

Hon'ble Chief Minister of Tamilnadu has ordered to focus on the policy to create multi faceted development, employment potential for rural people and state exploitation of mineral resources. Under the able guidance of Hon'ble Minister for Higher Education and Mines & Minerals, TAMIN has initiated an action to explore the possibility of commercial exploitation of Beach Heavy Minerals by entering MOU with Manonmaniam Sundaranar University who can provide scientific Technical know how on Beach Placer Minerals exploitation.

Tamil Nadu Minerals Limited popularly known as TAMIN, is a wholly owned blue chip company of the Government of Tamil Nadu started in 1978.

TAMIN is engaged in the exploitation, processing and marketing of Granite and other minerals such as Limestone, Vermiculite, Quartz, Feldspar, Indian Standard Sand and Graphite.

TAMIN entered the international granite market in the year 1979 and has secured a steady market for dimensional blocks of black and other colour materials in countries like Japan, Germany, Italy, Australia, UK, Switzerland, Holland, USA etc.

TAMIN also exports polished granite slabs, building slabs and tiles in several attractive colours, wall panels and monuments of various designs conforming to International Standards.

Manonmaniam Sundaranar University, Tirunelveli-627012 is the Arts and Science University, which was established by Tamilnadu vide notification no. II (2)/EDU/4138(G/90 ) dt.27.8.1990. This University was named after great Tamil poet Manonmaniam Sundaranar. It offers large number of courses in Science, Engineering, Technology at Under graduate, Post graduate and Doctoral levels, besides conducting advanced research and carrying out consultancy/extension activities. The Centre for Geo-technology of Manonmaniam Sundaranar University is one of the advanced research centres in this University to offer value added and innovative programmes in the field of earth resources technology. This centre has been adequately supported by Central Government Agencies to carry out research in the fields of placer mineral exploration and coastal hazards.

With this background, under the orders of Hon'ble Chief Minister of Tamilnadu and the guidance of Hon'ble Minister for Higher Education and Mines & Minerals, Tamilnadu Minerals Limited has proposed to sign Memorandum of Understanding (MOU) with Manonmaniam Sundaranar university to avail the scientific and technical know-how developed on placer mineral exploitation by their experts. Tamilnadu Minerals Limited has been ordered to expand their activities to the allied minerals such as Beach placer minerals ( Ilmenite, Garnet, Zircon, Rutile etc.) These resources has to be maximised to scientific methods of mining, beneficiation and economic utilisation by utilising the generated and knowledge of the experts of Manonmaniam Sundaranar University. Besides, TAMIN has its own goal to upgrade the extraction and utilisation of entire state resources within the coast line of Tamilnadu about thousand kilometre without zero wasting mining. To achieve these goals, TAMIN has taken optimal mining investments on beach placer which would be required together with latest technologies in prospecting and mining.

This MOU will certainly enable the State Government of Tamilnadu to establish the revenue potential for the country to provide employment potential for rural people and to develop the human resources for Mineral Industry. These matters will be well addressed to receive prime importance and comprehensive institutional frame work for research and development and training will also be developed in both the institutions.

Currently Beach sands are extracted and processed physically for exporting 100 % without any value addition. To-day, the country needs value added products to meet our own demand for which our State blessed with ample resources of various minerals. The minerals of beach sand are used in paint industry, nuclear sectors, pharmaceuticals, aviation, communication, electronics, water purification, oil refineries etc. The whole of the world demand for Garnet is from our own state.

Ilmenite-rich major beach and dune sand deposits occur in the coastal stretches of Tamil Nadu (Manavalakurichi, Midalam, vaippar-kallar, thirumalai sumuthiram tharngampadi, nagoor,nagapatinam etc.), Rich concentration of almandine-rich garnet (up to 31% in the raw-sand) is observed in the 68 km beach stretch of Navaladi-Periathalai, south of Tiruchendur in Tamil Nadu.

The red Teri inland sands occurring in the coastal plains of southern Tamil Nadu contain Heavy minerals up to 10% and occupy vast tracts with large tonnage of heavy minerals. The Indian ilmenites commonly contain 50 to 65%  $TiO_2$  and are suitable for various process-technologies. Zircon, monazite and sillimanite are ubiquitous in both the beach and inland red Teri sands, and constitute potential co-products.

The Indian resources of placer minerals are: 348 Million tonnes (Mt) of ilmenite, 107 Mt of garnet, 21 Mt of zircon, 18 Mt of rutile, 8 Mt of monazite and 130 Mt of sillimanite. Indian resources constitute about 35% of world resources of ilmenite, 10% of rutile, 14% of zircon and 71.4% of monazite. India meets about 10% of the world requirement of garnet.

As per the orders of Hon'ble Chief Minister of Tamilnadu and the guidance of Hon'ble Minister for Higher Education and Mines & Minerals, TAMIN proposed to set up downstream industry for better utilisation of these unique minerals and much higher returns from these placer minerals, instead of exporting them in raw forms and this requires value added development. The TAMIN has its own leases in Kuttam villages, which has to be activated for economic exploitation thereby generating the employment potential for the rural people of Tamilnadu.

The above venture is first of its kind for both TAMIN and MSU, an industry to collaborate with University to avail the scientific knowledge to make it more reality to the society. The mining of these resources will be more beneficial for the coastal folks in terms of eco-friendly nature. If these sands are not exploited, it becomes revenue loss, not only to that but also this will be recycled by the monsoon to the off shore or to other areas by its littoral directions. Due to this process, it is quite possible to accumulate these resources at river mouths or creeks by developing a sand bar which prevents the free flow of fresh water into sea water. It is clear that the sand mining with scientific knowledge of exploitation will prevent the coastal erosion and sustain the bio-diversity.

Hence it is programmed to enter into an MOU with the Manonmaniam Sundaranar University in the August presence of the Hon'ble Minister for Higher Education and Mines & Minerals, Government of Tamil Nadu, the Principal Secretary to Government, Industries Department and Secretary to Government, Higher Education Department, by the Chairman and Managing Director of TAMIN and the Vice Chancellor of the Manonmaniam Sundaranar University on 25<sup>th</sup> February 2009 , at the Chamber of Hon'ble Minister for Higher Education, Secretariat at 10.00 A.M. to do collaborative research and for commercial exploitation of Beach Placer Minerals.

Sd/-

**CHAIRMAN AND MANAGING DIRECTOR.**

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