

## Evaluation of Conflicts and Parks Management in The Utilization of Natural Resources in Nigeria

Oghenekevwe Abigail OHWO<sup>1\*</sup>, Dickens Efemena DOLOR<sup>1</sup>, Theophilus Miebi GBIGBI<sup>2</sup>

<sup>1</sup>Delta State University, Faculty of Agriculture, Department of Forestry and Wildlife, Abraka, NIGERIA  
<sup>2</sup>Delta State University, Faculty of Agriculture, Department of Agricultural Economics, Abraka, NIGERIA

\*Corresponding Author: [oghenekevweabigail@gmail.com](mailto:oghenekevweabigail@gmail.com)

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### Abstract

*Aim of study:* National parks establishment was stimulated by conservation. However, conflicts exist with park managers and rustic communities hosting the park. The need to regulate utilization of forest resources by man to ensuring peaceful coexistence becomes necessary.

*Area of study:* Okomu National Park, Edo State, Nigeria was the study area.

*Material and methods:* One hundred and fifty respondents from host communities and 20 staff of Okomu National Park were randomly selected and structured questionnaire administered to them. Data were analyzed using descriptive statistics.

*Main results:* Most (86.0%) of community member were aware of law guiding park but were adamant (40.0%) regardless of awareness creation by park officers (80.0%). Destruction of farms by fauna and inability of park managers to fulfill their social responsibilities (20.0%) (Staff) and inability of park to carry out social responsibility (20.0%) (communities) were the major conflict sources. Dialog (26.0%) and intensive support zone programme (20.0%) were suggested by community and staff respectively for peaceful coexistence.

*Highlights:* Conflicts were evident between host communities and park management. The underlying cause is deprivation of host communities from accessing resources and parks manager inability to fulfill their social responsibilities. Conflict resolution method of supply of palliative/benefit from park to communities will aid parks conservation.

**Keywords:** Conflicts, Park Management, Natural Resources, National Park

## Nijerya'da Doğal Kaynakların Kullanımında Çatışma ve Park Yönetiminin Değerlendirilmesi

### Öz

*Çalışmanın amacı:* Milli parkların oluşumu koruma ile teşvik edilmiştir. Ancak, park yöneticileri ve parkı barındıran rustik topluluklarla çatışma var. Barışçıl bir arada yaşamayı sağlamak için orman kaynaklarının insan tarafından kullanımını düzenleme ihtiyacı gerekli hale geliyor.

*Çalışma alanı:* Okomu Ulusal Parkı, Edo Eyaleti, Nijerya çalışma alanıdır.

*Materyal ve yöntem:* Ev sahibi topluluklardan yüz elli katılımcı ve Okomu Milli Parkı'nın 20 personeli, yapılandırılmış anket kullanılarak rastgele seçilmiştir. Veriler tanımlayıcı istatistikler kullanılarak analiz edildi.

*Sonuçlar:* Topluluk üyelerinin çoğu (%86.0) parka rehberlik eden yasanın farkındaydı, ancak park görevlileri tarafından farkındalık yaratılmasına (%80.0) bakılmaksızın kararlıydı (%40.0). Çiftliklerin fauna tarafından tahrip edilmesi ve park yöneticilerinin sosyal sorumluluklarını yerine getirememesi (%20.0) (Personel) ve parkın sosyal sorumluluğu yerine getirememesi (%20.0) (topluluklar) başlıca çatışma kaynaklarıydı. Barış içinde bir arada yaşama için diyalog (%26.0) ve yoğun destek bölgesi programı (%20.0) sırasıyla toplum ve personel tarafından önerildi.

*Önemli vurgular:* Ev sahibi topluluklar ve park yönetimi arasında çatışmalar belirgindi. Bunun altında yatan neden, ev sahibi toplulukların kaynaklara erişimden yoksun kalması ve park yöneticilerinin sosyal sorumluluklarını yerine getirememesidir. Parktan topluluklara palyatif/fayda sağlamanın çatışma çözme yöntemi parkların korunmasına yardımcı olacaktır.

**Anahtar Kelimeler:** Çatışmalar, Park Yönetimi, Doğal Kaynaklar, Milli Park



## Introduction

Forests are termed common property because they are naturally occurring and own by communities in which they exist. As common property, forest abuse is inevitable. The utilization of resources from forest by rustic tenants became unsustainable. In Nigeria, the scenario was not different. In-order to regulate the behavior of mankind, laws were made. One of such law led to the creation of National Parks (NPs) for biodiversity conservation (Walpole & Goodwin, 2001). The NPs management is guided by stern laws that prevent rustic tenants where they are located from places they usually obtain resources for survival (Alkan et al., 2009; Shrestha & Alavalapati, 2006). Thus, NPs management was at variance with the need of the people (Khan & Bhagwat, 2010). Although, parks management according to Daniel (2002) consist of three approaches: Top-Down, Mixed Management and Bottom-up Management, most park officials do not involve the community in parks management. In top-down approach, control of the park is mainly by the park authorities with zero input from rustic tenants; mixed management involves the combine administration by parks officials and rustic communities while the bottom-up approach also called community participation involves full engagement of rustic tenants in parks management.

In Africa and other developing world, about 90.0% of poor people rely on forest for income, thus, for survival, resorted to illegal harvesting of resources from NPs (Ohwo & Nzekwe-Ebonwu, 2021). This illegal use of NPs led to conflicts and when not properly controlled, loss of lives and properties are inevitable (Hocking et al., 2020). Over the years, poaching of NPs by rustic tenants existed but the level of trespass heightened during the lock down period as alternative sources of livelihood were stilled which resulted in excess exploitation of resources from PAs as the only means for survival (Hocking et al., 2020). In the utilization of parks resources, conflict is inevitable especially with varying interest of conservation of forest (park objective) with the livelihood sustenance of rustic tenants

(stakeholders need) (Andrew-Essien & Bisong, 2012). The destruction of farms, lives and properties of rustic tenants by wildlife ensue to conflicts (Msoffe et al., 2007).

For development, dialogue is essential in ensuring peaceful coexistence. Various channels and strategies exist for conflict resolution in various communal settings in Nigeria. However, dearth of information exists on the prevailing approach to park management and series of conflicts and their resolution between parks officials and rustic tenants during the lock-down period in Okomu National Park (ONP), Edo State. Examination of conflicts in utilization of resources from NPs and strategies adopted by park officials and rustic tenants in ensuring peaceful coexistence during the lockdown period of COVID-19 pandemic was studied with a view to evaluating their impacts on forest conservation.

## Materials and Methods

The study area was Okomu National Park, Edo State, Nigeria. One hundred and fifty (150) respondents from 5 communities (Udo, Ora, Kolobe, Orogbon, Nikrowa) and 20 staff of ONP were randomly selected. Two sets of questionnaires (One for parks officials and the other for rustic tenants) were administered. Information gotten from park officials' included method of parks administration, relationship with rustic tenants (awareness, education, incentive (royalty), laws, penalties and threat to their job and life. Questionnaire for rustic tenants focused on awareness of laws regulating parks activities, conflicts in parks utilization and methods utilized for resolving conflicts. Data were analyzed using descriptive statistics of table, frequency and percentage occurrence.

## Results and Discussion

The socioeconomic profile of rustic tenants and staff of ONP in Tables 1 and 2 is as presented. The observations of profile of respondents corroborate Ohwo et al. (2023) on adaptive strategies of support zone community during the pandemic lockdown in Okomu National Park, Edo State, Nigeria.

Table 1. Socioeconomic profile of rustic tenants

Variables	Frequency	Percentages	Variables	Frequencies	Percentages
Sexual role			Family size		
Masculine	110	73.3	1.May	53	35.3
Feminine	40	26.7	6.Eki	84	56.0
Aggregate	150	100.0	above 10	13	8.7
Nuptial status			Aggregate	150	100.0
Single	16	10.7	Income fourth nightly		
wedded	100	66.7	less 10000	8	5.3
Widow	22	14.7	10100-40000	58	38.7
Separated	12	8.0	41100-60000	33	22.0
Aggregate	150	100.0	above 61000	51	34.0
Oldness			Aggregate	150	100.0
21-35	11	7.3	Work type		
36-45	54	36.0	Farming	103	68.7
46-55	69	46.0	Trading	23	15.3
Above 55	16	10.7	civil servant	21	14.0
Aggregate	150	100.0	Others	3	2.0
Faith			Aggregate	150	100.0
Christianity	28	18.7	Personal land		
Islam	46	30.7	Yes	65	43.3
Others	76	50.7	No	85	56.7
Aggregate	150	100.0	Aggregate	150	100.0
Schooling			Community indigene		
Primary	44	29.3	Yes	102	68.0
Secondary	106	70.7	No	48	32.0
Aggregate	150	100.0	Aggregate	150	100

Source: Data output (2021)

Table 2. Socio-economic characteristics of ONP Staff

Variable	Frequency	Percentages
Gender		
Masculine	12	60.0
Feminine	8	40.0
Aggregate	20	100.0
Nuptial status		
Single	5	25.0
Wedded	15	75.0
Aggregate	20	100.0
Oldness		
21-35	4	20.0
36-45	8	40.0
45-55	8	40.0
Aggregate	20	100.0
Faith		
Christian	9	45.0
Islam	6	30.0
Others	5	25.0
Aggregate	20	100.0
Schooling		
Secondary	6	30.0
Tertiary	14	70.0
Aggregate	20	100.0
Subdivision		
Planning, research and ICT	6	30.0
Ecotourism	3	15.0
Ecology and resources management	6	30.0
Human resources management	3	15.0
Works and maintenance	2	10.0
Aggregate	20	100.0
Years of service		
1-6	5	25.0

Table 2. (Continued)

Variable	Frequency	Percentages
7-15	6	30.0
above 16	9	45.0
Aggregate	20	100.0
Grade 9	8	40.0
Grade 8	9	45.0
Grade 7	3	15.0
Aggregate	20	100.0

Source: Data output (2021)

Laws guiding Protected Areas (PAs) existed in the park for biodiversity conservation. However, 86.0% of rustic tenants were aware of the existing law while 14.0% were not aware, 36.7% affirmed the existence of no trespass as law regulating PAs utilization while 96.0% stated that the law does not target specific park resources with 4.0% of rustic tenants being aware of laws targeted at endangered

species (Table 3). The response of rustic tenants shows that ONP and resources therein are strictly conserved. Alkan et al. (2009), Emelue and Ukandu (2014) and Shomkegh et al. (2017) reported that strict laws exist for protection of biodiversity in Nigeria such as the exclusion of rustic tenants from farming, collection of fuelwood and other resources from the park.

Table 3. Existence of laws and the types of laws in Okomu National Park with respect to PAs utilization by rustic tenants

Variable	Frequency	Percentages
Awareness of existence of law guiding these activities		
Yes	129	86.0
No	21	14.0
Aggregate	150	100.0
Laws guiding Parks utilization		
Not aware	21	14.0
No trespass	55	36.7
No grazing	4	2.7
No hunting, no logging, no grazing and No bush burning	6	4.0
No hunting and no logging	15	10.0
No trespass and no logging	6	4.0
No hunting and no farming	11	7.3
No trespass and no hunting	11	7.3
No trespass, no hunting and no bush burning	3	2.0
No hunting, no logging and no mining	8	5.3
No grazing and no bush burning	10	6.7
Aggregate	150	100.0
Laws target specific forest resource		
Yes	7	4.7
No	143	95.3
Aggregate	150	100.0
Forest resources targeted by laws		
not targeted at species	144	96.0
endangered species	6	4.0
Aggregate	150	100.0

Source: Data output (2021)

Awareness creation of park laws to rustic tenants shows that 75.0% of ONP staff stated a quarterly awareness education with 10.0% reporting a bi-annual education (Table 4). No effect was observed in awareness creation in

the attitude of rustic tenants as 40.0% of staff reported that rustic tenants were adamant and 10.0% reported that some rustic tenants subscribed to use of alternative means of cooking. Emelue and Ukandu (2014) stated

that parks laws implementation is complex and professionals with distinguished experience at Government and Non Governmental levels must synergize to ensure effective implementation. The effective penalties for disobeying park laws

were arrest and prosecution as stated by 75.0% of ONP staff with jail sentence the least (25.0%) (Table 4). This is as stated in the United States Department of Justice Archive (USDJA, 2020).

Table 4. Awareness creation of park laws by staff of ONP

Variables	Frequency	Percentages
Existence of park laws		
Yes	17	85.0
No	3	15.0
Aggregate	20	100.0
Creation of awareness on park laws		
Yes	16	80.0
No	4	20.0
Aggregate	20	100.0
Interval of awareness creation		
Quarterly	15	75.0
Biannual	2	10.0
Yearly	3	15.0
Aggregate	20	100.0
Effect of awareness on community		
Adamant	8	40.0
Indifferent	5	25.0
Change	3	15.0
Encouraging use of alternative means of cooking	2	10.0
Encouraging use of alternative means of cooking and encouraging preserve endangered species animal	2	10.0
Aggregate	20	100.0
Penalties for disobeying park laws		
hunting, illegal entry, logging- arrest and prosecution	15	75.0
hunting, logging, burning-jail sentence	5	25.0
Aggregate	20	100.0

Source: Data output (2021)

### Conflicts in Park Utilization

Various conflicts were evident in parks resource utilization as shown in Table 5. It shows that 63.3% of rustic tenants do not face obstacle in collections of parks resources while 36.7% encounter obstacles. Ohwo et al. (2023) reported an increased exploitation rate of the reserve before ( $1.89 \pm 0.06$  and  $2.15 \pm 0.13$ ) and after ( $2.39 \pm 0.06$  and  $2.85 \pm 0.06$ ) the lockdown period by fringe community dwellers and staff on ONP, respectively. The obstacle were bad terrain (9.3%), rangers interception (5.3%) with 1.3% stating a combine interception of rangers, distance and transportation as obstacles faced. Most (78.7%) of the respondents affirmed knowledge of ONP as protected area and explained that they utilized the forest because they have no other alternative for survival during the lockdown (19.3%). Forty seven

percent (46.7%) of rustic tenants were confronted by rangers with 20.0% fighting back. However, majority (50.7%) were not confronted by rangers. Among rustic tenants, 84.7% stated a peaceful coexistence as there were no conflicts encountered in the utilization of Parks resources. Furthermore, the major form of conflict was conspiracy (8.7%) (Table 5). Emelue and Ukandu (2014) stated that rustic tenants around ONP depends on the park for survival because majority were farmers and hunters. The heightened dependence during the lockdown period corroborates the report of Hocking et al. (2020). With conservation objectives of the park on one hand, and the survival strategy of rustic tenants during the lockdown period on other hand, conflict of interest was evident (Borokini et al., 2012). The peaceful coexistence observed by rustic tenants and park officials affirms report of

Emelue and Ukandu (2014) who observed of National park laws in ONP.  
 friendly nature of rangers in the enforcement

**Table 5. Conflict and Obstacles faced in National Parks Resources Utilization**

Obstacles faced during collection of forest product	Frequency	Percentage
Yes	55	36.7
No	95	63.3
Aggregate	150	100.0
Obstacles faced		
no obstacle	99	66.0
Bad terrain.	14	9.3
Mosquitoes	7	4.7
Ranger disturb	8	5.3
Human wildlife conflict	4	2.7
Distance and transportation	5	3.3
Bad terrain and human and wildlife conflict	3	2.0
Bad terrain and transportation	4	2.7
Ranger disturb and distance	4	2.7
Ranger disturb, distance and transportation	2	1.3
Aggregate	150	100.0
Awareness of ONP as a protected area		
Yes	118	78.7
No	32	21.3
Aggregate	150	100.0
Then what are the reasons for harvesting product from the park?		
Did not harvest	9	6.0
No other alternative	29	19.3
It's just minor products	26	17.3
Claiming ownership	25	16.7
Need for fuelwood	21	14.0
Hunger	14	9.3
Poverty	10	6.7
Did not see it as illegal	16	10.7
Aggregate	150	100.0
Did the rangers respond to your collection of parks products?		
Yes	74	49.3
No	76	50.7
Aggregate	150	100.0
Did you react to the rangers' confrontation?		
Yes	74	49.3
No	76	50.7
Aggregate	150	100.0
What were your reactions to the rangers' confrontation?		
Did not face rangers confrontation	76	50.7
Surrender	18	12.0
Confront	2	1.3
Fight back	30	20.0
Settlement	8	5.3
Retaliate	6	4.0
Run and hide	5	3.3
Fight back and hide	5	3.3
Aggregate	150	100.0
Conflict among rustic tenants		
Yes	24	16.0
No	126	84.0
Aggregate	150	100.0
what are the problems		
No problem	127	84.7
Competitions	10	6.7
Conspiracy	13	8.7
Aggregate	150	100.0

Source: Data output (2021)

The obstacles and conflicts faced by staff of ONP are presented in Table 6. Majority (65.0%) of the staff were friendly with rustic tenants while 35.0% were strict. Ninety percent (90.0%) of ONP affirm the existence of conflict with rustic tenants while 20.0% stated that destruction of crops or farms by

fauna and the inability of the park to fulfill their social responsibility to the community as the major sources of conflict. Majority (70.0%) of the staff reported the Ijaw community as the most difficult amongst the rustic communities.

Table 6. Obstacles and conflicts faced in carrying out duties by staff of ONP

Variables	Frequency	Percentages
Staff relationship with rustic tenants		
Friendly	13	65.0
Strict	7	35.0
Aggregate	20	100.0
Conflicts with rustic tenants		
Yes	18	90.0
No	2	10.0
Aggregate	20	100.0
Type of conflicts		
Fauna destroy crop from the adjoining farm	4	20.0
Hunting in the park	1	5.0
Illegal logging	2	10.0
Boundary disagreement	1	5.0
Social responsibility of park to rustic tenants	4	20.0
Poaching, felling of trees and encroachment	2	10.0
Hunting in the park and felling of trees and Fauna destroy crop from the adjoining farm	2	10.0
Poaching, encroachment and felling of forest trees	1	5.0
Encroachment, fauna destroy crop from the adjoining farm	3	15.0
Others	0	0
Aggregate	20	100.0
The most difficult community		
Ijaw community	14	70.0
None	2	10.0
Inikorogha	4	20.0
Aggregate	20	100.0
Ways of enforcing laws to illiterates		
Conservation education	6	30.0
Sensitization in their language	10	50.0
Tell them important of conservation	4	20.0
Others	0	0.0
Aggregate	20	100.0
Threat faced in enforcing law		
Confrontation	7	35.0
Enmity	1	5.0
Forcefully removal of suspect from the custody	1	5.0
Isolation	2	10.0
Gun battle and maiming of staffs	1	5.0
Threats to life	1	5.0
Enmity, forcefully of suspect from custody and isolation	4	20.0
Enmity, forcefully of suspect from custody	3	15.0
Others	0	0.0
Aggregate	20	100.0

Source: Data output (2021)

The best way (50.0%) of creating awareness and enforcing laws to illiterates was by education in their native language. The major (35.0%) threat faced by staff of ONP in enforcing law is confrontation from rustic tenants. The friendly nature of staff to rustic

tenants was observed by Emelue and Ukandu (2014) in ONP. The existence of conflict by staff of ONP supports the reports of Ruschkowski (2009), Borokini et al. (2012), Andrew-Essien (2014), Emelue and Ukandu, (2014) and Shomkegh et al. (2017).

Destruction of farms by wildlife was evident in Kwakuchinja Wildlife Corridor in Northern Tanzania (Kwaslema & Eivin, 2015) and Kainji Lake National Park in Nigeria (Ajayi et al., 2019). Emelue and Ukandu (2014) observed absence of expected benefit from the park as source of conflict in ONP. Education of unschooled rustic tenants by local language highlights the importance of involvement of rustic tenants in park management (Borokini et al., 2012).

### Methods of Conflicts Resolution in ONP

The methods of conflicts resolution between rustic tenants and staff of ONP

presented in Table 7 showed that 47.3% of rustic tenants had no conflict with the staff of ONP, 26.0% resolved conflicts by dialogue while 2.0% stated that conflicts were solved in community meeting. Majority (44.0%) of rustic tenants agreed with the various methods of conflict resolutions. Other ways suggested by rustic tenants for conflict resolution are by supply of palliative (7.3%), allow collection of minor resources (4.7%) and partial hunting (4.0%). The above methods of conflict resolution were observed by Ruschkowski (2009) in Germany, Emelue and Ukandu, (2014) in ONP and Kwaslema and Eivin, (2015) in Tanzania.

Table 7. Conflict resolution between rustic tenants and staff of ONP (community response)

Variable	Frequency	Percentage
How were the problems between community and rangers solved?		
no problem to resolved	71	47.3
Dialogue	39	26.0
Settlement	30	20.0
Community meeting	3	2.0
Stakeholders meeting	7	4.7
Aggregate	150	100.0
Is the method of problem solving good?		
No problem resolved	66	44.0
Yes	70	46.7
No	14	9.3
Aggregate	150	100.0
If no suggest other ways problem can be solved?		
no other way	126	84.0
Allow collection of minor resources	7	4.7
Allow partial hunting	6	4.0
Supply of palliative	11	7.3
Aggregate	150	100.0

Source: Data output (2021)

The strategies adopted by staff of ONP in resolution of conflicts showed that conflict was seen as a major challenge and the strategy adopted for peaceful coexistence include; intensive support zone program (20.0%), public-private partnership (15.0%), memorandum of understanding, compounding offenses and dialogue (15.0%) (Table 8). Execution of terms on the memorandum of understanding (25.0%), provision of alternative livelihood sources

(20.0%), embarking on social responsibility (15.0%) and aggressive support zone program (15.0%) were suggested as alternative ways to resolving conflicts in the park (Table 8). Provision of amenities and alternative livelihood source was proposed by Borokini et al. (2012), benefit sharing by Emelue and Ukandu, (2014) and conservation education by Kwaslema and Eivin, (2015) in Ngel Nyaki Forest Reserve, ONP and in Tanzania respectively.



Table 8. Strategies adopted by staff of ONP in conflict resolution

Variable	Frequency	Percentages
Conflict as major challenge		
Yes	20	100.0
No	0	0
Aggregate	20	100
Strategy adopted for peaceful coexistence		
Embarking on social responsibility	1	5.0
Aggressive support zone program	1	5.0
Conservation education	1	5.0
Provisions of alternative livelihood	1	5.0
Intensive support zone program and public-private partnership	4	20.0
Dialogue and cautious and release of first offender	2	10.0
Memorandum of understanding, compoundment of offense and pardoning if it's first time	2	10.0
Memorandum of understanding, compoundment of offense and dialogue	3	15.0
Public-private partnership and intensify rustic tenants development program	3	15.0
Continuous sensitization and one on One education	2	10.0
Aggregate	20	100.0
Other ways of resolving conflict		
Provisions of alternative livelihood source	4	20.0
Compounding of offense	1	5.0
Intensify possibility as regards concern	3	15.0
Aggressive support zone program	3	15.0
Encouraging agro-forestry practice	1	5.0
Compounding and memorandum of understanding	5	25.0
Provisions of alternative livelihood and intensify possibility as regards concern	3	15.0
Aggregate	20	100.0

Source: Data output (2021)

The park management techniques showed that 30.0% of staff of ONP stated that monitoring and evaluation of park resources was the most used management techniques, others included provision of alternative sources of livelihood (20.0%), enforcement of conservation laws and protection of the park (15.0%) (Table 9). The community management technique adopted by ONP focused majorly (40.0%) on local advisory committee, provision of social services (25.0%) and restriction of community folks (20.0%). The staff (100.0%) stated that rustic residents were involved in parks management plan, thus the mixed park management approach was evident in ONP. Various ways of community involvement

were in decision making (45.0%), sensitization exercise (15.0%), training (15.0%), while the least (5.0%) was recruiting native. With regards to decision on land, the communities were considered with creation of buffer zone (25.0%), random selection and allocation of land for agro-forestry (25.0%), recruitment of community natives (15.0%) and educating members of the communities on the importance of adoption of agro-forestry practices (Table 9). Community involvement in park management for the realization of conservation objectives was recommended by Borokini et al. (2012), Andrew-Essien (2014), Emelue and Ukandu, (2014) and Shomkegh et al. (2017).

Table 9. Park Management Techniques by staff of ONP

Variable	Frequency	Percentages
Park management activities		
Monitoring and evaluation of park resources	6	30.0
Education	1	5.0
Alternative source of livelihood	4	20.0
Enforcing conservation laws	4	20.0
Protecting and conservation of the park	3	15.0
Creating of awareness of the park to the public	2	10.0
Aggregate	20	100.0
Community management		
Restrictions of community folks	4	20.0
Local advisory committee	8	40.0
Providing social responsibility	5	25.0
Conservation education	2	10.0
Providing and education of other alternative livelihood	1	5.0
Aggregate	20	100.0
Consideration of community during management plan		
Yes	20	100.0
No	0	0
Aggregate		100
How are the communities considered		
Trainings	3	15.0
Involving them in Decisions making	9	45.0
Assist in Household property	2	10.0
Conservation meeting	2	10.0
Recruiting native	1	5.0
Sensitization exercise	3	15.0
Aggregate	20	100.0
Community considered during decision on forest land		
Yes	16	80.0
No	4	20.0
Aggregate	20	100.0
How community are considered with respect to forest land		
Creation of alternative livelihood to the community	2	10.0
Creation of buffer zone	5	25.0
Recruiting some staff from the community	3	15.0
Selected at random	5	25.0
Educating them on adoption of agroforestry	1	5.0
Creation of alternative livelihood; and Provisions of financial assistance when necessary	2	10.0
Creation of buffer zone; and Provisions of financial assistance when necessary	2	10.0
Aggregate	20	100.0

Source: Data output (2021)

### Conclusion

The creation of National Parks for conservation of biodiversity is needed for earth's survival. However, with the good intention of parks objectives, conflict existed in its administration especially with rustic tenants. Administration of parks objectives are guided by laws which were affirmed by rustic residents but majority were adamant to these laws causing conflicts. The outbreak of Covid-19 virus and lock down measures left rustic tenants with no alternative for survival but the park, regardless of conservation awareness creation by park officials.

Destruction of crops by fauna and lack of sharing of benefit from the park to communities were the major sources of conflicts in the park. The suggested methods of conflict resolution were; supply of palliative/benefit from the park to communities, employment of natives, aggressive support zone programme and provision of alternative means of livelihood. Inclusion of all cadre of rustic tenants in park management, education of unschooled community members in local language were recommended for successful attainment of

the conservation objectives of parks and livelihood sustenance of rustic tenants.

### **Ethics Committee Approval**

This research was conducted with the Approval of the Ethical Committee of the Department of Forestry and Wildlife, Delta State University, Abraka on the 14/06/2021 (Ethics committee approval number: 06-2021/0037)

### **Peer-review**

Outwardly reviewed

### **Author Contributions**

Conceptualization: O.A.O., T.M.G., D.E.D.; Investigation: O.A.O., R.O.A.; Material and Methodology: O.A.O., T.M.G.; Supervision: O.A.O., T.M.G.; Visualization: O.A.O., O.G.D.; Writing-Original Draft: O.A.O., T.M.G.; Writing-review & Editing: - O.A.O., T.M.G., D.E.D. All authors have read and agreed to the published version of manuscript.

### **Conflict of Interest**

There is no conflict of interest from the authors

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