Curbing the Great Sand Grab：Rethink Sustainability

The world's sands are shifting, by the lorry load. According to a recent UN report, up to 50 billion tonnes of sand a year is being mined, dredged and even stolen to satisfy the global appetite for infrastructure. And it's disappearing faster than it can be replenished. The plunder of lakes, rivers and coastal areas cuts biodiversity, destroys fishing communities, causes pollution, lowers the water table and increases the risk of flooding.

There are two types of sand. The first is mineral sand, which comes mainly from riverbeds and coastal areas like beaches. The second type is aggregates, that's a generic term for crushed rock, sand and gravel. It's coarser, easier to bind, and the construction industry loves it. The plunder tends to happen in countries with rapidly growing infrastructure and where rules are lacking, not enforced, or where there's corruption.

The UN now wants to curb the problem, starting with improved governance. Transporting sand is expensive, so material tends to be used near to where it's removed. Tracking where infrastructure is springing up could provide clues about which ecosystems might be targeted. Another option is to find alternative materials, like desert sand. It's a huge resource, but the challenge is, it's smooth and fine-grained.

An Imperial College student start-up called Finite, is trying to develop a building material out of desert sand, but the reusable, biodegradable composite is so far only suitable for temporary structures.

There are no simple answers, but as it slowly ebbs away, something needs to be done about the great sand grab.

(Source: Financial Times)