

Proposed Norochcholai coal power plant:

A breach of court decision

By Hemantha Withanage

The proposed coal power plant at Norochcholai which was subjected to strong criticism in the 1998-2001 period has again come to the fore. The Government of Sri Lanka, particularly the Minister of Power and Energy has announced that the government will construct this 300 MW power plant which is the first stage of a 900 MW coal power plant at Norochcholai, despite the opposition the proposal still generates.

The Minister has also stated that the government will receive money from the Japanese Bank for International Corporation (JBIC) for this construction. Among the controversial projects funded by the Japanese are the Samanalawewa Hydro-power project, the Kirinda Fisheries harbour, The Southern Transport Development Project which is known as the Colombo-Matara Expressway and the proposed Upper Kothmale Hydropower Project. Funding projects that have major environmental impact, especially after hosting the Kyoto Conference, does not speak well for the Japanese.

The last two regimes abandoned the project construction in Norochcholai due to unresolved social, environmental as well as technical issues. If the present government is going to construct this plant they need to have answers and solutions for those issues, which will affect a large number of people in Norochcholai and places far away as fly ash can be carried to long distances with the heavy blowing of south west monsoon.

President Chandrika Kumaratunga stopped the construction of the Norochcholai Coal Power plant in 2001 after studying the various protests by the people and the Bishop of Chilaw and after discussion with the Bishop on the threat to the Holy Shrine at Talawila. This was given wide publicity during the last Presidential elections.

The Bishop and a number of others are of the opinion that this construction would have negative impacts on the Talawila shrine. Erosion has already affected the shrine in the past few dec-

ades. The sea which was more than 500 yards behind the church in the 60s is only about 100 yards behind now. The Holy well which was around 200 yards and the nearby cemetery are facing a threat. They fear that this construction will accelerate the erosion.

They also feel that the dust from the coal stockpile covering a large acreage will be a danger to devotees in open camps and to the Shrine itself in addition to the fine dust, fly ash from the stack, even though many filtering processes are planned. The bad experience of the Puttalam cement factory presently shows that the dust caused respiratory-related health problems to not only the residents around the factory but to people living along the path of the dust, during both the north east and the south west monsoons.

Moreover the coal stockpile itself will create a large amount of dust due to the heavy blowing from the sea, which will have a nasty effect on the villagers nearby and on their cultivation. It will be worse during unloading and plant feeding times, which would be a continued operation right round the year. Even fishing in Puttalam lagoon will be affected. According to engineering analysis, 2,640 tons of coal a day resulting in nearly 180 tons of fly ash and 40 tons of bottom ash daily will cause major environmental problems. Dumping of ash will be a major activity in this power plant where the land is very fertile and the fresh water layer is very little and only about 5 feet deep. Removal of the dunes to raise the ground level of the plant will affect agricultural activity due to the depletion of fresh water.

The cooling water drawn from the sea at an average temperature of 28° will be discharged back to the sea at a higher temperature of 35° at the rate of 45m³ per second when 3 x 300 MW plants are in operation. This would mean that millions of gallons will be sucked in and returned to the sea at a higher temperature driving away the marine life while harming the breeding process. Nearly 5000 families engaged in

the fishing industry will be deprived of their livelihood.

Presently, the biggest fish producing area - around 25,000 metric tons annually - will be subjected to security restrictions due to the 42 km conveyor belt into the sea with support structures and heavy movements of barges and coal carriers with a capacity of 60,000 MT affecting especially fishing operations.

Mr. Mubarak, a former development planning officer attached to the Development Planning Unit of UNDP, who was directly involved in the preparation of the Integrated Rural Development Program (IRDP) for Puttalam District and a key campaigner against the site of the power plant points out that dumping of bottom ash in land fillings and the seepage to the water table will cause severe hardships to agriculture in addition to the sulphur content in the fly ash settling on the crop and daily watering of the farmland.

More than 6,000 families directly engage in chili, onion and other vegetables and tobacco cultivation. National Salterns at Palavi and Puttalam which have a total extent of around 1,200 acres will also suffer as a result of coal dust and fly ash contaminating the salt production. Mr Mubarak says even the livestock in Puttalam and beyond will be affected. The 300 MW plant will require the 2640 MT of coal daily. A minimum of six months stock will be (2640 mt X 30 X 6) 475,200 MT. A metre-high storage facility will require over 100 acres of land while a metre-high facility will require 50 acres. To suppress the coal dust due to heavy blowing using sprinklers to cover this facility will be practically an impossible task. Even if it is possible the requirement of water if taken from the ground water resource will starve the agricultural crops and even the drinking water wells will dry up while there will be seepage of seawater. Desalination of seawater for this purpose will add to the cost of production of power.

The letter of comment on EIAR, sent by the Mrs. S.E. Yasarathne, Deputy Director General of the Central Environmental

Authority, dated 4 March 1998 addressed to the Director, Coast Conservation Department states that the proposed transmission line passes through the Puttalam lagoon and surrounding prawn farms for about 10 km of the total length. The number of towers to be constructed within this segment, extent of lagoon bottom used for construction of foundations of such towers the relative productive capacity of the areas lost have not been addressed in the report. Hence the effect of such construction on the lagoon, on lagoon ecology/fishery will have to be included in the report.

The letter also states that the basis for compensation for loss of productivity in agricultural lands, property losses due to construction of the transmission line and in providing the right of access to it have not been presented in the report. It further states, as the ground water level of the study area is only 1-4 m below the surface, precautionary action would have to be taken to avoid contamination of fresh water by possible seawater seepage during the construction phase, as ground water is the only source of water available for human consumption and irrigation in the peninsula. Therefore, adequacy of the mitigatory measures suggested in the report will have to be evaluated seriously.

The Central Environmental Authority is also worried about the extraction of sand, discharge of warm cooling water and air pollution control. Professor H. B. Kotagama, Head, Department of Agriculture Economics stated in his letter dated 1st February 1998 addressed to the Director Coast Conservation - one of the projects approving agencies - that the report does not contain an economic feasibility analysis either of conventional nature or an environmental cost benefit analysis. He further states that since the project is 900 MW in total and therefore it is appropriate to conduct the EIA for 900 MW than 300MW. He also states that the compensation package for resettlement is crucial and the EIA has not given much information on willingness to accept a settle-



File photo: A protest against the Norochcholai power plant

ment package by settlers.

Comments for the EIA sent by Dr D.S. Jayakody, Director General of the National Aquatic Resources Research and Development Agency dated 4th March 1998 states "generally it can be concluded that the bulk of the coastal resources are exploited by small scale fishermen in the area. As such any adverse effect comes as a result of tile thermal power plant will affect the day to day life of large number of small-scale fishermen living in the area". He further states that construction of 4.2 km long jetty may result in coastal erosion at least to a certain extent and as a result the sandy beaches in this area and the adjacent waters can be ecologically disturbed and this may cause adverse impacts on sea turtle nesting. He also states that this can affect the flying fishery in which 200-300 boats are operated in the peak season. He further stressed the possible damage to the beach, fishery and state adding that the "report says that the small increase in temperature above ambient at 100m down steamy distance from the outfall will not be detrimental to the fauna and flora. It must be emphasized that this report does not provide sufficient site-specific data on the ecology of the marine environment. This is not good enough for a project of this magnitude as this project will adversely affect the unique characters of the area ecologically."

Mr. A. Wickramanayake, Chief of the Mas-

ter Divers in his letter dated 4th September 2001 states "we were employed by the consultants of the above project to carry out sea bottom investigations at the above site in 1998 and we carried out work in the months of January/February 1998 as we could not work during the other months due to bad weather."

He further states that it is impossible to construct a 4.2 kilometre long conveyor belt in this area and it will be time consuming and very costly which will add to the unit price of the electricity produced. The conveyor will have to be supported by over 200 columns. The construction of these may take many years a, monsoon weather conditions will hamper the construction in the sea. He also states that it is not an easy task to maintain the belt on roller bearings due to corrosion and further the total investment will be at risk if there are terrorist attacks.

Eminent scientist, Dr. Janka Rathnasiri, in his comments to the EIA dated 25th April 1998 states that "according to the (above) CEB report, the fixed operational and maintenance cost for combined cycle gas turbine plant is much less than that for a coal power plant (USD cts. 35 kW Man vs USD cts 76 kW man). In addition, the following costs associated with operations that are unnecessary with a CCGT plant would be also added to the savings on 0 & M costs.

They are a) Cost of recovering coal dust from stockpiles, handling and

transport, b) Cost of treating waste water' containing coal dust, c) Cost of closely monitoring SO₂ and TSP levels including calibration of the equipments, d) cost of disposing of fly ash and bottom ash, and e) Cost of Fresh water for the steam turbines.

Professor D.C.H. Senarath of the Department of Civil Engineering of the University of Moratuwa, in his comments dated 18th February 1998 states that "de-watering during the construction of foundations could not only influence the yield of agricultural wells during construction but also cause intrusion of sea water leading to deterioration of the quality of well water." He also states as regards the possibility of contamination of groundwater by leachates from the coal stockpile area and the ash dump area of the possibility of cracks developing in the banded-areas have to be given due consideration.

The writer had previously stated on May 7, 1998 that according to the National Environmental Act (NEA) if a project which (at least part of the project) lies within their jurisdiction, NEA should prepare the EIA under the NEA. He further states that to their knowledge the project lies within the jurisdiction of the North Western Provincial statute, NEA and the Coast Conservation Act Part of the project (part of the transmission line is clearly located within the Jurisdiction of the NEA. Therefore, EFL argues that this EIA approval should be considered un-

der the NEA. This comment has further raised a number of environmental, social and technical questions together with clearing of the vast coconut land to erect the transmission towers and lines of 220 kv for over 100 km.

However, the final decision of the Court of appeal application 318/98, Environmental Foundation Ltd. Vs. Central Environmental Authority and others on the 28th June 2001, is a very important milestone. The counsel for the third respondent, Ceylon Electricity Board, stated, that his instructions are that the Cabinet of Ministers have directed the 3rd Respondent not to proceed with the present scheme and instead to look for an alternate site and also not to locate this coal power plant at Norochcholai.

Further, Counsel for the 4th respondent i.e Chief Minister of the North Western Provincial council stated that in the event the said power plant is to be located at Norochcholai the 4th Respondent would go through the provisions of the NEA Environmental Impact Assessment.

The case was moved to be withdrawn on this basis. Therefore the present move of the Government of Sri Lanka and the Ceylon Electricity Board is a breach of this court decision.

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