

# Understanding the Role of Conservation in Sustainable Development

Kifayat Ullah

Lecturer/Ph.D. Scholar, Integrated Mountain Area Research Centre (IMARC), Karakoram International University, Gilgit-Baltistan, Pakistan

Sultan Ahmed

Assistant Professor/Ph.D. Scholar, Integrated Mountain Area Research Centre (IMARC), Karakoram International University, Gilgit-Baltistan, Pakistan

Fazal Ali Khan

Rural Economist, Rural Support Programmes Network (RSPN), Islamabad, Pakistan

Sajida Perveen & Nazia Perveen

Department of Economics, Karakoram International University, Gilgit-Baltistan, Pakistan

## Abstract

Ghulkin Educational Social Welfare Conservation Organization (GESWCO), is a Community based organization (Co), working in a remote village “Ghulkin” Gojal in Gilgit-Baltistan, Pakistan which provides services in health, education and infrastructural development, water and sanitation and more importantly conservation of biodiversity. The purpose of the study is to investigate the role of GESWCO in sustainable development of the study area. To achieve this objective we conducted a survey and data were collected via semi-structured individual interviews and focus group discussions among the community. The results of the study showed that GESWCO has played a vital role towards socio-economic development through using its scarce resources witnessed by the response of people about positive progress of the organization.

## JEL Classification: Q56

**Keywords:** Community Organization, Conservation, Sustainable Development, Trophy Hunting.

## 1 INTRODUCTION

Like human beings other living beings including wild life has the right to live freely and safely, because human being is always dependent on these species to sustain their life. In simple word we can say that all species are part and parcel of human life. Hunting is traditionally recognized all over the world mostly amongst great emperors and rulers. Gradually it became a common practice and no one ever thought that ultimately it will result in extinction of precious species hence affecting the beauty of nature.

Due to this global trend resulting in alarming situation; experts felt that if we are unable to protect these rare species, the future generation will suffer in an unbalanced natural environment. Resultantly, the protection of wildlife was introduced as a major part of development efforts or in other words for sustainable development. Moreover, for controlled hunting with a positive fall out economic benefit to the host communities, the concept of trophy hunting was introduced. In each country, the concerned authorities and communities are responsible to manage the process, and utilize resources in the best interest of larger community. Over the years, civil society organizations and community based organizations in Pakistan have played significant role in tapping such opportunities aimed at sustainable development hence supplementing and complementing the government.

Ghulkin Educational Social Welfare Conservation Organization is an example of such community based organization, which provides services in health, education and infrastructural development, water and sanitation and more importantly conservation of biodiversity. The organization is working on conservation for the last twelve years, and the main objective of this organization is to protect wild life and use it for collective purposes (GESWCO brochure, p.8). Moreover, the organization is destined to protect and preserve nature and to help provide the means to do so (financial and educational) by directly supporting local communities. Other aspects such as the sustainability of local culture and history also form part of this low –impact approach to ecotourism.” (p. 9).

### 1.1 OBJECTIVES OF THE STUDY

- a) Evaluate the role of conservation in sustainable development of Ghulkin with regard to utilization of the income in different spheres of community life; such as education, health, water, environment and sanitation.
- b) Assess the perception level of community towards conservation

## 2.1 LITERATURE REVIEW

The convention on Biological Diversity in June 1992 defined conservation as “the management of human’s use of the biosphere so it may yield the greatest sustainable benefits to the present generation while maintaining its potential to meet the needs and aspiration of the future generation.” (Alexander et.al., 2011).

A conservancy is a framework for collaboration of renewable natural resources for multiple uses by local people and the government. Conservancies are managed for the express purpose of fostering stakeholder ownership, livelihood security, and biodiversity of natural resources. The size and shape of conservancies vary according to the interest and needs of the cooperating stakeholders. (Stephen R., 2005).

Two basic approaches of wildlife conservancy are “in-situ (conservation of species in its natural ecosystem or area even in manmade ecosystem) and ex-situ (the conservation of component of biological diversity particularly of endangered species out side their natural habitats” (.Khitoliya R., 2007). The conflict between human and wildlife also called man-wildlife conflict, started with the evolution of men, but intensity increased due to the activities of modern man. Due to lack of stable food and disruption of movement, wildlife came out of forest area and spoiled the agricultural fields whereas humans in turn started killing those.

The conservancy concept is more than a scheme to conserve biodiversity by fostering sustainable use of select species. It is a framework for integrated, collaborative management of renewable natural resources, including the water, pasturage, forests, agriculture, livestock and wild species of plants and animals.

The loss of biodiversity is not only an ethical tragedy but also a great social economic and cultural one. We all depend on the ecosystem services provided by a biologically rich nature including water and fresh air. Without biological diversity we would suffer. (Khitoliya, 2004).

The causes of loss of biodiversity are degradation and destruction of habitat and hunting and overexploitation of natural resources for commercial purposes.

The ultimate aim of conservation is to protect nature and maintain natural processes in an undisturbed state in order to have ecologically representative examples of the natural environment available for scientific study, environmental monitoring, education, and for the maintenance of genetic resources in a dynamic and evolutionary state. (Musharaf, & Perking, 2003).

World Environment Day (WED) is celebrated every year by the United Nations with the objective to raise awareness about the environmental degradation and its potential threats to the present and future of human life on earth. The agenda is to empower people to become active agents of sustainable and equitable development; promote an understanding that communities are the real owners and to changing attitudes towards environmental issues; and advocate partnership. This is crucial because “the world is facing a biodiversity crisis” (Wilson, 2002). In response, schools, teachers and parents are being urged to prepare students to face the real life issues they will routinely encounter in efforts to sustainably manage the biosphere and integrate biodiversity conservation with other societal goals (Colker, 2004; EPBR, 2006; Noss, 1997). The evolution from nature conservation education to environmental education and then to education for sustainable development is one that can be characterized by an increasing awareness of the need for self determination, democratic processes, a sense of ownership and empowerment, and, finally, of the intricate linkages between environmental and social equity (Hesselink, et al., 2000). Teaching biodiversity has been practiced some hundred years ago, but due to low baseline level knowledge (Leather, & Quicke, 2009). From an educational point of view, however, biodiversity is a rather ill-defined abstract and complex construct (Weelie V., & Wals, 2002) which has to be transformed into small entities to enhance a sustained learning and understanding, especially in the context of high schools.

According to UNEP estimates, approximately 9.0-52 million of species exist on earth. In last century human impact has been so severe that thousands of species have come to extinction. Habitat loss and degradation are major causes of species extinction affecting 89% of mammals and 91% of threatened plants. According to IUCN, UNEP report, more than 50% of wildlife habitat has been destroyed in 49 out of 61 old world tropical countries (UNEP, 2004).

While realizing the urgency of saving bio-diversity, Lubchenco (2011) in the Conservation Magazine entices different conservationist about making it a top priority for saving the natural world. Randal Keynes says that “conservationists are well aware about the crisis the world face but other people have no idea about conservation”. Or what would be the result of natural destruction of the ecosystem. There is a need for taking steps regarding conservation in the shape of effective strategies.

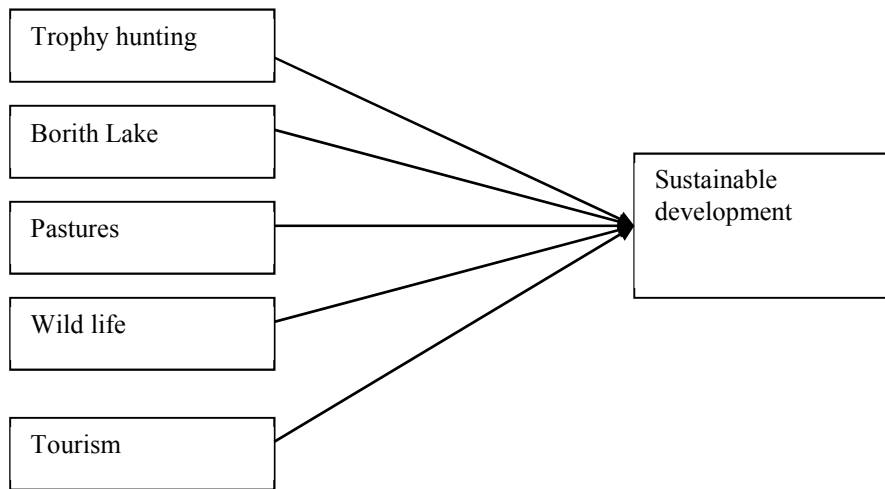
## 3. METHODOLOGY

Since the study is descriptive in nature, therefore in order to answer the research questions, the study employs descriptive statistical tools.

### 3.1 Dependent & Independent variables

#### Independent variables

#### Dependent variable



### 3.2 Sample size and sampling design

The sample size was chosen separately for both categories. For community attitude a sample of size thirty were selected randomly from the community member at the age range of twenty one years to age of sixty years, because the population was homogenous and it worthy to select small sample. In such a situation it is believed to be a representative sample. On the other hand for the FGD all the members of the umbrella organization were selected as a sample.

### 3.3 Sources of data

Two different types of checklists (see annex. A) Were prepared to collect the primary data. The conservation committee has twenty three executive members at the village level. This body has twenty one members. All members were included in the Focus Group Discussion. They were grouped into different segments and the researcher played the role of moderator and the participants debated and throw light on the themes. After that they were administered the checklist to and the results were transcribed through extracting the important and relevant the

Similarly another form was administered to check their attitude towards conservation, and the responses were crosschecked with FGD results. The questionnaires were pre tested for the categories so that their reliability could be measured.

### 3.4 Target population

The target population includes all the stakeholders of conservation in the village. These include the villagers, students, teachers, and the umbrella organization, i.e. Ghulkin Educational, Social Welfare and Nature Conservation Organization

### 3.5 Data analysis

The data obtained from the field work was punched into MS. Excel and analysis was done through tabulation and graphical presentation. While the data obtained through PRA tool (FGD) was used mainly for triangulation of the data received from individual interviews as well as for elaborations where necessary.

## 4 RESULTS AND DISCUSSIONS

It is highly important for a successful community organization to gain favor of the entire community and stakeholders, who are directly concerned with the organization. It increases strength of the organization as well as supports to maintain a dispute free participative approach of work within the community. It is therefore responsibility of the leadership to give awareness to the community about the aims and objectives of the organization and mobilize them to contribute their part in the process of effort toward development of the community.

In village Ghulkin, the community is well aware about the goal and mission of the organization. The study found that 100% of the respondents are well aware about the goal and objectives of the organization as well as its importance for the development of the community, shown with the help of a graph given bellow.

#### 4.1 Awareness of the people about the Community Conservation Organization in Ghulkin

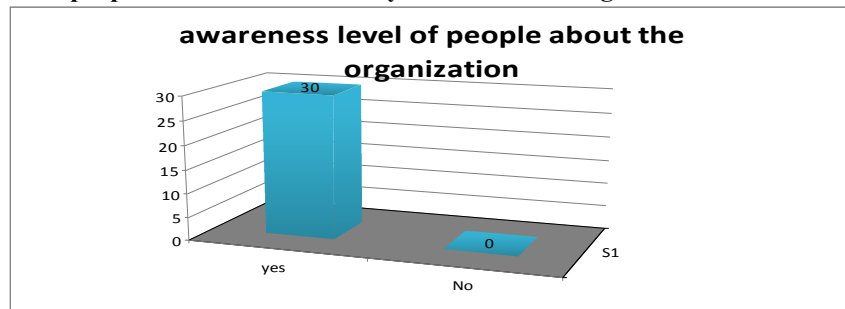


Figure 4.1 the figure clearly reveals the level of awareness of the community about the organization. On the x-axis, responses of the respondents are shown; while on y-axis numbers of the respondents are shown. It is obvious from the chart that all respondents are well aware about the organization, its aims and objectives.

#### 4.2 Satisfaction level about the organization

The Ghulkin Educational, Social Welfare and Nature Conservation Organization is. Since its inception in 1992. Since then, the organization has been consciously managed and operated by the local volunteers from different walks of life. The FGD participants shared that it is not an easy task to operate and manage an organization without paid staff/ on volunteer basis but in spite of that the general body and activists have taken great part in the process of strengthening institutionalization in the village. That is the key factor which has enabled the community volunteers to operate this organization in a smooth manner.

Responding to the question about satisfaction level of the community members about the performance of the organization, very less number of people has shown high satisfaction level and almost the same number of people has shown dissatisfaction about the performance of the organization. A large part of the community believes that though the working pattern adopted by organization is not excellent but very good because the responsible people are devoting their times without any remuneration for the betterment of this organization, while it is not possible for volunteers to manage and operate an organization in a smooth manner. Keeping in view this reason, a large part of community is quite satisfied with the performance of the organization. The second largest population rates their performance as ‘moderate’ keeping in view their observations and experiences.

The graph below shows views of respondents in a more explicit way about the performance of the organization;

Figure 4.2

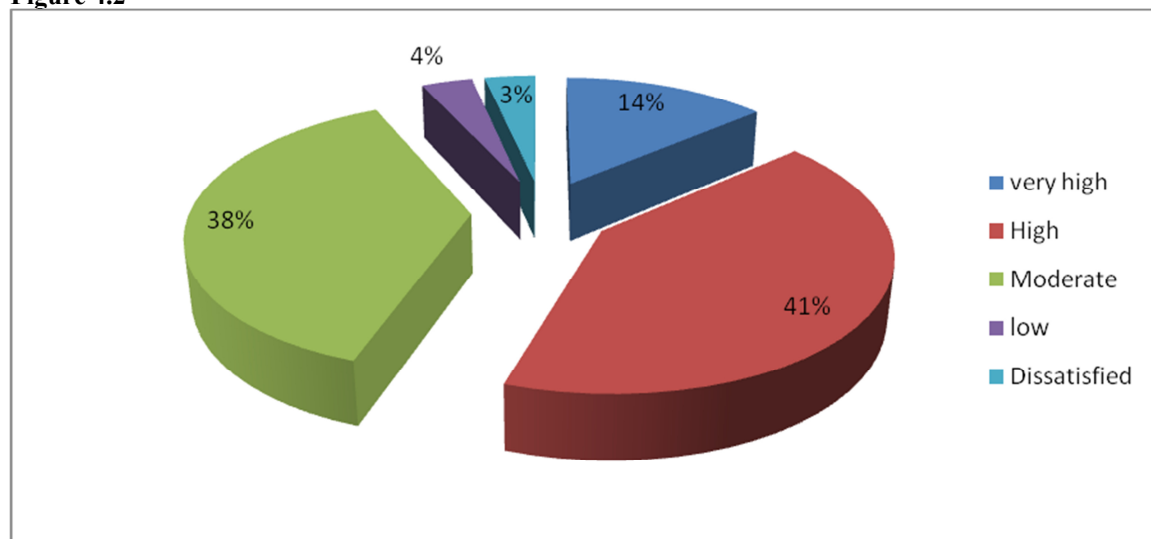


Figure 4.2 shows satisfaction level of the community about the performance of the organization for socio-economic development of the community. 14 % respondents are of the view that the performance of the organization has remained very high and it has made an excellent contribution in the development of the community. Whereas 41% people have rated the performance as high (not excellent but very good). This group of people has rated the performance of the organization after keenly looking at the different issues that are faced

by the organization, based on financial, technical capacities and availability of skilled human resources within the organization. 38 percent people are of the view that the performance has remained moderate over the past few years, while 4% people ranked the performance as 'low' and only 3% people expressed their dissatisfaction about the working performance of the organization

### 4.3 Focused sectors for interventions

The income received from conservation is utilized in different sectors for the upliftment of the community helping them to improve their socio economic condition. The main focused area has remained education, where a large part of the fund has been invested for construction of school building, capacity building of the teachers and providing additional teachers to the schools to cope with shortage of teachers. Moreover, some amount has been spent for ensuring clean drinking water in the village (spending on this sector has an indirect but very significant impact on health). The organization also made effort to work for clean environment and economic development of the community. Though there is shortage of fund to cater for all these needs but a system has been introduced by the committee for allocation of funds to different sectors on need cum priority basis. The system seems to prove fruitful with passage of time because currently due to law and order situation flow of tourists is on decline in Pakistan. The income earning opportunity for the organization is highly dependent on the flow of tourists (Hunters as well as trekking groups). Expectedly the flow of tourists will increase in the future which will give a boost to flow of income in the area and it would be easy for the community to manage and utilize the fund in a proper manner as they have already an organization with a sophisticated operational system in place.

Currently the organization is doing for the betterment of the community utilizing its limited resources to boost different sectors. The community has expressed different views about the output delivered by this organization in different sectors. A large part of the respondents are of the view that GESWNCO has achieved much in the field of providing clean drinking water to the community. The second sectors is education in which the community has seen a marvelous improvement, while the community has rated achievements of GESWNCO as unsatisfactory with reasoning that still no any concrete steps have been taken to improve health and preserve environment shown by the figure below.

Figure 4.3

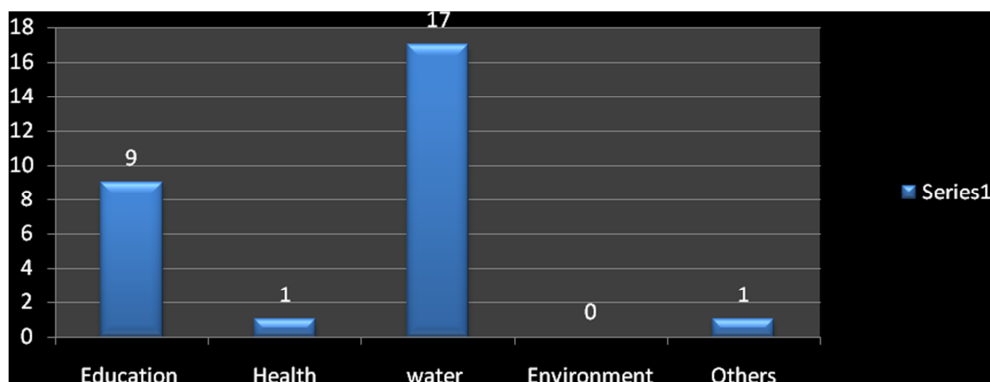


Figure 4.3 shows the perception level of people about achievements of GESWNCO in different sectors. Out of 30 people interviewed in this regard, 17 almost 57% people are of the view that considerable achievements have been made in field of water and sanitation and nine out of thirty respondents i.e. almost 30% people consider improvement in the education sector as a result of intervention by the GESWNCO. In health sector the respondents think that very less progress has been made as only 3% people vote for it whereas 3 percent people vote for improvement on other sectors while non of the respondent consider any improvement in environment and 7% people did not respond or they expressed that they haven't taken any notice about the outputs delivered by this organization.

### 4.4 Perception of people about the efficiency of the organization

Strong efficiency of an organization is considered as an integral factor in its effort for sustainable development of the community. The efficiency of delivering result is associated to the technical and financial capacities of the organization and another major factor is the commitment of the activists', community and staff for strengthening the organization. The commitment of the community for improving the efficiency of organization is strong but it is connected with the skilled human resources for better management and pulling resources, which lacks in the area as the well educated and skilled people work out of the village. The organization is operated by the people who are permanently staying in the village but they have put their contribution marvelously, shown by the graph given below.

**Figure 4.4**

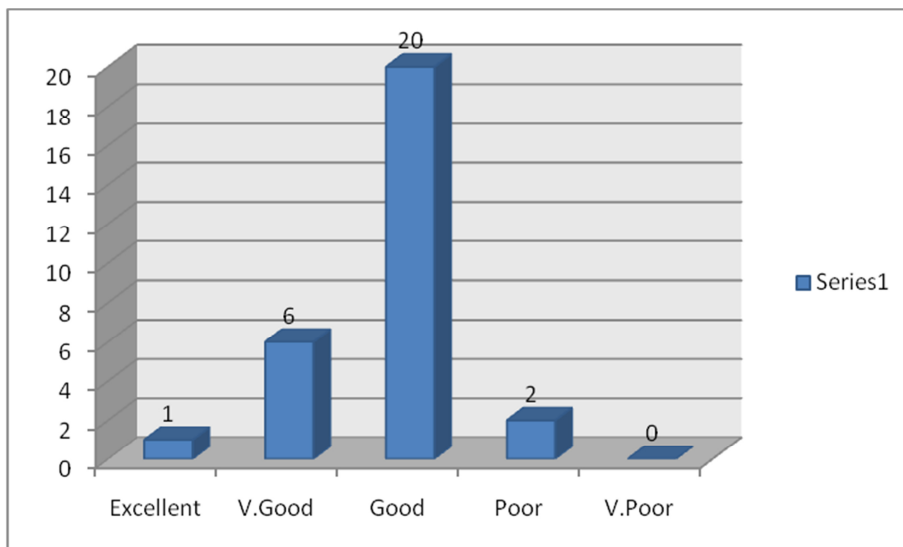


Figure.4.4 shows that only 3% people rated the efficiency of organization as excellent while 20% people rated it very good and a large part of the community members rated the efficiency as good, which is almost 67% of the respondents. It reflects that due to lack of highly educated and skilled human resources, the organization could not take its position as excellent but the commitment of the social activists within the village has kept the position of organization in terms of efficiency on a better level. Only 7% people have rated the efficiency of the organization as poor with reasoning that after disaster of Ataabad, concentration of people diverted toward relief work and even some of the inhabitants faced damage of properties while the rest were indirectly affected. The second reason is the artificial damming of Hunza River that is big hurdle in the way of flow of tourists and third reason is war on terror which is also a reason for deteriorating the flow of tourists in the area. The community is hoping for an improved efficiency of the organization with passage of time and reopening of road communication in the area.

#### 4.5 Satisfaction about the utilization of funds

Efficient utilization of the fund is the key to development, proper planning and strategies should be define regarding better utilization of fund and allocation of fund should necessarily done after identification of the area. The GESWNCO management has utilized the fund on different sectors that are the major areas for sustainable development in the context of the area. However, the most focus of GESWNCO remained on sectors needed to develop on immediate bases e.g. one of the basic facilities for human survival, clean drinking was given the first priority and in such a way education was the second priority of the organization. It evidently shows that there is defined strategy available within the organization and according to the need of community strategy for allocation of fund on different sector is changed.

**Figure 4.5**

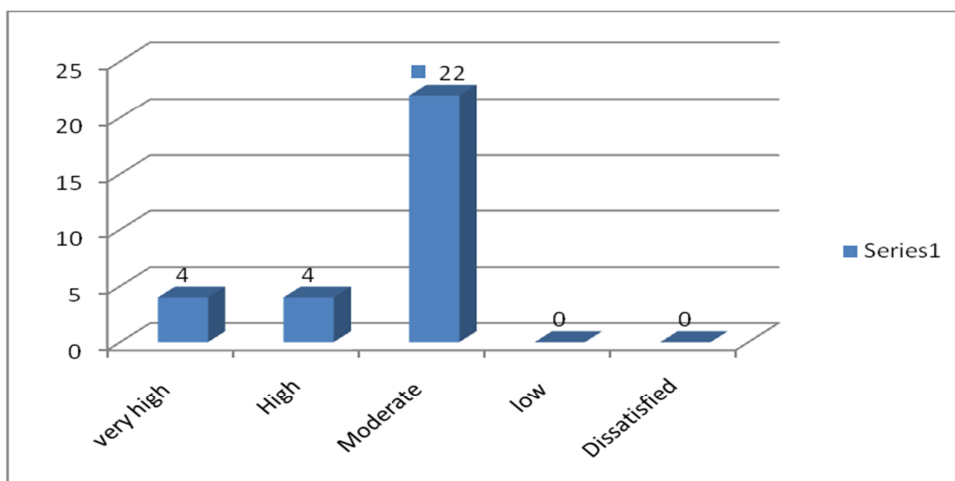


Figure.4.5 reveals the satisfaction level of the community about allocation of funds. The graph explicitly shows that the community is confident about allocation / utilization of fund in different sectors as 4 respondents rank it very high, 4 respondents consider it high and a large part of the respondent thinks that



allocation of fund is used moderately. But none of the respondent voted for low utilization of fund or dissatisfaction. It shows that transparency within the organization is strictly followed and serious efforts are done by the management to make wise use of their limited resources.

#### 4.6 Improvement in different sector

The community indicated tangible improvement in the following sectors as result of intervention of GESWNCO.

During the FGD session with different groups the community mentioned the following major sectors that are improved;

- Education
- Health
- Water and sanitation
- Infrastructure

The improvement in education sector (shown in figure.3 above) was referred to different variables, such as construction of new school building by utilizing the income from conservation has provided space for the community children who were traveling a long way to attend their schools in other villages. The construction of a community school has much better catered their need and prevented them from traveling a long way (about 5 kms radius). The indirect benefit that the students have experienced is that the students' time is saved, they got rid of traveling a long way and they also put their contribution in agricultural products by helping their parents in watering the fields etc. In health sector not any direct intervention has been made but the community has the opinion that providing clean drinking water has caused to reduce the water born disease in the village. Diarrhea, skin disease and malaria etc was usually found in the people, specifically in children but after completion of the water supply project, such cases have become very rare. Water and sanitation in the area is much better as a result of the project completed by GESWNCO. Before construction of the water supply, contaminated water was commonly used because the spring water was away from the village, women had an additional task to fetch water from the streams by lifting at their backs, which was harmful for their health. Completion of the water supply projects have now spared women from such heavy duty jobs. Available safe drinking water has not only reduced diseases and extra burden on women but also provided an opportunity for children to stay clean and healthy.

The GESWNCO has worked on infrastructure e.g., construction of huts and pony treks in the hunting area that are making the job easy for hunters to stay and smoothly reach in the hunting area. The huts constructed on the way to the pasture have specifically reduced the problems of porters, who travel with hunters and other tourists. A large part of the community agreed that considerable development has been made in these sectors, while the rest of the community thinks that still there is not a significant process in these sectors. There is still room for improvement conditioned to better utilization of the available local resources. They are of the view that existing local resources, such as minerals, farm forestry, herbs and medicinal plants should be considered and strategies should be developed for using these resources as sources of income. The perception level of the community regarding visible change in different sector is elaborated by the graph as under.

**Figure 4.6**

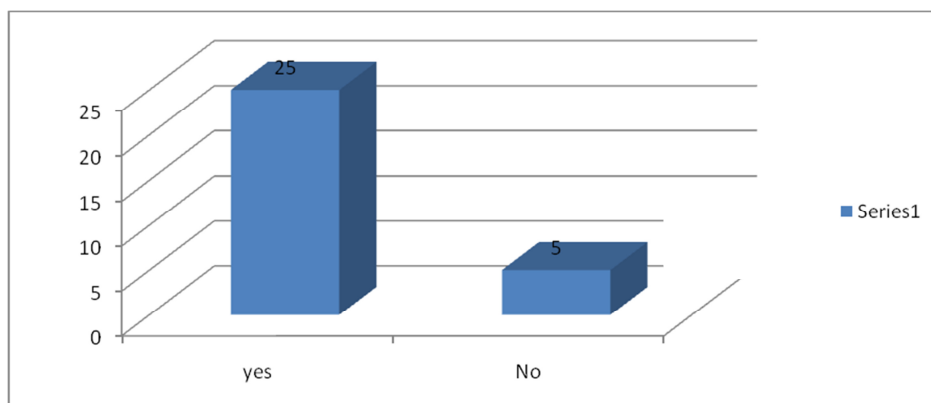


Figure.4.6 shows the perception of community for visible change in the socio-economic sectors because of conservation. About 83% people consider a visible change in the socio-economic condition of the community, while, 17% people oppose it and give the reason that more changes could be seen, if proper utilization of resources were made.

The graph given bellow shows vote of respondents for sector wise visible change in the village.

**Figure 4.7**

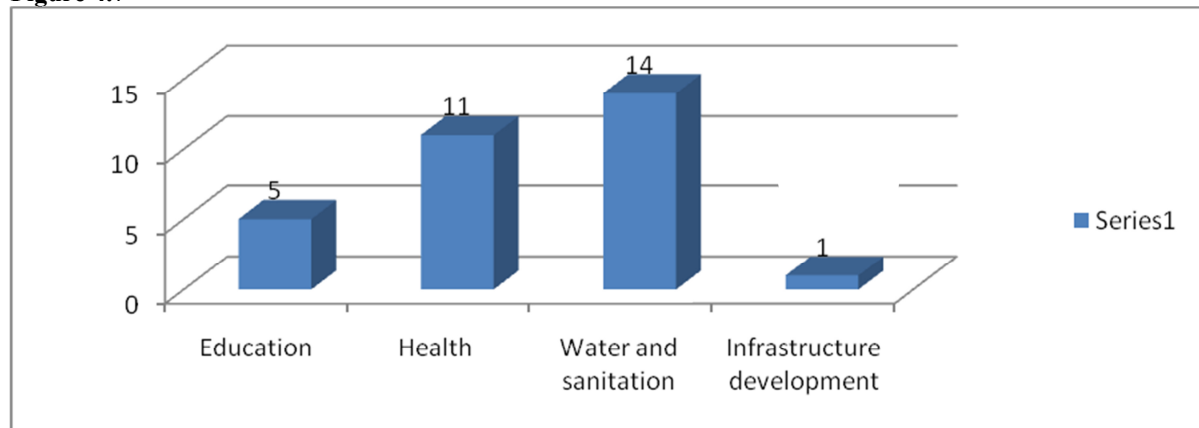


Figure 4.7) shows that 5 out of 30 respondents consider better improvement in education sector, 11 out of 30 respondent think that better improvement has come in health sector due to provision of clean drinking water, 14 out of 30 considered water and sanitation as the major sector, where improvement have been seen and 3 percent people have considered the infrastructure sector, where considerable improvement has been made by the GESWNCO.

#### 4.7 Community involvement in the organizational affairs

Community involvement in the process of organization affairs is essential to ensure as in today's world no organization can prosper without participatory approach. Regarding community participation in the affairs of the organization, the individual interviews revealed that the percentage of entire community involvement is almost 52% as perceived by the respondents. This suggests that there is still greater room to ensure maximum participation.

**Figure 4.8**

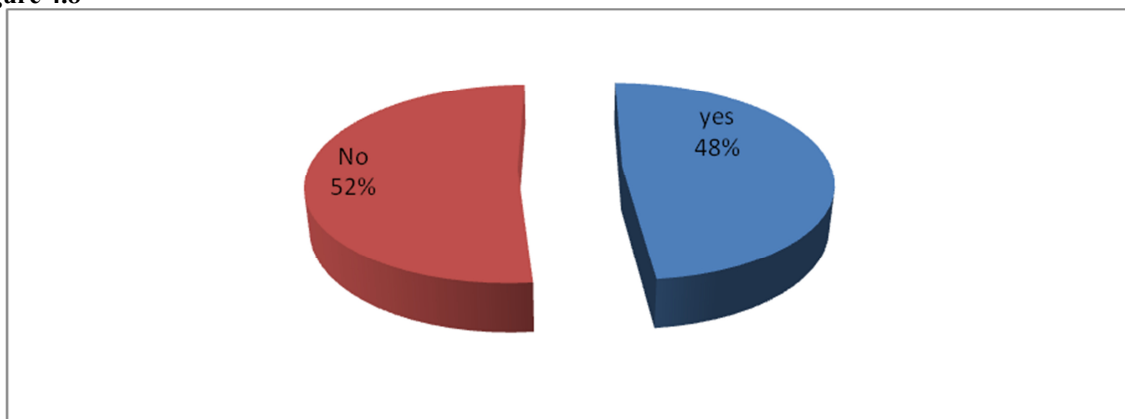


Figure 4.8 reveals that 52% of the respondents think that participatory approach is adopted whereas 48% think that there are large number of people who are not included in the process. One of the reason is perhaps the level of interest shown by community members to volunteers, their time and quality efforts made at different levels of their involvement in the organizational activities.

#### 4.8 Factors of organizational operation

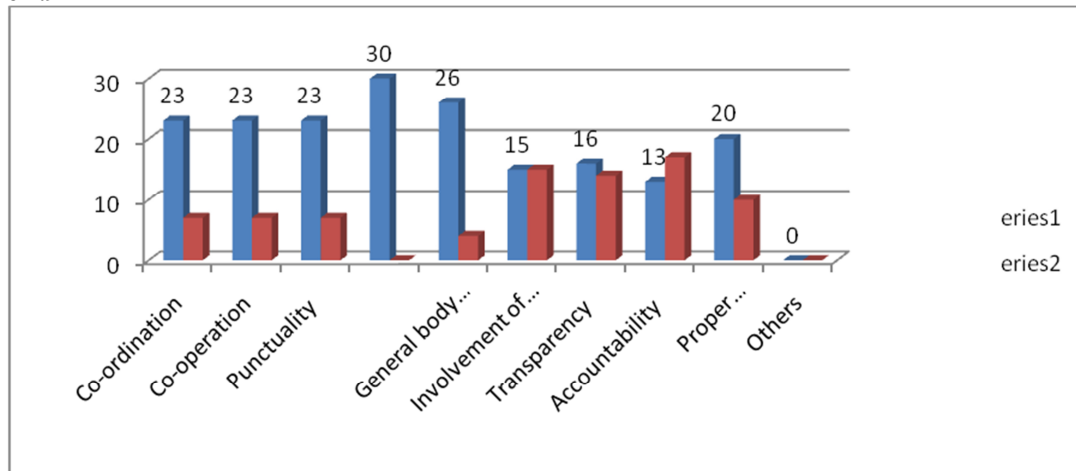
Organizational operation is influenced by different factors, Following common factors in insisted were targeted to the respondents, to tell that either the used by the organization or not? The response of the community varies for different factors. The choices of different factors were:

- Co-ordination
- Co-operation
- Punctuality
- Proper implementation of By laws
- General body meeting
- Involvement of community in decision making
- Transparency



- Accountability
- Proper planning, monitoring and evaluation
- Others

**Figure 4.9**

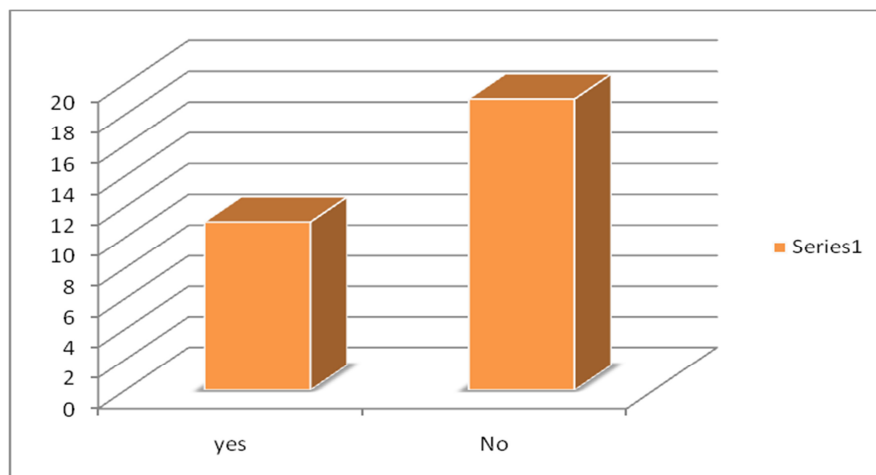


The number of respondents is shown in the graphs that have been voted for efficient practicing of different factors in the organizational operational process of GESWNCO.

#### 4.9 Auditing system

Auditing is a major factor for ensuring transparent utilization of resources as well reveals the capacity and efficiency of the organization. In such an organization which belongs to the community, the stakeholders are always anxious about transparent use of resources, specifically financial resources. The auditing report regularly shared with community gives boost to confidence level amongst the community and management of the organization, which attracts support of the community and provides a solid base for sustainable institutionalization. Within the GESWNCO, sharing of audit report remained low as a large part of the community members are of the view that the management does not share the reports with community

**Figure 4.9**



The above graph shows perception of the community about auditing system of the organization. 11 out of 30 respondents are satisfied with the audit system prevailing in the organization. They are of the view that proper audit of the financial transactions are done and the report is shared with the community. 17 respondents do not agree about transparency reflected by audit report, this segment of the community have the view that the audit report is not shared with the community.

#### 4.10 Information about record keeping system

The financial record keeping is performed by the volunteer body of the organization and the management lets the community know about financial transactions taken place for different purpose. The management is of the view that financial report is shared with all stakeholders in order to ensure financial transparency. The public opinion not fully supports the claim done by the management regarding sharing financial reports with the community member but all of the community members do not negate it; a relatively small part of the community is in the

favor of the management regarding disclosure of financial matters to the community shown by the graph as under

**Figure 4.11**

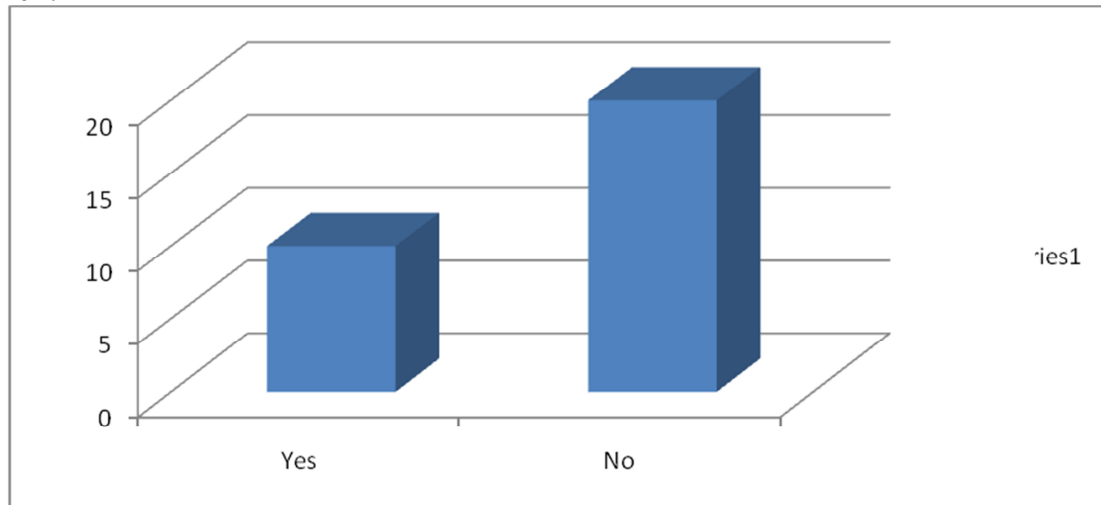


Figure 4.1.2. Shows that 37% people(11 respondent out of 30) are of the view that the management lets the public know about financial matters of the organization; While a large part, 63% responded have opposed that they are aware about financial matters. This refers to the communication gap between community and management because actually financial transactions have been shared with the community members but over the last one year, the public is indulged in other meters due to being living in the disaster area. It is the reason that a large part of community is away from community development work and they lack information about financial matters.

#### 4.11 Allocation of financial resources to different sectors

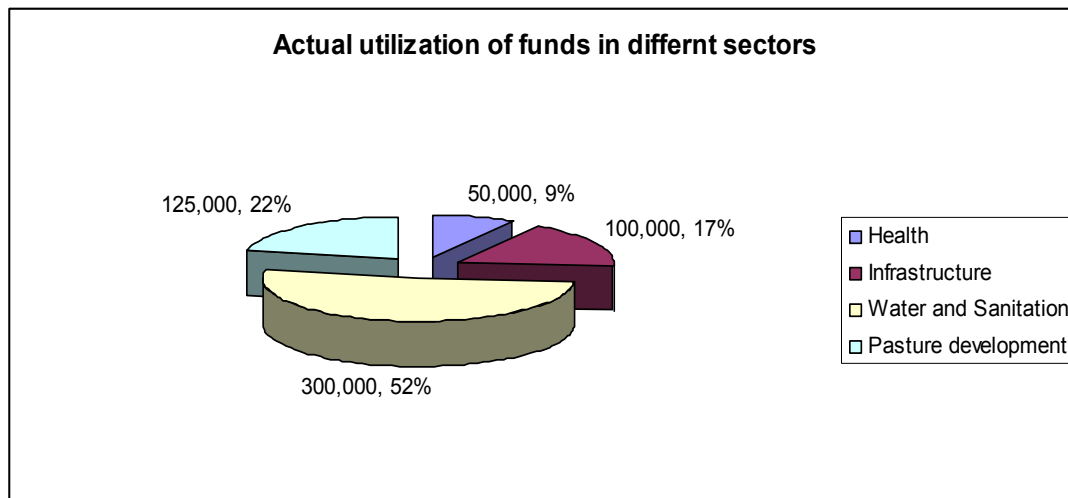
The community's perception about utilization of fund is given above in the figure. 5 in chapter three, which reflects the community is satisfied with the efforts of the management regarding utilization of fund. The bellow given graph and tables reflect the real figures of expenditures that have been injected in different sectors to bring improvement.

Table 3

S.NO	Sector	Expenditure
1	Education	PKR 2,00,000
2	Health	PKR 125,000
3	Infrastructure	PKR 100,000
4	Water and Sanitation	PKR 300,000
5	Pasture development	PKR 50,000

The above table shows the sector and the amount spent on different sectors. This is the actual spending by the GESWNCO. It is evidently revealed in the table that not a considerable amount has been spent on education and the same response by the community can be seen in figure.3, as very less number of the respondent for health sector. The investment made on infrastructure reflects construction of huts and pony tracks in the pasture area, spending on water and sanitation has brought about a huge change in the lives of people through reducing their problems, while spending on pastured development reflects the work don for improvement of tourist resorts,

Figure 4.12



The above graph shows spending of GESWNCO on different sectors. If we compare it with the figure.5 given above, it reveals that community is satisfied with the allocation of fund on different sector has been done wisely as 73% respondents have seen the achievement in water and sanitation. The above graph shows that large part of the income is spent on water and sanitation, while it is explicit in the figure.3 as community perception supports it. The community perception about allocation of fund extensively recognizes that considerable achievement has been done in the field of water and sanitation, as 57% people acknowledged the work of GESWNCO in this sector. In the same way, investment has been made in the field of pasture development. Infrastructure and health, which are less amount but a contribution has been putted for uplifting the community by the organization with his meager withal resources.

## 5 CONCLUSION

Since its inception, GESWNCO has put together its effort for better utilization of the available natural resources for the betterment of the community. In the initial stages, the concept of conservation was introduced through natural resources management in the area, since then this organization has continued its effort to achieve its set objectives. Later on field projects for biodiversity conservation in collaboration with GB administration remained very beneficial for promoting the community to use the natural resources. The community tirelessly worked on conserving biodiversity of the area to encourage village based income generating activities, and to promote ecotourism to generate employment opportunities. GESWNCO has played a vital role towards socio-economic development through using its scarce resources witnessed by the response of people about positive progress of the organization.

## References

- Ali, J., and Baig, G. A. (2006). *Mountain area conservancy project*. Regional project manager report. p.14
- Barbier, E. (1987): The Concept of Sustainable Economic Development. *Environmental Conservation*, 14(2), 101-110.
- Banuri, T. (1999): *Sustainable Development and Climate Change*, Policy Matters No.4, Newsletter of the IUCN Commission on Environmental, Economic and Social Policy (CEESP), CEESP Secretariat, IIED, London.
- Beg, G. A. (2008). *Cross-border field studies current, program manager*, 14, 158-170.
- Calfee, R., & Valencia, R. (1991). *APA guide to preparing manuscripts for journal publication*. Washington, DC: American Psychological Association.
- Carew, R., Jeremy, Prescott, A. Robert, B. Dalal, C. (1998). *Strategies for National Sustainable Development: A Handbook for their Planning and Implementation*.
- Carley M. and Christie, I. (2005) *Managing Sustainable Development*, London: Earthscan. 1992.
- DFID (1999): *DFID and the International Development Target*. National Strategies for Sustainable Development, Key Sheets, Issue No.1, Department for International Development, London.
- Dioghlaif, A. (2010). *UN calls for immediate action to save life on earth*. Current executive secretary in CBD, 19.
- Ehrlich, P. (1971): *How to Be a Survivor: A Plan to Save Spaceship Earth*. Ballantine Books, London.
- Holmberg, J., Bass, S., and Timberlake, L. (1991) *Defending the Future: A Guide to Sustainable Development*. IIED/Earthscan, London.
- Holmberg, J. (ed.). *Policies for a Small Planet*, Earth scan, London. 1992

International Institute for Environment and Development (IIED), London, and World Conservation Union (IUCN), Gland, in association with Earth scan Publication, London.

International Union for Conservation of Nature (IUCN), United Nations Environment Programme (UNEP) and World Wide Fund for Nature (WWF), Gland, Switzerland (1980): *The World Conservation Strategy: Living Resource Conservation for Sustainable Development*.

IUCN/WWF/UNEP. *Caring for the Earth: A Strategy for Sustainable Living*. The World Conservation Union (IUCN), Worldwide Fund for Nature (WWF), and United Nations Environment Program (UNEP), Gland, Switzerland.

Julia, M. (2010 February 26<sup>th</sup>). Biodiversity, it is now or never. News story.

Julian, & Max, N. Wikipedia, the free encyclopedia: World wide fund for nature.

Khitoliya, R. K. (2004). Environmental pollution. Management & control for sustainable development. New Delhi: convener-board of studies in environmental engineering, Punjab University, Chandigarh.

Meadows, D. et al. (1972): *The Limits of Growth*, Club of Rome/MIT Press.

Meyers, N and Ayensu, E.S. (1983). *Reduction of biodiversity and species loss*. *Ambio*, 12:72-74.

Mitlin, D. (1992). Sustainable Development: A Guide to the Literature. *Environment and Urbanization*, 4(1), 111-124.

Pearce, D., Barbier, E. and Markandya, A. (1990). *Sustainable Development: Economics and Environment in the Third World*. Edward Elgar Publishing/Earthscan Publications.

Pezzey, J. (1989): *Economic Analysis of Sustainable Growth and Sustainable Development*, Environment Department Working Paper No.15, World Bank, Washington D.C.

Rees, W.F. (1989). *Defining "Sustainable Development"*, CHS Research Bulletin, University of British Columbia.

Reid, D. *Sustainable Development: An Introductory Guide*. Earthscan Publications Ltd., London.

Ross, A. (2005). *"UK Government's approach to Sustainable Development"*.

Schumacher, E.F. (1974). *Small is Beautiful: A Study of Economics as if People Mattered*. Abacus, London.

Stephen, R.E. (2006). *Saving biodiversity for human lives in north Pakistan*.

Todaro, P.M., & Smith, C.S. (2002). *"Economic Development"*, 8<sup>th</sup> ed. Addison Wesley.

UNCED. *Agenda 21*. United Nations Conference on Environment and Development (UNCED), United Nations General Assembly, New York.

## **ANNEXES**

### **(A). List of hunters visited Ghulkin conservation**

Year	Hunter name	Trophy size	Amount from trophy
5th Dec 1998	Virginia papac USA		Us \$3000
9 <sup>th</sup> Jan 2001	Mr Tariq Mashood Pakistan	-	RS 25000
3 Jan 2002	Tariq Mir	-	RS 25000
24 <sup>th</sup> Dec 2004	Lgnacio Huguero(spenish)	-	US\$2000
9 <sup>th</sup> Feb 2004	Hoffman usa	-	US\$2000
24 <sup>th</sup> Feb 2004	riched Sand(denmark)	-	US\$2000
23 <sup>rd</sup> Dec 2004	Ahmed Abdulah Ali Musali (uae)	-	US\$2000
3 <sup>rd</sup> Jan 2008	Yavuz Konuk(turkish)	38 INCH	US\$2800
3 <sup>rd</sup> Jan 2008	Tamir Ali Madrilene Turkesh	38 INCH	US\$2800
4 <sup>th</sup> Feb 2008	AkharMasad(Pakistani)	38 INCH	US\$2500
13 <sup>th</sup> Feb 2008	MDaniel Harold Smith (USA)	38 INCH	US\$2800
27 <sup>th</sup> Jan 2004	Mr Ronte Snider	-	Us\$2000
Feb 2006	Mr. Alan Means (USA)	-	US \$2000
24 <sup>th</sup> Dec 2004	Mr. Francisco (spanish)	-	US \$2000
18th March 2008	Mr. Roberto Biciocchi (Italian)	38 inch	US \$2800

**(B). List of participants of FGD, group wise**  
**GROUP #1**

S#	Name	gender	profession	Edu	Role in the org	Period of service
1	Mr.Ashraf khan	Male	Farmer	B.com	President	
2	Mr Muhammad Aman	Male	Farmer	BA	V.President	
3	Mr sifat u Din	Male	Farmer	B.com	President of Gojal conservancy	4yr
4	Gohar Aziz	Male	Farmer	----	Wildlife officer	
5	Fida hussain	Male	teacher	BA	Secretary of conservation	2half yr

**Group#2**

S#	Name	Gender	Profession	Education	Role in the org	Period of service
1	Mr. sharif khan	male	Teacher	M.ed	Education member	10yr
2	Mr. Muhammad Nabi	male	Teacher	MSC	Education member	10yr
3	Muzafar karim	male	Farmer	matric	Sports member	4yr
4	Gohar shah	male	Farmer	----	Labrador	10yr
5	Fazal karim	male	Teacher		Member	

**GROUP#3**

S#	Name	Gender	Profession	Education	Role in the org	Period of service
1	Att-u.Rehman	Male	Teacher	M.ed	Welfare President	
2	Sitara Hajat	Female	Teacher	Matric	Member	
3	Dur-Nasab	Female	Housewife	-	Member	
4	Majida Begium	Female	Housewife	----	Member	
5	Jamida Begium	Female	Teacher	BA	Member	

**(C). Questionnaire for the community members**

1. Do you know about the GESWNCO?

YES

NO

If no why?

---

2. What is level of your satisfaction with the work of the organization?

1. Very High	2. High	3. Moderate	4. Low	5. Dissatisfied
1.	2.	3.	4.	5.

3. As a community member, in which sector do you get benefits from the organization?

1. Education	2. Health	3. Water	4. Environment	5. Other
1.	2.	3.	4.	5.

4. How would you rate the efficiency of this organization as a whole?

1. Excellent	2. V. Good	3. Good	4. Poor	5. V. Poor
1.	2.	3.	4.	5.

**5. What is your level of satisfaction about the utilization of funds organization?**

1. Very High	2. High	3. Moderate	4. Low	5. Dissatisfied
1.	2.	3.	4.	5.

**6. Do you see a visible change in different sectors, this organization is working for?**

Yes No

If No, why?

**7. If Yes, Please indicate the level of visible change in %age terms for each sector against the situation before intervention**

1. Health	2. Education	3. Clean drinking water and sanitation	4. Infrastructure development
1	2	3	4

**8. Is the community involved in the organizational affairs from planning implementation and planning?**

YES NO

**9. Do you think the organization ensures the following in all its operations?**

1	Co-ordination	YES	NO
2	Co-operation	YES	NO
3	Punctuality	YES	NO
4	Proper implementation of By laws	YES	NO
5	General body meeting	YES	NO
6	Involvement of community in decision making	YES	NO
7	Transparency	YES	NO
8	Accountability	YES	NO
9	Proper planning, monitoring and evaluation	YES	NO
10	Others	YES	NO

**10. Do you know about the auditing system of the organization?**

YES \_\_\_\_\_ NO \_\_\_\_\_

**11. Do you have any information about the income and expenditure of the organization?**

YES \_\_\_\_\_ NO \_\_\_\_\_

**12. In which sector do you suggest more utilization of funds?**

Education	1
Health	2
Water and sanitation	3
Animal vaccination	4
Environment	5
Plantation	6
Game voucher salary	7
Any other	8

1	2	3	4	5	6	7	8
---	---	---	---	---	---	---	---

**13. What is your opinion for further development of the community as well as the organization?**

---



---



---



---

**14. Any other specific comments?**

---



---



---



**(D). Questionnaire for focus group**

Name of the respondents .....  
Age of the respondent .....  
Sex of respondent .....  
Qualification of respondent .....  
Profession of respondent .....

1. When was the organization established?  
.....
2. What is the vision of the organization?  
.....
3. What percent/ % of people get benefit from the organization?  
.....
4. Is the entire community involved in the organizations activities for implementation and planning?  
Yes: No: Other:
5. What was the situation of natural resource in Ghulkin before conservation Intervention?  
.....  
.....
6. How did you adopt conservation initiatives in your area?  
.....  
.....
7. What were the challenges in the beginning?  
.....  
.....
8. Do you think the conservation is useful in improving socio economic condition of community?  
Yes/No  
If yes how? **Any examples**  
.....  
.....  
If no, what are the reasons?  
.....  
.....
9. Do you think trophy hunting help in conservation process?  
Yes/No
10. How much income does the organization generate in a year?  
.....  
.....
11. In what areas of development is the income spent?  
.....  
.....
12. What is the mechanism for expenditure of the income?  
.....  
.....
13. How would you compare the situation before this initiative and afterwards?  
.....  
.....
14. How many people benefit from the activities of this organization?  
.....  
.....
15. Who are the major beneficiaries of the organization?  
.....  
.....

16. What is the specific role of conservation in the development community?  
.....
17. How should the proposed protected area be administered and managed?  
.....
18. Can you think of other innovative ways to generate fund for a protected area?  
.....
19. What are the challenges of the organization?  
.....
20. Do you believe that progress has been made towards achieving the organization goals?  
.....
21. Is the entire community satisfied with the progress of your organization?  
.....
22. What strategies are in place for making conservation activities stronger and beneficial?  
.....
23. How is the community attitude towards conservation?  
.....
24. What are your thoughts for sustainability of conservation?  
.....

The IISTE is a pioneer in the Open-Access hosting service and academic event management. The aim of the firm is Accelerating Global Knowledge Sharing.

More information about the firm can be found on the homepage:

<http://www.iiste.org>

## CALL FOR JOURNAL PAPERS

There are more than 30 peer-reviewed academic journals hosted under the hosting platform.

**Prospective authors of journals can find the submission instruction on the following page:** <http://www.iiste.org/journals/> All the journals articles are available online to the readers all over the world without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself. Paper version of the journals is also available upon request of readers and authors.

## MORE RESOURCES

Book publication information: <http://www.iiste.org/book/>

Academic conference: <http://www.iiste.org/conference/upcoming-conferences-call-for-paper/>

## IISTE Knowledge Sharing Partners

EBSCO, Index Copernicus, Ulrich's Periodicals Directory, JournalTOCS, PKP Open Archives Harvester, Bielefeld Academic Search Engine, Elektronische Zeitschriftenbibliothek EZB, Open J-Gate, OCLC WorldCat, Universe Digital Library, NewJour, Google Scholar

