Study on Agricultural Crop Damage by Wild Animals and its Management in Hoshangabad Circle of Madhya Pradesh.

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Study was conducted in Hoshangabad Forest Circle of Madhya Pradesh. Observation on situational analysis of existing status of crop depredation in the area was done through collection of secondary information and questionnaire survey. Experimental plots were laid-out in different six clusters with three replicates in each clusters. Observations were made during all the crop seasons. Crop damage by wild animals and crop compensation are the main problems being faced by the farmers of the area.

- As per questionnaire survey on average 45.76 % crop damage has been recorded ranging from 20 to 92.50 % and as per the observation recorded through field experiments on an average 31.85 % (ganging from 26.43 to 38.66%) crop damage were recorded within 0 – 2 km impact zone and 18.51 % (Ranging from 11.25 to 22.50 %) in 2 – 5 impact zone.
- Major species recorded for crop raiding were Wild pig, Blackbuck, Chital, Sambar and Neelgai.
- Maximum crop damage was recorded by Wild pig i.e. 64.13% followed by Blackbuck 21.74%.
- During winter season, the peak hours of maximum crop raiding was observed between 8:00 PM to 4:00 AM and during summer season maximum activity of crop raiding was observed between 10:00 PM to 6:00 AM.
- The positive effect of animal repellent may also support as short term solution for prevention of crop damage problems.

Estimation of economic loss in Kharif, Rabi and Summer - The compensation for crop damage is being paid by Government of Madhya Pradesh as per rules and the actual economic loss of crop damages borne by the farmers are influenced by current market rate or minimum support price as described below in the table.

S.No.	Name of Crop	Crop damage/ha as observed during study (%)	Compensation as prescribed by Govt. of MP based on % of crop damage (Rs. per ha)	Actual loss as per MSP Rs./ha (Reference table No. 14,15,16,17)	Difference in Rs.
In case, landholding status is 0-2 hectare					
Impact zone 0-2 km	Paddy	26.43%	9000	13200	4200
	Wheat (Irrigated)	32.06%	9000	17350	8350
	Bengal Gram (Irrigated)	38.66%	9000	41800	32800
	Moong (Irrigated)	30.25%	9000	15675	6675
Impact zone 2-5 km	Paddy	18.04%	0	10290	10290
	Wheat (Irrigated)	22.5%	0	12145	12145
	Bengal Gram (Irrigated)	11.25%	0	8800	8800
	Moong (Irrigated)	22.25%	0	10450	10450
In case, landholding status is more than 2 hectare					
Impact zone 0-2 km	Paddy	26.43%	6500	13200	6700
	Wheat (Irrigated)	32.06%	6500	17350	10850
	Bengal Gram (Irrigated)	38.66%	6500	41800	35300
	Moong (Irrigated)	30.25%	6500	15675	9175
Impact zone 2-5 km	Paddy	18.04%	0	10290	10290
	Wheat (Irrigated)	22.5%	0	12375	12375
	Bengal Gram (Irrigated)	11.25%	0	8800	8800
	Moong (Irrigated)	22.25%	0	10450	10450

It is suggested that there is need to revise the revenue criteria of crop damage compensation regarding crop damage percentage, issues and minimum support price of the particular year for particular crop should also be considered.

- Habitat improvement and water resource development in forest buffer areas may reduce the cases of crop raiding
- Use of animal repellent may play important role to reduce the crop damage percentage as immediate temporary solution.
- Chain link fencing, solar fencing, bio fencing, game-proof wall, guarding through pet dogs etc. may be the better solution for preventing the agricultural fields form crop raiding.
- Strengthening of prevailing system for crop damage compensation.

Crop raiding by Blackbuck