cials," says a contractor

The monitoring mechanisms are so weak, business is undeterred. Now, vilo be a lagers are fighting the mafia to protect quires every their farms. Nine farmers from Vittalapura and Kudalakuppe villages in is intually Mandya district approached the high court seeking action against people ininfravolved in illegal sand mining in the a rap-Hemavathy river bed. On June 27, 2013, it even the court ordered that sand mining in After entire KR Pet should not be allowed.

PWD minister HC Mahadevappa is and admits there's illegal sand mining in ing in the state. He says the government has increased round-the-clock vigil and set illy by ashed up checkposts to curb it. The government feels the mining policy has caused losses to the exchequer and inconvenience to the public and has set up a cabinet sub-committee to frame wning a new sand mining policy.

ms. Industry is worried. Nagaraj Reddy, any president of Credai, Karnataka, said, rmers "The ban on sand mining affects the construction industry, the governlwith ment has to come up with immediate solutions." mu, a

More than 1,600 sand blocks 1 Ra across 8,614 acres were identirist of fied for mining. But with protests by greens, the blocks en for were reduced to 293, covering nding 1,054 acres. Now, the state government's task is tougher. For, sand extraction in river beds now needs the okay of Union environment ministry. offi

Truckload of sand (Price depends on quality; lowest is filtered sand) 2013 2008 ₹40.000 **Manufactured Sand** ₹8,100-₹10,800 (₹450-600 per tonne) sand is the option

enished at the rate it is being used, the govomote M-sand. Experts vouch that M-sand native to natural sand, but is superior in

epartment of mines and geology, and conin Reddy of the IISc, shows that the char-

Sand becomes an **UGLY MONSTER**

Sand sharks have moved their illegal activity from river beds to farm lands, reducing them to barren tracts



WASHED OUT: Part of an excavated coconut grove in Channapatna

Tharati village goes dry N D Shiva Kumar | TNN n 1998, Tharati, a village in Ko-

ratagere taluk of Tumkur district. was the only place in the world cultivating the most water-intensive crop -Acorus Calamus (sweet flag or Baje in Kannada, a medicinal rhizome) - which

grows in swamp for 10-12 months. Of the irrigated area, a major quantity of groundwater was for sweet flag, which occupied 56%, followed by 15% for paddy. In 1998, shallow open wells were the only source of irrigation, as the sumptuous sand layer held rainwater, which later percolated as groundwater in dug wells. Illegal sand mining entered the village around 2000, Gradually, with the removal of sand, wells failed. forcing farmers to drill borewells. By 2011, things changed drastically. Of 190 wells, 50% were borewells and the rest were open wells. Among the borewells, only 50% were functioning, while among dug wells, only 9% had wa- unless farmers are educated and village ter. The cultivation of Baje was virtu- panchavats empowered to reject licensally reduced to zero, and replaced by low water flower crops -- chrysanthemum lages," says Prof MG Chandrakanth.

and buttons. The area under sweet flag, which was around 21 acres in 1998, reduced to 0.5 acres in 2011, a reduction of 98%. The area under paddy, which was 39 acres in 1998, was down by 50% to 20 acres, and the area under groundnut came down by 90%.

With the rapid reduction in cultivation area, the market price of sweet flag, which was Rs 2,750 per quintal in 1998, shot up to Rs 23,000 per quintal in 2013.

These are the findings of the study on 'Sand Mining in Karnataka' by a group of experts - Prof MG Chandrakanth and Basavaraj Jamakhandi of the department of agricultural economy, UAS, Bangalore: GB Lokesh of UAS. Raichur; and AC Hemalatha and N Nagaraj of ICRISAT, Hyderabad. It compares the crop pattern and ground water in 1998 and 2011 in Tharati.

"Sand mining has virtually depleted groundwater in many villages of Kolar, Tumkur, Mandya - the Shimsha belt. Unless sand mining is checked, agriculture will be ruined." says the study.

"Mere legal solutions will not work, es for sand transport from their vil-

DEMAND. SUPPLY & IMPACT FILTERED SAND

IS DANGEROUS

Pure river sand is difficult to get, so people use filtered sand which contains silt. Hence, the quality of

1 The river bed loses its ability to hold water as sand takes several years to be deposited and this affects groundwater recharge. especially in drought-hit areas.

Mining along a stream

A Though the number of sand blocks identified is 1.684, over 8.614 acres, extraction is happening on only 1,054 acres. A panel headed by deputy commissioners, and