

CAN COMPENSATION SCHEME SOLITARY CAN MITIGATE HUMAN-WILDLIFE CONFLICT?: A CASE STUDY OF CHITWAN NATIONAL PARK, NEPAL

RAKSHYA THAPA

Lecturer of Zoology, Tribhuvan University, Nepal

ABSTRACT

Crop damages, Livestock depredation and Human Casualty have become the major burning issues today in almost all the Protected Areas (PAs) worldwide. These issues have escalated the Human-Wildlife Conflict (HWC). National bodies have made an attempt to minimize this ongoing conflict by introducing the Compensation Scheme for the losses occurred by wildlife however, the conflict persists and local communities are discontent with the Park Management because of the untimely and unfair distribution of the compensation for the losses they have passed through. Now, the queries are raised up- "Can Compensation Scheme Solitary can mitigate Human-Wildlife Conflict? If not what alternatives is there that could make Local community satisfy? Because it is very essential to include local communities for planning and decision making to achieve the goals in wildlife conservation and for sustainable development

KEYWORDS: Protected Areas, Human-Wildlife Conflict, Buffer Zone, Chitwan National Park, UNESCO, WDPA

INTRODUCTION

Protected Areas (PAs) are an area designed for the protection and maintenance of biodiversity without human interferences. According to the World Database on Protected Areas (WDPA) records, there are more than 100,000 (PAs) globally covering more than 11.5% of the earth's land surface (17.1 million sq km) (Rodriguez et al., 2004). PAs have become a significant tool in preserving the variety of species within the biological world (Lopoukine, 2008) and incorporates human welfare issues and local resources use (Naught on-Treves et al., 2005). In case of Nepal, most of the PAs suffer from poaching, agricultural encroachment, illegal trade and other various human induced disturbances and the major threats have been the Human-wildlife Conflict (HWC) issues. Human encroaches upon the wild habitat and the wild animals themselves find competing with the human for the survival needs (Balm ford et al., 2001) and vice versa. Damages to crop, livestock depredation, property losses, human injury and casualty, disease transfers and the psychological fear and stress are some of the major concerns that the local people are facing from wildlife. Hence, HWC is recognized as one of the serious obstacles towards achieving the conservation aims globally. It is therefore very essential to address the possibilities of threats that might become hindrance in the welfare of human along with the wild animal welfare.

HWC is not a new issue but along with the human population explosion and concerns for conservation of biodiversity it is escalating day by day worsening the situation more as compared to the past. Biodiversity conflicts and HWC are predicted to increase globally (Red path et al., 2013) so the mission to success in terms of Conservation comes out with a huge query. To minimize these conflicts Government of Nepal has introduced the compensation scheme for the losses by wild animals depending on the cases and intensity. The main purpose of the scheme is to encourage and motivate the local people in utilizing the natural resources in sustainable way so that negative consequences of HWC are reduced. The past study often shows that the person living to the proximity of the Park suffers more than others and it has resulted to

retaliatory killing of the wild animals.

STUDY AREA

Chitwan National Park (CNP) was formerly recognized as Royal Chitwan National Park. The park was gazetted in 1973, as the first national park of the country. It lies in the inner terai region of Chitwan, Makwanpur, Nawalparasi and Parsa districts of Nepal. Chitwan National Park is in a tropical and subtropical bioclimatic zone and is mainly characterized by three climatic seasons, namely hot, monsoon and winter. Initially, the area of CNP covered 544 sq km and now it covers a total area of 932 sq km and is surrounded by Parsa wildlife reserve in the east and India in the southeast. Balmiki tiger sanctuary and Udaipur sanctuary lies across the border of India. In 1996, 750 sq km areas were separated as a buffer zone (DNPWC, 1997). CNP has been listed as a world heritage site by United Nations Educational, Scientific and Cultural Organization (UNESCO) in 1984. The faunal diversity comprises 68 species of mammals, 544 species of birds, 56 species of hereto-fauna, and 126 species of fishes, 150 species of butterfly as well as several invertebrate species and the floral diversity comprises 600 plant species that includes 3 gymnosperm, 13 pteridophytes, 415 dicotyledons, 137 monocots, 16 species of orchids (UNESCO, 2003). It is mainly the home of Single-horned Asiatic rhinoceros and Royal Bengal Tiger. There are Thirty seven Village Development Committees (VDCs) and 2 Municipalities.

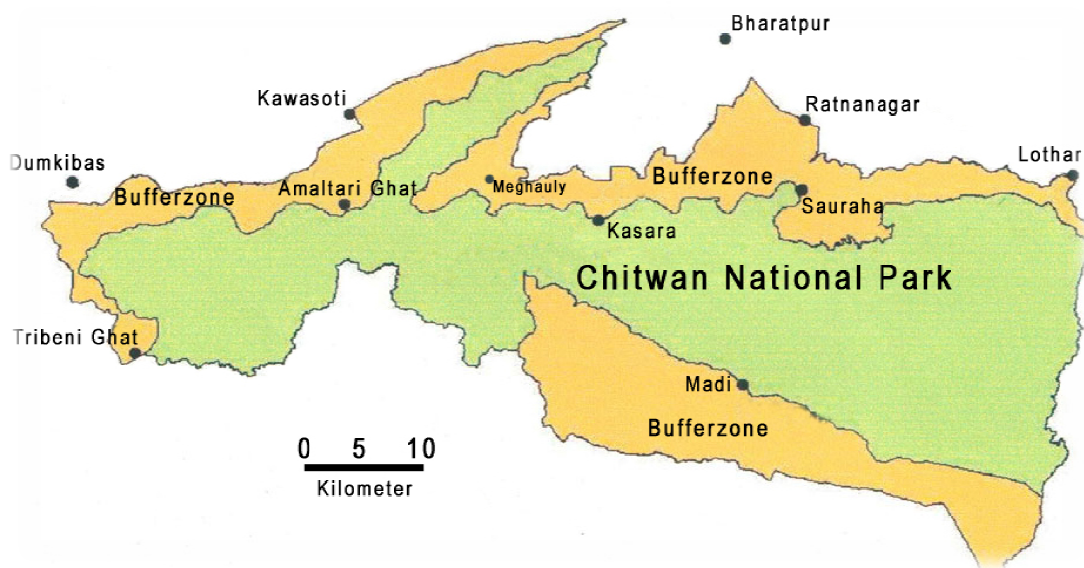


Figure 1: Chitwan National Park and its Surrounding Buffer Zones (Source-DNPWC)

WILDLIFE DAMAGE RELIEF FUND GUIDELINES

There is no transparent Wildlife Damage Relief Fund Guidelines but the main provision is done to compensate the losses of crops, livestock and damage caused to human injury/loss of lives and property. The ad hoc park level compensation scheme for human in Chitwan was initiated in 1990s, compensation scheme started in 1998/1999 but a formal nationwide government compensation scheme was introduced in the year 2009. The 30-50% of Park revenue is used in various community development activities through its Buffer Zone Management Program (BZMP). The priority of Compensation Scheme is based on two criteria-protecting the status of wild animals and severity caused by wild animals (Wildlife Relief Fund Guidelines, 2012).

Despite of this compensation scheme, local people were not found happy and satisfied because of lengthy and

burdensome procedures (Nakarmi, 2009) and underestimating the losses because the compensation offered was very less according to local people and verifying the losses is almost impossible for all cases. The local people moreover prefer for establishment of a long term mechanisms which includes insurance system, regular allowances, job and skill training in case of human casualty or injury (Budathoki and Nakarmi, 2011). The claim for the compensation can be made within 35 days of any incidents and the incidents should fall under official norms.

Recently the Compensation scheme has been renewed by the government of Nepal for the first time in the year 2015(Nepali Year-2072). The Changes prepared in between Past and Current Compensation Scheme guidelines are as follows:

Table 1: Compensation Schemes (Note: 1US\$=106.52NRs)

Incidents	Past Compensation Scheme	Current Compensation Scheme
In case of human death	NRs Max. 1,50,000	NRs Max. 5,00,000
In case of serious injury	NRs Max. 50,000	NRs Max. 1,00,000
In case of normal injury	NRs Max. 5,000	NRs Max. 10,000
Livestock loss	NRs Max. 10,000	1. NRs Max. 10,000 for Small animals 2. NRs Max. 30,000 for Cow/Ox/Buffalo
Crop loss	NRs Max. 5,000	NRs Max. 10,000
Loss of stored grains	NRs Max. 5,000	NRs Max. 10,000
Destruction of Building	NRs Max. 4000	NRs Max. 10,000

Source: (Wildlife Relief Fund Guidelines, 2012/2015)

Scope and Limitations of Compensation Scheme

The past report states that the scheme only had the provision to cover the damages caused by selected wild animals like elephant, tiger, rhino, leopard and bear though in some cases reimbursement was done even if the damages were caused by other animals. However, the revised scheme has included the additional wild animals like wild dog, clouded leopard and wolf in the scheme. The criterion is same for Clouded leopard and Common leopard. It is believed that the compensation scheme with due course of time reduces retaliatory killing of the wild animals. Nepal Government has also realized that the scheme should be swift, sufficient and sustainable to obtain the desired goals. However, the compensation scheme is still not able to deal with the causes of human-wildlife conflicts.

Table 2: Provision of Compensation Scheme Depending on the Losses

Wild Animals	Normal Injury	Severe Injury	Death	Livestock Loss	Loss of Stored Grains	Loss of Building	Crop Loss
Elephant	Given	Given	Given	Not Given	Given	Given	Given
Rhinoceros	Given	Given	Given	Not Given	Not Given	Not Given	Given
Tiger	Given	Given	Given	Given	Not Given	Not Given	Not Given
Bear	Given	Given	Given	Not Given	Not Given	Not Given	Not Given
Leopard	Given	Given	Given	Given	Not Given	Not Given	Not Given
Wild dog	Given	Given	Given	Given	Not Given	Not Given	Not Given
Wild boar	Given	Given	Given	Not Given	Not Given	Not Given	Not Given
Bison	Given	Given	Given	Not Given	Not Given	Not Given	Not Given
Wolf	Given	Given	Given	Given	Not Given	Not Given	Not Given

Source- Wildlife Relief Fund Guidelines, Nepal Government, Ministry of Forest and Soil Conservation (Revised one, Thursday May 14, 2015)

Objectives

The main objective of the study is to assess the opinion of local people towards compensation schemes for the types of losses they face from wild mammals of CNP.

RESEARCH DESIGN AND METHODOLOGY

The researcher used mixed methods approaches to inquiry for the study. The study was conducted from September 2015- December 2015. The five VDCs were selected as the study sites which include Madi, Kumroj, Gardi, Patihani and Megghauli by the researcher. The stratified sampling method was used where entire populations was divided into different subgroups and then final subjects were selected randomly. There were 300 respondents in total from five VDCs and each VDC represented sixty participants. Later, one sample from Kumroj VDC was excluded during data analysis for not meeting up the criteria of the research. The survey was carried out in ten wards, each VDC representing two wards. The selection of ward was done on the basis of high impact area by wild damages. Researcher used both secondary and primary data for the study. The secondary data comprises library research, reports, journals, articles, books and references taken from various websites. Both structured and unstructured interviews were taken. The Participatory Rapid Appraisal Method was also used to assess the life and conditions of the local community residing nearby the Park. The questionnaires types used were both open ended and closed ended. The standard of criteria was maintained while making queries to the respondents. SPSS 21 version has been used for data analysis and advanced Excel has been used for representation of tables and figures.

RESULTS

Receiving Wildlife Damage Relief Fund

The query was asked whether the local people are getting compensation for the losses caused by wild mammals from the Park authorities or not. Majority of the respondents said that they are not receiving any sort of compensation for the losses they suffer. Out of 299 respondents, 245 answered the query. 230 respondents stated they do not get while 15 respondents said they get but sometimes.

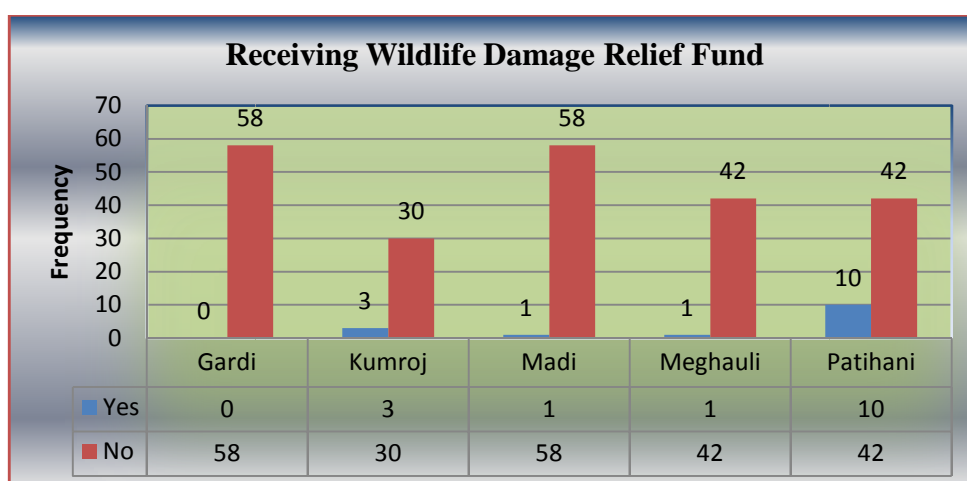


Figure 2: Receiving Wildlife Damage Relief Fund (N=245)

Satisfied with Compensation Scheme

Out of 95 respondents in whole, 91 of them stated that they are not satisfied with the compensation scheme of Park. 2 respondents from Megghauli, 1-1 from Kumroj and Madi VDC stated that they are satisfied however still the responses from majority was found negative towards the scheme.

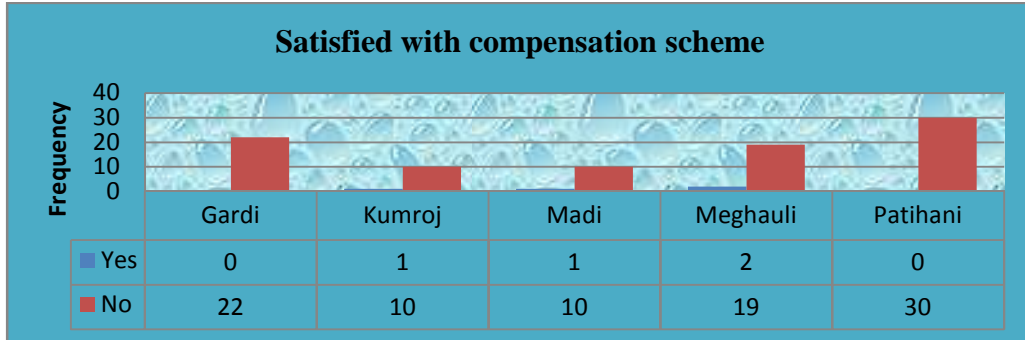


Figure 3: Satisfied with Compensation Scheme (N=95)

Expectation of Compensation towards Different Events Caused by Mammals

The respondents were asked about their expectation of compensation for different cases. In case of human casualty/death, the majority of the respondents in whole (N=144) stated that management should bear all the costs.133 respondents stated that opportunities should be given to the family or dependent person.

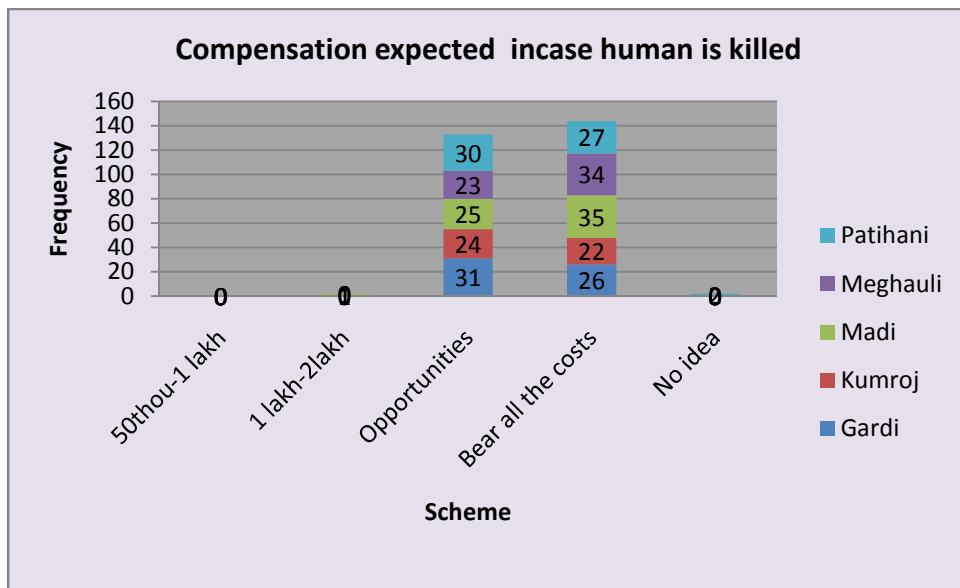


Figure 4: Compensation Expected Incase Human is Killed (N=281)

In case of compensation expectation for the losses of Livestock, out of 291 respondents(N=291), 241 respondents stated that the 100% compensation should be provided,32 respondents stated the compensation should be based on market value of livestock, 13 respondents said at least 75% compensation should be provided while 5 respondents were found satisfied with 50% compensation. However, the majority's responses was 100% cost of livestock need to be given as a compensation.

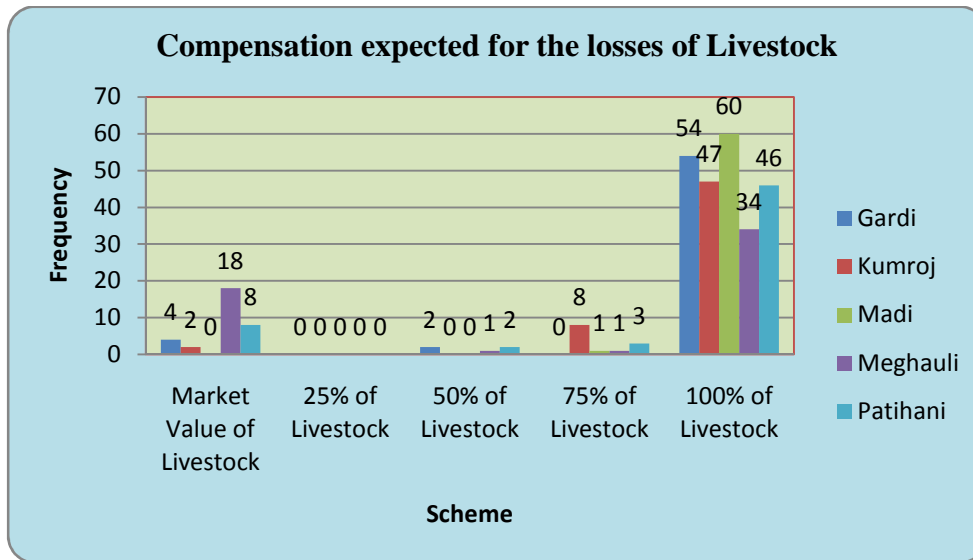


Figure 5: Compensation Expectation for the Loss of Livestock (N=291)

Regarding the expected compensation for the crop depredation, 276 respondents out of 294 stated that 100% compensation should be provided. 12 respondents stated that 75% losses should be bearded by the management; 4 respondents were found happy with 50% compensation for the losses. The details are shown in the figure below.

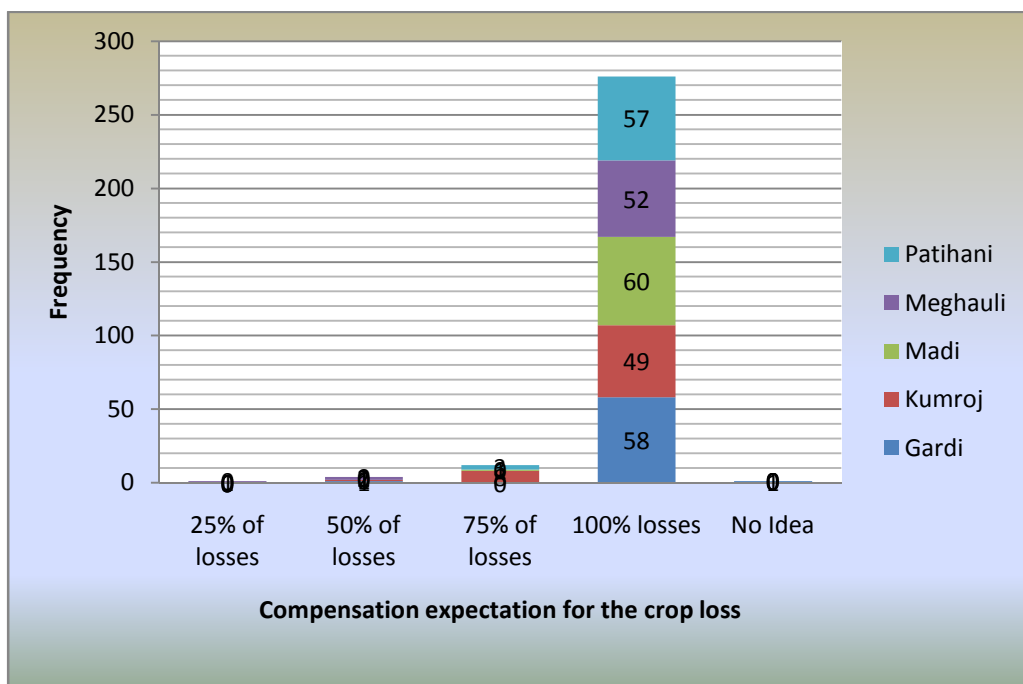


Figure 6: Compensation Expectation for the Crop Loss (N=294)

Reasons for Being Discontent with the Compensation Scheme

The respondents were asked about the reasons for being discontent towards the compensation scheme. Out of 262 respondents, 185 respondents answered that the process is lengthy and time consuming, 33 of them stated that the scheme is unfair, 15 respondents complained about the negative attitude of Park personnel and remaining 7 said there is no cooperating behavior from the management. The illustration is given below.

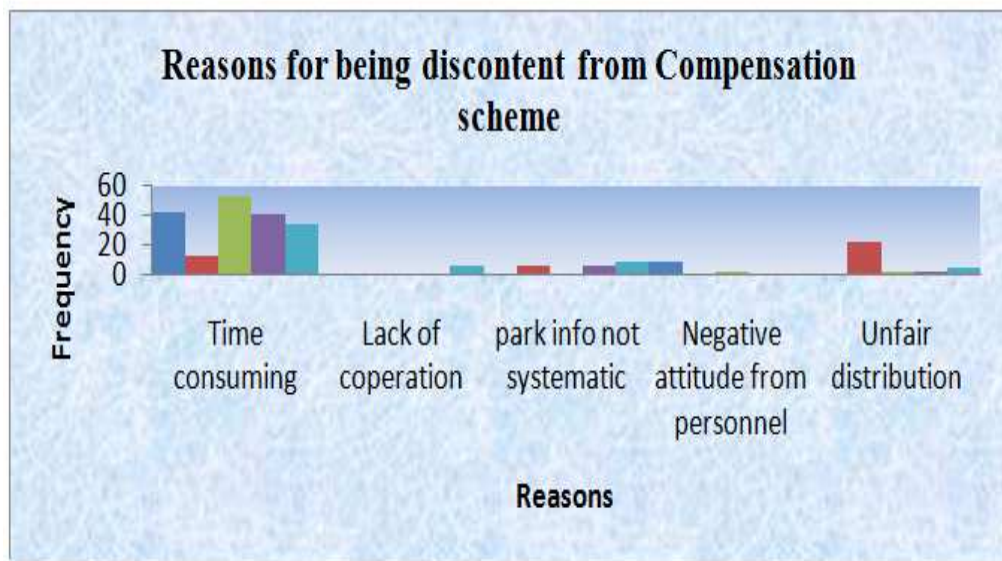


Figure 7: Reasons for being Discontent towards Compensation Scheme (N=262)

Importance of Compensation Scheme in Reducing Conflict

The respondents were asked regarding the importance of Compensation Scheme in reducing the Conflict. Out of 277 respondents, 190 stated that it is very important factor in minimizing the conflict, 48 respondents were neutral and remaining 39 respondents stated that it is not important because there are various other factors influencing conflict besides compensation scheme.

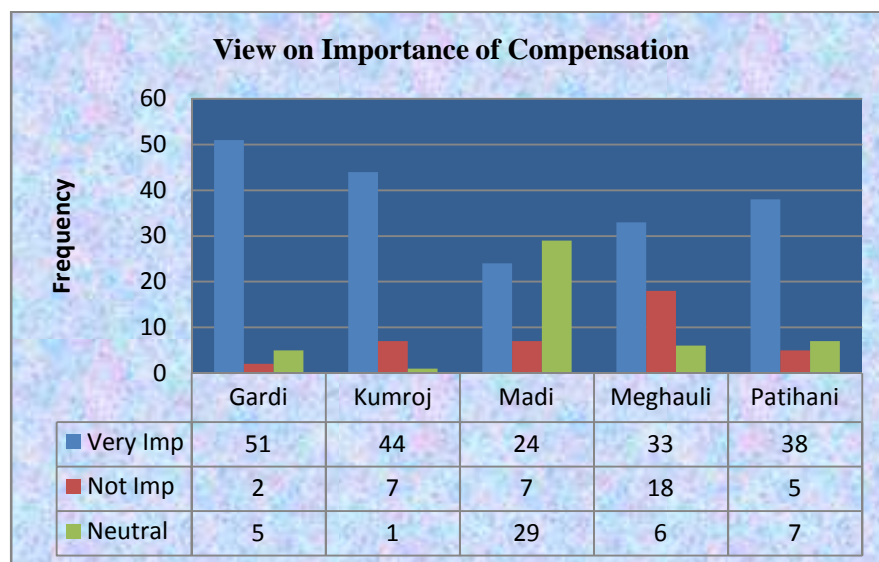


Figure 8: View on Importance of Compensation (N=277)

CONCLUSIONS

Compensation scheme is a fundamental tool for mitigating Human-Wildlife Conflict (HWC) however it is just one of the many factors. The local people living close to the Park are suffered more from the wildlife damages and they were found especially depressed who completely were found relying on livestock and crop for their livelihood. The results of the study stated that though there is the provision of the compensation process for the ongoing losses and damages

people were not happy and content. Very few people were there to receive the compensation and the main reason for not receiving compensation despite of the scheme includes the lengthy process, gathering and collection of evidences to claim the loss, verifying it and fulfilling official formalities.

The wildlife damages relief fund discovered by the government was found very negligible as compared to the expectation of the local people for all the events caused by wildlife. The local people complained that it is very difficult to collect the proof of damages caused by specific animals because some incident takes place in their absence which cannot be recorded and in many cases wildlife damages frequency seems to be high in evening time, early morning and night time which becomes very tough for them to verify which animal came and destroyed. Moreover, they stated that the losses cannot always be quantified. Still, the local people believe that compensation scheme is very important to minimize the HWC though it does not fulfill the losses as a whole.

The opinions were given by the local people who can serve as alternatives for the compensation scheme. These includes the prerequisite of trainings and job opportunities especially focusing the sufferers, regular incentives to the dependants in case of human casualty/death, arrangement of systematic defensive strategies to control the entry of wild animals to the village, making the policies to maintain the distance between park and human settlements, making the scheme transparent, clear, swift and short and improvement of sympathetic behavior from Park personnel towards the local people, listen their complains and proceed the formalities soon.

In terms of wildlife conservation, government and related parties should understand that human and wildlife both are equally important and one should not be overlooked. The concern should be given towards the welfare of both human and wildlife so the conservation is possible in long run.

REFERENCES

1. Balmford A, Moore JL, Brooks, T. and Burgess. (2001). Conservation conflicts across Africa. Science.
2. Budhathoki P. and Nakarmi G., 2011: Just to People Just to Wildlife, Wildlife Watch Group, Wildlife Times, Year 5 and Number 3. In Nakarmi G. Chitwan National Park.
3. DNPWC. (1997). *Annual Report 1996*. Department of National Parks and Wildlife Conservation, Kathmandu.
4. Lopoukhine, N.(2008). A Global Perspective on the Challenges and Opportunities for Protected Areas in Today's and Tomorrow's World – “For Life's Sake”. *Paper Commissioned for Canadian Parks for Tomorrow: 40th Anniversary Conference*. University of Calgary, Calgary, AB.
5. Nakarmi, G. (2009). *Ensuring Park and People Co-existence in Nepal: A Case Study of Chitwan National Park*. London: The Rufford Small Grant Foundation, UK.
6. Naught on-Treves, L., Holland, M. B., & Brandon, K. (2005). The role of protected areas in conserving biodiversity and sustaining local livelihoods. *Annu. Rev. Environ. Resour*, 30, 219-252.
7. Red path, S. M., Young, J. and Evely, A *et al.* 2013. *Understanding and managing conservation conflicts*. Trends in Ecology & Evolution, 28:100-109.
8. Rodrigues, A. S. L., Andelman, S. J., Bakarr, M. I., Boitani, L., Brooks, T. M., Cowling, R. M., Fishpool, L.D.C., da Fonseca, G. A. B., Gaston, K. J., Hoffmann, M., Long, J. S., Marquet, P. A., Pilgrim, J. D., Pressey, R.L.,

- Schipper, J., Securest, W., Stuart S. N., Underhill, L. G., Waller, R. W., Watts, M. E. J., Yan, X., 2004. Effectiveness of the global protected area network in representing species diversity. *Nature* 428, 640–643.
9. United Nations Educational, Scientific and Cultural Organization (UNESCO). (2003). *Initial management effectiveness evaluation report: Royal Chitwan National Park, Nepal, August 2003. Enhancing our heritage project: Monitoring and managing for success in natural world heritage sites*. WII-UNESCO Project, Wildlife Institute of India. In Upadhyay, S. (2013). *Wildlife damages, mitigation measures and livelihood issues around Chitwan National Park, Nepal*.
10. *Wildlife Relief Fund Guidelines* (2012) revised in 2015, Government of Nepal, Ministry of Forest and Soil Conservation, Singhad urbar, Kathmandu, Nepal.

