Mathrubhumi, Mallapuram, December 4 & 5, 2006

MINERAL SAND MINING: PONMANA COAST VANISHES

SASIDHARAN MANGATHIL

Ponmana coast at Kollam district in Kerala - here the sea is furiously roaring. The waves strike the beach and the sea is swallowing the coast as a result of mineral sand mining. For mining, more and more land is being acquired here. The fishing community that depend on the mercy of the mother sea for their livelihood is now departing from the area. In this village of Panmana Panchayat, mining is undertaken by the Kerala Minerals and Metals Ltd. (KMML)

Just behind the Kattilmekkathil Devi Temple, thousands of sacks filled with sand are walled to protect the temple from the fury of the sea. Logs of coconut trees are also erected throughout the coast. At present the temple complex stands projected to the sea.

Here the mineral sand is being mined behind the sea wall using bull dozer. As the mining progresses the sea wall is falling and the waves are penetrating further. 'When I was a boy the sea was far away' - says Vishwambaran of Nallveetil a resident of the locality. 'We had had to walk at least one km. to see the sea but, once the mining started the sea is approaching nearer and nearer'.

The mineral separation plant of the KMML is at the vicinity of the temple towards its southern side and the sand for the plant is transported in trucks from the northern side of the temple. About 500 meter of the Anchumanakkal coast near the plant has been narrowed to a bund as a result of the continuous mining; the

breadth of the bund is just enough for the passage of a truck. The T.S. canal touches this bund. In 1997 this bund was broken joining the sea and the canal. Sea water rushed in through the opening and the neighbouring parts were flooded causing much trouble to the local people.

'The bund was washed away for second time six years before. Earlier the beach was quite wide here; but at present it has vanished' - this was the observation of Baburaj who resides near the canal. Dredging is also proceeding in the canal for collecting mineral sand. Deepening of the canal also may cause damage to the bund.

The Kerala coast from Neendakara to Thottappalli is blessed with mineral sand. This locally known as 'black sand', is a mixture of heavy minerals, Ilmenite, Rutile, Leucoxene, Zircon, Monazite, Garnet, Sillimanite and Kyanite.

The entire length of 22.54 kms of coastal land from Neendakara to Kayamkulam Pozhi has been divided into eight blocks for mining purpose and four blocks each are given to KMML and Indian Rare Earth Limited, Chavara (IREL) on lease for mining. The lease period is 20 years at a time, and it is renewed further. Alternate blocks have been allotted to this plants - blocks 1, 3, 5 and 7 to KMML and 2, 4, 6 and 8 to IREL. The Ponmana area comes under the third block allotted to KMML. The mineral sand deposited in the coast by the sea waves during the monsoon period is collected with bull dozers and stored in the beach and it is carried to the plants afterwards in trucks as per requirement.

A company registered in 1932, the FX Perera and sons (Travancore) Pvt. Ltd., was later on taken over by the Kerala Government and renamed as KMML. The Anchumanakkal beach was its mining site from 1932 onwards. So the beach has eroded and disappeared. It is only five years since the mining work in Ponmana stated.

Now turn to Vellanathuruthu of Alappad Panchayat in Kollam Dist. Here bull dozers are engaged in mining. The sand collected and stored in heaps is continuously carried in hundreds of trucks to the plant. The sand from the site is carried to IREL, Chavara. Sea water rushes to the beach deepened by the bulldozer and during monsoon the sea encroachment is horrible. "They claim that the sand deposited by waves alone is being collected. But there is no official means to measure the depth and quantity" - Remarked a retired employee of Vellanathuruthu.

"Better quality mineral sand is available at deeper belts. But, deeper the mining, stronger is the sea encroachment. The driver of the bull dozer is the final authority of this operation" - the employee observed satirically.

The lease for mining is sanctioned by the State Department of Mining and Geology and recognition to the mining plan is accorded by the Indian Bureau of Mines and the Atomic Minerals Directorate for Exploration and Research (AMD) together.

Studies have confirmed that the erosion of land and encroachment of the sea along the coast between Karunagapally and Ponmana, have immensely increased recently. The unscientific mining has intensified the encroachment of the sea recently making the beach thinner. The studies conducted by the AMD have come to the conclusion that 177.04 hectares of coast from Neendakara to Karunagappally has eroded due to sea encroachment during the period of 110 years between 1887 to 1997. The sea has swallowed 0.86 m beach every year. During the period of 57 years between 1940 and 1997, the breadth of the coast from Chavara to Ponmana has been reduced by 74.63 meters; but the total encroachment during the preceding 53 years in this area had been just 1.5 meter. In the coastal area of Ponmana in Karunagappally, the encroachment was 42.5 meter in breadth during the said 57 years while during the previous 53 years it was only 4 meter altogether. This suggests that the sand mining has contributed much to the narrowing down of the beach.

The mining operation in Kovilthottam, Karithura and Puthenthura of Chavara Panchayat and Vellanathuruthu of Alappad Panchayat is carried out by the IREL. The IREL plant in situated in Karithura. The mining work in in Anchumanakkal and Ponmana is undertaken by the KMML situated in Sankaramangalam. According to the data available these two plants together collect mineral sand deposited by the sea during the SE monsoon period amounting to a quantity between 2,27000 to 40000 tones annually.