

# **A STUDY ON SOCIO-ECONOMIC ASPECTS OF WILDLIFE OFFENCES IN SELECTED DISTRICTS OF MADHYA PRADESH (INDIA)**

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## **Abstract**

The socio-economic aspects of the wildlife offences were studied and analysed through the secondary data from Forest Department and village level forest committees and the primary data from field surveys in four districts of Madhya Pradesh. A participatory approach has been adopted involving the people in the data generation process through individual and focus group discussions and scheduling using PRA and RRA techniques. The study indicated that socio-economic reasons play an important role in the wildlife offences. Traditional systems and practices and also the livelihood needs contribute towards the wildlife offences. The legal and the institutional framework although regulate the occurrence and intensity of the offences but the effectiveness of the laws need to be more meticulously scrutinized in the light of the socio-economic set up of the communities. The indigenous communities can play an important role in the wildlife management and regulation and control of the wildlife offences. The capacity building of the communities, ensuring the suitable alternatives to the dependence of communities on wildlife through their involvement at all levels of management and suitable changes in the laws and acts are some of the areas which need special attention for effective management of the wildlife and wildlife offences.

## **INTRODUCTION**

The socio-economic dimensions of the wildlife offences have hardly been paid any attention in the wildlife management. Subsistence hunting is considered less serious because it is normally for the common animals (Eltringham, 1988). In tribal dominated forest areas, specially in Madhya Pradesh, wildlife hunting on certain occasions like festivals and marriages have traditionally been considered as their rights (Banerjee, 2002). The wildlife offences committed by the communities because of their traditions of the wildlife dependent food habit and the hunting practices are difficult to control unless the related livelihood issues and the socio-economic dimensions are addressed.

The following five phases are clearly discernible, so far as the past management of wildlife is concerned (Kiss, 1993; Banerjee, 2002):

- (a) The period of abundance and plenty (up to 1910).
- (b) Wild animals and Man coexisting in a happy balance (between 1910 to 1945).
- (c) Exploitation or over – exploitation of resources (After II world war to 1970).
- (d) Protection and conservation (1970 to 1990).
- (e) Community linked wildlife management (eco-development approach) – to-date.

The literature survey (Banerjee, 2002; Mathur *et al*, 1999) indicates that no exclusive study has so far been made to analyse the socio-economic dimensions of the wildlife offences. Through the present study an attempt has been made to examine the socio-economic aspects of the wildlife offences.

The study deals with the socio-economic factors responsible for poaching and trade, the strengths and weaknesses of the existing rules, regulations and acts pertaining to wildlife poaching and trade, recommendations for improvement in wildlife management with

respect to poaching and trade, possible remedies for wildlife offences and wildlife management conflicts.

## STUDY AREA

The study was carried out in four districts of Madhya Pradesh, viz Betul, Bhopal, Hoshangabad and Vidisha, which are rich in biodiversity, forests dependent tribal population and also have potential threat of forest offences. The details of the geographical area, forest area (FSI, 1999) and the wildlife census and the wildlife offences of these districts are given in the table below –

S No	District	Geographical Area (Sq km)	Forest Area (Sq km)	Wildlife species* number	Registered Wildlife offences Number (Period)
1	Betul	10,043	3,600	**	**
2	Bhopal	2,772	285	56	15 (1978 – 2001)
3	Hoshangabad	10,037	3,311	104	52 (1995 – 2001)
4	Vidisha	7,371	776	57	37 (1995 – 2001)

Source : Working Plans of respective Forest Divisions

\* Mammals, birds and reptiles

\*\* Field data were collected from three districts viz. Bhopal, Hoshangabad and Vidisha, whereas focus group discussions were conducted in Betul and Hoshangabad.

## METHODOLOGY

The methodology included participatory methods, tools and techniques including collection of secondary and primary data through structured questionnaire survey, focus group discussions and field surveys. Secondary data were procured from the Forest Department at Division and Range levels followed by discussions with the forest officials.

Questionnaire survey was done for the collection of information from the forest officials and villagers through prescribed scheduled forms.

Focus group discussions with Forest officials and village level communities were specialized through workshops. After briefing the objectives of the study, discussions were conducted one to one as well as groups. Attempt was made to arrive at some unanimous opinion about the information furnished. The focus groups consisted of all stakeholders including forest officials of all levels, representatives of village level forest committees and representatives of PRIs.

Random field surveys were made in the study area. PRA and RRA techniques were adopted to obtain the information from the target groups formally and informally, specially to involve the villagers to know their viewpoints.

## RESULTS AND OBSERVATIONS

The observations and the results are confined to faunal species and based on the information collected from various circulars, documents and records of the Forest Department regarding the wildlife offences / protection and first-hand information collected through the individual and focus groups discussions with the communities / villagers and the staff of the Forest Department (Banerjee, 2002)

### ***MODUS OPERANDI (METHODS ADOPTED IN WILDLIFE OFFENCES):***

The experience in Madhya Pradesh shows that the methods are area specific (Menon & Kumar, 1998 and 1999). The reported methods are listed below (Murthy, 1999) :

S No	DISTRICTS	POACHING METHODS
1.	Seoni and Chindwara	Run down the animal by dogs then kill. Electrocution.
2.	Balaghat and Mandla	Telephone wire nooses. Poisoning with Potassium cyanide.
3.	Raipur	Gill traps. Poisoning.
4.	Sagar and Damoh	Small explosives. Gunning down. Animal traps. Snares and nets. Chasing the animal by the dogs.
5.	Shivpuri	Poisoning waters for fishes. Gunning down.
6.	Bastar	Hunting with bows.
7.	Shahdol and Umaria	Small explosives. Gunning down. Animal traps. Snares and nets.
8.	Jabalpur, Dindori and Katni	Small explosives. Gunning down. Animal traps. Snares and nets. Chasing the animal by the dogs. Poisoning with Potassium cyanide.

## OBSERVATIONS OF THE FOCUS GROUP DISCUSSIONS

### **Kamti Eco-development Committee (EDC) –**

Along the northern bank of the Tawa is Kamti, the core of Satpuda, which is very rich in bio-diversity. The discussions with the forest staff and the villagers in groups and individually revealed following information –

- Apart from routine wildlife there are “Pangolin” (seen in Satpuda range in year 2000 first time after for 20 years) and Blackbuck population, which is a sure sign of habitat improvement (White, 2000).
- No preliminary offence report about killing or poaching of any animal by the villagers in the National Park has been recorded (FOCR, 2001).
- The EDC is very active and effective with lots of voluntary services extended by the villagers. From the funds allotted by the Forest Department, it extends loans to the villagers at low rates of interest (2 or 4%) for the acquisition of materials and resources such as irrigation equipments, tube-wells, biogas plants, sewing machines etc. The scheme was to provide an alternative source of income to villagers and promoting self-sufficiency to reduce their dependence on the forest and wildlife offences.

*The success of the Kamti EDC is a noticeable exception. Before the formation of the EDC, villagers resented restrictions and Forest Development upheld the law, resulting into conflicts between villagers and Forest department. After the constitution of the EDC, the staff went to the villagers, sat with them and asked how best they could help and what kind of resources were most needed. These are the evidence of the vastly improved working relationship between villager and Forest Department. The villagers protect forests and wildlife from fire and poaching (White, 2000).*

- Some particular plant species have been raised by EDC for wild boars and foxes so that they need not destroy fields and became eco-friendly with human beings.
- With a positive view it could be possible to manage the wildlife through community-based wildlife management. The lessons are as follows –
  - Local commuters should be involved in wildlife management.
  - Villagers should be made aware of the strictness of the laws.
  - The success of community-based wildlife programs will ultimately depend on the viability of wildlife utilization as an economic enterprise, specifically on a demonstration that it is more profitable and beneficial to landholders (whether individual or communities).

### **Interaction with village level forest committees of Betul District**

In order to have first hand information, a workshop was held at Shahpur, Betul, which was participated by members of eight village level forest committees including Vikrampur, Moorah, Katawadi, Lonia, Bhowra Dhana, Bichhua, Dhar and Sarni. All these villages have tribal population mainly belonging to the Gond tribe.

The results of the discussions are as follows –

- Villagers of Katawadi village reported that there was no poaching case in this village. People occasionally eat wild animals like Hare, Wild boar, Deer and Sambhar as food. One of the major factors of killing animals for food is that there is no agriculture activity in the area. Villagers relish country liquor and boar meat. They trap Hares, Boars and Jungle Fowl using indigenous trap called 'Phanda'. During tribal festivals only the community is observed, killing Teetar, Hare etc.
- Wild boars reportedly destroy the agricultural crops repeatedly. The boars are driven away from the fields using sound bombs and air gases etc.
- There are poaching activities in certain areas of North Sarni. The people involved are reportedly the employees of MPEB. However big mammals like Sambhar, Cheetal, Sonkutta are available in the area, but they kill some small mammals like hares.
- Villagers of Pathai recall a case that took place in 1995. 35 peoples were arrested on trapping a 'Sambhar'. Since then there is no case of poaching being registered.
- Members of Moorah Committee as well as forest staff reported that 95% of poaching activities had been controlled. There are no P.O.R. in the jungles of Moorah Kota.
- In Bhowra Dhana-Sarni, wild animals have run away because of construction of powerhouse.

- The villagers of Vikrampur village have adopted an indigenous method for controlling Boars. They make rope barricades with nails and Palash (*Butea*) leaves and coat them by lime.
- A small group of Muslim population, most of them being MPEB employees, are fond of shooting water birds and other small animals frequently using air guns.
- The interrogation revealed following facts –
  - In some areas there are no wild animals left hence there is no poaching.
  - Wild animals that are poached for eating include Sambhar, Wild Boar, Cheetal, Jungle fowl and Teetar, Bater.
  - Animals that harm their poultry and crop are Son Kutta (wild dog), Hyena, Fox and wild boars.
  - It seems that the centuries old culture and traditions of the tribals are not commercialized. They are unaware of the demands of the wildlife commodities in the trade.
  - The villagers do not know methods of smuggling and special smuggling techniques.
  - Almost every villager of Gond tribe is a flesh eater.
  - Methods of poaching like Pit poaching, Electrocution, Poisoning, Harpooning etc. are not known to them.
  - Instead, they practice certain methods to protect their crops and field without causing any harm to the wild animals.

#### **Statistics of wildlife offence cases in the study area**

The details of district wise and year wise number of wildlife offence cases are as follows:

Year	District wise number of cases			
	Vidisha	Bhopal	Hoshangabad	Total
1978-1994	29			29
1995	02		04	06
1996	03		04	07
1997	02	06	05	13
1998		06	06	12
1999	01	03	10	14
2000	-	-	11	11
2001	-	-	12	12
	37	15	52	104

The details of month wise registration of cases are as follows: -

Month	Mon	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Cases	13	08	07	08	05	17	10	06	04	05	09	10	104

Wildlife wise numbers of cases are as follows:

Se	Wildlife	District wise number of Cases			
		Hoshangabad	Vidisha	Bhopal	Total
1	Barking Deer (Bhedki)	1	1	-	2
2	Bear	4	-	-	4
3	Black buck	3	-	-	3
4	Cheetal	18	12	3	33
5	Chinkara	1	3	-	4
6	Lion cubs	2	-	-	2
7	Neel gai	-	5	3	8
8	Panther	2	3	-	5
9	Peacock	2	9	4	15
10	Pheasants	-	-	6 – Teetar 2 – Bater	8
11	Porcupine	-	-	1	1
12	Python	1	-	-	1
13	Rabbit	2	1	1	4
14	Sambhar	17		1	18
15	Tiger	-	2	-	2
16	Tortoise	1	-	-	1
17	Whistling Teel	-	-	5	5
18	Wild boar	3	1	2	6

The District wise, wildlife wise and parts wise cases are as follows:

District	Wildlife	Parts	No of Cases
Hoshangabad	Tortoise	Entire	1
	Sambhar	Genitals	1
		Ovaries	1
		Meat	6
		Bones	5
		Skin	10
		Gorus	1
	Panther	Skin	1
	Chinkara	Antler	1
	Cheetal	Skin	4
		Antler	3
		Meat	2
	Bear	Paws	1
	Blackbuck	Skin	1
		Antler	1
	Sanda	Entire	1
	Peacock	Meat	1
	Bhedki	Skin	1
		Meat	1
	Boar	Meat	1
	Rabbit	Skin	1
		Meat	1
Bhopal	Rabbit	Meat	1

	Neelgai	Meat	1
	Teetar / Bater	Entire	2
	Wild boar	Meat	2
	Porcupine	Entire	1
	Sambhar	Antler	1
	Peacock	Legs	1
	Whistling Teel	Entire	1
Vidisha	Cheetal	Skin	4
		Skull	1
		Meat	4
	Tiger	Skin	1
	Peacock	Feathers	2
	Neelgai	Meat	4
	Boar	Meat	1
	Rabbit	Meat	1

The reasons wise numbers of cases are as follows:

Reasons	No. of Cases
Livelihood	62
Food	29
Rituals and others	12

## DISCUSSION

104 cases were recorded and analysed from three Districts namely Bhopal, Hoshangabad, and Vidisha.

This majority (71.4%) of cases pertain to the period of six years, i.e., from 1995 to 2001; only few cases belong to the period between 1978 and 1994.

The number of cases of wildlife offences is maximum in Hoshangabad (50%) followed by Vidisha (35.6%) and Bhopal (14.4%). This pattern manifests the richness in the biodiversity in the districts. Hoshangabad has got the maximum biodiversity and number of wildlife species is maximum (48%) in this district. But the ratio of the offences to the total number of wildlife species in the respective district is maximum in Vidisha District (Fig 1).

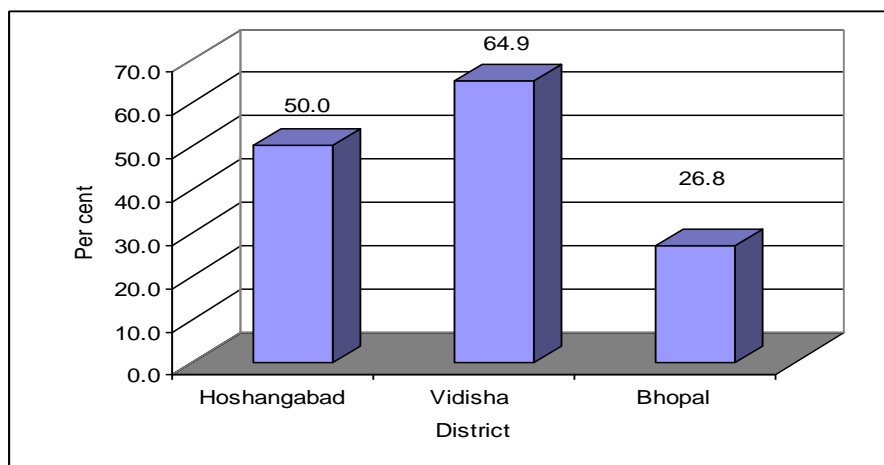


Figure 1 – Ratio of Wildlife offences to total Wildlife species

This trend is substantiated by the inventories of the wildlife reported in the Working Plans of the respective Districts. As per the Working Plans the number of the major faunal species reported from these districts are 56 (25.8%), 104 (47.9%) and 57 (26.3%) respectively from Bhopal, Hoshangabad, and Vidisha.

The reports of wildlife offences indicate that maximum cases have been reported in June (16.3%) and then in January (12.5%) and December (9.6%).

Wildlife for which cases have been registered mainly included eighteen species. The study indicates (Fig 2) that most of the offences for wildlife have been committed for Cheetal (31.7%), followed by Sambhar (17.3%) and Peacock (14.4%) and parts for which the offences have been committed are meat (35%) followed by skin (31%) and antlers (8%).

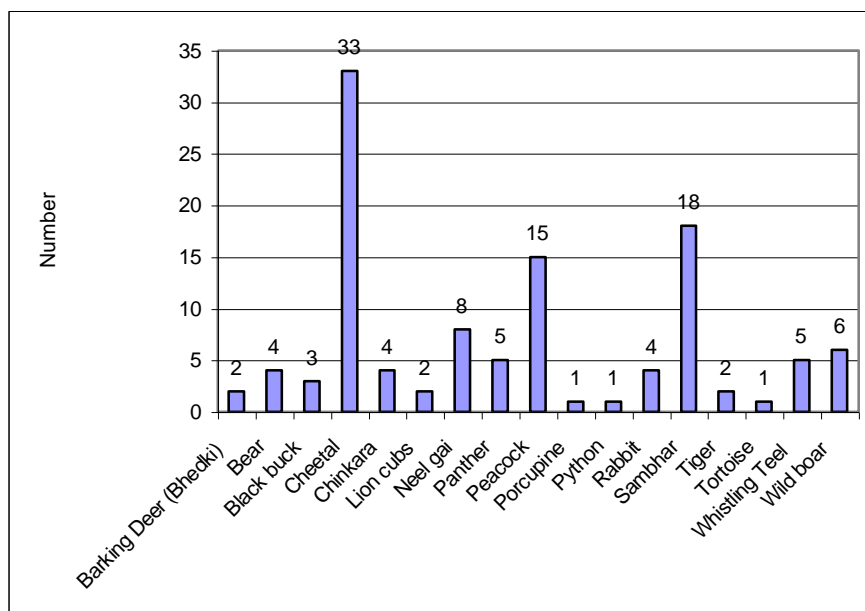


Figure 2 – Number of offences as per the wildlife species



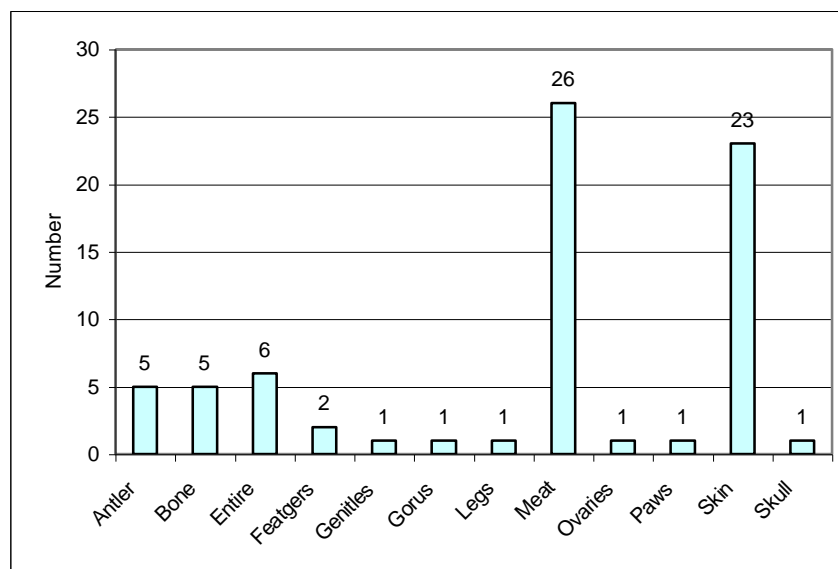


Fig 2 – Number of offences as per the wildlife parts seized

From the analysis of cases (Fig 3), it may be concluded that most of the offences have been committed for personal consumption. These cases of poaching can be said to have been committed for livelihood or economic reasons. However, killings have been done for other social reasons like festival and marriage.

The reasons for which the offences have been committed include livelihood, which may be by selling the wildlife material (60%) or by direct consumption of the animal as food (28%) followed by rituals and other reasons (12%).

Livelihood poaching may have some direct or indirect influence of the commercial wildlife crimes, as it might form a forward linkage for the poaching and encourage the villagers to commit the wildlife offence.

Out of total registered offence cases, 27 cases are pending with the Department for inquiry, whereas 67 cases are pending with the court for decisions. Only eight cases have been finalized, out of which in three cases offenders were released on benefit of doubt, whereas in five cases fines were imposed for Rs 3500/-.

The individual and the focus group discussions with the members of the village forest committees indicate that

- The hunting and the poaching of the local animals have been a deep-rooted traditional practice. Although restricted by the acts, rules and regulations killing of the animals cannot be stopped completely.
- Wildlife plays an important role in the livelihoods (including the food value) of the local people.
- There is significant lack of awareness about the importance of the wildlife in the ecosystem and the damage being caused by the hunting or poaching.
- Even the commercial traders may use them sometimes, but they are not aware about the organized illicit trade of the wildlife articles.
- Although they have not expressed openly about the wildlife killing and trade practices, but there are indications that hunting and poaching are a continuous process, sometimes need based and sometimes for change of taste.
- The experience of Kamti EDC of Hoshangabad is a positive indication that local people can be the best custodians for the wildlife and forest protection.

## CONCLUSIONS

- During the study period twenty varieties are reported to have poached, out of which Cheetal and Sambhar are the most hunted species.
- The species are hunted mainly for their meat and skin.
- Out of 104 cases, maximum numbers of cases recorded are 17 in the month of June and next in the month of January.
- Maximum cases recorded are from the District Hoshangabad followed by Vidisha.
- Rise in the population of the Black Bucks in Kamti is a sure sign of habitat improvement.
- Maximum number of cases seem to be pending in the court. Only in five cases fines have been imposed.
- Villagers do not seem to be aware of the stringency of the laws. They need to be made aware of the laws and the legislation.
- Most of the cases have been committed for the meat for personal consumption, for livelihood and economic reasons.
- Killings have been done for other social reasons like festivals, marriages as local traditions and religions, as apart of their culture.
- Some communities depend heavily on wildlife as a source of meat and other products. They hunt only ritualistically. In many communities hunting is a part of the local culture. Whenever hunting is a part of culture community cohesion, hunters often enjoy high social status.
- Different wildlife species play different and important role in local tradition and religions. People's attitudes towards wildlife are not based solely on economics even though the wildlife in the local economics is an important factor that is often overlooked or undervalued.
- Management and conservation of wildlife can improve the livelihood of the rural communities without contributing to environmental degradation (Kiss, 1993). Kamti is a good example of wildlife resource management with local participation. In order to minimise man – wildlife conflict the community people have raised some food species for large ungulates, so that they may not damage their crops. The success of community-based wildlife programs will certainly lead to reduction in wildlife crimes.

## RECOMMENDATIONS

- A new approach is to be adopted towards the problem of destruction through poaching with indigenous methods like snares, traps and poison of wildlife. The demand for meat protein for communities who depend heavily on wildlife as a source of meat and other products has to be satisfied, and in these areas adequate stock will have to be first built up by restocking with animals brought elsewhere or bred in captivity. Based on demand it may be examined to harvest annual surplus of the meat in the shape of a fixed number of buffalo, antelope, Nilgai, Sambhar and to supply it to the local population provided they agreed to stop their illegal killing, which in many cases destroys more than what can be eaten.
- A sense to initiate a community-based wildlife management should be developed. Training and education are essential elements in the community-based wildlife management. Wildlife officials must be sensitized to the sociological aspects and be trained to communicate to work with local communities. Local people must be educated about the present and potential value of the wildlife and the natural habitat and be trained in the technical, financial, organizational and management skills needed to secure these benefits for themselves and their communities.
- The traditional and the need-based practices of the hunting and the poaching need to be examined under the existing acts, laws, rules and regulations and provisions for acceptable alternatives need to be seriously worked out and properly implemented. Commercial wildlife used can be replaced by livestock husbandry and examination of trends of ecological and economic data can reveal that wildlife systems have significant advantages in ecosystems in both earning capacity and sustainability. In Zimbabwe and African countries these measures have already been implemented (Kiss, 1993). The idea of livestock development is worth considering in Madhya Pradesh where large tribal groups exist in or near forests and consider the wildlife as their traditional rights
- Capacity building through training and extension should be of the priority areas. An effective education programme must promote traditional attitude and initiate actions to cause changes in attitudes where needed. This is a difficult and challenging task, which is too often overlooked. It is essential and specialized function requiring trained and dedicated staff.

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