

# Role of interpretation in management: a case study of the protected area system in Nepal

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Interpretation, as an educational activity along with enjoyment promised to increase awareness, appreciation and understanding of the protected areas. Though relatively new concept to Nepal it is widely used in western countries as a tool of park management. Closely related to environmental education or conservation education in our context it also helps to manage natural resources and human resources. This study describes the role of interpretation in park management examining the interpretation theory using Nepal as a case study. Questionnaire survey was used to obtain the data and the results indicate that there is strong relationship between interpretation and park management. All of the survey groups reported positive links with park management. This study identifies the problems existing and improvements to be made in the interpretive facilities, training and equipment in relation to protected area management in Nepal.

**Key words:** Interpretation, Conservation education, parks and protected areas, park management, Nepal

**I**nterpretation is an educational program and a transmission process of information about nature and natural resources and depends upon the perceptions and motivation of the person and on the organization which provides the service. It involves the communication of ideas and values about natural and cultural resources. In park management this concept assists visitors in developing a keener awareness, appreciation and understanding of the natural area. According to, Tilden(1977), interpretation is an educational activity which aims to reveal meaning and relationships through the use of original objects, by first hand experience and by illustrative media, rather than simply to convey factual information. Interpretation involves education through enjoyment because people generally visit natural areas for enjoyment rather than education. According to Sharpe (1974) main reasons for interpretation are to develop awareness, appreciation and understanding of the total protected area environment, to use it as a management tool, by encouraging thoughtful use of the resources as a recreation area and by reducing the impact on certain fragile or overused area; and to promote a public understanding of parks and to improve public relations.

Interpretation involves not only communication of facts, but also includes the explanation, clarification and translation of meanings and relationships of both

natural and cultural worlds and their interaction with each other (Shiner, 1986). Management of parks after establishment must be a dynamic and continuous process. In this regards, resource interpretation is considered as one of the important park management options.

Nepal does not have a long history of a national park system though it has grown substantially in the relatively short period of 33 years. The concept of national parks and protected areas in Nepal was primarily initiated for the protection of wildlife, especially endangered species. The nature and species conservation movement was materialized by the establishment of Royal Chitawan national park in the year of 1973. Since 1973, Nepal has established an extensive network of protected areas, now covering 26,666 km<sup>2</sup> or about 18.1% of the country area. Currently this includes nine national parks, three wildlife reserves, two conservation areas and wildlife reserve and hunting reserve.

## Park problems and management status

In developing country like Nepal, the park related problems are complex since it is a network including local people, tourists and natural resources. Due to boosting tourism industry direct physical impact on a limited resource by local people and tourist are being open secrets. With more people and less resources,

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managers are facing many difficulties in maintaining parks and reserves. Several different strategies have been developed for providing guidelines for nature conservation but most of these have not clearly stated in the specific park management system in Nepal. National park and conservation acts 1973 is the main legislative framework of protected area establishment and administration. This emphasizes conservation and protection of natural resources rather than management. The national parks and wildlife general rules and regulations explain the legislative power of managers and the use of natural resources within the protected areas however in terms of providing conservation education for local people and interpretive facilities for visitors, they are vague and provide no indications and directions for interpretation structure and content to be developed and maintained. The third policy is the protected area plan. Management plan developed at the early stage of park establishment have included conservation education as a management function. But due to lack of continued improvement and amendment, all the plans are outdated.

### Role of interpretation

Existing park related core and management problems, continued loss of natural resources and its overuse propelled the need of interpretation in every sector especially in resource and park management. Until now protected areas of Nepal have used law enforcement for resource management rather than education. Law enforcement is necessary in park management but it can motivate only a small percentage of people while interpretation has the power to educate general public because it tries to show the meaningful relationships. Effective interpretation helps to communicate with local people by using different media and methods and obtains their support and cooperation for resource management. An application of effective interpretive media and methods is essential to our situation in order to communicate effectively with the local people and to maintain good public relations as well as to enhance protected area values.

Providing service is one of the most important aspects of park management in Nepal and it is the manager's job to make the visitor's time enjoyable by providing facilities/ activities for interpretation minimizing the impact on the local people's way of life and resources.

With the help of effective interpretive media, methods and training, the existing conservation education program may be widened to some extent so that the scope of interpretation is very high for Nepal.

In the present situation, protected area managers have a big responsibility to preserve the nation's natural, cultural, historical and landscape values for the enjoyment, education, inspiration and pace of humankind. In order to achieve these objectives, management requires a long term supportive management system that might combine resource interpretation with a well planned conservation education program. This program will assist managers to provide better management of the park.

### Materials and methods

Quantitative and qualitative approaches were used for the data collection. The formal method used to collect data for this research was a postal survey because of the limits of time and money since study was carried out in Nepal while studying in New Zealand. Qualitative data were gathered from structures survey questionnaires to provide specific statistical information related to the subject matter. Qualitative data were gathered through semi structured open-ended questionnaires, non-participant observation and informal interviews.

Three different sample groups: 1) park wardens and rangers, 2) selected experts familiar with protected areas and 3) selected visitors familiar with Nepal were selected for the research purpose. Different questionnaire were used for each sample group to achieve the overall research objectives. The survey questionnaires for this research were designed with closed, open-ended structured and semi structured questions. 25 selected experts, 50 park wardens and rangers and 50 visitors from New Zealand were surveyed for the research. Among them 72 % of the experts, 60 % of park wardens and rangers and 74 % of selected visitors return the survey questionnaire. To enrich and cross-check those formal questionnaire methods, informal interviews was used to collect information from those having knowledge and working experience in park and protected area management either in New Zealand or in Nepal.

The first part of the open ended questions of the questionnaires was pre-coded for ease of analysis and

interpretation of data and then entered into an Excel 5.0 spreadsheet and then was transferred to SPSS. Basic descriptive statistics were computed as well as the frequency distribution for each variable. For open ended questions, all answers were manually assigned to categories based on the similarity of answers. The categories of responses were analyzed in aggregate form.

## Results and discussions

It was found in the present study that all of the survey groups are generally positive about the role of interpretation in park management and the park wardens and rangers groups were quite familiar with the term interpretation and think there exists some kind of those facilities. Respondents were found to be familiar with personal and non-personal techniques which are used more commonly in park interpretation. Management problems in protected areas of Nepal were recognized by all the survey groups. The findings of the study are presented and the issues are discussed below.

### Existing facilities/ activities/ programs/ in protected areas of Nepal

A range of responses are provided by the different survey groups in terms of facilities, activities and programs. Warden and rangers responds that school programs (100%), guided walks (47%) and exhibit and museums (37%) are the top three interpretive facilities or activities practiced here in Nepal. Experts ranked visitor centers(89%), exhibits and museum(72%), Signs and labels(72%) as top three while Visitors rated visitor center(73%), exhibits and museum (54%) and display boards (32%) as top three facilities.

### Communication for visitors

There are many sources from which visitors get information about parks and protected areas of Nepal. According to selected visitors word of mouth (86%) was the primary source followed by TV/films (35%), travel agents (22%), park publications (19%) are the major sources of information. In wardens/ rangers view park publications (100%), interpretive talks (87%) were seen to be primary sources of information .The majority of respondents ranked park publications, newspaper/newsletters, TV/films and interpretive talks among the four most important media of communication with international visitors.

### Interpretive programs for park management

90% of the wardens/ rangers have the knowledge of existence of a plan for interpretation, communication or public relations and 73% of them spend 10-30% of their time on such activities. Only one spend (<10%) and two spend (>50%) time on these activities.

### Facilities/ activities/programs for Local people

The facilities for visitors and locals may differ in terms of their needs and use. 100% of the Park wardens and rangers indicated that forest resource distribution, school programs and public meetings were the main facilities and programs available for local people. Buffer zone and community development meetings were regarded as a facility by 80% of them. Respondents reported that interpretation was a means for introducing conservation education through school programs, training for resource use techniques, providing information about the grazing season, resource collection time, and improved public relations through buffer zones and public meetings. Thus it can be concluded that interpretation related to the above activities is an integral part of their programs.

### Constraints to program implementation

Developing countries like Nepal have limited opportunities to implement interpretative programs. All of the respondent's ranked lack of adequate funds as the most pertinent problems in program implementation. Lack of training, lack of policy, lack of equipment is found out to be other constraints.

### Need for and importance of interpretation

The role of interpretation is discussed and investigated in this part along with the discussion regarding interpretation training, equipment, activities, and the skills and knowledge needed to improve the scenario in the future. Results indicate that 97 % of park wardens and rangers agreed that interpretation should be applied as a management function for natural resource management.97 % agreed that interpretation provided communication and improved public relations and 93% agreed that it was a management functions for providing services to visitors. Furthermore, 30% specified that interpretation was used to provide conservation education and 13% specified that interpretation has been used in a variety of other context too.

### Importance of interpretation

All park wardens, rangers and experts and agreed that interpretation is important for park management in the context of Nepal. 81.1% of visitors regarded it as important while 13.5% of them though it as not important.

### Needs for facilities, activities and programs

It is recognized by all survey groups that the role of interpretation is important for parks and protected area management in the context of Nepal. A majority of respondents indicated that visitor centers, audio visual display, public meetings, school programs, park publications, exhibits and guided walks are the most important activities, facilities and programs needed for park management in Nepal. The results indicated that all the survey groups ranked visitor centers as their first priority. Selected visitors ranked school programs, interpretive talks, audio visual displays and exhibits as 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> priority. Wardens/rangers and selected experts ranked audiovisuals, public meetings, school programs and park publications as their 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> priority respectively.

### Other ideal facilities for Nepal

Respondents were asked to describe the equipment, programs, opportunities, facilities and training that they considered ideal for Nepal. According to experts (n=18) and wardens/ rangers (n=30) the most important idea is to provide education/visitor centers with audio visual displays while visitors (n= 37) thinks that to provide visitor center in Kathmandu and at each park office was the most important idea.

### Training for interpretation

Park wardens and rangers were asked whether they had any training related to interpretation. 60% of park wardens/rangers indicated that they had training related to conservation education and interpretation in the course of their working center. 40% of them had had no training even though they claimed that they had work experience in terms of conservation education and public relations. 33.33% of park staff had involved in the training relating to conservation education /environment education, 22.22% had trained in the communication extension while 11.2% of them had training regarding public relation/a participation/ meetings. 33.33% of them had training regarding orientation, nature guides, park management etc. A majority of respondents ranked

short courses (1-3 months), workshops (1-2 weeks), and long courses (3-6 months) amongst their first three important training frameworks for interpretation. Respondents indicates wildlife management techniques, park management techniques, conservation education, audio/visual handling and presenting skills and communication motivation and extension skills as the top five most urgently needed training topics for park staff in Nepal. This study recommends that additional interpretation training in these topics is a priority for park staff.

### Park staff responsible for interpretation

A majority of respondents indicated that either rangers alone (37%) or wardens and rangers together (33%) are the park staff responsible for conducting conservation education and interpretation. However, 23% indicated that park wardens, rangers and other staff were responsible for interpretation. It means that conservation education and interpretation is important for other park staff such as senior game scouts, game scouts and administrative staff.

### Conclusion

The study shows that all of the respondents (park wardens, rangers, experts and visitors) are generally aware of the importance of interpretation for park management. They were also found to be familiar with the reasons for interpretation, for example; understanding and awareness of the park, interpretation as a management tool, awareness of communication and public relations, conservation education. All the respondents indicated an availability of interpretive facilities in protected areas of Nepal for visitors and the public and make suggestions for the alternative activities and facilities regarding the issue. In addition to this, a great majority of the sample population were found to be familiar with techniques of interpretation like audio visual presentation, park publications, guided walks, visitor centers, display boards, interpretive talks and living interpretation, which can be used to minimize or reduce park problems. Finally, the study concludes that interpretation can play a major role in park management in terms of conserving natural resources, managing visitors and preserving cultural and historic sites. Interpretation can improve public understanding of the park by using a range of interpretive facilities and techniques.

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