

Review/Feedback and Inputs on the Sindh Climate Change Policy and Implementation Framework

May 2022



BACKGROUND

Following the National Climate Change Policy of 2012 and its implementation framework, the Government of Sindh undertook institutional measures and established a provincial implementation committee. The committee had participation of over 13 related departments.

In its initial meetings, the committee felt that the province of Sindh may require a separate climate change policy, as the national climate change policy was not addressing key areas specific and important to the ecology of Sindh. Critical among these were sea intrusion from the coastline and preservation of marine resources. A system was therefore put in place to devise a separate climate change policy for Sindh. The content development was led by Lead Pakistan, incorporating consultations with department-nominated focal persons. Following the submission of zero draft in 2016, a second round of consultations took place. The policy has been uploaded on the [website](#) of the Environment, Climate Change & Coastal Development Department of Sindh,¹ and open for public view/comments.

Taking the opportunity of a possibility of a public debate on the policy, The Knowledge Forum, in collaboration with the National Commission for Human Rights (NCHR), brought together the civil society and climate activists of Karachi on April 15, 2022 to discuss and provide input on the Sindh Climate Change Policy and Implementation Framework before it is presented to the Sindh cabinet. The Knowledge Forum has been involved in knowledge production and discourse curation on human rights and development related themes since 2021. The organisation has been working

closely with climate activists to advance the climate change debate, particularly focusing on energy transition away from fossil fuels and towards renewables.

The consultation was attended by environmental experts, climate change activists, lawyers, journalists and civil society as well as rights activists. Member NCHR (from Sindh) Ms. Anis Haroon presided over the meeting. Prominent among the participants included Director of Sindh Environmental Protection Agency Waqar Hussain Phulpoto, Additional Secretary, Energy Department Dr. Abdul Shakoor Abro, senior trade union leader Habibuddin Junaidi, senior urban researcher Muhammad Toheed, Director of Aurat Foundation Mahnaz Rahman, Members of Sindh Human Rights Commission (SHRC) Pushpa Kumari and Zulfiqar Shah, gender expert Sarah Zaman, Zahid Farooq from Urban Resource Centre, senior lawyer Altaf Hussain Khoso, Maaz Tanveer from HANDS, Abdul Rafay from Alternative Law Collective, Iram Aijaz from the Pakistan Red Crescent Society, environmental activists Yasir Husain, Basil Andrews, and others. Madiha Latif of the Pathfinder International was also consulted separately for remarks on gender and reproductive rights in the policy.

Following a fruitful discussion where the departmental representatives of the Sindh Government shared related information on the policy and a thorough discussion with participants, a set of recommendations were documented by The Knowledge Forum. These are being shared with the Environment, Climate Change & Coastal Development Department of Sindh.

¹Link removed when the page was visited on 17 May 2022



THE POSITIVES

- The consultation welcomed the policy as a clearly spelt out roadmap which is critical to address the worsening climate woes of Sindh. As the policy itself notes, “Sindh stands out as the most affected region facing the severe impacts of climate change. Mean daily temperatures in Sindh province are projected to increase by about 5°C during the 21st century, while climatic patterns such as increasing incidences of droughts, heatwaves, air pollution due to rapid urbanization and industrialization, and water insecurity are predicted to become more common in coming years.”
- In this backdrop there is need for a policy to comprehensively outline legislative, institutional, coordinating, financing and operational infrastructure so that rapid action to combat the impacts of climate change in the province can be ensured.
- The participants appreciated the policy's emphasis on the need for devolving the subject of the environment down to the district level. They emphasised the need to strongly incorporate the institution of the local government, which, operating at the neighbourhood level, is an enabler of participatory democracy. Local Government has a major role in protecting people and property from climate risk.
- The consultation also appreciated that the policy makes an effort – albeit restricted – to acknowledge vulnerabilities of communities and groups across the province.
- It was also noted that the policy creates the possibility of climate forecasting through data collection.

Moving on from acknowledgement of the positives, there is need to highlight the misses, the underappreciated, and unacknowledged points linked to climate change in the policy, with the proposal to addressing these gaps so that the policy is better equipped to tackle specific climate change challenges of the Sindh Province. A summary of key points are shared below:

UNACKNOWLEDGED



Concretisation is not recognised as a problem:

- The policy does not recognise concretisation as a problem. Surface concrete – manifested in roads, highways, cement-based buildings, unbridled web of private housing societies in Pakistan – has been marked as the biggest threat to eco-security² and is linked with water, soil erosion, water pollution and flooding, toxicity and hazard to human and animal health. Most importantly, concrete is a major contributor to Urban Heat Island because of its heat trapping properties. Successive heatwaves in the last decade have led to undocumented killing of countless citizens. To ignore the expansion of what stands as the root cause of climate change suggests the policy supports the status quo.
- Likewise, the report mentions reservoirs as one of the main causes behind water scarcity in Sindh. However, the policy fails to put in place any direction to do away with reservoirs and dams for their anti-environment role. This further suggests a continued preference for concrete-led, large scale infrastructure which is detrimental to the cause of ecology and environment sustainability.

² “Concrete: the most destructive material on Earth”, Guardian, February 25, 2019 at <https://www.theguardian.com/cities/2019/feb/25/concrete-the-most-destructive-material-on-earth>

Fossil fuel based development:

- As with concretisation, the report also does not recognise fossil fuels as an area of concern. The role of fossil fuel in driving climate change is well established. In this regard, energy features as the most critical element. The World Resource Institute identifies burning of fossil fuels for electricity as contributing to the third of global greenhouse gas emissions. In terms of Pakistan, Sindh has emerged as the centre of coal based electricity production and also gas production. Coal fields of Lakhra, Jhimpir, Tharparkar in Sindh alone produce 4,438,497 out of total 8,735,090 tonnes of coal in the country.³ Likewise, in terms of gas, Sindh contributes 844,688 Million Cubic Feet out of 1,316,635 Million Cubic Feet produced in the country.⁴ The climate change effects of coal and gas are well established. Gas emits methane, a potent climate pollutant by leakages during various stages from wellhead to transportation along the pipelines. Production of gas as energy (through fracking and associated activities) is recognised as a leading source of methane emission, which has 80 times the heat-trapping potential of carbon dioxide. Reducing methane emissions, particularly from the fossil fuel industry is a critical step in the fight against climate change.⁵
- Taking advantage of the presence of one of the largest coal deposits in the province of Sindh, Pakistan has massively expanded its coal power generation activity. Coal consumption has increased from 8.71 Million Tonnes in 2014-15 to 25.15 Million Tonnes in 2019-20.⁶ Coal production has risen from 3.44 Million Tonnes to 8.74 Million Tonnes, with Sindh contributing the highest share.⁷
- However, coal mining influences all spheres of the environment (atmosphere, biosphere, hydrosphere, and lithosphere), Researches — studying the Sindh Engro coal mining — have found an unsustainable relation between the environment and coal mining. Citing as an example, even while the Sindh Engro Coal mine is not fully explored yet, it is already ranking high on the multiplication of assigned points to individual components and correlation matrix which included human health and safety, social interaction and quality of life, water pollution, air pollution, soil erosion, biodiversity loss, above-ground interferences, underground interferences, aesthetic degradation, noise pollution, and economy.⁸ There is reason to believe that an assessment of other coal mines in Sindh — Lakhra, Sonda-Thatta, Jherruck — may not generate any different results.
- It has been established in the literature that greenhouse gas emissions from coal mining have exceeded the remaining sectors of the global carbon budget. By expanding coal development, Pakistan is in direct violation of its international commitments to reducing emissions.

MISSES



- To effectively contextualise the problem of climate change impacts in Sindh, it would have been useful to run a data generation exercise on climate change related outcomes such as climate-led migration, heatwave killings, emissions in Sindh generated from industry and transport, and its impact on temperature. Local climate zones are also not provided as only three zones of temperature are identified in the policy. The world is now moving towards local climate zones to respond effectively to the specific manifestations and impact of climate change.
- The climate change activists community believes the outlining of the specifics is critical for a policy to concretely identify solutions for the rapidly evolving picture of climate change in Sindh. In this regard, they point out the non recognition of specific marginalised communities such as senior citizens, workers, especially those from the informal sector working in indoor or outdoor heat, and anaemic patients. These communities struggle to cope with climate emergencies, especially heat waves which are becoming frequent in Sindh. Specific measures with respect to their protection need to be emphasised.
- Likewise, a survey determining the impact of different industries and sectors and their footprints on the environment would have elaborated the picture of the

³ Pakistan Energy Yearbook, Table 4.2 Production of Coal by Field

⁴ Pakistan Energy Yearbook 2020, Table 3.2 Natural Gas Production By Type/ Province

⁵ Natural Gas 101, Natural Gas Resource Defense Council, <https://www.nrdc.org/stories/natural-gas-101#whatis>

⁶ Pakistan Energy Yearbook 2020, Fig 4.2, Coal Consumption by Sector

⁷ Pakistan Energy Yearbook 2020, Figure 4.1 Coal Production

⁸ Mohsin, Muhammad, Qiang Zhu, Sobia Naseem, Muddassar Sarfraz, and Larisa Ivascu. 2021. "Mining Industry Impact on Environmental Sustainability, Economic Growth, Social Interaction, and Public Health: An Application of Semi-Quantitative Mathematical Approach" Processes 9, no. 6: 972. <https://doi.org/10.3390/pr9060972>

⁹ Interview, Ali Tauqeer Sheikh, Climate and Knowledge Development Network at <https://cdkn.org/story/opinion-after-paris-pakistan-ali-t-sheikh>

contribution of heavy emitters and natural resource extractors on Sindh's environment. This would not only settle the liability question but it would also create space to suggest industry-specific measures. Currently, the policy is silent on these fronts.

- In terms of institutions, the policy needs to identify the vital institutions that are dysfunctional. For example, the Sindh Environmental Protection Council, which is responsible to co-ordinate and supervise the enforcement of the provisions of the Sindh Environmental Protection Act 2014, while also approve comprehensive provincial environmental and sustainable development policies and ensure their implementation – it has a number of important coordination and assistance functions – has never been functional, despite the passage of eight years since the provincial environmental protection act.
- At the same time, the Environment, Climate Change & Coastal Development Department (ECC&CDD), Government of Sindh, which was established in 2016 comprises of the Sindh Environment Protection Agency (SEPA), Sindh Environment Protection Tribunal (SEPT), Sindh Coastal Development Authority (SCDA) and Climate Change. It is ambiguous how SEPA is functioning, both individually and as an arm of the ECC&CDD, without the very council responsible for running it.
- The policy has not taken note of the inactive status of the Council as a problem area. It also fails to outline the role of critical institutions such as the Forest Department and the Land Revenue authorities in the configuration of the new alliance created between SEPA and Coastal Development Authority.

Practices:

- The report critically identifies a lack of action on the part of SEPA with regard to the revision of air quality standards and publishing data on environment every year. Given that SEPA has not done its job, the policy should suggest a mechanism that may ensure that SEPA delivers on its mandate.
- There is no mention of the role of the District Disaster Management Authorities (DDMA). Only Deputy Commissioner's office has been identified. This is in line with the current provincial government's practice of relegating all disaster related responsibilities to the deputy commissioner system. Given the importance of the district disaster management authority that specialises in disaster response, a clear mention in the policy would help promote the significance of well-established specialised institutions at the district level.
- The policy needs to review existing practices and their failures. For example, there is need to reconsider the viability of relying on self-reporting on Social Impact Assessment and Environment Impact Assessment by industries. The industries comply with this obligation by using the services of hired consultants whose credibility and transparency is doubted since they are being paid by the industry. There is a strong need to develop governmental capacity along with local CSO/NGO participation and the involvement of the local community so that there is a more responsible and accountable structure to cover impact assessment.
- We propose that the inclusion of SEIA's (Strategic Environment Impact Assessment) could be one such mechanism. As a systematic process for evaluating the environmental implications of a policy, plan or programme SEIA provides means for looking at cumulative effects and appropriately address them at the earliest stage of decision making alongside economic and social considerations. By providing recommendations at a strategic level, the Strategic Environment Impact Assessment provides a better control over interactions or cumulative effects.¹⁰ No project should be considered individual and all similar ones should be equally assessed. In this regard, a targeted legislation and framing of rules is suggested. The agenda would be best pushed forward if outlined by the climate change policy.
- As a matter of practice, it would be useful to have the policy outline fundamentals of a regulatory framework for the Climate Change Department, so that it is aligned with the objectives and goals of the Climate Change Policy.

¹⁰ "Strategic Environmental Assessment", Official website of the European Union, at [https://europa.eu/capacity4dev/public-environment-climate/wiki/strategic-environmental-assessment#:~:text=A%20Strategic%20Environmental%20Assessment%20\(SEA,making%20alongside%20economic%20and%20social](https://europa.eu/capacity4dev/public-environment-climate/wiki/strategic-environmental-assessment#:~:text=A%20Strategic%20Environmental%20Assessment%20(SEA,making%20alongside%20economic%20and%20social)

Corporate Social Responsibility:

- There needs to be a comprehensive policy to locate the significance of corporate social responsibility in the backdrop of climate change realities. Internationally, CSR is increasingly becoming more climate-tuned, focusing on activities that promote protection against the negative impacts of climate change. A redesigning of CSR goals in the backdrop of climate change realities is required to align CSR with the corporate sector's contribution to the environment agenda of Pakistan.
- Moreover, communities and civil society have repeatedly registered concern that Corporate Social Responsibility funds are not trickling down to communities despite contention by exploration companies that they are providing funds to district administration. A strong monitoring of CSR parameters and a check on companies' CSR activities, led by communities, need to be put in place.

The Policy and the Community:

- The policy suggests a disoriented approach towards community. It blames indigenous communities for shrinking mass of rangelands, forests, and mangroves, while making no mention of the role of the timber mafia, industrialization, and commercialization in depletion of natural resources. Targetting economically deprived communities for creating conditions of climate change not only signals an unjust approach, it also suggests the policy-makers' lopsided view of the causes behind climate change and deliberate avoidance of the acknowledgement of powerful actors and institutions responsible for environmental degradation in the province.
- The policy emphasizes on ensuring and securing the interests of the vulnerable groups. However, a consultative plan in this regard has not been spelt out.
- The policy also misses emphasising community participation in adaptation and mitigation measures. People are directly affected by climate change with the change in weather patterns.
- It is a matter of fact that communities, especially in rural and less developed areas, not only face disintegration and displacement due to climate change led factors, they also bear the burnt of development practices. Their role as protector of environment and natural resources needs to be recognised followed by capacity building and provision of necessary tools to enable them to contribute to security and preservation of natural resources at the grassroots.
- The policy categorically recommends restorative measures but does not include the mention of a resettlement policy for communities affected by infrastructure development – such as coal development, hydropower infrastructure – that is contributing to climate change impacts on Sindh.
- The policy should explicitly lay out prioritisation of indigenous knowledge of the rural population in environment and natural resources protection and overall climate change policy. In that context, it should also spell out a decentralisation process gathering climate change solutions down to the grassroots.
- The policy gives weightage to the importance of local knowledge in the process of development and otherwise. However, it remains silent on contentious points, for eg what will happen when the testimony of indigenous knowledge directly contradicts scientific reports? Whose opinion shall have precedence?
- It is proposed that this policy should subject development projects to the consent of the effected communities and in this regard, a certain percentage of weightage should be outlined for community's opinions and concerns about a development project. Communities' rights take precedence as they are directly affected by infrastructural and industrial projects since those compromise their livelihood and access to natural resources.

Gender:

- On the count of gender, the policy is observed to have failed to link critical institutions and solutions to gender. Additionally, it also dismisses recognition of special impact on women of climate induced food shortage, migration, and disasters. There is no mention of maternal malnutrition, pregnancy, post pregnancy and increased burden of fertilities. No mention of gender based violence, vulnerabilities because of compromises on sexual and reproductive health.
- Family planning and reproductive health needs to be interwoven with climate change. And in that, respect and dignity of bodily autonomy is critical. Terms such as "population control" as a measure to reduce burden on natural resources need to be reconsidered as climate change necessitates promoting community development and family health, rather than controlling it.
- It is imperative to consider the nexus between climate change and sexual and reproductive health; the interlinkage is important as a means to understand and recognize that without addressing sexual and reproductive health needs of women, particularly related to family planning, the carbon footprints will continue to exacerbate climate impact and impact access and distribution of essential survival resources, including shelter, food and water. Evidence demonstrates that under climate adverse conditions, women and girls particularly suffer higher rates of macro and micronutrient deficiencies, which leads to their increased vulnerability to maternal mortality and morbidity. Nutrition deficiencies can also be further exacerbated due to practices that may prioritize allocation of limited resources based on gender. This impacts women and girls across their lifecycles, from puberty, pregnancies and nursing, and inadvertently impacts neonatal and child health, leading to high maternal mortality and infant mortality rates.
- It is therefore proposed to make the following amendments to the Strategic Objectives/ Outcomes under implementation framework on human health outlined in the policy: Promote research as well as evidence generation on the nexus of climate change and health (spread, prevalence, and incidence of disease; food security; water security; reproductive health and indoor air etc.)
- In terms of the composition of the governance and coordination for implementation of the Provincial Climate Change Policy, it is proposed that any implementation committee/structure should include Secretary of Health and Secretary Population Welfare.

Assessing and rationalising water consumption:

- The policy has suggested no solid measures to control the reckless misuse of water, by mega projects, sprawling housing societies, infrastructure development and industries. There is a need to legislate, structure and monitor the rampant withdrawal of ground water.
- The policy also needs to review the existing water use for infrastructure projects and industry-specific utilization to estimate their impact on the groundwater resources, not just in terms of quantity but also in quality and flow patterns. (e.g. Thar Coal, Cement industry, etc). Before the establishment of any project, the water licensing mechanism should include water use assessment as a separate component which should also be incorporated in the EIA.

MISCELLANEOUS AREAS



- The report proposes a review of key thematic areas i.e. agriculture, irrigation, forestry, industries, health, education, energy, WASH, etc. for identifying any gaps for alignment with the Climate Change legislation and commitments. It needs to expand this review exercise to include the Land Acquisition legislation, the mandate and authority of port agencies, hydrology practices, and energy merit order.
- We demand that environmental jurisprudence (examples include precautionary principles, polluter pays, inter-generational equity, ideas of the Anthropocene, Paris and other climate related agreements) should be part and parcel of the development process and projects.