

# WILDLIFE CONSERVATION VERSUS HUMAN POPULACE: THE LEGAL CHALLENGES IN PROTECTED AREA MANAGEMENT IN ORISSA

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## ABSTRACT

*The need for conservation of rapidly depleting forest wealth has been a subject of worldwide debate for the last few decades. The ongoing debate on conservation is an important issue for conservationists, Non-Governmental Organisations, Government and the people in general. The crux of the debate is "Can wildlife conservation be justified at the cost of human populace?" This paper is an attempt to examine the extent of legal challenges in Protected Area Management in Orissa. Based on the field observations of six Protected Areas of the State, the past and the present scenario of the management interventions and the conflicts have been analysed in the light of the legal provisions. The efforts being made by the State for the wildlife conservation have been examined, conclusions drawn and suggestions made.*

## INTRODUCTION

### Background

India has a long tradition of wildlife and forest conservation. The ancient Hindu scriptures or Vedas directed people to protect their environment and wildlife. In about 242 B.C. the emperor Ashoka's fifth pillar edict gave protection to fish, animals and forests. And before that, in the treatise on Statecraft called the *Arthashastra* (attributed to Kautilya in 300 B.C.), there is clear reference to the establishment of *Abhayaranayas*, or forest sanctuaries (Gee, 1962; Rao, 1988; Singh et al., 1990). The early conservation concept was primarily based on recreation and entertainment of the ruling class, however the later one aims at sustainable development of natural resources for the well being of human society.

The Orissa is located of 17°41' to 22°34' (N) latitudes and 81°29' to 87°29' (E) longitudes. Once upon a time Orissa was famous for its rich and diverse flora and fauna. Commercialisation, expansion of agriculture land, biotic pressure and above all, multifarious use of forests has led to severe degradation and decline of forest and wildlife population considerably. At the time of independence, it had over 40 per cent of its geographical area under forest. At present the actual forest cover is about 30.3 per cent (about 47,205 sq. km.) of the States geographical area (FSI, 1991). There are two National Parks and 18 Sanctuaries with the total area of 9174.25 sq km including water body of 1408 sq km. This is about 5.9 per cent and 19.47 per cent of the State's geographical area and the estimated forest cover respectively (OFD, 1997).

According to conservationists the wildlife, like the human beings, has also a right to live. The Protected Areas should be devoid of human habitation and wildlife have to be kept in a natural environment without or minimum human interference (Karanth et al, 1998). The conservation of wildlife and their habitat is an important goal for Wildlife Department, and a mechanism has to be evolved in which the relative strengths of all sections, especially of local communities, government agencies and conservation groups, can be put together (Kothari and Pathak, 1998). People in general perceive that the authorities are mainly concerned with the well being of wildlife and their habitat only and they feel that the authorities are not interested in the villagers' point of view and concerns (John et al, 1986). Therefore, the question of co-existence and continuation of rights within the limits and effective management of the Protected Area is the ongoing debate between the Conservationists, Non-Governmental Organisations, Governments and people in general.

There is no doubt that the State has taken some concrete steps for protection, conservation and enhancement of fauna to ensure a natural habitat for them, however the attempts are yet to make the satisfactory interpretations. The reasons are discussed in the findings of the study.

## Historical Management Regime

During medieval period the *Zamindars* and feudatory kings had their game shooting reserves for hunting wild animals. The tribal communities had the practice of *Akhandparidhi* (indiscriminate mass hunting of wild animals within a time span). To regulate shooting wild animals the rules were framed. As per rule during April to September the shooting of wildlife was prohibited. In 1907, the Lt. Governor of Bengal had formed the rule to prohibit shooting of Bison, hornless male deer, deer with horn in velvet and the females of all deer species in the districts of Angul and Puri. This rule was also applicable in the Protected Areas. During 1930s, Badrama, Raigoda, Chandka and Balukhand Sanctuaries were created to protect wildlife. At critical points anti poaching check gates were set up. The reward system was started to encourage the staff for protection works. The Orissa Reserve Forest Shooting Rule, 1938 was enacted after the formation of Orissa as a separate State and wildlife protection activities were managed under Indian Forest Act, 1927.

After independence, only Chilka (Nalaban) was the rich estuarine/ Marine fauna in the State and the largest brackish wetland in the country. This was first Sanctuary to be declared under Orissa Forest (Shooting) Rule, 1972 because of an ideal habitat for more than 94 species of migratory birds and endangered Irrawady *Delphinus delphis*. A new era started in the history of wildlife protection and conservation under a joint venture of Orissa Forest Act, 1972, Wildlife (Protection) Act, 1972, Orissa Forest (Shooting) Rule, 1972 and Orissa Wildlife (Protection) Rule, 1974. The Wildlife (Protection) Act, 1972 was promulgated on 19<sup>th</sup> September 1972. As amended up to 1991, it has seven chapters. Chapter I deals with definitions and explanations of the terms used in the Act. The appointments of authorities are covered in Chapter II. The Chapter III spells the prohibition of hunting animals mentioned in schedules I, II, III and IV. It also deals with grant of hunting permits under special circumstances. Chapter III-A talks about the protection of specified plants (i.e. prohibition of picking, uprooting, cultivation, etc.) and permission for special purposes and dealing of specified plants without license. Chapter IV articulates the process of declaration of Sanctuary, National Parks and Closed Areas, settlement of rights inside the Sanctuary, restrictions on entry in the Sanctuary and other controls. Chapter IV-A paves the way for formulation of Central Zoo Authority and includes the guidelines and standards to be followed for management of Zoos in the country. Chapter V deals with trade or commerce in wild animals, animal articles and trophies and includes guideline for trade in certain wildlife articles. The prohibition of trade or commerce in trophies, animal articles, etc. derived from certain animals is covered in Chapter V A. The crime control and investigation are defined in Chapter VI. The Chapter VII is miscellaneous, and deals with power of Central and State Government to make rules, declaration of certain wild animals to be vermin, etc. The Wildlife (Protection) Rule, 1974 came into action after adoption of the said Act by the State Government in 1974.

In 1976, an independent Wildlife wing was framed under the leadership of Chief Wildlife Warden. Under the Chairmanship of the Forest Minister a State Wildlife advisory Board was constituted. Initially two Wildlife Conservators (based at Bhubaneswar and Chandbali) and respective Territorial Divisional Forest Officers were operating as Wildlife Wardens. Presently, under the Wildlife Wing there are five Wildlife Divisions and one Manager Forest Division respectively. The Simlipal National Park, Sanctuary, Tiger Reserve and Nandan Kanan Zoological Park and Sanctuary have one Conservator of Forest each. The National Park and Tiger Reserve in Simlipal are managed by DFOs (Divisional Forest Officers) and ACFs (Assistant Conservator of Forests) of Baripada and Karanjia Territorial Forest Divisions.

The Gharial Research and Conservation Project (Tikarpada), Saltwater Crocodile Research and Conservation Project (Bhitarkanika), Nandan Kanan Crocodile captive Breeding Project (Nandan Kanan) and Mugger Crocodile Research and Conservation Project (Ramtirtha, Jashipur) are the research stations, which were established to study the crocodile with the

support of FAO (Food and Agricultural Organisation) and UNDP (United Nation's Development Programme). Apart from that the sea turtle research and conservation project, Black buck research projects, wildlife in Simlipal and Elephant Management projects are going on with the support of MoFE (Ministry of Forest and Environment), Govt. of India. The Wildlife wing has collaborated with Wildlife Institute of India, M.S. Swami Nathan Research Foundation, Nature and Wildlife Conservation Society of Orissa, Indian Statistical Institute, Calcutta, Orissa University of Agriculture and Technology, Utkal University, Regional Research Laboratory and Zoological Survey of India for doing scientific studies.

During 1973 and 1979, six Sanctuaries were declared with an area comprising 3214.27 sq km, where as eight Sanctuaries and one National Park (proposed) with an area of 2582.59 sq km were notified between 1980 and 1985. Two sanctuaries and one proposed National Parks were brought under Protected Area Network between 1987 and 1988 with an area of 1279.03 sq km. The Gahirmatha Marine Sanctuary was notified on 27<sup>th</sup> September 1997 having 27sq km of landmass including Reserve Forest (RF), Mangrove, mud flats and accreted sandbars. This comprises an area of 1435 sq km including 1408 sq km water body. Thus in the 90s only two Protected Areas have been notified including the Marine Sanctuary. Besides Protected Areas, there is one game reserve for Black buck, one closed area, one Zoological Park and 14 deer parks and zoos. Not only that, excluding the Sanctuary Area the Chilka Lake has been notified as a closed area from 16<sup>th</sup> December 1997 for a period of five years.

## **METHODOLOGY**

The study was taken up at RCDC (Regional Centre for Development Cooperation), Bhubaneswar during May-July 2002 for partial fulfillment of Post Graduate Diploma in Forestry Management course at Indian Institute of Forest Management, Bhopal.

A sample of six Protected Areas (Lakheri-Valley Wildlife Sanctuary, Kotagarh Wildlife Sanctuary, Gahirmatha Wildlife Marine Sanctuary, Bhitarkanika Wildlife Sanctuary and National Park and Balukhand-Konark Wildlife Sanctuary) in Orissa were selected for the study. The selection was based on their difficult accessibility in comparison to others, representative samples of almost all type of wildlife and their habitat and no significant research work has been carried out till date in these Protected Areas. Orissa. The accessibility of Gahirmatha Wildlife Marine Sanctuary, Lakheri-Valley Wildlife Sanctuary and Kotagarh Wildlife Sanctuary were quite difficult due to poor infrastructure and inadequate as well as availability of minimum transportation facilities. Gahirmatha Wildlife Marine Sanctuary and Bhitarkanika Wildlife Sanctuary and National Park represented the Marine and Mangrove wildlife habitat respectively, whereas Lakheri-Valley Wildlife Sanctuary and Balukhand-Konark Wildlife Sanctuary were selected for the representation of Elephant and Black buck population respectively. Kotagarh Wildlife Sanctuary represented the mix population of carnivore and herbivore like Tiger, Leopard, Sambhar, etc.

The survey was conducted in two steps. First, an interactive discussion was held with local level conservationists, Non-Governmental Organisations and Government officials and then a survey was administered open as well as close-ended questionnaires to know their perception about existing legal challenges in Protected Areas management in Orissa. Besides interviewing and the administration of questionnaires, the Focus Group Discussions were also conducted with people living in and around the Protected Areas. It is well known that a structured survey, when completed with the alternative approaches such as Focus Group Discussions, can provide many useful insights into the motivations, beliefs and values, which influence behaviour (Campbell, et al 1999). This provided valuable information in developing better understanding of the respondents' perception about legal challenges in Protected Areas management in Orissa.

## **RESULTS AND OBSERVATIONS**

### **(A) Procedure under Section 19 to 25 of Wildlife (Protection) Act, 1972**

Till now, the procedure under Sections 19 to 25 of Wildlife (Protection) Act, 1972 has been completed by the Government of Orissa only for the Bhitarkanika National Park, Baisipali, Badrama, Khalasini, Debrigarh, Kuldia and Hadgarh (Keonjhar) Wildlife Sanctuary. Almost one decade ago, the Sanctuaries in Orissa had been declared but the procedure under Section 19-25 for the final notification under Section 26A of Wildlife (Protection) Act, 1972 is yet to complete. According to a writ petition by Centre for Environmental Law and WWF-I versus Union of India and others, the Hon'ble Supreme Court had asked all the State Governments to complete the necessary procedure for the final notification on or before 21.08.1998. Since in most of the Sanctuaries the required procedure has not been completed, the Government of Orissa had sought for extension of one more year from the date of hearing to complete all procedures leading to final notification. Technically, six finally notified sanctuaries don't need any procedure under Section 19-25 of the said Act. Four of them (i.e. Badrama, Baisipali, Kulasini and Debrigarh) are completely inside reserve forests. Gahirmatha Marine Sanctuary is the Government land because it is partly in the territorial water in Nalabana, an island inside Chilka. All such Sanctuaries are deemed Sanctuaries under Section 66 (4) of the said Act. Therefore, in response to the writ petition was the completion of the procedure under Section 19-25 in Lakhari-Valley, Kotagarh, Sunabeda, Kuldiha, Balukhand-Konark and Keonjhar portion of Hadgarh Wildlife Sanctuary. Tables 1, 2, 3 and 4 show the present status of the Kotagarh Wildlife Sanctuary, Lakheri-Valley Wildlife Sanctuary, Balukhand-Konark Wildlife Sanctuary and Bhitarkanika Wildlife Sanctuary respectively.

**Table 1 : Brief of Kotagarh Wildlife Sanctuary**

Particulars	Kotagarh Wildlife Sanctuary
Area (in Sq km)	399.05
Notification No. and Date	30253 dt. 03/12/1981
Location	Between longitude 83°12' to 84°0' (E) and latitude 19°0' to 19°56' (N)
Climate	Northern tropical moist deciduous zone
Boundary Demarcation (Core and Buffer zone)	Not yet completed.
Forest type and Nos of Reserve Forest, Proposed Reserve Forest, Demarcated Protected Forest, Un-Demarcated Protected Forest, etc.	5 Reserve Forests: (i) Madagoda-36.02 sq. km (ii) Haripur- 42.66 sq.km (iii) Lassery- 72.96 sq. km (iv) Bonduru- 3.67 sq. km (v) Supamaha- 7.55 sq. km. 3 Proposed Reserve Forests: (i) Killangi- 6.073 sq. km (ii) Subarnagiri- 30.04 sq. km. (iii) Guma (S) – 14.04sq km 2 Demarcated Protected Forests: (i) Sri Rampur 'B' block –45.8544 sq km (ii) Guma (N)- 10.644 sq. km
Procedure of Sections 19-25 of WPA, 1972 (as amended up to 1991)	Collector Kandhamal has forwarded the revised proposal for final notification of Kotagarh Wildlife Sanctuary to Chief Conservator of Forests (Wildlife) and Chief Wildlife Warden, Bhubaneswar Letter No. 1092/ dated 20.08.1998
Revenue villages and their areas	Belgarh Police Station – 15 villages with 16.444 sq. km, Kotagarh Police Station- 44 villages with 88.72 sq. km, Baringawadi Police Station- 6 villages with 24.83 sq. km
Final declaration No. and date	Not yet completed the procedure.

Source: DFO Office, Balliguda.

**Table 2: Brief of Lakheri-Valley Wildlife Sanctuary**

Particulars	Lakheri-Valley Wildlife Sanctuary
Area (in Sq km)	185.87
Notification No. and Date	2333 dt. 08/02/1985
Location	Between longitude 84°15' to 84°25' (E) and latitude 19°15' to 19°25' (N)
Climate	Sub tropical non monsoon type
Boundary Demarcation (Core and Buffer zone)	Core zone: 64.14 sq. km. Buffer zone: 121.72 sq. km.
Forest type and Nos of Reserve Forest, Proposed Reserve Forest, Demarcated Protected Forest, Un-Demarcated Protected Forest, etc.	1 Reserve Forest: Chandragiri Reserve Forest- 111.775 sq. km 2 Proposed Reserve Forests: (i) Alara Ramaguda- 59.453 sq. km (ii) Dhobabhobani- 14.64 sq. km <b>Total</b> -185.88 sq. km
Procedure of Section 19-25 of WPA, 1972 (as amended up to 1991)	Not completed.
Final declaration No. and date	Not yet completed the procedure.

Source: DFO Office, Paralakhemundi.

**Table 3: Brief of Balukhand-Konark Wildlife Sanctuary**

Particulars	Balukhand-Konark Wildlife Sanctuary
Area (in Sq km)	71.72
Notification No. and Date	9013 dt. 23/04/1984 and 15216 dt. 01/09/1987
Location	Between longitude 85°52' to 86°14' (E) and latitude 19°48' to 19°54' (N)
Climate	Winter temperature is approx. 10° C and Summer temperature above 40° C
Boundary Demarcation (Core and Buffer zone)	No work has been carried out after notified as a Sanctuary.
Forest type and Nos of Reserve Forest, Proposed Reserve Forest, Demarcated Protected Forest, Un-Demarcated Protected Forest, etc.	1 Reserve Forest: Balukhanda- 15.667 sq. km. 7 Proposed Reserve Forests: (i) Balighai- 11.713 sq. km. (ii) Liakhia- 5.197 sq. km. (iii) Konark West- 13.196 sq. km. (iv) Konark East- 15.23 sq. km. (v) Golara- 6.80 sq. km. (vi) Nadiamath- 3.32 sq. km (vii) Sarlakecut- 0.604 sq. km <b>Total</b> -71.72 sq. km.
Procedure of Section 19-25 of WPA, 1972 (as amended up to 1991)	Not completed.
Final declaration No. and date	Not yet completed the procedure.

Source: RO Office, Balukhand and Konark.

**Table4: Brief of Bhitarkanika Wildlife Sanctuary**

Particulars	Bhitarkanika Wildlife Sanctuary
Area (in Sq km)	672.00
Notification No. and Date	6958 dt. 22/04/1975
Location	Between longitude 86°30' to 87°60' (E) and latitude 20°30' to 20°50' (N)
Climate	Winter temperature is approx. 10° C and Summer temperature above 40° C
Forest type and Nos of Reserve Forest, Proposed Reserve Forest, Demarcated Protected Forest, Un-Demarcated Protected Forest, etc.	10 Proposed Reserve Forests: 25 Forest Blocks Bhitarkanika (N)- 70.99 sq. km Bhitarkanika (S) - 88.56 sq. km
Procedure of Section 19-25 of WPA, 1972 (as amended up to 1991)	Not completed.
Final declaration No. and date	Not yet completed the procedure.

Source: DFO Office, Rajnagar.

#### **(B) Final publication and disposal of ROR (Record of Rights) in Protected Areas**

The Hon'ble Chief Minister of Orissa had given a public statement on 1<sup>st</sup> April 2000 (on the occasion of Utkal Dibasa) that all pre-1980 Forest villages could be regularized within six (6) months. This statement was regularized by Revenue Department of Orissa under no. GE (GL)-S-17/ 2000-21060/ R dt. 04.05.2000 to take a decision to regularize such hamlets who have not any claims in the revenue record of rights (also known as encroachments), which have certain eligibility criteria before 25.10.1980 (Govt. of Orissa, 2000). The pre-1980 procedure has not been completed which was supposed to be regularized before 01.08.2000. The concerned department has made the joint verification report for regularization of encroachment 'Jakesi' inside the Sanctuary, which was already declared as revenue village by the Revenue Department in May 1995. The Committee has regularized another encroached habitat 'Srambi' inside the Sanctuary with the total no. of 44 encroachers, however there is no final publication and disposal of ROR (Record of Rights) made by them for these 44 encroachers (ref. Table 5 and Table 6).

**Table5: Pre-1980 encroachments inside Kotagarh Wildlife Sanctuary**

<b>District</b>		Kandhamal
<b>Tahsil</b>		Balliguda
<b>Name of the encroached habitat</b>		Srambhi
<b>Name of the forest with legal status</b>		Srirampur 'B-block' Proposed Reserve Forest
<b>No. of encroachers</b>		44
<b>Category</b>	Schedule Caste (SC)	1
	Schedule Tribe (ST)	42
	Others	1
<b>Population</b>	Male	117
	Female	117
	<b>Total</b>	<b>234</b>
<b>Land encroached prior to 25.10.1980 (in ha).</b>	Homestead	0.704
	Agricultural	68.122
	<b>Total</b>	<b>68.826</b>
<b>Year and Evidence of encroachment</b>		OR No. 8 of 1979-1980 of Kotagarh Range
<b>Category of encroachers</b>		Both landless and home stead less
<b>Area recommended to be regularized (in ha)</b>	Homestead	0.704
	Agricultural	61.600
	Communal	6.522
	<b>Total</b>	<b>68.826</b>

Source: DFO Office, Balliguda.

**Table 6: Some Pre-1980 encroachers of the encroached habitat, 'Srambi'**

<b>Name of the encroacher</b>		Dalapa Pat Majhi	Gomesh Singh	Dera Pat Majhi	Tamaku Pat Majhi	Daud Pat Majhi	Arsin Pat Majhi
<b>Father's Name</b>		Pingo Pat Majhi	Michael Singh	Pasora Pat Majhi	Daboca Pat Majhi	-	Sakad hara Pat Majhi
<b>Category</b>		ST	SC	ST	ST	ST	ST
<b>Area (in acres)</b>	<b>Agriculture</b>	1.03	3.74	5.17	2.58	1.56	7.05
	<b>Vegetable</b>	0.6	2.84	2.575	5.11	2.95	2.15
	<b>Homestead</b>	0.8	0.3	0.11	0.06	0.16	0.21
<b>Population</b>	<b>Male</b>	1	1	1	1	1	1
	<b>Female</b>	1	1	1	1	1	1
	<b>Child</b>	1	10	3	1	2	6
<b>Settlement (in years from 25.10.980)</b>		>15	>15	>15	>15	>13	>13
<b>Land detail</b>		It is only the prior approval made by the Joint Verification Committee					

Source: Focus Group Discussion with encroachers of Srambi.

### **(C) Inter-departmental conflicts**

The lack of inter-departmental coordination in the State is one of the major confusion and fear within the forest dwellers residing within the limits of the Sanctuaries. If we take a case of Kotagarh Wildlife Sanctuary, in 1995, the Revenue Department had expressed its desire on the basis of '17 point Programme' to give status of revenue village to the 23 hamlets who had records of revenue offences much before commencement of the Forest Conservation Act, 1980. But the area was within the limits of the Sanctuary. So as per the joint verification of Forest Department and Revenue Department, only those encroachment habitats were given

the status of a revenue village, against whom there were evidences of revenue as well as forest offences before the said dead line. According to the joint verification on the 16<sup>th</sup> May 1995, the Revenue Department shows the total area of the four villages (i.e. Jakesi, Bandeka, Bandapipili and Srambi) including homestead and agricultural 1050 acres, whereas it is only 339 acres according to the Forest Department.

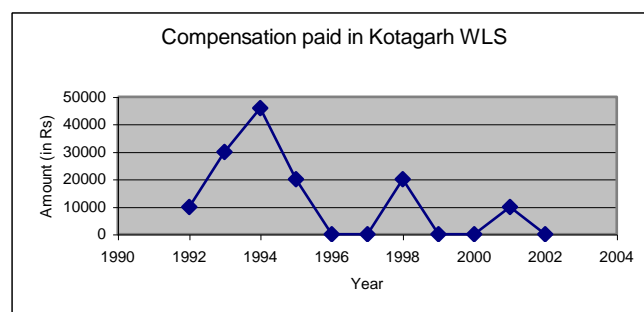
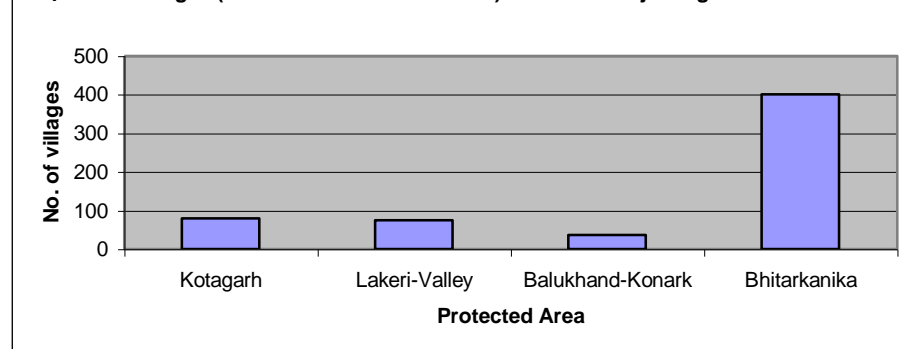
In Lakhari-valley Wildlife Sanctuary, the 'Olanda' villagers are unsure of their tomorrow due to the strategies developed by the Forest Department and Revenue Department but are flooded with permanent structures by the Block authorities (DFO Paralakhemundi, 2000). Similarly in Kotagarh Wildlife Sanctuary, the Ora panchayat is getting a huge amount of support for infrastructure development (e.g. Anganbari, roads, schools, etc.). The poverty alleviation programmes like Jawahar Rojgar Yojana (JRY), Integrated Rural Development Programme (IRDP) and Indira Awas Yojana (IAY) are also continuing to provide development extension facilities to allow them a stronger root.

#### (D) Human-Animal Interface

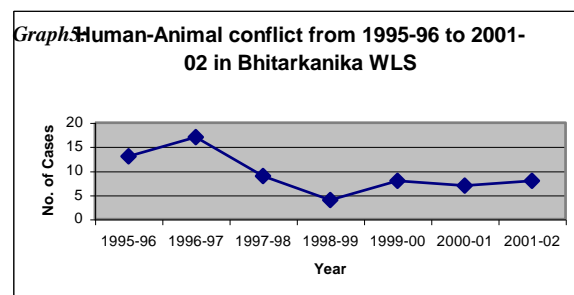
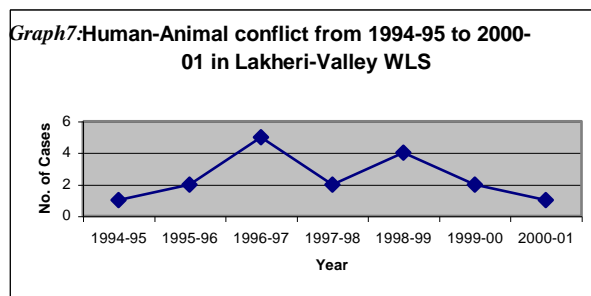
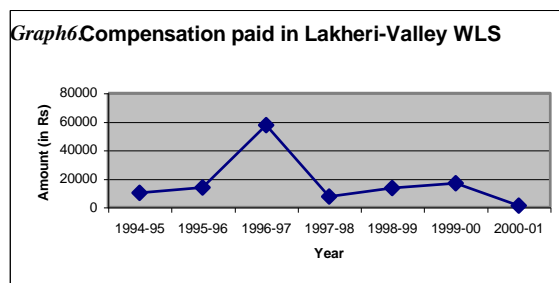
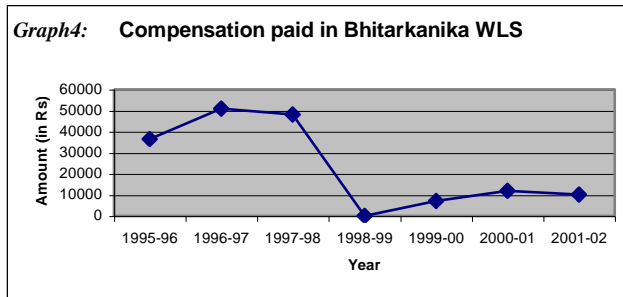
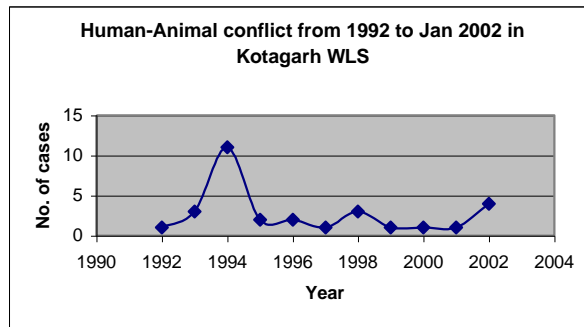
As per said Act, there is apparently no bar on the continuation of revenue villages in the 'buffer' zone. But it is very difficult task for the Protected Area managers, especially in Sanctuaries like Kotagarh and Balukhand-Konark Wildlife Sanctuary, where the 'Core' and 'Buffer' zones are yet to be demarcated.

Due to high human population and livestock in and around the PAs, there is frequent interface with the wild animals and their habitats. Generally it is seen that the attack on human beings have always occurred whenever they entered into territories of wild animals. However, during the summers wild animals enter into villages to get drinking water and fodder and create problems for the local communities. Some degree of antagonism between Sanctuary authorities and people exists due to crop damage by wild animals, felling of trees and offences.

**Graph 1: Villages (Revenue & Encroachments) inside and adjoining the WLS**







The livestock of villages are dependent on the forest in absence of worthwhile pasturelands. While grazing they enter into the territories of carnivores and are attacked by them. Thus a number of livestock are injured or killed. If the compensation is not paid immediately who lose their livestock, turn hostile to the wildlife and the Sanctuary authorities. This can be seen in graphs of the respective years of the Human-Animal conflict versus Compensation paid (Graphs 2-7).

## **CONCLUSION**

(1) Theoretically, the Wildlife (Protection) Act, 1972 is well documented to protect the fundamental rights of lives and homes of the wildlife, however there are many ground difficulties and challenges to implement it effectively in its true essence. The awareness among the people about their roles towards conservation of wildlife and need of their protection are the major challenges for managers of the Protected Areas.

(2) Under Sub-section (1), Section 18 of Wildlife (Protection) Act, 1972 the State Government can notify any area as a Sanctuary, this may include any part of territorial waters or reserved forests, which are suitable for wildlife and their habitats. Thus there should be wider scope for public consultation before notifying the area as a Sanctuary. The forest dwellers, which have been living there for age old and dependent on existing natural resources for their sustenance, feel estranged from their rights over the surrounding natural resources.

(3) In most of the cases after the first notification as Wildlife Sanctuary, the Forest Department has started imposing various restrictions and prohibition on the people like Non-Timber Forest Produce / Minor Forest Produce collection. If we examine the clause (a), Sub-section (1), Section 26A of WPA, 1972 minutely, the Government cannot impose restrictions on the people unless all the claims are settled down and the final notification is issued in black and white.

(4) The aim of Government's Protected Area Network Plan for wildlife is to save around four per cent of India's geographical area. However, in India it is very difficult to find this chunk of land, which devoid of human existence. Therefore, it would be a large-scale human displacement to exclude the forest dwellers from Protected Areas. The rehabilitation and resettlement process for exclusion of the forest dwellers may contribute to marginalize these vulnerable people.

(5) Conservation of wildlife and their habitat is an important goal for Wildlife Department of Orissa. The basic need of Protected Area management in Orissa will be for planning and the management of Protected Areas based on a healthy interaction between man and nature, especially from traditional practices, which have helped to conserve and sustainable use of natural resources. They will have to consider ways in which the relative strengths of all sections, especially of politicians, bureaucrats, resource managers, developmental agencies, resource users and local communities can be put together.

(6) The management of Protected Areas covers a wide range of activities, which is impossible for the management authorities to carry out all conservation related functions by themselves. It must delegate some duties and coordinate closely with other agencies. Thus the interests of two or more stakeholders are in line and these agencies can benefit from an alliance to promote their join efforts.

## REFERENCES

- Campbell, Oona, John Cleland, Martin Collumbien and Karen Southwick**, (1999). *Social Science Methods for Research on Reproductive Health*, WHO; Switzerland.
- Chaddh Sanjeev and Chandra Sekhar Ken**, (1999). *Bhitarkanika: Myth and Reality*, Natraj Publishers; Dehra Dun.
- De Roy Rashmi and Parikshit Gautam**, (1996). *Participatory Management Planning for Keoladeo National Park*, WWF; New Delhi.
- DFO Paralakhemundi**, (2000). *Pre-80s Settlement letters and list of Villages*, DFO Paralakhemundi.
- Forest Survey of India (FSI)**, (1991). *The State of Forest Report*, FSI; Dehra Dun.
- Gee, E.P.**, (1962). "National Parks in India", in V.H. Cahalane's (ed.), *National parks- A World Need*, Special Publication M- 14, American Committee for International Wildlife Protection; New York.
- Government of Orissa**, (2000). *Pre-80s Settlement letters and Guidelines*, DFO Rayagada.
- John, Kathy** (1986). *Managing Protected Areas in the Tropics*, Natraj Publishers; Dehra Dun.
- Karanth, K U, M Sunquest and K M Chinnappa**, (1998). "Long-term Monitoring of Tigers: Lessons from Nagarahole" in J Seidensticker, S Christie and P Jackson (eds), *Riding the Tiger: Tiger Conservation in Human Dominated Landscapes*, Cambridge University Press; Cambridge.
- Kothari, A S Suri and Singh**, (1995). "People and Protected Areas: Rethinking Conservation in India", *The Ecologist*, 25 (5): 188-94.
- Kothari, A and N Pathak**, (1998). "Sharing Benefits of Wildlife Conservation with Local Communities: Legal Implications", *Economic and Political Weekly*, October 3: 3603-10.
- Orissa Forest Department (OFD)**, (1997). *Wildlife Orissa at a glance*, Nature and Wildlife Conservation Society of Orissa; Bhubaneswar.
- Rangarajan, M.**, (2001). *India's Wildlife History*, Permanent Black, New Delhi.
- Rao, K.**, (1988). *Management Planning for Protected Areas in Developing Countries*, Wildlife Institute of India; Dehra Dun.
- Retl, I.**, (1986). "Resolving Conflicts between Traditional Practices and Park Management", PARKS, VOL.II, No.1.
- Singh, S. and W.A. Rodgers**, (1990). "India: National Parks and Natural Reserves", in **C.W. Allen's**, (ed). *International Handbook of National Parks and Natural Reserves*, Greenwood Press; New York.
- TRAFFIC India**, (1992). *The Wildlife (Protection) Act. 1972*, Natraj Publishers; Dehra Dun.