Introduction

Sand mining refers to the extraction of sand from riverbeds and seashores for construction activities and for minerals such as gold, silver, silicates et cetera. It is legal when authorised or permitted by relevant governments, with assurances that existing rules and regulation will be followed. Illegal sand mining (hereafter ISM) on the other hand—the focus of this article—includes all other unauthorised extraction activities. In India, the Ministry of Forests and the Environment (MoEF) has formulated guidelines on sand mining for both riverbeds and coastal areas (Coastal Regulation Zone, 2010; MoEF Notification, 2010). The Ministry of Mines is also mandated to govern sand mining.

The increasing demand for sand (for booming real estate and infrastructure projects, for instance), together with weak governance and rampant corruption are facilitating uncontrolled and illegal mining of sand and gravel in the rivers and seas of India. ISM has been thriving in various Indian states including Madhya Pradesh, Bihar, Haryana, Karnataka, Goa, Andhra Pradesh, Rajasthan, Chattisgarh, Orissa and West Bengal (12 March 2012, Express News Service). It is also illegally practiced in other states like Kerala, Tamil Nadu, Maharashtra, Gujarat, Uttar Pradesh, Uttarkhand, et cetera.

Impacts of illegal sand mining (ISM)

ISM adversely affects the environment including rivers, sea and forests. Its impacts vary from place to place. In Eastern Uttar-Pradesh, for instance, mechanised sand mining has resulted in soil erosion and turned thousands of acres of land infertile. In this same state, there are reports that the sand mafia controls rivers such as the Chhoti Gandak, Gurma, Rapti and Ghaghara (Centre for Science and Environment, 2011).

In Kerela, major rivers such as the Pampa, Manimala and Achankovil have been subjected to non-discretionary dredging that causes changes in channel bed and habitat type, together with a sharp fall in groundwater table levels, leading to water scarcity and aggravating agriculture and local livelihoods.

The Bharathapuzha River, once the lifeline of many villages in the Palakkad, Thrissur and Malappuram districts of Kerela, has become a grazing ground covered with shrubs and weeds.

In Andhra Pradesh, river sand mining has developed in a haphazard, irregular and unscientific manner. Quarrying has created water stagnation in the riverbed and impaired the natural water flow, which has had grave consequences on agricultural production due to an inadequate water supply for irrigation. The use of heavy machinery such as excavators to remove sand has caused riverbeds to erode, banks to collapse, damaged infrastructure like bridges and transmission lines, caused trees to grow on the bed and the banks, and problems in drinking water systems. Uncontrolled, illegal sand mining has caused depletion of groundwater tables and degradation of groundwater quality (Rao, 2006).

Along the Konkan coast of Maharashtra, ISM is taking a toll, causing landslides, destroying large tracts of mangroves and the natural habitats of turtles and crocodiles. According to Abdulali, from the Awaaz Foundation, “many creeks of the Konkan coast are turning into shallow pits, leading to an extinction of their marine ecosystems” (15 June 2011, Times of India).
Actors/conflicts in sand mining

As various reports indicate, ISM flourishes in India because it generates huge revenues that are shared among different stakeholders. The actors involved in conflicts related to both legal and illegal sand mining in India are usually the local people, non-governmental organisations (NGOs), contractors, private companies, bureaucrats and politicians; but others, such as religious priests (locally called Swami) are also involved.

The term sand mafia, as used by the Indian media, refers to groups composed of local politicians, contractors and bureaucrats, who pursue illegal extraction and resort to physical violence to do so. This may also be seen as a case of Eco-Mafia, a term coined by Italian NGO Legambiente.

Case studies

Four ISM-related environmental conflicts are presented to show how different people complain about such activities, including an environmentalist, a religious priest, a high-ranking police officer and the public.

I. Awaaz Foundation vs. the Sand Mafia

Awaaz Foundation is an environmental NGO based in Mumbai working extensively on raising awareness about the vulnerability of the environment through educational projects in different states of India. Ms. Sumaira Abdulali, Founder of Awaaz Foundation, was physically assaulted on 17 March 2010 by the son and employees of a local politician, who are part of an extensive politically-controlled sand mafia in Maharashtra (17 March 2010, Times of India). Awaaz Foundation filed a case at the Bombay High Court through Public Interest Litigation, demanding a ban on sand mining activities along the Konkan coast of Maharashtra. The Bombay High Court banned mining in the Coastal Regulation Zone (CRZ). Moreover, the court ordered the state government to implement the alternative measures mentioned in the report prepared by the prestigious IIT Mumbai (Indian Institute of Technology), which includes reusing sand from building debris and using of environmentally sound techniques for sand extraction.
II. Swami vs. the Uttarakhand State

In June 2011, Hindu priest Swami Nigamananda Saraswati died after a four-month fast in protest of reckless state-sponsored sand mining and stone crushing on the banks of the world-renowned Holy River Ganges, near Haridwar (a pilgrimage site) in the State of Uttarakhand. Millions of pilgrims visit this holy place to dip in the Ganges during Kumbh Mela to wash away their sins. A few days before Swami Nigamanand died, the Uttarakhand government ordered a ban on mining activities in the region considered sacred. The ban also followed a directive of the Uttarakhand High Court on 26 May 2011 that expressed concerns over the degradation of the river’s ecology and in general the area used for Kumbh celebrations (15 July 2011 Down to Earth).

III. Narendra Kumar (IPS Officer) vs. the Mining Mafia

In Madhya Pradesh, Narendra Kumar (Indian Police Service, a high-ranking officer) was brutally crushed to death by a tractor loaded with illegally-mined stones, allegedly by the ‘mining mafia’ in Morena on 8 March 2012. The Chhatarpur district administration ordered the cancellation of all sand mining contracts in the district after the media outrage over IPS officer Narendra Kumar’s killing, and a second attack on a sub-divisional magistrate and police officials in Panna. Later, Madhya Pradesh Chief Minister Shivraj Singh Chouhan announced they were handing the murder case of the IPS officer over to the Central Bureau of Investigation (13 March 2012, Times of India).

IV. The Sand Mafia vs. the Public

The Cauvery River in Tamil Nadu has been seriously impacted by indiscriminate sand mining. The groundwater table has been depleted, rendering the availability of water scarce and unsuitable for drinking. Decrease in soil fertility has led to a sharp decline in agricultural productivity, forcing farmers to sell off their lands and allowing miners to dredge the precious sand lying beneath their fields. People who realised their very livelihood was at stake due to mining, took to the streets at the call of AREDS (Association for Rural Education and Development) on several occasions. Since 1991, AREDS, together with the local people, women’s organisations and activists, has organized several road blockades. AREDS also filed a case through Public Interest Litigation (5762/90) to the Madras High Court in 1990. As a result, mining was banned in Cauvery banned by the High Court on 25 January 1999.

Outlook

Rapid economic growth, coupled with the drive to industrialise, has significantly increased the demand for energy and materials, including sand. Legal sand mining, in line with existing regulations,
was not enough to meet the demand generated by booming real estate and infrastructure projects. This has led to the emergence of powerful vested interests in different states. Riverbed and seashore ecosystems have been severely impacted due to ISM. The case studies presented show how different stakeholders have drawn attention to the issue, for very different reasons. In Maharashtra, an environmentalist defended the ecosystems. In Uttarakhand, a religious priest attempted to protect a holy place. In Madhya Pradesh, a high-ranking police officer tried to enforce the law; and in Tamil Nadu local people mobilised to defend their livelihoods. The growing number of conflicts and court cases against sand mining should be an eye opener for the government. It must take concrete steps with ‘effective teeth’ to implement relevant norms and laws to reduce negative impacts on the environment, and also enable people to legally earn a living.

References

- Down to Earth: A Swami and Sand Mafia, 15 July 2011 Issue.