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A real menace to wildlife

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Right of way for animals.

The air and noise pollution on forest roads is disastrous.

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In India, quiet places such as forests are particularly vulnerable to noise intrusions. Many animal species have evolved with hearing sensitive enough to take advantage of the quietest conditions; noise increasingly compromises their hearing abilities related to important environmental cues and signals. The noise — by interfering with the delicate and intricate ways animals communicate, navigate, find mates, avoid predators and hunt prey — can have a detrimental impact such as risk of unnatural deaths and lost reproduction on wildlife populations.

Other ill-effects of vehicular noise are — temporary or permanent loss of hearing from acoustic overexposure (noise levels of 85 decibel or greater such as from typical vehicle horns), non-auditory physiological effects, such as increased heart rate and respiration, general stress reactions and behavioural effects, which vary greatly between species and noise characteristics, resulting in, for example, abandonment of territory and even lost reproduction.

Peril in the air

The next factor is vehicular air pollution. Just like people, wildlife and forests can become sick from pollution. Motor vehicles produce various harmful air emissions consisting of solid particles and gases. Some effects of vehicular emissions are regional or global and are responsible for effects such as acid rain (sulphur oxides, etc.) that kills or contaminates plants (also risky to wildlife that ingest them) and change the soil and water pH levels (affecting fish and other wildlife), global warming (e.g. carbon dioxide and methane) and ozone depletion (e.g. nitrous oxides).

Some effects are localised, and they have immediate negative consequences on the local forest and ecology. The locally impacting tail pipe emissions are toxic gases such as carbon monoxide (caused by incomplete combustion), lung irritants such as sulphur oxides, inhalable fine particulates, and carcinogenic volatile organic compounds; and non-tailpipe emissions such as brake lining, road dust and tyre wear and lead used in older fuel additives and batteries.

Some species of wildlife have developed a very keen sense of smell which they utilise to locate their prey, mates and avoid predators.

This capability is negatively affected due to vehicular pollution. In addition, changes in neurobehavioral functions, chronic respiratory illnesses and immunological changes are some of the other risks of vehicular pollution on wildlife.

The presence of vehicle traffic with associated air and noise pollution is a direct reason for the reduction in wildlife in areas near the highway. The detrimental effects of vehicular noise and air pollution extend considerable distances on either side of the forest roads. This means that the actual habitat loss or ecologically impacted area is far greater than the road surface area.

Litter killer

Litter is dangerous to wildlife as well. It often consists of plastic, paper, metal (soda cans) and glass bottles — most of these do not break down easily in the environment. Wildlife, especially deer and wild boars, can be seriously injured by a broken bottle or a rusty piece of strewn metal. A curious animal that ingests soiled plastic litter can die of infection or starvation if the foreign object blocks the animal's intestinal tract.

The final factor to consider is 'road kills'. Even though poaching gets most attention, a rather surprising fact is that road kills have a higher toll on biodiversity than poaching. Also to note is that most of the news stories focus on road kills of the larger wildlife such as tigers, leopards and elephants, though in fact, it is the smaller mammals, amphibians, reptiles that are affected in much larger numbers.

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