DAILY NEWS

Low performing and neglected mineral sector

Eppawala Apatite Project: revisited

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Either it is a coincidence or it is not. No sooner the election results were out, the topic of Eppawala has re-surfaced. In fact, two articles on the EA appeared on consecutive days in the *Daily News* of 7th and 8th April and recently on the 28th.

The article on the 7th basically said 'don't consider any deals with foreigners' whilst that on the 8th extolled the manifold benefits of apatite as a fertilizer. The one on the 28th was by Dr. M.M.J.W. Herath who, with over four decades of amply demonstrated experience in all matters of geology and over a dozen profound publications on Sri Lanka's mineral resources and mineral based industries to his credit, was indeed a realistic stratagem to boost the Mineral Sector. Perhaps, the growing interest and enthusiasm in the subject is infectious and the writer, also with his extensive involvement in Sri Lanka's Mineral Exploration activities, mineral based industries and the Mineral Sector, considered it timely to share his views on the Eppawala matter, in particular, and the Mineral Sector in general. The writer was Director, Geological Survey Department when worldwide "Invitation for Proposals' to set up a joint venture for the manufacture of phosphate fertilizer utilizing the Eppawala apatite deposit" was called during late 1992 by Secretary, Ministry of Industries, Science and Technology.

No sooner the deposit was discovered by the GSD in the early seventies, a detailed core drilling investigation of the northern deposit revealed a 'proved' resource of 25 million tonnes. Geological investigations done in the southern extension of the deposit and the surrounding area showed another 'inferred' tonnage of 45 million.

The Agreement allowed only the mining of 25 million tonnes in the northern deposit.

Importance of Feasibility Study

Considering rest of the concerns collectively, it was sad to note that no factual information whatsoever was available to those who pushed the panic button as the Feasibility Study (FS) was yet to be carried out. It is unequivocally the results of the FS which would have determined, inter alia, whether 12,000, 1200, 120, 12, 2 or in fact no family members were to be evacuated. The FS would have informed the exact dimensions of the mine. The FS would have delineated how the proponent intended to mitigate damages to the environment including the Jaya Ganga irrigation system.

This stage required an EIA where all environment related organizations and the public gets involved. With such controls to be faced by the proponent, it was highly irresponsible and unprofessional by those who resisted, in fact, most of whom are well respected in their own fields but zero in terms of demonstrated experience in mining, to have embarked on that course of action. Curiously, the professionals from the only Mining Faculty in Sri Lanka at the Moratuwa University who should have complained never did! Clearly, the more responsible and professional step was to protest or agitate, if at all, only after the FS report was made available rather than on imagination and conjecture.

It is also recalled that another, apparently unacceptable feature was that the proponent was an American who had a bad track record in safe environment practices both in America and Indonesia.

The writer, with experience in mining activities of Australia, Philippines, Russia and south-west United States is well aware of this: There are mining companies which are able to mine in a more environment-friendly manner than others. Many reasons contribute to this.

Those which require extensive digging and disturbance of land surface (open cast mining) such as for coal, porphyry copper, tile clay, kaolin etc., and those which require leaching with cyanide solutions, are liable to be heavily penalized than say, underground operations. But, in general, main contributory factors causing environment damage are the lack of proper regulation and weak Agreements. Big mining companies always try to be law abiding as it does not make economic sense to be otherwise. If there are infringements, a weak, i.e. an Agreement favouring the company could be the reason (in which case, both signatories are to be blamed) coupled with extreme remoteness (say, access only by helicopter) are reasons in favour of the company.

Selection of American Proponent

The American proponent was selected through a very extensive and transparent procedure, on the basis of superior technical know-how (had the technology to counter-corrosive nature due to high chlorine of the local apatite), consent to erect in Sri Lanka the complete downstream processing facility, thereby, ensuring transfer of latest technology, improved railway line from Eppawala to Trincomalee and demonstrated market leadership. In fact, there was the insinuation that the American company was singularly favoured. It was strange that the Ministry which selected the proponent in the most transparent manner did not deem it fit to issue an official statement to correct the misinformed situation. In Sri Lanka, our mining professionals, environment enactments and the Mining Act and Regulations are quite thorough and are fully capable of dealing with a project of this scale.

A fact, the then Attorney General and present Chief Justice acknowledged. Perhaps, the Agreement may have been a trifle leaning on the mining company's side. If the Government consented, it would have had profound reasons along with relevant checks and balances for doing so and therefore not the mining company's fault.

The name of the game as far as both sides are concerned, is to secure the best deal, and with the Attorney General's advice the Government was on the way to do it. Anyway, it is all history now and in the long run the country was the loser.

The leading role played by the 'Committee for the Protection of Phosphate Deposits at Eppawala' was pivotal in the suspension of the Project. The writer is very much of the view that, if the said Committee was aware of the importance of the FS, it, as a responsible association with country's well-being at heart, would have based its agitation, if any, only after receiving FS results. And, I am confident that if the FS results posed no significant damaging issues, the Project would have found the Committee an eager and enthusiastic partner rather than on the opposite corner.

Then, the unanswered question remain; 'Was the Committee deceived to jump the gun and adopt the stand it took by others who had a different secret agenda?' Perhaps, even at this stage, it would be good idea for the President and interested members of the Committee to ponder carefully on above-mentioned facts read with powers and regulations available to the government, regulating organizations and the general public, and review genuinely without prejudice, its stance.

Attempts taken to upgrade Mineral based industries in Sri Lanka

Having said that, it is relevant to recall that over the years, the GSD and GSMB, through their mineral exploration programmes kick-started key mineral based industries such as ceramics, cement, mineral sands, glass, dimension stone and now phosphate (the graphite industry was already in existence when the predecessor to GSD commenced investigations in 1903). Of the said minerals, ilmenite and rutile from beach heavy mineral sands have been exported from Pulmoddai to Japan since 1962. Over the years, despite several attempts to upgrade the Pulmoddai facility to produce high value products such as synthetic rutile, titania pigment and titanium slag, none of it has materialized so far. Notwithstanding these set backs and realizing the immense future potential of the Sri Lanka mineral sands, the GSD undertook a tour in 1993 to Australia promoting mineral resources of Sri Lanka. Consequent to this tour, a leading Australian mining company applied for exploration licences from the GSMB covering the coastal areas from Aruakkalu north of Puttalam down to Chilaw. After nearly four years of exploration, the company reported to the Australian Stock Exchange and the Media in October 1998, the discovery of a 1.07 billion-tonne combined 'Indicated and Inferred' categories resource of heavy mineral sands of 7.2% grade, at 1% cut-off value. Unfortunately, the company had to suspend all local operations in 2002 whilst in the process of carrying out further feasibility studies. In the south, mining of garnet along the beach is being planned by a Sri Lanka-Canada joint venture partnership. The mineral silica quartz with its high grade (purity) of 99.5% SiO_2 is another with great potential for product development (value addition). Already there is one local entrepreneur through a Japanese joint venture partnership has established a product development facility near Naula. The purpose of citing these examples is to emphasize the interest shown in Sri Lanka's mineral resources by international mining companies. Mica which is currently exported raw as 'scrap' or 'waste' has a good potential as a product based export industry. But unfortunately, delays on Sri Lanka's part have already discouraged the foreign investors and any further continued lethargy is bound to tarnish Sri Lanka's name irrevocably among the foreign mining fraternity. There are of course other industrial minerals such as dolomite, iron ore, feldspar, calcite, river sand, aggregate, inland coral and shell beds which were not promoted for export taking into account their geological parameters such as, access, distribution, grade, resource estimation, mineability, value, marketability etc.

cannot provide favourable economic return. Despite the industries in the first category being relatively large, the quantum of contribution by the Mineral Sector (identified as 'Mining and Quarrying' by the Central Bank) to the GDP over last several decades never exceeded 3%. And, as things are at present, the likelihood of it being increased is quite remote. No doubt the phosphate project would have made a substantial impact. Of course, all mineral commodities being non-renewable, the temptation to save it for posterity is understandable but, the argument should not be on an overly-protective attitude which will take both economy of the country and the mineral sector nowhere.

For, if the argument to 'save the resource at any cost and discourage foreign joint venture partnership' based on the purported ultimate patriotic objective to save mineral resources to posterity was applied, lets say to, (a) Aruakkalu limestone resource, Murunkan and Iranamadu clay resources which have been utilized entirely for the local cement manufacture since the mid sixties, (b) the Boralesgamuwa, Dediyawela and Meetiyagoda kaolin resources, Owella, Talagoda and Balangoda feldspar resources and silica quartz resources at Rattota, Galaha and Ekarella, for the local ceramic industry which has gained international acclaim with brands such as Noritake, Dankotuwa, Walltile and Royal Ceramics (c) the glass sand deposits at Marawila - Nattandiya mined for the premier local glass industry and (d) the extensive beach mineral sands deposit at Pulmoddai, sustaining the export of ilmenite and rutile industries could never have been established. The inevitable consequence of such an attitude would force the government to provide subsidies to the public user, akin to fertilizer, also to purchase cement, ceramic and glass products as well!

The present stagnant mineral sector performance could be attributed to a combination composed of ad hoc and unmethodical practices adopted over the decades by the mineral based industry and inadequate assistance by the government, that too lacking in a long-term Mineral Policy. The only way to revive the current stalled situation is to remove Mineral Sector's nagging grey areas such as, exportability of mineral commodities and tax issues by introducing an updated Mineral Policy and formulating a Mineral Tax Law as early as possible.

Thus, when the path is cleared of doubts, new industries based on phosphate (Eppawala apatite), mineral sands (Pulmoddai and northwest), silica quartz (central province) and garnet (Hambantota district) focused on manufacturing products locally, both, for local and export markets, would no doubt come on stream.