in decision-making is a crucial element to ensure sustainable development processes and create an influence on their norms and value [29]. In Rwanda, where women count for 51.8% of the total population mostly living in rural areas including

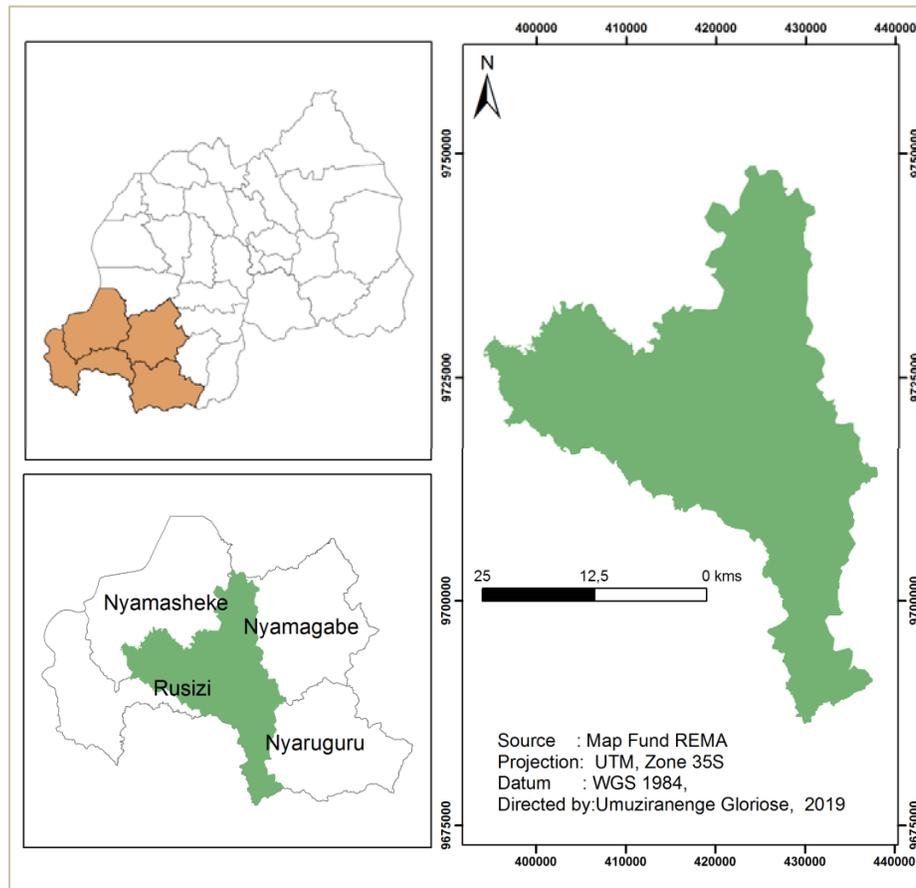
protected areas [30], gender-oriented studies with regard to natural resources management and environmental justice are missing in scientific discourse. The study on women empowerment through environmental justice in NNP was conducted to fill this gap for three main reasons: (1) Women are materially adversely affected by environmental degradation due to disproportionately assigned caring and provisioning roles and obligations [31], (2) Women are evolving in a traditionally male dominated structure [32] and (3) Women are more likely to interact with environment in their daily basis [33-36]. Its main objective was to explore and investigate how women are empowered as a specific and key social group. The study case of Kitabi Women Handicraft Cooperative was identified since handmade products are largely contributing to women socio-economic development.

## **2. Methodology**

### **2.1. Study Area**

The Nyungwe National Park (NNP) is one of the three national parks of Rwanda. It is located in South West of the Country. It is surrounded by 4 Districts that are Nyamasheke, Rusizi Nyaruguru and Nyamagabe as indicated in Figure 1. NNP resulted from the erection of the former Nyungwe Natural Forest Reserve in November 21, 2005 setting up new management schemes which prevent different activities by many different groups to stop. The Park includes Cyamudongo and Gisakura Natural Forests. Until 2005, it is the Wildlife Conservation Society (WCS) that was in charge of the full management of Nyungwe Natural Reserve. The NNP is a high-altitude mountainous rainforest along the Albertine Rift covering approximately 1,019 km<sup>2</sup>. It is the largest mountainous forest remaining in Africa that is home to 20% of all African primates, including 13 primate species; 280 bird species including 25 endemic ones; 43 reptile species and 85 mammal species. The Park is also characterized by an extremely rich plant life with more than 240 species of orchids.

The NNP surrounding zones are very populated with a more or less 300 occupants/km<sup>2</sup>. More than 90% of surrounding communities are subsistence farmers having an average cultivated area of less than 1 ha per household. Thanks to its important biodiversity, the NNP plays a big role in the surviving of the neighboring communities. It provides many ecosystemic services by means of water catchments for most of the communities and balances out soil disintegration and erosion for the surrounding communities. In terms of ecotourism, NNP is currently the second most prevalent nature based tourism fascination in Rwanda after the Volcano National Park. Guided strolls, chimpanzee following and recreational offices from Lake Kivu in this manner make the NNP special.



**Figure 1: Localization map of Nyungwe National Park**

Since a long time tea plantations and mining activities are organized by internal villages where people were used to come for businesses and would degrade the forest [37]. Until the early 1990's, more than 3.000 people were permanently living in the park and had built houses and shops in places like Pindura and Karamba [38]. The main challenges that NNP is facing are: (1) the increased population pressure, (2) a high rate of poverty of the surrounding populations, (3) a high reliance on natural resources, especially on agriculture for livelihoods, (4) important forest and bush fires, (5) hunting pressures on largest mammals, (6) artisanal and industrial mining and (7) deforestation for firewood, medicine, grass for cattle and construction materials [6, 37].

Around 360,000 people specifically fringe the recreation center. The main human threats to biodiversity include poaching, deforestation, bush fires, honey collection and mining activities [39]. These threats resulted in the disappearance of large mammals like elephants (*Loxodonta africana*) and buffalos (*Syncerus caffer*). The high percentage of poor and low educated people living around NNP is a big challenge for both tourism and conservation development [6].

## **2.2. Kitabi Women Handcraft Cooperative**

Kitabi Women Handcraft Cooperative started in 2011 with 30 active members including 28 females and 2 males. The cooperative operates its activities in the surroundings of NNP in Kitabi sector and Nyamagabe District. It is basically composed of women whose husbands had been involved in harvesting different resources in NNP for making handcraft products especially before Nyungwe was recognized as National Park in 2005. Additionally, women themselves used to rely on natural resources found in the park. The cooperative was then established to reduce the reliance to natural resources rather create other sources of income for their survival and development. Its mission is to protect NNP through raising environment awareness among community members. In addition to making handcraft products for increasing their income, cooperative members initiate and undertake

different activities to protect NNP such as building public latrines, sensitization and mobilization of local community about the importance of the park to their welfare as well as country development.

### 2.3. Research approach, method and tool

The general objective of the study was to investigate and examine women's experiences about their empowerment through environmental justice in NNP. In the study, the concept refers to the process by which environmental actors, local communities and women are interacting and working together by identifying needs, shared values and challenges and setting up measures and goals to address them as well as implementing together activities and projects that affect their lived environment [40]. It is envisaged as a process of dealing with all justice related issues in environmental management through distributive and procedural dimensions [41] with regard to community empowerment that are closely interlinked. Distributive dimension is concerned with equity as regard to dealing with people's outcomes in social exchanges [42]. It concerns mainly equity in the distribution of cost and benefits from natural resources management [43] among communities while procedural justice concerns decision-making procedures and processes [44-45]. As women's empowerment is concerned, the study seeks to: (1) explore and analyze how distributive justice contributes to women's empowerment in Kitabi Women Handcraft Cooperative and (2) explore and analyze how procedural justice contributes to women's empowerment in Kitabi Women Handcraft Association. In order to explore how individuals interpret their experiences and views, qualitative approach best fits the purpose of the study [46-47]. The following model describing the relationship between environmental justice, population empowerment and conservation outcomes was used to analyze and assess the women's empowerment through environmental justice in NNP management (Figure 2).

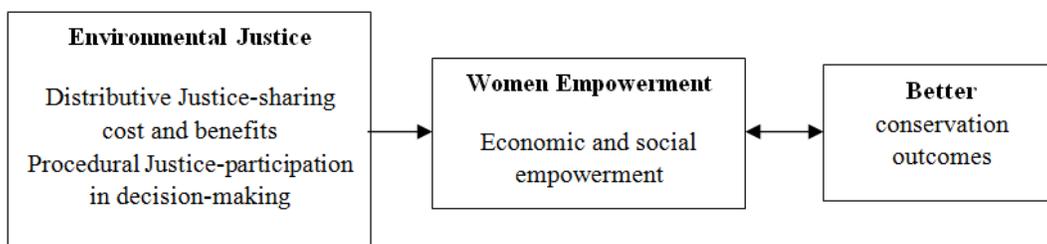


Figure 2: Relationship between Environmental justice, women empowerment and conservation  
[Source: Adapted from [21] and [45]]

With regard to sampling, theoretical and purposive samplings were used to progressively select participants from Women Handcraft Cooperative and decision-making bodies that are Local Administration and Rwanda Development Board (RDB). Participants were progressively identified purposively during data collection that is concomitant with data analysis [46, 48, 47]. During data collection through women individual interviews, the saturation point was reached at the eighth interview. The repartition of the respondents is indicated in the following table.

**Table 1: Category and distribution of the participants to interviews**

Category of Respondents	Number of Respondents
Women Handcraft Cooperative	8
RDB Staff	2
Local Administration	2
<b>Total</b>	<b>12</b>

Collected data were analyzed under three themes namely distributive and procedural justice and challenges faced by women in regard to their empowerment in natural resources management. For data collection, semi-structured interviews were used to gather individual experiences with regard to women empowerment. Semi-structured interviews are a viable means of learning about peoples' views especially due to flexibility and openness during data collection process [49-50]. The collected information was then analyzed using content analysis by identifying deductive codes derived from existing literature and supplemented with inductive categories that emerged from collected data

### 3. Findings

#### 3.1. Environmental distributive justice and women empowerment

The study showed that women are socially and economically empowered. With regard to economic empowerment, access to financial loans, employment and income generating projects are the major indicators of the empowerment. Improved family relations and capacity building are major concerns of social women empowerment. With the support of donors, RDB facilitated the cooperative through income from tourism to purchase sewing machines for weaving and to connect them to financial lending institutions like Savings and Credit Cooperatives (SACCO) and Inter-Diocesan Micro-Finance Network (RIM) of Gikongoro Roman Catholic for easy access to loans. Additionally to loans offered to cooperative so as to enhance handcraft business, individual members have access to the same kind of loan through cooperative which later contributes to their income generating activities. The loans contacted through the cooperative allowed members to start different projects including small agricultural projects, livestock and small trading businesses. Other income generating projects which include tailoring, knitting uniform sweaters for surrounding schools, shopping bags and small farming projects like pigs and goats raising were also developed. More on that, cooperative members were trained and started projects of knitting bags, sweaters and baskets which replaced baskets made before from traditional materials collected in the park (Figures 3, 4, 5).



Figure 3: Sowing activities in Kitabi Women Handcraft Cooperative



Figure 4: Baskets and Hand bags produced in Kitabi Women Handcraft Cooperative



Figure 5: Weaving machine used in Kitabi Women Handcraft Cooperative

They constructed public toilets as a way of protecting the park and built Mushabarara Center which host tourists and other travelers in traditional houses. Furthermore, access to loan has created opportunities of jobs. Having been trained to making handcraft and given loan boosted the access to employment. Members of Kitabi women handcraft cooperative are regularly workers for handcraft businesses and get paid for it. Handcraft products are sold to tourists and the community members and benefits shared on an annual basis. More on that, children initiated traditional dancing clubs that entertain tourists especially during school holidays.

Findings also showed that handcraft cooperative members are socially empowered through capacity building that leads to improve welfare. Among other trainings, they have been trained on handcraft making, project planning and management, environmental conservation, family planning and gender-based violence. Handcraft products are sold to tourists. The question might be about the benefits of social and economic empowerment of women in Kitabi Women Handcraft Cooperative. In terms of impact of social and economic empowerment, women's lives have improved thanks to taking part in cooperative. Women have now formal jobs and the cooperative has become their main employment and source of income as they are struggling to maintain small and inconsistent sources of income sometimes through illegal practices in the park. This is confirmed by local government officers and RDB staff members who said that, economically, cooperative members had not the capacity of having shelter, cattle or an account in Umurenge SACCO microfinance before joining the cooperative. Today, the socioeconomic situation of the cooperative members was improved because they are able to get money for food, for medical insurance payment and for education fees for kids through selling handicrafts materials to tourists and tourism revenue sharing program. They can afford now health insurance and small animals such as pigs and goats from the associations' benefits. Moreover, this led to satisfaction of other human needs like self-esteem. More on that, cooperative women members have become agents of change in the process of increasing awareness about environmental protection for their family members and the community as well thanks to encouragement not to hunt and other prohibited activities in NNP.

### ***3.2. Environmental procedural justice and women empowerment***

With regard to the participation of women in decision-making process, the findings are controversial. On one hand, 50% of women participants are not happy with their participation because leaders are the ones who decide what to do and come to population for action especially the one working in cooperatives. They also complain about their suggestions that are never considered in deciding. This was the case about their proposal of protecting animals coming out of the park to raid crops thanks to particular ways to bring them back into the park was not accepted and encouraged. Moreover, their request for mobile phones for easy communication and information dissemination was not welcomed. Cooperative women members perceive and consider the process of communication and decision-making as passive because their voices and points of view are missing in the process. Collaboration of stakeholders in regard to conservation might be problematic. Community members are almost absent in the monitoring and evaluation processes. For example, women are missing in some strategic meetings and local government administration entities are not well informed of who the RDB invites in the meeting and on which basis. Moreover, the management of finance related to tourism revenue sharing is not transparently clear to all stakeholders. What they receive and how it has to be managed rest in the secret hands of decision-makers. There is a limited participation of the members of the community which participate through meetings with or without elected representatives. Sometimes cooperative members are invited to share information with RDB and report monthly to RDB. Whenever needed they have meetings for deciding on which activities have to be done and revising measures of protecting the park as well as wild animals which come out of the park and damage or destroy crops belonging to local communities.

### ***3.3. Women's challenges concerning empowerment***

Despite the benefits from NNP, there are some challenges that need to be reflected to enhance environmental justice as means of women empowerment. The findings indicated that crop raiding by chimpanzees and other wild animals, complicated and slow compensation process, high interest rate on loan, slow process of loan, mindset of local community, lack of communication facilities and lack of study trips are key challenges for the sustainability of environmental justice and then limits the process of women empowerment. In addition, the fairness in calculations of money to be reimbursed is critical because there are not yet established commonly shared criteria and standards in evaluating crop damages. Though women handcraft cooperative members acknowledge the access to loan and

close collaboration with microfinance such as SACCOs, they still face the challenge of a high interest rate and short period of reimbursement compared to other financial lending institutions. Loans that are offered by aforesaid microfinance charge a higher interest rate (19%) compared to average interest rate of 17% in other financial institutions. Moreover, the process of approving loan takes longer. Communication between members of the cooperative and decision makers was rated to be problematic. On one hand, members of the cooperative accuse decision makers not to value their requests of providing communication facilities. On the other hand, decision makers accuse them to poorly communicate by not sharing information on time. There are also some members of the community that are still reluctant to change as regard to environmental protection as long as they still wish to continue earning their lives from NNP.

#### 4. Discussion

The findings are discussed in light of environmental justice criteria as developed by many authors [21, 15, 23, 45]. Firstly, the study showed that women in Kitabi handcraft cooperative are socially and economically empowered through capacity building, access to loan and employment. They had opportunities to improve their household status (Figures 3, 4, 5). Among others, women started income generating activities, improved family relations which lead to support RDB in the process of sensitization and mobilization of local communities about the role of the park and its conservation. This sort of empowerment led to the satisfaction of cooperative members with regards to employment, health insurance, food security and environmental raising awareness. This result confirms the fact that women are so influential in the process of change [36, 32]. It also states that engaging sustainable development initiatives without involving them is an empty gesture [33]. Therefore, empowering women in NNP is likely to achieve better conservation outcomes. Furthermore, findings corroborated the point of view whereby increasing women participation and empowering them, lead to better conservation outcomes as they have privileged knowledge and experience of working closely with the environment. In this orientation, once women are economically empowered, there is high probability that natural resources will be safeguarded. These findings are in the same line of [5] who argued that as countries, especially developing ones, seek to increase revenues from tourism, communities living closer to tourist attractions, specifically those surrounding national parks had to abandon some of the activities that had been long their source of consumption and income. Therefore, environmental distributive justice is a key to sustainable conservation of natural resources. Despite recognition of economic empowerment, women participation in decision –making is very limited. In view of the model of community participation as developed by [21], it can be revealed that women participation in decision-making process is passive because they are receiving reports and information on the decisions without their input since their ideas are most of the time ignored. With passive participation, relationship between community members and decision makers is quite asymmetric because community members play the only role of receiving information which might be or not relevant to their needs. Moreover, the findings are in line with the top-down approach whose assumptions are to consider communities as passive in the process of decision-making [23]. Though the study showed promising economic benefits for women, the sustainability of the change in regard to their development and natural resources conservation is questionable if they do not own the initiatives undertaken by decision-makers. Indeed, the sustainability is a result of close collaboration between stakeholders in planning and making decisions for sustainable conservation and benefit sharing for development process [15].

This finding is in line with [21] model of community passive participation. The findings revealed that a little partnership and bottom-up approaches are used where the local leaders and the community sometimes meet for deciding on different activities like payment for damaged crops and punishment for people who violate law governing the park. This finding is in line with the idea of [15] and [23] according to which the government and the community work together in planning and making some decisions for better and sustainable conservation and benefit sharing for development process. Participatory process in decision making is a tool that promote trust between local community and decision makers [21, 15, 23, 51] and reach to better conservation outcomes as well as promote the success of rural development goals [26, 25] when there is an emphasis on the importance of local capacity building, knowledge ownership, and empowerment [52]. The challenges directly or indirectly related to the implementation of decentralization policies whereby the voices of local communities are to be recognized. Additionally, they might be reflected in relation to management approach used especially in involving local communities in NNP management.

## 5. Conclusion

The aim of the study was to investigate women's experience about their empowerment through the components of environmental justice. It showed that environmental distribute justice leads to social and economic empowerment of women living close to NNP. However, the sustainability of this empowerment is limited by the passive and top-down approaches dominating the implementation of policies regarding the conservation of natural resources. Based on research findings, it is suggested that RDB in collaboration with local governments should emphasize the partnership approach in empowering the communities especially women, hear their voices and build trust among the entire community members. RDB should organize more trainings and study trips for women in cooperatives in order to learn from others who have the same mission of making handicrafts while protecting natural resources. Regular meetings and consultations have to be organized as one way of gathering more information on time and encourage positive endeavors to protect and safeguard NNP. Moreover, sensitization has to be used as a continuous tool to change the mindset of resisting people and to show them different alternatives to the park destruction. In this regard, RDB in collaboration with financial institutions should ease the process of getting loan by reducing interest rate for community-based cooperatives. Similar studies should be extended to other community-based cooperatives operating in NNP. This is very compelling because it allows achieving at least three intertwined variants of Sustainable Development Goals (SDGs), namely gender empowerment, poverty reduction and environmental protection. There is a real need for being offered opportunities of study trips to learn from others' experiences. A partnership approach needs to be reinforced as a tool to sustainable conservation outcomes.

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