

F. No. 8-47/2008-FC
Government of India
Ministry of Environment and Forests
(F.C. Division)

Paryavaran Bhawan,
CGO Complex, Lodhi Road,
New Delhi - 110003.
Dated: 16th March, 2008.

To

Principal Secretary to Government,
Forest, Ecology and Environment Department,
All States/UTs

Sub: About Terms of Reference for studies on potential impact on wind mills on birds and bats through rotor impacts and on terrestrial species of wildlife through habitat damage

Sir,

I am directed to invite your attention to the issue of comprehensive study of ecology of birds particularly Raptors to be completed by any organization / individual as per terms and conditions to be drawn by the Forest Advisory Committee and binding of the outcome on the User Agency.

Accordingly, a Term of Reference has been drawn in consultation with Wildlife Institute of India (WII) and Bombay Natural History Society (BNHS) and it has been approved by the Forest Advisory Committee.

I am further directed to communicate that comprehensive study of ecology of birds particularly Raptors shall be completed by any organization / individual as per terms and conditions enclosed at the user agency's cost and outcome/ mitigative measures shall be borne by the user agency.


Yours faithfully,


(B.K. Singh)

Sr. Assistant Inspector General of Forests

Copy to:-

1. The Principal Chief Conservator of Forests of all States/UTs
2. Nodal Officer, O/o the PCCF of all States/UTs
3. The Chief Conservator of Forests (Central), all Regional Office
4. All User Agency in wind farm sectors
5. Monitoring Cell, FC Division, MoEF, New Delhi.
6. Guard file.


(B.K. Singh)

Sr. Assistant Inspector General of Forests

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TERMS OF REFERENCE FOR UNDERTAKING STUDIES ON POTENTIAL IMPACTS OF WIND MILLS

PREAMBLE

In view of the mounting evidence from potential adverse impacts of wind mills on arboreal species including birds, bats and flying squirrels through rotor impacts and on terrestrial species of wildlife resulting from alternation and damage to habitats Forest Advisory Committee (FAC) recommends that all wind mill projects proponents should fund independent impact assessment on studies of their projects at specific sites. The following broad terms of reference are suggested for studies to be taken up by credible institutions.

Basis

The studies should refer to and cite pertinent literature relevant to the issues as well as any other studies related to wildlife /bird migration/local movements in the site or in nearby areas, while assessing the impact of the proposed project. If any wind power projects exists in the area/region, the study team must visit these and look at past impacts.

Establishing the impacts of wind mills on birds

1. To establish whether wind mills, and which type of windmills, kill or injure birds and bats or otherwise pose impediment for the movement of birds to their destination. This should be done keeping in view annual migration patterns as well as nearby roosting sites.
2. To establish which size classes or groups of birds, bats and other arboreal primates and gliding species, are vulnerable / affected by wind mill farms.
3. To examine if ground nesting birds nest in wind mill farms, and if the patterns of nest densities / nesting success are similar when compared to areas without farms
4. To examine the impact of a wind mill farm on roost or congregation site for species like harriers/ fruit bats alongwith the status of the congregation site post construction of the wind farm.
5. To examine if the wind farm adversely affects the foraging capabilities of the birds of the area.
6. To assess if the forest canopy contiguity is likely to be affected and the consequent impacts on glider species (e.g. flying squirrels).
7. To suggest preventive, ameliorative and restorative strategies for addressing significant potential impacts of proposed windmill farms on wildlife.

Site selection process of wind farm to examine:

8. If large bodied birds, such as bustards, vultures or cranes or larger bat species are present in the existing / proposed wind mill farm site

9. To examine if the wind mill farm is situated along migratory routes of birds both local or long distance.
10. To examine if the wind mill is situated along and across pathways of birds on routes to or from roosts
11. To examine if the site holds other forms of terrestrial birds/mammals/ reptiles and assess how these would be affected by the establishment of the project.
12. To assess the impact of wind mill farm location on landuse of the area and the consequent shift of anthropogenic pressures to other ecologically sensitive areas/ habitats.

National / state level exercise by FAC/NBWL

13. To map the location of windmill farms existing / proposed and to examine these sites for '*wind mill vulnerable*' bird species.
14. To develop an atlas of 'no' and 'yes' sites for windmill farms in India based on energy *and* bird / wildlife priorities.
15. Review the performance of existing windmill farms with respect to the incorporation of best practices and good mitigation strategies for addressing biodiversity/ wildlife conservation concerns to accordingly set criteria for environmental appraisal of windmill farm projects.