

29/08/00 Island Eppawala Phosphate - what next?

The discovery of a large deposit of rock phosphate (apatite) at Eppawala in the Anuradhapura District early in the 1970s was hailed as a valuable natural resource that would provide a low grade fertilizer for 200 years.

This fertilizer could be used with perennial and semi-perennial crops like tea, rubber, coconut, coffee, cocoa, pepper, clove and pineapple.

It was not suitable for annual food crops however like cereals, grain, legumes and vegetables which require a more soluble form that can be absorbed quickly during a short life period.

A local company was consequently formed to mine the rock phosphate and make it available to the plantation sector at 50,000 mt. per year.

American Company

In due course, an American mining company tendered for exploiting Eppawala Phosphate using a new technology that would convert it into high grade diammonium phosphate fertilizer, mainly for export.

They were prepared to make this fertilizer available to Sri Lankan farmers at 50 per cent less the export price. But as this fertilizer is hardly ever used in Sri Lankan agriculture, the offer was substantially worthless.

Further more, there were several important disadvantages to the American project.

The process of extraction and processing would be environmentally, sociologically and historically harmful.

There was the poisonous effluent (phosphogypsum) that would be left behind in mountains, difficult to dispose.

There was the dislocating effect the project would have on a developed farming area because of the vast land area (56sq. km) that would be devastated.

There was also the adverse impact such wide scale mining could have on important historical monuments in the vicinity.

The intensive scale of mining that was expected of this project would completely exhaust the local deposit in 30 years, leaving Sri Lanka totally dependant on imported fertilizers thereafter.

Committee

It was only to be expected that protests from

scientific associations, environmentalists, farmers and a concerned general public would soon escalate against the acceptance of this project.

A high-tec scientific committee was consequently appointed by the National Science Council to examine and report on the issue.

The Committee endorsed the protests from the sociological environmental and historical aspects.

But they came up with a new factor - a critical factor that the protestors had not conceived and something that certainly swayed the decision to boycott the US company's proposal.

This factor (confirmed by world bodies in-the-know) was that the world's reserves of phosphate fertilizer were rapidly declining, and that there was no way of replacing it.

DOWN TO EARTH

By Derrick Schokman

It was expected that the crisis would rear its ugly head in the short space of 50 years for the known reserves for phosphate. The base reserves would also be used up in 100-150 years.

In the light of this situation the committee viewed the exhaustion of local supplies by the US Company in 30 years as totally unacceptable, there being no significant benefit financially or otherwise to the best interest of the country.

After all its phosphate reserves were squandered, Sri Lanka would be called upon to import all its fertilizer requirements at exorbitant prices created by an explosive demand for a rapidly declining resource. Thanks to local research it had also become known in the time between the discovery of Eppawala phosphate and the new millennium that Eppawala rock phosphate was not all that low grade as considered at first.

It was found subsequently to contain high quality material as well in large enough quantities to be separated and used to manufacture more soluble fertilizers such as single superphosphate (SSP) and partially acidulated phosphate (PAPR) which could be used to serve the

needs of annual food crops and perennials in their early stages non dependant on Triple Super Phosphate (TSP) imports.

New Zealand

In fact, a New Zealand mining company had already made an alternative proposal to set up a factory at Eppawala with very satisfactory profitability on the same lines as one it was constructing at Ayuthaya in Thailand.

The New Zealand technology was free of environmental damage since the liquid effluent from the factory would be dealt with in accordance with World Bank standards for discharge limits.

Sociologically too there would be far less dislocation because the New Zealand proposal seeks to exploit only 2.5 sq. Km as against 56 sq. km. in the American project.

Best Bet

All in all, therefore the best bet for exploiting the Eppawala Phosphate deposit would be to manufacture SSP and PAPR to replace the present import of Triple Super phosphate, which serves the needs of annual food crops and the early growth of Perennials, and to continue supplying rock phosphate to perennials in their adult stage.

The recommended rate of exploitation should be around 350,000 mt. of Eppawala rock phosphate annually. In this manner it should be possible to extend the deposit to its fullest advantage.

It was accordingly recommended to call for worldwide tenders again to set up a factory to produce SSP and PAPR fertilizers, and to continue to make available rock phosphate to serve national needs only over the next 200 years.

These recommendations were handed over to the Minister of Science, and subsequently to the Supreme Court of Law for a final ruling on the Eppawala Phosphate issue.

The Supreme Court ruled in favour of calling for worldwide tenders again on the guidelines given by the National Science Council Committee, and stayed any further negotiations on the US Company proposal.

Good reason it would appear has won the day, jettisoning a short term get-rich package for one that will benefit the country in the long term.

May such reason continue to prevail.