

IDENTIFICATION OF SUITABLE QUARTZ ORE FOR INDUSTRY AND VIABLE VALUE ADDITIONS IN SRI LANKA

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Sri Lanka is blessed with commercial scale vein quartz deposits in various locations, which can lead to support Sri Lankan economy in considerable way, rider we manage the resource efficiently and add maximum possible values on it. Our prevailing situation - conventional mining and ore dressing methods have been practiced over the years. No value additions up to the final products have been taken place because of poor research and development (R&D) facilities, technology barriers and very high capital investment.

Due to non-availability of various production factories, a huge amount of quartz ore wastage takes place at many processing sites in Sri Lanka, and a considerable adverse environmental impact occurs due to accumulation of wasted quartz lumps dumped in to the open areas.

This presentation highlights an individual study and efforts made by the author to overcome above situation up to some extent, thereby to enhance the economy of Sri Lanka by producing final products in commercial scale.

First and foremost, we need to identify the qualified raw forms of quartz suitable for each applications and industries, global demand and industry giants who do further processing in large quantities for various industries.

Secondly, we need to establish efficient mining and ore dressing systems to minimize the waste and environmental impacts.

Next, we need to establish a system in order to identify qualified quartz ore through firm practical R & D facilities. Once we found qualified quartz ore, we can viably start following industries such as engineered quartz stone slabs, fused quartz, advanced fused quartz ceramics for mechanical applications, crucibles, quartz tubes, quartz sand for LCD screens, quartz sand and powder for semiconductor encapsulation, solar grade high purity quartz sand, optical grade quartz sand, optical products, glass products etc.

As an initial step, we have already established a 100 % local joint venture to create Sri Lankan brand called “Crystal Stone”. Under Crystal Stone, we engineered quartz stone

slabs in commercial scale for kitchen tops, vanity tops, counter tops and flooring. We mostly use rejected quartz sand from export factories and wasted ore abandoned in quartz mining sites. Thereby, we have been able to add a high value to wasted quartz in Sri Lanka. Further, by keeping another step in industry, we have already started to export our products to all over the world contributing to earn valuable foreign currency.

Not only that but also by now we have successfully completed a pilot project for commercial production of fused quartz, and identified required improvements to maintain competitive global pricing for the same. As a conclusion of this presentation, of proposals for more possible and viable value additions is presented.

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