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MAN-ANIMAL CONFLICT IN CHANDRAPUR DISTRICT OF MAHARASHTRA, INDIA AND ITS RELATION WITH ANTHROPOGENIC ACTIVITIES



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ABSTRACT

Chandrapur, India.

Today we are living in the era of Industrialization which requires the power. Seventy percent of the world power is becoming from the thermal power project which depend on the coal. In India, about 70 percent of the total energy comes from the same source, which creates the anthropological influence on the surrounding coal which mostly is lying under the deep forest of various river valleys of India. Wardha valley coal field in the Maharashtra is an important coal field in Chandrapur district. This is a biggest district of tiger (penthera tigris tigris) population in the world. Tigers are entering in the villages, agriculture fields and even in the city of Chandrapur having 4 lakh populations. Chandrapur is because of mining activity in deep forest area. This situation increases the Man-Tiger Conflict in this area. This paper will focus on anthropogenic activities and the mining practices in the forest areas of India, its influence and related mitigation strategies.

KEYWORDS: Anthropogenic activity in the forest, Man-Tiger Conflict, Mitigation strategy.



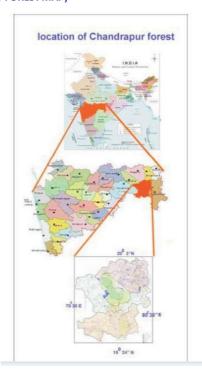
INTRODUCTION:

Man animal conflict is a common in the vicinity of the National Parks and animal sanctuaries worldwide and especially in the buffer forests of sanctuaries. This conflict is direct conflict between the man and animals as well as indirect as the animals destroys the crops stands in fields and do economic loss through various animal movements. All these conflicts are now becoming varied notorious as villagers and forest dwellers are killing the animals to reduce the economic loss to their

agriculture. The first example of conflict between man and tiger is excavated form Harappa site (4500 years old) where evidences got that the man is climbed on the tree and tiger is seating on the ground. The governments of various countries especially the forest and wildlife departments are trying to reduce this conflict in all the regions but miserably failed as there is a huge pressure on the limited forest areas of the world, where human activities are already increased which has brought the man and animals in front of each other. The similar story is appeared in the forest of Chandrapur district of Maharashtra, where various economic and anthropogenic activities increased in the deep forest.

There is big struggle between thinking of villagers and forest department; villager sees towards the wild animals that they are worthless and only responsible for crop damage, while forest department thinks that the wilds are endangered and valuable ecological assets. It is seen worldwide that their limit of tolerance towards the crop damage from wilds is crossed. In northern Kenya, the numbers of predators killed by the villagers are equal to the number of livestock killed by the lions. The story in India is not different and pressure in mounting day by day on the forest departments to cage the beasts. So far, it is essential to enlighten and explore the villagers-forest relationship and their co-existence with wildlife. This paper will focus on all the aspects of this conflict, its consequences and mitigation strategy in Chandrapur conflict landscape.

STUDY AREA: (LOCATION OF FOREST MAP)



The forest of Chandrapur is located in the state of Maharashtra state in India. The total geographical area of the district is 11443 sq. km geographical area, of which 5010 sq. km area is under forest. The district is located in eastern Maharashtra. The forests of the district are located between 18°24' to 20° 03' north latitude and 78° 30' to 80° 36' east longitudes. The forest of study area is divided into three forest divisions i.e. Chandrapur, Central Chanda and Bramhapuri forest divisions. The forests of the districts are highly productive in the concern of tiger reproduction and overpopulated tiger are always go out to other areas form this forest. The forest spreads in 15 talukas in the vicinity of 1745

villages and 835 villages are very close to deep forest. ii In these villages about 69826 families are living with coassociation of wilds. The present image of this area is as an intensive conflict area.

REVIEW OF LITERATURE:

Man-Tiger conflict and Man-Animal conflict is a matter of research and mitigate to the all forest personals as well as of the victims of such conflict incidents. Various enthusiastic persons in wildlife, NGOs working in this field are also doing research to reduce the conflicts. Vidya Athreya and Aniruddha Belsare has studied the man-leopards conflicts in the state of Maharashtra and published the conflict mitigation guidelines.iii E A Jayson has studied the man-wildlife conflict in peppara wildlife sanctuary and adjacent areas.iv Govind Sagar Bhardwaj from Wildlife Institute of India has focused on the conflict situation in India especially in central India landscape.v Rahim Ali Ahamed and his co-researchers have studied human-carnivore conflict in Kanha-Achnakmar corridor of central India landscape.vi Yash Vir Singh an IFS officer from this region has studied the man-animal conflict in Gondia-Bhandara district which is adjoining forest to Chandrapur district.vii Vidya Athreya, Sanjay Thakur, Sujoy Chaudhuri, Aniruddha Belsare has studied the possibility of translocation of the wild beasts to nearby forests to reduce the man-animal conflict.viii Laurence Swanepoel has studied the conflict between leopards and ranchers in African game reserves.ix International Union for Conservation of Nature (IUCN) has also studied this conflict phenomenon worldwide and has drafted a cat action plan with the help of Kristin Nowell and Peter Jaction.x The forest department of Chandrapur has studied this phenomenon and is continuously engaged to reduce the Man-Tiger conflict in the district. To reduce this conflict and increase the tiger population in the district as well as in the tiger project the department has prepared $% \left(1\right) =\left(1\right) \left(1\right) +\left(1\right) \left(1\right) \left(1\right) +\left(1\right) \left(1\right) \left(1\right) \left(1\right) \left(1\right) +\left(1\right) \left(1\right)$ the tiger conservation plan, which is being implemented now.xi This author also studied the developmental projects influence on the corrosion of the forest in the same area.xii

OBJECTIVE OF THE STUDY:

This study will focus the anthropological activities and human interference in the deep forest of Chandrapur district and their relation with the man-tiger conflict. The objective of this study is also to suggest to the government of Maharashtra the mitigation measures.

MATERIAL AND METHOD:

Data regarding the Man-Tiger conflicts in the study area has been collected from the forest department as well as from the newspapers, as every incident of tiger attack is appeared in the regional newspaper including the compartment number of forest. A blogs of wildlife journalist Devnath Gandate and wildlife warden of Chandrapur district Bandu Dhotre is also used to determine the incidents.xiii This author is also working in the conservation activities and roamed in conflict villages. So far, information of the villager's activities gathered through observation and interviews with villagers. Data regarding developmental projects in the forest area has been received through PCCF office from Nagpur by Right to Information act, 2005. Events of conflict have been put on the Google map with corresponding Geo-coordinates to bring out a clear picture of conflict distribution in the district.

INCIDENCES OF TIGER ATTACK ON HUMAN IN CHANDRAPUR DISTRICT:

There are huge tiger attacks on the humans in recent year in the district. There are other numerous incidents where the human being has been injured but only the incidences, in which the human casualty has been occurred, are selected in the present study. Tiger attacks in last thirteen year in the district are as follow.

Human Death related to wildlife in Chandrapur district:

Table: 01

Year	Tiger	Leopard	Wild Boar	Bear	Indian Gaur	Unknown	Total
2002	3	2	0	0	0	0	5
2003	4	0	0	0	0	0	4
2004	4	0	2	1	1	0	8
2005	3	0	0	0	0	0	3
2006	8	0	0	0	0	0	8
2007	11	1	2	0	0	2	16
2008	10	6	2	2	0	2	22
2009	2	0	4	0	0	0	6
2010	9	2	2	1	1	2	17
2011	4	6	0	0	0	1	11
2012	0	0	2	0	0	2	4
2013	1	4	0	0	0	9	14
2014	4	0	3	1	0	9	17
Total	63	21	17	5	2	27	135

Above data explains how the intensity of man-animal conflict is high in the district of Chandrapur, as in average 11 persons are killing by the wild animals and 135 people have lost their live in man-animal conflict. In Bhandara-Gondia district which is adjoining to the northern boundary of Chandrapur district has very mild rate of this conflict where 14 people have lost their lives in last three year, and average rate of human lost is just 5 people per year.xiv The data itself explain that how the share of tiger and leopards' attack is high in whole conflict, as 84 people out of 135 (62 percent) people lost their lives in conflict with these two predators.

Since 2010 to 2014, 63 people are killed in the district in wild animals attack, out of these 63 people 43 people are attacked in the forest areas either they are reserve or protected forest compartment, 13 people are became a victim in the agriculture field, 4 individuals are killed on the way while they were going to any other location and 3 persons are killed in home or civil premises.

Tiger attack on the human in Chandrapur district: 2013

Table: 2

Sr.	Name of the diseased	From which Village	Date of attack	How incident took place
No.	person	_		-
1	Anusaya Shende (50)	Usarpar Chak	24 March 2013	Went to collect to Mahua Flowers
2	Dhrpadabai Madavi (60)	Sadagad Sawali forest	6 April 2013	Went to collect to Mahua Flowers
		range		in Beat no. 1716 when tiger
				attacked
3	Lalitabai Pendam (50)	Pathri village,	9 April 2013	Went to collect to Mahua Flowers
				compartment No. 162
4	Tukaram Dharne (65)	Adegaon	10 April 2013	Went to collect to Mahua Flowers
5	Malanbai Munghate	Agarzari	10 April 2013	Went to collect to Mahua Flowers
6	Nilima Kotrange (16)	Chorgaon	12 April 2013	Went to collect to Mahua Flowers
7	Kirti Bandu Katkar (12)	Payli	17 April 2013	Went to collect to Mahua Flowers
8	Gopika Kalsarpe (50)	Kitali	17April 2013	Attacked by Leopard on a way
9	Unidentified Person (45)	Lalpeth (urban)	8 May 2013	Body of women get in forest,
				seems attacked by leopard
10	Raju Alkantiwar (35)	Lalpeth	10 May 2013	He was sleep in house, when
				leopard attacked and dragged his
				body into jungle
11	Charandas Wakade	Babanagar, Chandrapur	16 May 2013	N.A.
				Went to forest for collecting the
12	Rekha Sontakke (35)	Panoli, Bramhapuri	23 May 2013	Tendu leaves in Beat No. 118
13	Archana Titare	Chandrapur	7 Dec 2013	N.A.
14	Savita Avarade	Tower hill, Chandrapur	19 Dec 2013	N.A.

So far, 14 people died in Chandrapur district in tiger or leopard attack in the year 2013. As a result of these continuous attacks of tigers and leopards on people on April 16 2013, in a shocking incident, a five month old leopard cub was set ablaze by a villager in Nifandra village in Saoli tehsil of the district. The Police, later on, arrested a farmer Pitambar Fulzele of Nifandra village for the killing.xv The year 2014 was also notorious for Man-Tiger conflict and 16 people of the district have loosed their live. The details are as follows. The data of human deaths in tiger or any wildlife attack explains that in most of the cases people went to the forest for their Bonafide work. Table 2 says how 14 people lost their live in the tiger attacks, of 7 people went to the forest to collect the mahua flowers and six of these deceased were women and only one man. All the deceased were killed in the month of March and April, the month is very notorious for man animal conflict. It is seen that the villagers go into extremely deep forest to collect the mahua flowers. Many of these go in wee hours, even 3.00 am in the morning. They have a competition to collect these flowers, so far, they normally go alone are with very few other associates to satisfy their grid of mahua flowers. The tranquil atmosphere of the forest is fully disturbed in these days, even the habitats of wilds are burnt by the people for easy collection of mahua flowers. All these activities of the villagers psychologically disturb to the tigers as well as leopards and they attack to the trespasser.

Same story appeared in next year as 7 People went to the forest for fuel collection, mahua flowers and tendu leaves and 5 deaths are in the month of February to April. People burnt the forest either for mahua flowers or tendu leaves. The forests are disturb in large in these months, consequently the man-animal conflict intensify.

Tiger attack on the human in Chandrapur district: 2014

Table: 03

Sr.	Name of the	From which Village	Date of	How incident took place		
110	person	Vinage	attack			
1	Puna m Shende (43)	Lohara	8 Jan 2014	Went West Chanda FDCM forest for fuel		
2	Vithoba Nagose	Kolara	8 Jan 2014	Went to close vicinity of TATR, attacked by tiger and eaten Whole body, funeral on only single leg		
3	Satish Kodrupawar	Dhaba	12 Jan 2014	Was gone for Morning walk when bear attacked and killed		
4	Sunita Chitralwar (30)	Chintaldhaba	17 Feb 2014	Went in deep FDCM forest to collect the firewood		
5	Mohansingh Thakur (45)	Chekbaradi	13 March 2014	Went to Bhatadi Forest for wood, Beat No. 120 at 4.30 am		
6	Kavita Chaudhari(45)	Chimur	9April 2014	Went to forest near Kajalsar		
7	Prakash Pendor (45)	Bhatali (Pombhurna)	20 April 2014	He was a forest labour, he went to forest on routine job at beat No. 117, FDCM, tiger attacked		
8	Warlu Raut (60)	Halda (Bramhapuri)	21 April2014	Went to forest to collect the Mahua flowers when tiger attacked		
9	Devrao Gawande (35)	Mungermendha (Shindevahi)	18 May 2014	Went to forest to collect the tendu leaves in forest		
10	Zubeda Sheikh (46)	Manora (Ballarpur)	20 June 2014	Had gone to collect firewood in compartment no. 447 for firewood.		
11	Watsala Shedmake (48)	Devai (Jharan)	20 July 2014	Gone to forest for toilet, when tiger attacked		
12	Pandurang Atram (67)	Ghanoti Tukum (Pombhurna)	20 July 2014	He had deputed as a guard to a nursery being developed by the Joint Forest Management Committee (JFMC) at Ghanoti village, was on duty, when he was attacked		
13	Dattu Dhole (35)	Dewada (Pombhurna)	17 August 2014	He had gone in Jungle for searching his missing cattle in the forests along with two villagers, When tiger attacked.		
14	Padma Madavi (30)	Chintaldhaba (Pombhurna)	20 Nov 2014	She along with three to Four other women had gone to jungle to collect firewood, in compartment no-97, when tiger attacked		
15	Surekha Shende	Nimbala (Motha)	29 Nov 2014	She had gone with 10 other women for collecting grass, making brooms, when the tiger attacked her in compartment no. 379		
16	Sanyashi Na itam (55)	Mamla	10 Dec 2014	Went in forest to see the bullocks of Govindrao Mallarpawar along with 3 others, when tiger attacked.		

Incidents of Man-Animal conflict in last 4 year

Table: 04

Year	No. of Deaths	No. of Injuries	Cattle killed	Crop Damage	Total Incidents
2010	17	195	1460	2226	3898
2011	11	138	1206	3932	5287
2012	4	100	1248	1711	3063
2013	14	40	388	2658	3100

Source: http://www.mahaforest.nic.in/fckimagefile/Note%20September(1).pdf

The intensity of man-animal conflict in Chandrapur district is extremely high as compare to other surrounding National Parks and Wildlife in surrounding. In the similar time the cases of cattle kill

and crop damage in New Nagzira Sanctuary lies in the north of this forest area is 174 and 460 in 2010, 202 and 462 in 2011, 115 and 1876 in 2012.xvi So far, the compensatory amount which is paid to the victims in man-animal conflict is also tremendous.

It is not a case that only tigers and leopards are killing the human in Chandrapur district, same time the tigers also being killed by various reasons. Since 2010, about 54 tigers and leopards are died in the district; of which about 32 have loosed their live either in man-animal conflict or in encroachment of man to the forest such as road accidents, train accident etc. some special cases which explain the gravity of revenge of man towards wild animal and man animal conflict are as follows.

The tiger, which found dead on 23rd Jan 2012 in Central Chanda Project, Beat no. 121, had not his all four legs. The tiger which found dead on 19 Feb 2012 was lies along road side near Lohara village, and 26 April 2012 near Padmapur village in beat no. 569 was with metal trap. Another tiger which found on 18th May 2012, very close to Ghantachauki village was cut in 10 different pieces, and pieces were thrown along the road, and tiger which found on 27th Oct 2012 was a clearly indicating that it was a case of poisoning to the pray which eaten by tiger, and the tiger killed by sharp shooter from forest department on 29th July 2014 near Donger Haldi village in Pombhurna Tahsil was responsible to kill 8 people. 2012 was a year of tiger death, when highest number of tiger death is recorded.

Incidences of Man-Animal Conflict where humans are died in Chandrapur district-2010-2014



Tiger Killed in Chandrapur



TIGER KILLED MAN IN NAGBHID

On the basis of incident of conflict the map of conflict zones is prepared. All the death of human beings located on the Google map with the help of data received from forest departments. On the basis

of this localized incidents a clear picture of 6 concentric conflicts appeared. With the help of these concentric conflicts, a conflict zone strips identified, which is termed as a conflict zones. The mananimal conflict in Chandrapur district is displaying one important aspect that the incidents of conflict are high in the corridors and especially where anthropogenic interferences are high. If we observe with bird eye throughout the district we will see that there are 6 corridors or strips in which the man-animal conflict is high. These strips can easily found on following Google map. The identified conflict zones are as following.

1.Tadoba-Nagzira Corridor Conflict Zone: This conflict zone runs along with TATR-NNTR sanctuaries. This is a biggest conflict zone in Chandrapur district. 12 People have been killed by wildlife in this conflict zone from 2010 to 2014. The area of this conflict zone is about 525 sq km.

2.Tadoba-Kawal Corridor Conflict Zone: This conflict zone runs with the corridor of Tadoba Tiger Reserve and Kaval wildlife sanctuary. In This conflict zone 12 people have been killed by the wildlife from 2010 to 2014. The area of this conflict zone is about 485 sq. km. and is a biggest conflict zone in the district.

3.Tadoba- Bor Corridor Conflict Zone: This conflict zone runs with the corridor of Tadoba Tiger Reserve and Bor wildlife sanctuary. In this conflict zone 7 people have been killed by the wildlife. The area of this conflict zone is about 109 sq. km. and became a fully bottleneck because of the coal mining activities. The continuous mining work is being done since long in this corridor. Bandar and Murpar coal mines are being operated in this corridor.

4. Chandrapur-Agarzari Conflict zone: This conflict zone is located in the north of Chandrapur city and runs to the Agarzari village in the north of city. In this conflict zone 8 people have been killed in the study period. The area of this conflict zone is about 116 sq. km and it started from the Chandrapur city to the north.

5.East Tadoba Conflict Zone: This conflict zone is located in the eastern part of Tadoba Andhari Tiger Reserve and runs towards the eastern continuous area. The area of this conflict zone is about 168 sq. km and 7 individuals have lost their live in the man animal conflict in the district.

6.South Chandrapur Conflict Zone: This is a very small strip located in the south of Chandrapur city. This zone is located in the vicinity of Coal Mines and its overburden dumps; this also is overlapped in the city localities. In This conflict zone 4 people are killed by the wildlife in just 4.4 sq. km area. The WCL authority has allowed the Prosopis juliflora vegetation having dense bushes which attract many wildlife including leopards.

So far, 50 people have lost their lives within the six identified conflict in the district, the special characteristics of each conflict zone is as following.

Man-Tiger Conflict Zone in Chandrapur District:

Conflict zone	TATR-	TATR-	TATR-	CHD-	EAST	SOUTH	Other
	NNTR	KAVAL	BOR	AGR	TATR	TATR	Area
Area	525	485	109	116	168	4.4	2600
Deaths	12	12	7	8	7	4	13
% of Killing	19.04	19.04	11.11	12.96	11.11	6.34	20.63

Total forest area in the district is 5010 sq. km. of which about 1407 sq. km. comes in these 6 conflict zone which killed 50 people in last 4 years out of 63 killed people in the district in sample time. Remaining 2600 sq. km area witnessed of 13 people killing in the man-animal conflict. This area is

spread in throughout the district. It is cleared that two crucial conflict zones area important in the district i.e. TATR to NNTR corridor and TATR to Kaval corridor. These two conflict zones have shared 38 percent of the human killing in man-animal conflict.

Man-Animal Conflict and Anthropogenic Activities:

A.Man as an intruder in the forest: The man-animal conflict in the district is related not only with tiger but Panther, Bear, Bison, Wild boar, Hyena, Wolf, Wild dog, Blue bull etc are other animals responsible to create man-animal conflict. Many wild animals graze on the crops of farmers and damage fields. Mostly farmers in the forest area are now learned which crop is attracting to the wilds. In last decade there was a big camping from the forest department which crop should not plant in the vicinity of forest areas and what must be the agriculture land use pattern. People also are become alert from their experience and observations. People also are some tolerable with the wild life damage to their crops, but in last 10 years the situation is going worsen as damage gone to the tolerable limit. The forest department gives permission to the farmers to graze their livestock in the forest. In the year 2011-12 about 23441 livestock permitted to graze in the nearby forest, this figure change to 18849 in 2012-13 and 3652 in 2013-14.xvii These are the animals which graze in forest and sometime became a victim of beasts. People go in deep forest to collect the mahua flowers and tendu leaves which is a notified Non Timber Forest Product; there are about 80 units of tendu collection in the district which give a wages of rupees 8.00 crore to villagers.xviii

B.Chandrapur: Dual Identity Tiger Vs. Coal: Chandrapur district is district of tigers and Tadoba Andhari Tiger Reserve is an identity of this district. This is an only district in India having 150 populations of tigers. There is a demand from NGOs working in this district to declare the whole district as a tiger district. But same time this district is also known for its coal resources. There are numerous coal mines which are operating in the deep forest and forest land is diverted for the coal mining purpose. Other forest areas also diverted for limestone mines in the district. There are 21 coal as well as limestone mines in the district which are being operated on the forest land and 3702 ha of the pristine forest land is diverted to these mining purpose.xix Other development projects are also permitted in the forest area of this district and total 4998.322 forest land is diverted to these activities.xx All these activities disturb the wildlife habitat and their corridors of the district, which brought the wilds towards human settlements.

C.Agriculture Activities around forest: Agriculture activities around the Chandrapur forest are increased. People are diverting the forest land in agriculture consequently the biological pressure on limited forest is increases. Man-animal conflict is actually the conflict for use of land and resources. Some farmers are steel yielding the crops like Tuar, Sugercane etc which attract the wilds. There are observations that the new fields are coming every year along the road sides for easy accessibility in the fields, which is danger. The crop attracts to the wilds towards the road side.

D.Monoculture in the forest: Monoculture is a planting the plant through forest department in the various compartments. Nowadays the department is planting only the teak and bamboo in the deep forest as there is a big demand for these plants from the Industries and timber. There is India's largest pulp industry in the district and teak from this district is considered as one of the best teak wood in world after Myanmar teak. The biological carrying capacity of these trees is not much, which lower herbivore population in conflict region.

E.People's nuisance in the forest: People are entering in the forest for fuel wood, NTFPs, water, grazing, searching the livestock, medicine to livestock, wood for agriculture instruments etc. Especially this nuisance increases in the month of February to May. The data also reveal that highest number of the incidences is also happened in these months.

People's livestock and wild animals share the same water from waterholes and lakes in summer time which also increases the conflict.

F.Absence of awareness in the villagers: Many of the conflict incidences are occurred because of not awareness regarding the wild behaviors. Many times it is seen that the villagers go in deep forest even for toilets, burning the forests for mahua flowers and bidi patta collection etc are the activities responsible for increasing the gravity of conflict. Many times the tiger attacked to the mahua flowers collectors'.

G.Pressure of the tourists: Pressure of tourism in core areas of the Chandrapur forest is high. TATR in the district is an international wildlife safari destination; tourists give the priority to visit this forest sanctuary. This keeps influence on wildlife psychology, they do not differ between the core areas of forest and fringe areas as there is a similarity in the concern of human disturbance and they come out towards the civil areas. The new Eco-Tourism plan of this sanctuary permits 136 vehicles of the tourist to the park every day and this pressure is very high.xxi Now about 1 lac tourist visit every year with 10 thousand vehicles to the TATR.

Solutions:

There is a not 100 percent solution on the man-tiger or man-animal conflict in any parts of the world. The gravity of the conflict can be reduces to the minimum level with various management activities. Following are the ways to reduce the notorious conflict in the district.

- **1.Stop the diversion of forest land:** We must check the diversion of the forest land for non forestry purpose. Adequate land is necessary for the wilds to remain in their own habitat. Further diversion for dams, mines and other developmental purpose should halt.
- **2.Alternate methods of cooking:** Alternate methods to the wood fuel in the villages should introduce. There are other options to the cooking methods, advanced fuel stoves; gobergas, solar stove and LPG cylinders are other way to alter the traditional cooking system. The state government is already working on these options as in 2011-12 about 2110 LPG connection in 30 villages and in 2012-13 515 connections in 15 villages is already distributed to the forest villagers but there is much remaining work to be done. Solar fencing to the fields and its maintained techniques should be taught to the villagers.
- **3.Awareness among stockholders:** Creating awareness among the masses is essential to tackle to mananimal conflict problem. Foresters, beat guards and round officers in the village areas should not work as a forest police but as a friends and councilors to the villagers. They can interact with the forest conservation committee in the villages, NGOs from the areas to create an awareness regarding the importance of forest, how to collect the NTFP from the forest areas, behave in the forest areas and behavioral habits of the wilds.
- **4.Education in school and colleges:** Importance, potential and issues of the forest of the district should be appeared in the regional university syllabus. Lessons also can teach in the village schools of the district as many of the students are doing up and down from school to village through cycles and various other means. Use of toilets in the villages are also a part of awareness, awareness can create in children

from the villages regarding the co-existence of the man and wild.

- **5.Change in cropping pattern:** Cropping pattern in the villages should be regulated and a crop which attract to the wilds in the fields should be avoided. Sugarcanes, tuhar, banana, potato etc. are the crops which are attracting to the fields and should be replaced by other crop. This is essential in Sindewahi taluka as much of the agriculture land is devoted to the vegetable.
- **6.Departmental assistance to the victims:** Attractive and immediate help from the forest department to the victim of kin should get in case of death due to wild attack on people or livestock, this author interviewed with the villagers regarding the compensation getting them and overcome with conclusion that the system through which compensation getting to the villagers should be revoke.
- **7.Rehabilitation from the conflict areas:** Rehabilitation of the villagers from the core area to outer areas should be done with full satisfaction of villagers as early as possible. The forest administration has already rehabilitated some villages i.e. Kolsa and Botezari but the villagers say that they are cheated by the forest department as there is a big difference in compensation and facilities as promised.
- **8.Rescue centers establishment:** There is no animal rescue center in the district and tiger or leopards are transferring to the other centers mostly at Nagpur to cure the beasts. To save the life of wildlife the veterinary staff, doctor and huge rescue center should be erected in the district.
- **9.Reduction of tourist pressure and resorts:** Pressure of tourism from TATR should be reduced and tranquility for the wildlife should be awarded. Number of tourist gates to the sanctuary should be monitored and reduce. The number of vehicles of the tourist too should be reduced by park administration. The administration should not introduce new entry gates for the TATR for tourism purpose and try to reduce the tourist pressure.
- **10.Strengthen the health of Corridors:** It is strongly recommended that the government should not change the forest land use in the conflict zone, and corridors. Monoculture should be avoided in the corridors and natural vegetation must be developed. It is also suggested that the government should purchase the agriculture land from the farmers with attractive amount and smart compensation. The health of corridors should me maintain to reduce the man-animal conflict.

CONCLUSION:

The man-tiger conflict in the recent years is intensified and attracts the headlines of the newspapers of regional and national newspapers. The district is a most famous for tiger population and Tadoba Andhari Tiger Reserve (TATR) which is known as an origin of tiger population and their spreading in various other sanctuaries in Vidarbha landscape. Man-animal conflict in the district is now new but number of incidents is increased due to man's appearance in the deep forest. Various developmental projects and mining activities in the district have also raised the conflict. The man-tiger conflict in the district intensify in the month of February to June, is related to the fuel, tendu patta and mahua collection by the villagers. The conflict in the district has crossed the tolerance limit of the villagers in district and they are killing to wilds. These conflicts can minimize and mitigate with certain solutions.

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