

# Marine Mineral Resources: UPSC Geography

Geography is an important part of the UPSC General Studies I syllabus. In this article, you can read a brief about the marine mineral resources of the earth.

The information gathered from this article will be of immense use for candidates writing the IAS Exam.

## Why are Marine Resources important?

The oceans of the world cover around 70% of the surface of the Earth. Thus, they contain a major amount and variety of geological processes within them. These processes over a period of time, result in the formation of different minerals which when proved usable by human beings become Marine Mineral Resources. Examples of some minerals that are extracted today for human use are salt, magnesium, fresh water, etc. As most of these resources are used in our day-to-day activities, it's quite obvious why these resources are important.

For NCERT Notes on Geography, visit the linked article.

## Principal Marine Resources

Some of the important marine resources are listed below:

### 1. Salt

Salt is chemically known as sodium chloride. It is one of the most abundant minerals found in the ocean water. Salt can be either directly extracted or could be mines, depending upon different regions.

### 2. Potassium

Potassium is also an abundant mineral although it cannot be directly extracted like salt.

### 3. Sand

The sea beaches can be understood as the residual deposits of sand. Sand is used for different purposes today such as for construction, recreation, in various industries such as glass making and so on.

### 4. Limestone and Gypsum

Limestones are rocks composed of Calcium Carbonate. It is also used in industries such as construction. Gypsum or calcium sulfate hydrate is also used in construction activities and is turned into the commonly known Plaster of Paris (PoP).

### **5. Manganese Nodules**

These nodules contain enormous amounts of metal wealth. They can be looked upon as a huge potential to be used by human beings as a resource as and when technology is developed to harness these valuable metals.

### **6. Gold and Diamonds**

When the earth was formed, molten iron sank to its centre to make the core. This took with it the vast majority of the planet's precious metals — such as gold. Also, diamonds in all of Earth's commercial diamond deposits were formed in the mantle and delivered to the surface by deep-source volcanic eruptions. Both of them are in the list of most precious minerals.

### **7. Water**

Although there have been difficulties in the extraction of fresh water from the oceanic salty water, however, the advancements in technology should be able to harness the most important resource for survival of living beings possible at a large extent.

### **8. Oil and Gas**

Although we have been successful in some of our attempts, however a rich volume is left unexplored still, which when done, would solve the problem of shortage of fuel to some extent to meet the needs of the growing population.

### **9. Coal**

Coal contains volatile matter, carbon, ash and moisture. It is found in sedimentary strata. Coal reserves are six times greater than petroleum and oil reserves.