Why talk about Roads?

Because they bring the markets closer, ensuring that everyone, from a farmer to a business man can transport their wares-sell and buy with ease. They connect people to schools, jobs, hospitals, banks... everything. A set of good roads can actually work like a magic wand, transforming a backward, poor and remote region into a buzzing action centre!

So should we build more and more roads?

Wait a minute! Have you also considered the environmental costs of building roads? You see, roads have some major negative impacts as well. On environment, and on the local communities who happen to come in the direct path of the roadworks.

Perhaps we need to look at more environmentally sound roads. So, lets get onto the 'right track'. Unfortunately this is also 'the road less travelled'... at least in our country.

Gobar Gyan: In India there are more tar roads than concrete ones. Gravel and sand are the primary raw materials used in building these road. These are usually dug up from the banks and beds of local rivers. So as more and more super and express highways come up, aggressive mining of stones along river banks takes place. And highly-polluting stone crushing units mushroom. In Himachal Pradesh, excessive stone and sand removal from riverbeds has resulted in rivers changing courses. This in turn endangers roads, bridges and agricultural lands.

To know more check the following link:


Activity: Locate a road construction site nearby, where a new road is being built or an old one is being resurfaced. Talk to the person/contractor in charge of constructing the road and find out about the raw material used.

What raw materials are being used to make the road?

Where is the gravel and sand coming from? Is it a local crusher? Which river is it coming from? Get its address.

If possible get to the stone crusher and find out if its excessively mining the river. Talk to people around to find if there are any problems due to the crusher.
Gobar Gyan: While the neighbourhood roads may have problems with procurement of raw materials, it's the highways- touted as signs of development- which need to be planned to take us towards sustainable development.

Most highways are generally made on raised platforms (significantly higher than the general landscape) Surrounding areas are dug up to raise the height of highways, which at later stages lead to a lot of soil erosion. If that was not enough, badly planned highways block the drainage of surface water. As they are on raised ground, they act as barriers not allowing water to flow to the other side. Result! Water logging.

Resulting in loss of crops etc. Hence, proper drainage vents need to be given while constructing a highway and drainage patterns should be taken into account at the planning stage. Also in hilly areas unplanned highways may lead to major land slides.

Activity: Ask you teacher to arrange a visit to a local highway near your village/city. Observe the placement of the highway in the general landscape

Is it raised as compared to the area around?

Do you find any water logging around the highway? Is it substantial?

Walk over for a kilometer or two and look if proper vents have been given for drainage of water?

Locate the office of the National Highways Authority of India (NHAI) near your village or city and fix a meeting with the engineer. Ask him the following questions:

Is the highway made with environmental considerations like water logging? What was done to prevent water logging?

Ask for a copy of the Environmental Impact Assessment of that stretch of the highway?

Gobar Gyan: Roads can actually disrupt the rural communities in a big way. Roads can cut across the agricultural land of villagers and thus disrupt their traditional routes. now they would have to cross a road to reach their fields. This can bring a host of problems - it can be dangerous for the villagers and their cattle and can also be fatal for highway drivers.

Roads can bring another lesser-identified problem- air pollution. Roads obviously mean vehicles, which are the main cause of air pollution. Settlements near highways often complain of air and noise pollution.

In fact roads can bring about a lot of socio economic change in settlements around the highway. Lets find more
Activity: Identify a highway near your town or city and interview villagers about the changes which have occurred due to the construction of the highway. Or visit a village, where a road has been constructed recently or talk to someone who hails from such a village. Or perhaps talk to your grandparents of their experiences of the coming of roads. They would obviously tell you about how it benefitted the place but catch the smaller details, which may give you information about other issues like disruption of traditional village routes and air pollution issues.

What changes did the making of the road bring about in the village? Was there any disruption of usual activities of the village?

Gobar Gyan: Roads are a serious threat to biodiversity in an area especially animals. A road constructed near a forest having wild animals may lead to the migration of animals to areas away from the road as they get scared of the noise made by moving vehicles. The road also becomes a major barrier for the movement of animals within the forest.

But the most serious problem is the fact that a large number of animals are killed by speeding vehicles, while crossing the road. Read this recent news:

A tiger was found dead near the Dudhwa National Park after it was knocked down by a truck passing down the state highway that runs across Uttar Pradesh’s largest wildlife reserve, about 250 km from here.

According to park director M.P. Singh: "Apparently the tiger was hit by a passing truck in the early hours of Friday and the body was discovered barely 20 metres from the highway, sometime later in the day."


It’s only the tiger which makes news otherwise there are a large number of animals like Neelgai which die on the highways, courtesy poor planning, constructing roads near forests. Thanks to intervention by environmentalists the proposal of Uttaranchal government to make a highway cutting across the famous Corbett National Park has been stayed.

Activity: Search on the web and in the library to find out if there are more highways being planned which would be dangerous for local flora and fauna. List at least two such projects here:

Project 1
Location: 
Affected forest's/sanctuary's name: 
Problems identified: 

Project 2
Location: 
Affected forest's/sanctuary's name: 
Problems identified: 

If possible visit such an existing potentially dangerous highway and talk to vehicle drivers and local villagers and gather more information about the issue.

If you are really excited about the issue and want to explore more. Read Gobar Times issue on roads, April 2007. Visit www.gobartimes.org Write to us if you had an interesting experience while doing the above activities.

If you found the activity sheet interesting, E-mail us at eeu@cseindia.org or write to: Activity Sheet, Centre for Science and Environment, 41 Tughlakabad Institutional Area, New Delhi-110062 or Call 29955124 Extension 219