



DEMOGRAPHIC STUDY OF STANDARD OF LIVING AND THEIR DEPENDENCY OF CORBETT NATIONAL PARK, RAMNAGAR

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ABSTRACT

The protected areas are the geographical space where misuse of resources is limited and human occupation is minimal. This definition is accepted by regional and global framework. IUCN defines the protected area as - "A clearly defined geographical space, recognized dedicated & managed through legal or other effective means, to achieve the long-term conservation of natural with associated ecosystem services and cultural values." In addition to protect the biodiversity of protected area, we can also obtain resource for betterment of human health, and we can distribute the profit between localities. (Naughton-Treves et al. 2005). Now a day's protected area are facing a problem of settlement. Settlement can be defined as any form of residency, which can range from single residency to city. In another term, settlement is a process of making construction in uninhabited area by people. It can be said that, settlement is a process of getting some terrain to build, which can be used to live or for commercial use. Settlement can be categorized mainly in two parts rural and urban. Basic difference between rural and urban settlement is the need, in rural settlement the basic needs are priority, but in urban settlement luxury along with primary need is main area of focus. The study area taken by us is comes under rural settlement surrounding Corbett National Park.

KEY WORD: DEMOGRAPHIC, STANDARD OF LIVING, THEIR DEPENDENCY

INTERODUCATION

The protected areas are the geographical space where misuse of resources is limited and human occupation is minimal. This definition is accepted by regional and global framework. IUCN defines the protected area as - “A clearly defined geographical space, recognized dedicated & managed through legal or other effective means, to achieve the long-term conservation of natural with associated ecosystem services and cultural values.” In addition to protect the biodiversity of protected area, we can also obtain resource for betterment of human health, and we can distribute the profit between localities. (Naughton-Treves et al. 2005). Now a day’s protected area are facing a problem of settlement. Settlement can be defined as any form of residency, which can range from single residency to city.

Biodiversity is the variety of different species of flora and fauna. Human beings are totally depending on biodiversity for their primary needs and success. In other words, we can say that we can’t live without it. Biodiversity is defined as the kinds and numbers of organisms and their patterns of distribution (Barnes et al., 1998). Biodiversity provide us a lot of benefits. It is very important for our sustainable future. Development and success of human being depend on biodiversity directly or indirectly. Biodiversity represent the total number of variety of flora and fauna. It is necessary part of environment. Biodiversity is the soul of this world. All individuals count on the biodiversity for their lifeline, such as one need water for drinking, through food once hunger can be relieved, air is important for breath, in a same way forest are very important for maintain the balance in biodiversity. Species richness of any ecosystem signifies that how much the ecosystem is healthy. To protect biodiversity and save the environment for further generation its very necessary to conserve it. There are two ways to protect biodiversity in-situ conservation ex- situ conservation. zoo, botanical garden, seed bank represents ex-situ conservation whereas wildlife sanctuary, national park and biosphere reserve are describing to in-situ conservation. National park is very important protected area to protect biodiversity.

To minimize these disturbances Government of each country established some protected areas. Protected areas have long been recognized as the single most important method of conserving wildlife and preserving biological diversity (Kideghesho et al., 2006). Protected areas not only protect the biodiversity but also they are expected to obtain resources for improving human health and for distributing economic profits for local people (Noughton-Treves et al., 2005). The main objectives of these protected areas are minimizing the degradation of biodiversity and conserve them. These protected areas are known as national park, wild life sanctuaries, biosphere reserve, botanical garden, seed bank, etc. National park is established to conserve and protect biodiversity. The reasons for establishing national parks are given below:

- a) National park is established for protect and conserve wildlife and biodiversity.
- b) National park is important to promote the sustainable use of the biodiversity for future generation.
- c) To promote the population growth of different species of fauna and flora especially

endangered species.

National parks are symbol of protected areas of wild life especially endangered species. In one side human establish these national parks to protect the wild life and in other side he is disturbing it one self. The main purpose of this study is to know the causes of human induced disturbance in and surrounding areas of Corbett National Park and quantify them. Corbett National Park is situated in the foothills of outer Himalayas with in districts of Nainital and Pauri Garhwal and occupies the middle reaches of the Ram Ganga, covering an area of 520.82 sq km.

There are many villages which are in periphery of Corbett National Park. They are depending directly or indirectly on CNP for their basic needs. There is no village inside the CNP. For this study, 7 Villages has been taken, which are situated in 7 km radius of CNP. Dhela, Himmatpur Dotiyal, Kaniya, Sawal Deh West, Chorpani located toward the southern boundary. Muhaan, Dhikuli are located closer to the eastern side. There is no village situated, in western boundary. From Table 1, distances of these villages from the Corbett national park boundary easily be seen. With 0 km distance from CNP, village Dhela is nearest to the park, whereas the distance of village Chorpani is 6 km from park boundary which is the maximum distance (**Table 4.1**).

MATERIAL AND METHODOLOGY

STUDY AREA

The Corbett national park is the oldest and first national park of India. It is situated in the foothills of Himalaya in Uttarakhand state. The Corbett National Park's area lies between 29°25' to 29°40'N latitude and 78°5' to 79°5'E longitude. The elevation range of Corbett National Park lies from 1300 to 4,000 ft. (400 to 1,220 m). Total area of the Corbett national park is 520.82 sq km. Corbett national park has captured many wonderful vision as well as wild life along with its natural habitats (**Plate 12**). The natural solitary of the area was identified once in 1936, park becomes the first nation park to be well established in Asia. In that time, this park was known as Hailey National Park. It was known as Ramganga national park for two years (1954 to 1956). At 1956 in the honor of famous hunter and wildlife conservator Jim Corbett. Its name again changed and till now known as Corbett National Park. With the thought of protecting and conserving the tigers, In 1 April 1973 Corbett national park launched Project Tiger and thus Corbett national park become the first park of India to launch Tiger Reserve. At the time of establishment, the total area of CNP was 520.80 Sq.km. after adding to Nainital, Pauri and Almora district its area expands up to 1288.31 Sq.km.

RIVERS IN CORBETT NATIONAL PARK

Ramganga- The origin of the Ramganga River is doodhatoli ranges of the Himalayas. After doodhatoli ranges it flows toward south west through the Corbett National Park. Ramganga River is the largest source of the survival of the wildlife of the Corbett National Park. Inside the Park the Ramganga River flows till Kalagarh. Very

famous Mahseer fishes, Gharials, Mugger, etc. are occur probably in this river. Many important bird species are depending on this river for their survival, like Kingfisher, Fish eagles etc.

CLIMATE

The time duration of summer season lies between March to mid-June. In May and June, the temperature is in peak condition. The animals can easily be seen near the water sources, in this time duration. Monsoon season start from mid-June and ends with October. With the rain drops the weather become very pleasant. During rainy season weather of Corbett National Park become very humid due to which very much moisture in atmosphere. In rainy season weather become dangerous as it is a key reason for landslides, floods, and soil erosion etc

FLORA IN CORBETT NATIONAL PARK:

Corbett National Park is the India's first national park and its geography is providing a favorable environment for different type of flora to exist and grow. Most of the area of Corbett National Park is covered by Sal forest. Shisham and Khair can be found, by reaching some height. Only one conifer tree Chir pine is found in Corbett National Park. Corbett National Park is also blessed with different type of beautiful flowering plants such as Kachnar, Madaar, Dhak, Semal etc. Table 3.2 shows various types of flora exist in Corbett National Park.

METHODOLOGY

Discussion about the research approaches has been done in this chapter. The light has been shaded on background of study area, research design and research methods, for research work. After going through above details, the discussion on sampling has been done which was used in research work. Questionnaire, observation and discussion have been used as the research tool. Analysis process was explained which was used in research and finally limitation and scope of survey was presented.

SITE SELECTION

CNP was chosen for this study as this the first and oldest national park of India. Being rich in floral and faunal biodiversity, it is a one of the highest source of income for the government. Tiger is main attraction of this park. CNP plays a very important role to provide income to localities. Since CNP is facing many challenges, such as increased dependency of local community, poaching, fire burning and tourism raised problems, so this park is chosen for study. Seven neighboring Villages of CNP were chosen for this study

RESULTS

The protected areas are the geographical space where misuse of resources is limited and human occupation is minimal. This definition is accepted by regional and global framework. IUCN defines the protected area as - "A clearly defined geographical space, recognized dedicated & managed through legal or other effective means, to achieve the long-term conservation of natural with associated ecosystem services and cultural values." In addition to protect the biodiversity of protected area, we can also obtain resource for betterment of human

health, and we can distribute the profit between localities. (Naughton-Treves et al., 2005). Now a day's protected area are facing a problem of settlement. Settlement can be defined as any form of residency, which can range from single residency to city. In another term, settlement is a process of making construction in uninhabited area by people. It can be said that, settlement is a process of getting some terrain to build, which can be used to live or for commercial use. Settlement can be categorized mainly in two parts rural and urban. Basic difference between rural and urban settlement is the need, in rural settlement the basic needs are priority, but in urban settlement luxury along with primary need is main area of focus. The study area taken by us is comes under rural settlement surrounding Corbett National Park.

Corbett national park has the mission to protect and conserve the biodiversity. Most of national parks are surrounded by villages. Villagers are residing there from a very long time. Population was not an issue at starting, but in recent years, rapid growth of population becomes the major area of concern of the national park. The speed, in which the population is increasing, it may be indicator of biodiversity risk. Growth in population is directly proportional to settlement related issue. Human settlement creates a pressure on our natural environment. The uninhabited places when occupied by human for their shelter or for production, the waste generated by them causes air, land and water pollution. Wildlife corridor are blocking due to settlement. Wildlife corridor can be defined as an area that is used by wild animals for seasonal movement from one place to another, in search of food, breed and basic needs.

Many Villages are situated near to Corbett National Park. 7 villages were taken for our research study, which lies within the 7 km periphery of Corbett National Park. Directly or indirectly they are dependent on park for their basic needs. CNP not only provides shelter to the villagers but also provides the fuel wood, timber, plants, medicine and fodder etc. for livestock and their daily uses. Localities can be benefited from protected area by taking the services like fuel wood, field for grazing, forest products to get the economic benefits derived from employment as well as devotional and social values. (Campbell 1999; Gillingham and Lee 1999; Archabald and Naughton-Treves 2001; Adams and Infield 2003; Stone and Wall 2004; West and Carrier 2004; Kruger 2005; Spiteri and Nepal 2006).

Plate 1: Dikuli Inter College



Plate 8: Bank facility at Kaniya



The population of these villages has been growing drastically in last few years. Villager's dependency on CNP is also increasing, because population is directly proportional to dependency. CNP was fulfilling the needs of villagers from the beginning but now it is facing many problems because of increase in pressure of population. These villagers are depending on CNP for their needs. Despite of these benefits, villagers have both positive and negative attitude toward CNP. Demographic study of standard of living and their dependency on the park is focused in this chapter.

There are many villages which are in periphery of Corbett National Park. They are depending directly or indirectly on CNP for their basic needs. There is no village inside the CNP. For this study, 7 Villages has been taken, which are situated in 7 km radius of CNP. Dhela, Himmatpur Dotiyal, Kaniya, Sawal Deh West, Chorpani located toward the southern boundary. Muhaan, Dhikuli are located closer to the eastern side. There is no village situated, in western boundary. From Table 1, distances of these villages from the Corbett national park boundary easily be seen. With 0 km distance from CNP, village Dhela is nearest to the park, whereas the distance of village Chorpani is 6 km from park boundary which is the maximum distance (**Table 4.1**).

Corbett national park covers the area of 520.28 sq km. Along with time, the changes in park's boundary can be seen. The 520 sq km area of the the CNP, is known as core region. In 1991, 796.72 sq km area was added in the park which is known as Buffer Zone. 7 Villages within 7 km radius of the park were taken for this study. These villages consist of different geographic area. Muhan has covering minimum area with 9.31 ha and Sawal deh west has largest area with 258.64 ha. Dhikuli which is famous for its resorts and hotels covers 87.82 ha area. Village Dhela has 0 km distance from park boundary and it covers the 188.19 ha area. It has added as new zone for tourist, in recent years (**Table 4.2**).

When one or more persons are residing under one residency, and they are sharing the meals and accommodation, they come under one household. Household is taken as a basic unit for analysis in different government and social projects. It can be said that number of household is proportional to Population. The numbers of household determine the population of village. With 466 households, village Chorpani has maximum population, whereas with 38 households Muhan have minimum population. Nowadays villagers are using less timber for building the house. The reason behind this is, mud and timber are replaced by, bricks and cement. (**Table 4.3**).

Education can be defined as a process of developing the skills to learn, apply that knowledge in real world, unlearn and re learn. Through education, this world can be a better place to live. Education can help to increase income, reduce poverty, reduce child marriages, reduce fertility rate, raise crop yields and help in making this world a better place. Data was collected, for education center in selected village. All villages have the facility of primary school in their village except Chorpani. In Chorpani, villagers are dependent on Gojani for their primary schooling. Where Chorpani does not have any primary school, there Sawal deh west have 2 primary school in village itself. The discussion about High school education center indicates that except Chorpani and Muhan, every village has facility of high school facility. The students of Chorpani village prefer Gojani as their first preference while student from Muhan prefer Chukam as their preference for high school education, because these are the nearest location to their villages. For Intermediate education, Dhela, Sawal deh west, Muhan and Dhikuli are luckier for having Intermediate school in village itself (**Plate 1**). The students from Kaniya prefer Gojani, while student from Himmatpur Dotiyal and Chorpani prefer Ramnagar on basic of distance from village. For higher education, student from all villages are dependent on Ramnagar because nearest degree college is in Ramnagar (**Table 4.4**).

As per table 4.5 all village have the hospital or ANM center in their area except Sawal deh west and Chorpani. Villagers of Sawal deh west prefer Kaniya while villagers from Chorpani prefer Ramnagar for basic treatment because of shortest distance from their villages. Dhela and Sawal deh west have veterinary hospital but other villages are not benefitted by this facility. Villagers from Kaniya are contacting veterinary hospital from Dhela while Rest of the villages contacting Ramnagar for checkup of their livestock. Villagers are preferring veterinary hospital, based on distance. Village Himmatpur Dotiyal, Kaniya, Muhan, and Dhikuli have bank facility in village itself. Dhela, 'Sawal deh west' and Kaniya are depending on Panjab National bank's

Kaniya branch for bank related work (**Plate 8**). People of Chorpani have to go Ramnagar for bank related work. On asking about police station they told us that there is no police station near the villages except Muhan. Nearest police station from Muhan is located 12 km away from village, near the Garjiya mandir (**Table 4.5**).

Table 0.1 Distance of Villages from Corbett National Park.

S.No.	Name of village	Distance of village from the Corbett national park.
1	Dhela	0 km
2	Sawal Deh West	5 km
3	Himmatpur Dotiyal	4 km
4	Kaniya	4 km
5	Chorpani	6 km
6	Muhan	3 km
7	Dhikuli	6 km

Source: CTR office, Ramnagar.

Table 0.2 Geo. area of Villages.

S.No.	Village Name	Geo. Area (Hectares)
1	Dhela	188.19
2	Sawal Deh West	258.64
3	Himmatpur Dotiyal	82.56
4	Kaniya	192.64
5	Chorpani	112.51
6	Muhan	9.31
7	Dhikuli	87.82
	Total	931.67

Source: Vikas Bhawan, Bhimtal.

Table 0.3 Household number of villages surrounding CNP.

S.No.	Village Name	Household
1	Dhela	281
2	Sawal Deh West	399
3	Himmatpur Dotiyal	193
4	Kaniya	458
5	Chorpani	466
6	Muhan	38
7	Dhikuli	269

Source: Vikas Bhawan, Bhimtal.

Table 0.4 Locality of education center in Villages.

S.No.	Village name	Primary school	High school	Intermediate	College
1	Dhela	At village	At village	At village	Ramnagar
2	Sawal Deh West	At village	At village	At village	Ramnagar
3	Himmatpur Dotiyal	At village	At village	Ramnagar	Ramnagar
4	Kaniya	At village	At village	Gojani	Ramnagar
5	Chorpani	Gojani	Gojani	Ramnagar	Ramnagar
6	Muhan	At village	Chukam	At village	Ramnagar
7	Dhikuli	At village	At village	At village	Ramnagar

Source: Field Survey, 2014.

Table 0.5 Basic Facility of Villages.

S.No.	Village name	Hospital	Veterinary Hospital	Bank / branch	Police station
1	Dhela	At village	At village	Kaniya	Ramnagar
2	Sawal Deh West	Kania	At village	Kania	Ramnagar
3	Himmatpur Dotiyal	ANM center	Ramnagar	At village	Ramnagar
4	Kaniya	ANM center	Dhela	Kaniya	Ramnagar
5	Chorpani	Ramnagar	Ramnagar	Ramnagar	Ramnagar
6	Muhan	ANM center	Ramnagar	2-3 bank near muhan factory impl	12 km garjiya mandir,
7	Dhikuli	Ramnagar	Ramnagar	Dhikuli	Ramnagar

Source: Field Survey, 2014.

SUMMARY

Corbett National Park has the mission to protect and conserve the biodiversity. Most of national parks are surrounded by villages. Villagers are residing there from a very long time. Population was not an issue at starting, but in recent years, rapid growth of population becomes the major area of concern of the national park. We can say that in which speed the population is increasing, it may be indicator of biodiversity risk. Growth in population is directly proportional to settlement related issue. Many Villages are situated near to CNP. Seven villages have taken for the research study, they lie within the 7-km periphery of CNP. These villages are Dhela, Himmatpur dotiyal, Kania, Chorpani, Sawal deh west, Muhan and Dhikuli. Directly or indirectly they are dependent on park for their basic needs. CNP not only provides shelter to the villagers but also provides the fuel wood, timber, plants, medicine and fodder etc. for livestock and their daily uses.

In CNP most of houses are made of bricks and cement, but there are some houses which are made of mud, timber and poles. Dhela, Sawal deh west and Dhikuli have all facilities of primary school, high school and intermediate school in their village. The nearest high school of Muhan is in Chukam. River kosi is flowing

between Muhan and Chukam. To reach the school for their study, students have to cross the river by swim. In most of villages Nm center or hospital are present for people except Sawal deh west, Chorpani and Dhikuli. For livestock, in Dhela and Sawal deh west veterinary hospital is available but no other village is benefited by this facility. The population of these villages is increasing very fast in last years. With the increase in population, their dependency on the CNP is also increasing simultaneously. The total population of villages was 6820 in 2001 which is reached on 10271 in 2011. The overall growth rate percentage is 5.06%. These villages are rich in population, but the basic facilities are not much good or available. 72.31% populations of these villages are literate. Most of villagers are educated only up to primary level or junior high school. Due to lack of education, villages are facing the problem of unemployment. Only 32.78% local people are employed. The occupations of villagers are, farming, business, government job, private job and labor work etc. These local people are always benefited from the CNP but this dependency becomes more when they do not have any job. CNP provides not only a home for poor villagers but also gives the fuelwood, timber, plants, grass for their livestock and fruits etc. Some villagers got job due to CNP. Today most of houses are made of bricks and cement, but all villagers are not capable to build such houses, so they are dependent on the CNP for mud, timber or poles to make their home. Nowadays, when petroleum or kerosene are easily available in market, still people are using fuelwood on daily basis. Poor villagers who do not have money or work for them, they are totally depending on fuel wood. Livestock are very important source of income for those villagers who do not have any other job. For diet of livestock, they are dependent on the on the park land and market, but most part of livestock's diet is getting fulfilled from the park. In summer, winter and rainy season they use more or less hours for livestock grazing, but in all season, most of the people prefer 2-4 hours for grazing.

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