

Date: July 18, 2020

To: The Chief Minister of Sindh
From: Pakistan Fisherfolk Forum

Memorandum on Thar Coal

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Over the last decade coal power has come under intense scrutiny for its impact on the environment and its contribution to climate change. With this many countries are moving away from the reliance on coal. Contrary to this trend Pakistan is prioritising the use of coal for the production of energy.

It is in response to these developments that Pakistan Fisherfolk Forum, together with other like minded organisations, have organised the Alliance for Climate Justice & Renewable Energy. With the goal to assess and to bring to attention the impact of coal power production and with it to highlight the range of options in the renewable sector available to in particular the Government of Sindh.

Whilst coal power projects have unambiguous impacts on global climate, what we aim to highlight are the more local and regional impacts. With this focus we would like to highlight the following aspects which are demonstrative of the problems with Thar coal: environmental, social & health impacts and breaches and inadequacies of the regulatory structures and public participation. At the same time we would also wish to bring attention to broader concerns around excess capacity in the energy sector whilst emphasising the potential of renewable energy specific to Sindh.

On the Environmental Costs of Coal

On Water

Coal power requires huge amounts of water in its production cycle. Given that Thar is a desert and suffers from water scarcity the attempts to resolve this has involved a range of projects which both impact water access and rights in Thar itself, but also to a range of water users whose water will be diverted for power production. In the next 30 years it is estimated that 8,500 billion gallons of water will be used to produce 10 gigawatts of energy and an additional 4,000 billion gallons of water will be used for mining.

On the one hand in the act of mining a number of aquifers are dewatered with a significant cost to the local hydrology, destroying what little groundwater resources that are currently available for the people of Thar. On the other, sourcing water from the wider river network has proven both difficult and costly and most importantly to the detriment of other water users, whose rights have not been adequately considered. The massive extent of the impact on water in Thar is the subject of an upcoming independent report which is expected to be launched in August 2020.

Our team visited the site of Nabisar dam which is the latest in the line of projects attempting to deal with the water requirements for Thar coal. Remnants of the earlier plans, dams/reservoirs in both Nabisar and Vajihar, stand as white-elephants when it was concluded that the plan to draw water from the LBOD was technically unsound given its extreme salinity.

Now two additional reservoirs are being built at Nabisar and Vajihar, together with a 62km pipeline to connect the two, to provide water for Block I. 200 cusecs of water will be drawn from the Farsh-Makhi canal. Experts have questioned this plan with concerns around extreme levels of evaporation from the reservoirs, together with the build up of salinity suggest that this is not a technically viable option (see Dr Mark Chernaik's Evaluation of the EIA for the Proposed Supply of Water from Nabisar to Vajihar, June 2020). Similarly given the excessive draw on water from the existing canal network no accounting has been made for the impact upon lower riparian users. It must also be noted that the Nabisar reservoir is located on the bed of the old Hakro River whose flood channels feed the Shakur Lake. The consequences for irrigation, drinking water and fishing stocks remain completely unaccounted for.

On Pollution

A recent report by the Centre for Research on Energy and Clean Air (May 2020) presents a clear picture of the devastation that Thar coal will cause for the local communities. The planned coal power plants would make Thar one of South Asia's hotspots for air pollution including mercury and CO2 emissions. Planned Thar Coal will emit 1400kg of mercury per year which will find itself deposited on land in the region and invariably find itself into the water cycle. Similar pollutants are expected to have a massive impact on the health of local people. Over 100,000 people will be directly affected, with a litany of health consequences: an estimated 29,000 additional deaths, significant increases in incidences of pre-term births (32,000), asthma emergency hospital visits (40,000), increased asthma amongst children (19,906), and parallel

increases in COPD, diabetes and stroke. Given that studies have now linked COVID 19 mortality to air pollution, the communities of Thar are being consigned to generations of suffering and death consequent to the exploitation of their lands.

On Regulatory Failures and the Failure to Conduct Meaningful Public Engagements

Any perusal of EIA's associated with Thar Coal will demonstrate the usurping of the interests of Thari communities, a failure to conduct meaningful public engagements, and most importantly the lack of accountability of the companies involved.

The aforementioned report by CREA indicates the extent to which the EIA's fail to assess the real costs of air pollution, using accounting tricks to obscure the costs as well as inadequately assessing the cumulative impact of Thar coal. Similarly the report on the Nabisar-Vajihar EIA highlights the critical failures in the EIA. It is a concerning pattern.

The consequences for this pattern is that the rights of Thari communities are being erased. Combined the Nabisar and Vajihar reservoirs will require almost 500 acres of land, the pipeline will add another 325 acres to this amount. Much of this land is grassland, gowchar, which is crucial for livestock and livelihoods of Thari communities. The historical range of rights that subsist in these lands is erased and with it the lives of these communities. The local ecology, hydrology and society will be irreversibly destroyed.

The nature of the engagements with the local communities also demonstrates the priorities of the Government of Sindh. Public hearings have consistently been used not as a forum for consultation but a box-ticking exercise with no consideration on actual participation. Public hearings have been scheduled on Diwali (12th Nov. 2012), during the Corona virus epidemic and publicised in English newspapers with little concern around language and literacy, SEPA and the Sindh Government have demonstrated that their interests are tied to those of Thar Coal and not towards protecting the rights and safety of local communities and those of Sindh more generally. Recent, EIA report, and public hearing on the Nabisar-Vihar water supply project demonstrates the importance of public engagement and disclosure of the details of the project in the eyes of the Sindh government. The EIA was a sham report. The environmental consultant was even not aware of the provincial laws applicable on the project. For instance, Sindh

Occupational Safety and Health Act, 2017, Sindh Solid waste Management Board Act, 2014, and Sindh Environmental Quality Standards have been completely ignored in the EIA report but still SEPA allowed this incomplete report to be placed before the public for the public hearing.

On Energy and Excess Capacity

It is becoming increasingly clear that the thirst for more and more power production is blindly being followed without an adequate understanding of the actual needs and requirements of the people of Sindh and of Pakistan. Overcapacity is a phenomena that numerous other countries have faced, finding themselves burdened with excessive payments that they are ill-equipped to sustain. Pakistan is similarly burdened and yet remarkably two major power projects in Thar have achieved financial closure this year. In June this year the Institute for Energy Economic and Financial Analysis (IEEFA) released a remarkable report highlighting Pakistan's energy crisis. It is a clear and unambiguous explanation of the nature of over-capacity, reduced demand (expected to be more pronounced with COVID 19), and thus stranded assets. The Government of Sindh must recognise the financial consequences of continuing with Thar Coal.

On Renewables in Sindh

At the same time it is also clear that Sindh is the renewable energy leader in Pakistan. That it continues to support coal power emphasises the deep failure of planning. Whilst it is clear that there are a number of institutional barriers towards exploiting the use of renewables in Sindh (for example, the limits on provincial power in power purchase and distribution and also the inconsistent regulatory framework), it is also clear that Sindh has an incredible potential in producing electricity using wind and solar energy. Both IEEFA (in February 2020) and The World Wind Energy Association (in June 2020)) have produced reports detailing this potential. Both clearly and unambiguously outline the benefits of renewables, and in particular the centrality of Sindh in this equation.

On Ways Forward

The five reports that we have cited and more particularly the experience of the people of Thar highlight to us the priorities of the Government of Sindh. The focus on producing coal energy in Thar despite the significant costs - financial, environmental, and human - demonstrates how out of touch the Government is with international analysis and consensus in addition to the voices of the people of Sindh and Thar.

Bearing this in mind we demand that the Government of Sindh take appropriate action in response to this knowledge and experience, in doing so we demand:

- i) A clear focus on the people of Thar, their safety and their lives;
- ii) Increased transparency and accountability around coal energy, including an end to the presentation of bogus EIA's and encroachment on traditional rights to gowchar lands,
- iii) The protection of the water resources of Sindh currently at risk due to the demands of coal power;
- iv) An end to the inexorable rush towards coal power;
- v) A clear focus on centralising renewable energy.

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Reports Attached:

- 1) Nicholas, S. & Buckley, T (2020): 'Pakistan's Outdated Power Expansion Plan Exposed to Stranded Asset Risk' (IEEFA)
- 2) Nicholas, S. (2020): 'Thar Coal is Locking Pakistan into Unsustainable Capacity Payments' (IEEFA)
- 3) Ashfaq, Z. (2020): "Fostering Renewable Energy Development in Sindh: Identification of Impediments and the Way Forward" (WWEA)
- 4) Chernaik, M. (2020): "Evaluation of the EIA for the Proposed Supply of Water from Nabisar to Vajihar" (Alternative Law Collective)
- 5) Myllyvirta, L. (2020): "Air Quality, Health, Toxics Impacts of the Proposed Coal Mining & Power Cluster in Thar, Pakistan" (CREA).