

THE 'GREEN' SIDE OF BLACK SANDS

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When assessing the mineral resources of Sri Lanka, it is apparent that black sands or heavy minerals stand out as being the group that has the greatest potential to deliver a globally significant production. Currently there is only one active mining and processing operation, being the well-established Lanka Mineral Sands Limited located at Pulmoddai.

The primary heavy minerals of economic interest are the titanium bearing ilmenite, leucoxene and rutile in addition to zircon and garnet. These minerals are consumed by various industries including those in the paint, ceramic, electronic and abrasive sectors. The author estimates that within Sri Lanka there are approximately 80 to 100 Mt of heavy mineral resources that are either currently under exploration licenses or have historically been investigated. These primarily lie within the coastal areas of the Puttalam, Mannar, Trincomalee, Batticaloa, Ampara and Hambantota districts where potential exists to define further resources.

Capital Metals, through subsidiary companies Eastern Minerals and Damsila Exports Pvt Ltd hold two exploration licenses in Ampara District hosting heavy mineral resources that support their Eastern Minerals Project. A feasibility study and associated environmental impact assessment is currently underway with the intention being to develop long-life, sustainable mining, concentrating and processing operation.

Heavy mineral deposits have various characteristics which enable mining and processing to be carried out by responsible operators in a manner that results in minimal environmental impacts. These include explosive free excavation, the ability to return a vast majority of mined material to the void, ease of restoring topographic profiles, amenability to revegetation, low slimes content removing the need for large tailings paddocks and mineral processing that relies on physical and not chemical or thermal processes. There are numerous examples in the well-established heavy mineral operations of Australia and South Africa where exceptional restoration and revegetation has been achieved both in agricultural and naturally vegetated terrains.

Sri Lanka is in the fortunate position of having the opportunity to develop a significant mining industry free from a majority of the negative environmental impacts associated with precious and base metal operations. As discussed, black sands can indeed be 'green'.

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