

Resistance is widespread: three study reports

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When the industries department gave permission to Kerala Rare Earths and Minerals in September 2004 to mine mineral sand from the region between Kayamkulam Pozhi to Thottappalli, it had led to widespread protests.

Since this is a very sensitive region it is being feared that unscrupulous mining of mineral sand would destroy the natural barrier between the sea and the backwaters. Ingression of salt water from the sea to the backwaters would affect the fresh water bodies. If this happens the ecology of Kuttanadu region, which lies below the sea level, would be adversely affected.

Trikkunnappuzha, Thottappalli and Ambalappuzha are known for *chaakara* or mud bank formations, due to the silt deposited near that coast. A variety of fishes are found in the area. During rain silt from backwaters flows to the sea. Along with the formation of *chaakas*, another phenomenon takes place, called 'Karaveppu'. It prevents coastal erosion caused by the sea.

Since mineral sand mining would affect the equilibrium of the coast it is a threat to *chaakas* as well, says Prof B Madhusudhana Kurup of the School of Industrial Fisheries at the Cochin University.

In the Neendakara-Kayamkulam region, KMML and Indian Rare Earths Limited have been given 157 (ha) of land each on lease, says director of state mining and geology department N Krishna Kumar. Apart from tax, the government gets two per cent of their turnover, too.

M Baba, director of Centre for Earth Science Studies (CESS) says that an agency should be appointed to study the mining possibility and ecological and social problems that arise from it. Moreover, value-added products should also be made from the mineral sand. Only then it would benefit Kerala, he says.

IREL processes mineral sand and exports it. This means that the mineral sand is not being used in Kerala. Then what is the hurry to start mining in Arattupuzha, asks Dr K Soman, a scientist at CESS.

Black sand has up to two per cent of monazite. It also has 8-10 per cent of radioactive thorium. Its radiation causes cancer, blood cancer, bone tumour, blindness etc. Moreover, it can also cause Down syndrome among children.

There is a research laboratory at the Kollam centre of the Bhabha Atomic Research Centre that can study low-level radiation. According to the study conducted here on newborn babies, the level of radiation is not high enough to cause genetic disorders. But in Karunagappally Taluk, which is a mineral sand region, the number of mentally challenged children is very high.

According to Dr Raghuram K Nair, head of the radiation physics department head of the Thiruvananthapuram Regional Cancer Centre (RCC), as per the studies conducted by Karunagappally Cancer Registry, under the supervision of RCC, the radiation from mineral sand would not cause cancer. On the other hand, the studies conducted by McDonald Institute of Cambridge University indicate that the radiation from mineral sand can cause genetic disorders.

Dr A S Suresh Kumar, general manager of IREL, says that thanks to the monazite filtration by the company the level of radiation and the quantity of monazite is coming down in this region.

To study the problems of black sand mining, so far three committees have been set. These committees were headed by Dr K P Thrivikramji, T M Mahadevan, and Justice K John Mathew, respectively.

According to the Thrivikramji committee report, the pits created by the mining of sand will be filled by the sand deposited on the coast by waves and winds. Moreover, monazite filtration will reduce the radiation in this region considerably.

According to Justice K John Mathew Committee, in Neendakara-Kayamkulam sector, where mining has been going on for last 70 years, mining has made no impact. Moreover, it says that if the mineral sand is not mined taken it will go back to the sea. But the report also says that sand should be taken from a depth of more than 30 cm. A special office of the mining and geology department should be set up here to oversee the mining process. The report observes that in the first stage it would give employment opportunities to about 1000 people.

But former member of Parliament, V M Sudheeran blames that these reports are mere gimmicks playing to the tune of the mineral sand mining lobby. He says that in Arattupuzha region the sea does not invade the shore because of the natural barrier of the mineral sand. Considering this he has asked the government to ban all mining activities with immediate effect.

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