

# Better utilisation of Eppawala deposit for betterment of the country

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**NATURAL RESOURCES:** Our country has a great civilisation that has been a fertile ground to germinate seeds of agricultural marvels. According to the great King Parakramabahu, he was not prepared to release a single drop of water falling down from the sky to the sea with out making use of it.

Ancient country was self sufficient in food because our ancestors knew the sustainable utilisation of natural resources for the betterment of agriculture. The country is gifted with many a natural resource. The apatite deposit at Eppawala is one such and supposed to be one of the best resources. Its value cannot be estimated since it is a non-renewable natural resource. It is situated in the village of Eppawala, a very remote area that falls within the administrative district of Anuradhapura.

The country has an irrigation civilisation based on a glorious history more than two thousand five hundred years. Eppawala deposits were discovered by the Geological survey dept in early 1971. But I believe that our ancient kings and their farsighted advisors were aware of the nutritional support that could have been given by this particular area. This is further

established because none other than Yoda-ela (Canal) itself was built along with the deposit. Yoda-ela considered one of the greatest irrigation works of our ancient citizens had been built on the periphery of the deposit. This apatite contains Calcium Phosphate that can be used as a phosphate fertiliser. It has 60 million metric tons containing about 33-40 percent of phosphate. Considering the current use it can be used for another 1,500 years. This deposit is considered to be one of the richest and unique apatite deposits in the world. For the last 30 years we have consumed about two percent of the deposit.

There are about 414 apatite deposits in some 40 countries in the world. The United States is the world's leading producer of phosphate fertiliser with about 30 percent of the total production and followed by China, Morocco and Russia. The other prominent Phosphate production countries are Brazil, Israel, Kazakhstan, Senegal, South Africa, Togo and Tanzania. It should be noted that according to studies the world's reserve position is about 10,000 million metric tons. The annual phosphate consumption in the world is about 200 million metric tons. As such Phosphate deposits all over the world will last for another 50 years and after such time phosphorus will be one of the

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scarcest elements in the world. Eppawala apatite ore has two components that are separately identified by the naked eye. They are greenish in colour primary apatite crystals and brownish colour aluminous-ferruginous-siliceous secondary apatite. Due to inclusion of aluminum, iron and silica secondary apatite has less water solubility. Phosphate mining at Eppawala is carried out to market these two components separately. The commonly available variety is aluminous-ferruginous-siliceous Phosphate is marketed as Eppawala rock Phosphate (ERP).

The other component that is pri-

mary crystal is marketed as High Grade Rock phosphate (HERP). Both fertilisers are used for perennial crops such as tea, rubber, and coconut, export cash crops and fruit crops. At present about 45,000 mt of Eppawala Phosphate is marketed locally per year. Tea plantations dominate 60 percent of the use of Eppawala phosphate and whereas rubber and coconut sectors share 30 percent of the use. The export cash crops and the fruit crops mainly share the balance. Because of the use of our own Phosphate fertiliser there is a saving of substantial foreign exchange about Rs.400 million yearly.

Phosphate mineral is very insoluble and for this reason it cannot be directly applied for crops like paddy and vegetables. For this reason, Eppawala Phosphate has to be treated with strong acids like sulphuric to produce more soluble phosphate fertilisers. "Mahinda Chinthana" forwarded by president Mahinda Rajapaksa has recognised the manufacture of Single Super phosphate fertiliser as a potential industry in the fertiliser sector. Industrial Development Minister Kumara Welgama has taken initiatives to set up a Single Super Phosphate plant and a Sulphuric acid plant side by side at Rs. 700 million at Eppawala site premises. Therefore, this exercise will benefit about 2.4 million farmers directly. The immediate benefits are substantial to the country by this project as it will dawn a new era to the nation. It will definitely save valuable foreign exchange about Rs. 1,300 million immediately and further in coming years. There will be a huge employment generation in the Eppawala and adjacent area. There will be a visual social uplift of the people due to infrastructure development.

Fulfilling the country's vision to give a low cost phosphate fertiliser by effectively utilising the Eppawala deposit will be accomplishing a dream of those who fought for protecting it in the tur-

bulent times. The country spends about Rs.1, 300 million every year to import Triple Super Phosphate (TSP), which is the major Phosphate fertiliser used for paddy and vegetables. By manufacturing Single Super Phosphate we will be able to save a substantial amount foreign exchange wasted on imports yearly.

With the energy crisis in the world, prices of phosphorus fertilisers are steadily increasing over the years resulting in increase in the cost of cultivation adding burdens to farmers and the Government. Being self sufficient in phosphate fertiliser is the only lasting solution for this. As a country we are lagging behind the others because of our inability to deviate from the colonial mentality. We have been in a slumber for the 30 long years like a beggar sitting on a gold mine since its discovery. Though every country that is gifted with a phosphate deposit is producing phosphate fertiliser for their staple food, but we still depend on imported phosphate fertiliser by wasting valuable foreign exchange for it. Sri Lanka has now reached an era in which it moves to progress by utilising its natural resources for the betterment of the country.

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