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# NEWSCLIPPINGS

**JANUARY TO JUNE 2019**

## ENVIRONMENT



## Urban Resource Centre

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## Air pollution termed greatest environmental threat to health

Describing air pollution as the world's single biggest environmental health risk, experts at a three-day international conference, which concluded at Karachi University (KU) on Sunday, called for collaborative research efforts to determine the impact of specific sources of air pollution on human health.



They were speaking at the fifth international conference on 'Environmental horizon, sounding the alarm! Environment, climate change and health' organised by KU's department of chemistry and Office of Research Innovation and Commercialisation (ORIC), and International Centre for Chemical and Biological Sciences (ICCBS).

Sharing global concerns on air pollution, Dr Haider A. Khwaja from Wadsworth Centre at the School of Public Health of University at Albany in New York, said that air pollution was a serious public health issue the world over as population-based studies had documented health risks resulting from short-term exposure to air pollutants.

"The World Health Organisation reports that in 2012 around seven million people died — one in eight of total global deaths — due to exposure to air pollution. This data confirms that air pollution is now the world's largest single environmental health risk," he noted. He said that the South Asian and Western Pacific regions had the largest air pollution-related burden in 2012 with 2.6m deaths linked to outdoor air pollution and 3.3m deaths related to indoor pollution, according to WHO.

A significant number of these deaths, he said, occurred due to stroke and cardiopulmonary diseases. These findings were not based on a significant increase in pollution but rather on improved knowledge of the links between air pollutants and cardiopulmonary diseases.

Dr James J. Schauer, a senior civil and environmental engineer heading the Wisconsin State Laboratory of Hygiene at the University of Wisconsin-Madison, said that the association of atmospheric particulate matter particles with adverse health effects had been well established and led experts to develop standards on these pollutants and implement control measures.

According to him, different strategies can be used in air pollution control programmes to reduce the impact of particulate matter, also known as particle pollution, given the complex nature of the sources of these pollutants.

He emphasised the need for collaborative efforts between atmospheric science studies and epidemiological and toxicological studies to establish how specific sources of air pollution were affecting human health.

Sheryl H. Ehrman from Davidson College of Engineering, San Jose State University, USA, informed the audience that anthropogenic pollutants had been successfully reduced in the mid-Atlantic region of the United States, resulting in improved air quality.

However, she said that parts of the mid-Atlantic were still non-attainment regions (areas which are considered to have air quality worse than the National Ambient Air Quality Standards as defined in the Clean Air Act Amendments of 1970 of the United States).

The ozone, she pointed out, was a secondary air pollutant, formed by reactions between volatile organic compounds and nitrogen oxides. Ozone precursors were mainly emitted by power plants, motor vehicles, industrial operations and biogenic sources.

"In the past several years, a new influx of emissions associated with hydraulic fracturing-based production of natural gas in the Marcellus Shale (the largest gas field in the US) may be counteracting the benefits that have been gained. On the flip side, low-cost natural gas could replace coal as fuel for power plants, potentially reducing emissions," she observed.

Another speaker, Parisa A. Ariya of the department of chemistry and department of atmospheric and oceanic sciences, McGill University, Montreal, Canada, shared that the International Panel for Climate Change (IPCC) and WHO had identified airborne particles as a research priority of the utmost importance.

She said the IPCC pointed to the importance of aerosol-cloud processes due to their impacts on the absorption and scattering of irradiation, altering the earth's climate whereas WHO predominantly considered aerosols to be health hazards.

Former federal minister for science and technology Atta-ur-Rahman spoke about how progress in science and technology had dramatically changed socio-economic conditions in different countries.

Director ICCBS Prof M. Iqbal Choudhary said biodiversity was a manifestation of chemical diversity and plants contained a fascinating array of highly evolved, specific and effective gene products.  
(By The Newspaper's Staff Reporter Dawn, 16, 15/01/2019)

## Sepa holds another 'questionable' public hearing

How the entire process to hear out public concerns over the city's major infrastructural projects has turned into a farce became obvious once again on Monday when the Sindh Environmental Protection Agency (Sepa) organised an event in violation of its own rules and regulations.

The proceedings saw heated arguments from many participants including social activists, journalists, consultants of the project, and its proponent, mainly because Sepa organised the event without doing its basic homework, a practice which has become a norm at the department.

The public hearing pertained to the environmental impact assessment (EIA) of Jinnah Heavens, a ground-plus-10-floor building planned to be built at Plot No. 21 of Sector 53-A, Deh Dozan Tappo Gujro, located in the jurisdiction of Malir Cantonment Board (MCB).

*EIA report shared on project contained discrepancies and violated several Sepa regulations*

Like most public hearings, Sepa allowed the project proponent to share an EIA report which contained discrepancies and lacked the mandatory no-objection certificates from various utilities, thereby violating Section 9 and Section 17 (3) of Sepa regulations.

According to these rules, every EIA report shall be accompanied by no-objection certificates from relevant departments and “every review of an EIA shall be carried out with public participation and subject to the provisions of this act, after full disclosure of the particulars of the project.”

The absence of NOCs from utility services, stakeholders feared, would cause lots of problems once the project is completed, for prospective apartment buyers as well as other Karachiites already facing serious shortages of water, gas and electricity, among other issues.

Dr Syed Raza Gardezi of Citizens for Environment argued that Sepa was responsible for ensuring that the EIA document “was comprehensive, factual and free of discrepancies” before it was uploaded on its website.

“However, this is not the case as contrary to what’s described in the EIA report as a purely residential project (Jinnah Heavens), the MCB approval dated Nov 23, 2018 states that the ‘proposed sanctioned building consisted of commercial/residential floors.’”

“When was this plot commercialised and where is its NOC for commercialisation? Secondly, the plot area as mentioned in the EIA report is 8,712.80 square yards whereas MCB approval per annexure 1 is for 1.32 acres, which comes to about 6,388.8 square yards,” he said, pointing to the difference of 2,324 square yards.

Seconding these arguments, some participants questioned Sepa officials over their ineptitude and asked them to prepare a checklist as per the rules to have more constructive discussions in hearings.

None of the Sepa officials led by director Ashique Ali Langha, however, could offer plausible explanations to these objections. His defence was: “We have noted down your concerns and will take them up in the expert committee meeting at the next stage. Rest assured that Sepa’s approval will only be for a residential project.”

To a question as to why Sepa held public hearings without vetting the EIA reports, Mr Langha said: “The department faces issues of capacity-building and staff shortage. We are also being groomed (through these public hearings).”

There was also a call for cancelling the public hearing on grounds that Sepa should come up with “full, factual information” on the project and also take clearance from the National Accountability Bureau which, it was shared, had sealed numerous projects on Jinnah Avenue (the same road on which Jinnah Heavens is located) for being illegal and built on encroached land.

**Builders defend project**

The failure of Sepa to properly handle proceedings and aptly reply to public concerns led to commotion during the event and most questions directed towards Sepa officials were taken up by the project consultants and the proponent.

On the plot’s nature, representatives of M/S Prime Properties, the builders proposing the project, disclosed that it’s a commercial plot but the project was purely residential. A high-rise couldn’t be built on a residential plot and the MCB left inclusion of commercial components on the project proponent’s discretion, they argued.

About NOCs, it was explained that “all utilities do not give an NOC until a structure is built which is first surveyed and later the connection is approved.

“Hence, applications have been sent to them, which would be approved in due time,” said Shahid Lutfi representing the Environmental Consultancy Service (ECS), which conducted the project’s EIA. He added that approvals from Pakistan Air Force and Civil Aviation Authority had been taken.

To a question relating to the plot size, he said that designs and maps attached with the EIA report clearly stated that the plot size was 1 acre 32 gunta (8,712.80 sq yards).

Earlier, Mr Lutfi gave a presentation on the project according to which the ground and first floors would be reserved for parking and second to seventh floors for a total number of 126 flats plus circulation area. The key features of the project include a firefighting system, emergency exits, a reverse osmosis (RO) plant and a solar system of 55kW.

The question regarding disposal of toxic RO waste into Malir River was ignored.

No official of MCB was present at the hearing.  
(By Faiza Ilyas Dawn, 16, 23/01/2019)

### **Sepa shares another 'flawed' EIA report in public hearing**

Violating its own rules and regulations, the Sindh Environmental Protection Agency (Sepa) presented another 'flawed' Environmental Impact Assessment report for public perusal on Tuesday at a local hotel.

The document lacked no-objection certificates (NOCs) from utility services as well as information as to how an amenity plot could be used for a ground-plus-20-floor private healthcare project.

The project is proposed at Plot No. ST 18-D at Nipa, University Road, within the jurisdiction of Gulshan-i-Iqbal Block 6.

It's the same site which was earlier being used for Nadeem Medical Centre.

The proponent of the project titled Rome is M/s Avicenna Healthcare 1 Pak (Pvt) Ltd whereas the project's EIA report is prepared by Environmental Management Consultants (EMC) Pakistan Pvt Ltd.

The 370-bedded hospital project is planned over 1.44 acres.

#### **'Commercial activity'**

It is important to mention here that Section 9 and Section 17(3) of Sepa Regulations 2014 require that every EIA report shall be accompanied by no-objection certificates from relevant departments and "every review of an EIA shall be carried out with public participation and subject to the provisions of this act, after full disclosure of the particulars of the project".

However, Sepa itself has been violating these rules since long and, therefore, defeating the very purpose of holding public hearings. Similar to what happened last week during the hearing of Lacasa One project, the environmental watchdog couldn't give satisfactory explanation when asked about the plot status and its proposed use.

"This ST-18 plot was a big amenity plot which at some stage was subdivided into A, B, C and D (categories). There is no document with the EIA report to clarify what ST-18-D is designated for," said Dr Syed Raza Gardezi of Citizens for Environment, questioning whether the proposed hospital was charitable or commercial.

Referring to Sindh Building Control Authority rules, he argued that the status and nature of an amenity plot couldn't be changed, nor could it be used for any commercial activity as the case appeared from the project's features and the matter should have been investigated by Sepa prior to the EIA report's presentation at the public hearing.

"The project proponent has claimed (in the EIA report) that the project aims to provide a private hospital of choice for low and middle classes in Karachi but do they have any idea about the buying capacity of low-income groups who rely on government health facilities where they could get a bed for Rs2?" Dr Gardezi asked.

Sharing similar concerns, other stakeholders suggested that while the project proponent had all rights to make profit from its investment, it must avoid giving "false information" and state only facts.

Replying to this concern, the project proponent represented by a team of consultants and partners, including Sohail Siddiqui, Khawaja Khalil, Saquib Ejaz Hussain and Andrew Currie and Arnot Wagner of Evercare Group, told the audience that the project aimed at "making quality healthcare affordable and would be 20 to 30pc cheaper (as compared to high-cost health facilities in city)".

Responding to concerns that the location in the middle of the city with "high noise levels was not suitable for a hospital project", it was argued that the location was the "best site for the project" and noise pollution would be addressed by use of noise barriers.

There was also a debate over the parking space provided in the proposed project planned at the same route where a major bus rapid transit project was coming up.

Replying to a question relating to solid waste disposal, the project proponent admitted that specific details about the incinerator were missing in the EIA report mainly because initially it was planned that the Karachi Metropolitan Corporation's facility would be used for this purpose but later, it was decided that "the project would have its own incinerator".

Earlier, a detailed presentation was given on the project according to which it would include diagnostic and clinical services, an emergency department, 13 operating theatres, an oncology centre and 84 outpatient departments as well as a nursing hostel.

The EIA report also lacked specific details about waste-water generation and an NOC from the Karachi Water and Sewerage Board.  
(By Faiza Ilyas Dawn, 16, 30/01/2019)

## Pakistan seventh-most affected by climate change: Oxfam report

Climate change is a reality that has already begun showing its disastrous affects in various regions. It threatens human lives, ecosystems and even sovereignties of entire low-lying nation states, according to a report published by Oxfam in January 2019.



Despite the stubbornly ignorant insistence of some global leaders – looking at you Donald Trump – that climate change is a myth, fortunately most of the global community has finally woken to the dangers of climate change that scientists have been harping about for decades.

The Paris Agreement on Climate Change has approximately 197 signatories to date and aims to limit the global rise in temperature to 1.5°C. As a consequence of climate change, people across the globe are being forced to migrate as their existing areas of residence become increasingly uninhabitable.

The worst affected by climate change, however, are countries that have contributed disproportionately less towards the emission of greenhouse gases, which is the largest human factor contributing towards climate change.

According to a World Bank report published in 2018, Groundswell-Preparing for Internal Climate Migration, more than 140m people are expected to move within their countries by 2050, with most climate migration anticipated to be concentrated in South Asia, Sub-Saharan Africa and Latin America, if the effects of climate change are not recognised and dealt with adequately.

The aforementioned Oxfam report, *Climate Induced Migration in Sindh*, Pakistan, claims that of these 140m, more than 40m people are anticipated to migrate within South Asia alone by 2050. Pakistan, a signatory to the Paris Agreement, is the seventhmost affected country impacted by weather-related events, as calculated through available data from 1997 to 2016, according to the 2018 Long-Term Climate Risk Index Pakistan.

During this 20-year period, the country saw 141 extreme weather-related calamities, taking the annual average death toll to 523 and causing an economic loss of USD3,816.82 million. In 2016 alone, there were 566 climate-induced casualties in Pakistan and the nation suffered a loss of USD47.31m.

The country saw 1,800 people displaced due to natural disasters in 2017. Sindh in particular has faced the consequences of climate change with living patterns and livelihoods of people being adversely affected.

Droughts in Thar, floods and cyclones in Badin, Sajiwal and Thatta in 2010 and 2011, heat waves in Karachi in recent years, particularly in 2015, are some of the affects that have already been felt. Furthermore, sea intrusion near the Indus Delta has triggered coastal floods and caused large scale inland migration.

### Migrant woes

Oxfam's report cites rising sea levels, flooding and storms, inland sea water inundation, droughts, famines, extreme weather conditions, the ability of soil to support agriculture, loss of tourism and fishing as some of the reasons why inhabitants have been and will be forced to flee their existing settlements.

Internally displaced migrants generally come from the least financially stable sections of society and are often required to evacuate areas in a state of emergency. This results in them leaving behind most of their assets and belongings.

The report points out that when these migrants arrive to host communities, they are stripped entirely of their livelihood and prized belongings and hence impose an additional burden on the host community and potential aid provides.

"The cyclical nature of poverty is fed when internally displaced migrants leave their agricultural lands and source of income to migrate into labour saturated areas where employment opportunities are already limited," states the report.

This can exacerbate tensions between the host community and the migrants as competition for employment, food security, health and educational resources, among other factors, is heightened.

### Livelihoods disrupted

Farming and fishing communities which have relied on these professions for generations to support their livelihood find themselves disrupted by the changing climate.

The Indus Delta Degradation, rise in sea levels and the inundation of saline water on land has resulted in entire communities being forced to abandon their ancestral profession.

Some communities are reluctant to leave the lands they have occupied for generations while others find themselves ill-equipped to enter other professions as agriculture, livestock breeding or fishing for instance was what they had prepared for their entire lives.

For some, rural to urban migration comes with a multitude of cultural and linguistic barriers which impede their rehabilitation.

**Increased burden on women**

Cultural reliance on male counterparts for financial support and security means that women are often further disadvantaged due to climate change.

Whether they have been left behind while male members of the family migrate to urban areas in search for livelihood, or they have accompanied the men, the patriarchal structure ensures that their decision making power is significantly disproportionate to their male counterparts.

Many women who work on agricultural land alongside their men are affected when weather extremities disrupt farming practices. Others find that the responsibility to find potable water for the family falls on them.

As Oxfam points out, the disruption of livelihoods due to climate change can incite skirmishes and tensions between families which subjects women to increased domestic violence.

Moreover, migrating increases stress and discomfort for women more so than men as they are also assigned the responsibility of caring for the old and young while traveling.

**Categorically displaced**

An alarming truth remains that most nations are not sufficiently equipped to deal with the looming disasters of climate change.

Along with legal, social and economic frameworks, even the language needed to combat climate change, is still being developed globally. Language, it must be noted, is crucial when it comes to implementing legal frameworks and establishing laws for the protection of those being affected by climate change.

Oxfam's report points out that although the Paris Agreement mentions the need to accord protection to climate migrants thereby acknowledging that such a group exists, the term itself disputes a clear definition.

According to the International Organisation for Migration, semantically, climate migrants are best described as 'persons or groups of persons who, for compelling reasons of sudden or progressive changes in the environment that adversely affect their lives or living conditions, are obliged to leave their habitual homes, or choose to do so, either temporarily or permanently, and who move either within their territory or abroad'.

Oxfam's report highlights that this definition showcases impertune reductionism where climate migrants cannot be classified as refugees and therefore are accorded no legal or protection rights under the Refugee Convention of 1951.

That is to say that the protection offered to safeguard the rights of those people who are displaced due to conflict and war by the 1951 convention does not apply to people displaced because of climate change.

As their rights are not safeguarded internationally the protection of climate induced migrants is susceptible to national and regional laws. Oxfam suggests the United Nations Guiding Principles on Internal Displacement which are based upon existing international humanitarian laws as a reference point for nations dealing with climate induced migration.

**Post-migration**

Oxfam's report focuses on internal climate induced migration in Sindh. What follows below is a brief summary of their research conducted in Thar, Badin, Sajiwal, Thatta and Karachi. Entire communities from Badin, Sajiwal and Thatta districts migrated to Karachi permanently after cyclones and floods of 2010 and 2011.

These communities expressed the absence of potable water for drinking, irrigation and livestock as their biggest problems in their original districts.

After migrating, they were compelled to settle on the outskirts of Karachi and their settlements consisted of congested households with little or no access to utilities.

They continue to live in squalor without access to bathrooms or proper villages. However, according to Oxfam, the migrants claim that the city provides them with better medical facilities than their villages had to offer and more opportunities for employment particularly for women who often work as domestic help.

One community, the report states, mentioned language as a barrier to their rehabilitation process. They had difficulty learning Urdu which affected their prospects in the city adversely, they said.

**Existing mechanisms**

Although geographically susceptible to natural disasters, Pakistan did not have a permanent body to deal with disaster management till the October 8, 2005 earthquake, when the Earthquake Reconstruction and Rehabilitation Authority was founded.

In August 2018, the National Disaster Management (Amendment) 2017 bill was passed by the Senate leading to the formation of the National Disaster Management Authority (NDMA). It is responsible for disaster preparation, mitigation, risk reduction, relief and rehabilitation.



The federal authority works alongside provincial and district disaster management authorities and collectively the system is supposed to reduce risks and disaster induced vulnerabilities in the country.

A group of United Kingdom based non-governmental organisations commissioned a study and pointed out some shortcomings in Pakistan's existing relief mechanisms.

"Whereas the NDMA and provincial authorities have improved their relief efforts in the past few years, it is mandatory that they include adaptation interventions within their ambit as well," it stated. It also pointed out the need for greater funding, political support and co-ordination among stakeholders for more effective work.

**The way forward**

On Wednesday, Oxfam along with the International Union for Conservation of Nature, organised a dialogue on climate change in Sindh.

Some of the recommendations and policy initiatives included the allocation of finance nationally and internationally, better planning for climate induced migrating communities, sensitising national climate change policies and laws for this purpose, addressing drainage and irrigation issues in order to improve agriculture and the introduction of climate resilient techniques within the agricultural sector, among others.

The provision of potable water, addressing scarcity of water and ensuring food and fodder for rural communities and livestock were highlighted as crucial areas which need attention.

Oxfam's complete report and a documentary on climate migration were presented and screened at the event. The dialogue focused on risks and threats faced by areas sensitive to climate change in Sindh and discussed major crises that await.

These included the protection of mangroves and fisheries in addition to climate-induced migration and its effect on women's development, among other things.

(By Jaza Aqil The Express Tribune, 04, 31/01/2019)

**Experts call for making barren parks in city green**

While the project for an urban forest being proposed over 400 acres along the Malir River faces many challenges and is yet to be officially approved, experts have called upon the government to immediately start implementing small-scale measures to turn the city's many barren parks and roadside spaces green.



These steps, they said, would not only provide citizens the much-needed respite in hot summer days but also help protect them from city's increasing air pollution.

These experts were talking to Dawn in the backdrop of a recent news report indicating that the government plans to build the province's first urban forest in Karachi as part of the Green Karachi Project.

*Urban forest along Malir riverbed estimated to take 16 months to complete*

Sharing salient features of the proposed urban forest project, Qazi Abdul Jabbar, Karachi social forestry circle conservator, said the pilot project estimated to cost Rs200 million had been proposed along the Malir riverbed located next to the Shah Faisal Colony flyover.

"The Malir River basin and embankments carry great potential for supporting tree growth in a compact block and linear form. The sewage and subsoil water can be made available for raising an urban forest," he said.

The approximate available area for raising a forest in and along the riverbed, according to him, is 3,500 acres but after deducting the riverbed etc the net available area would be around 1,500 acres.

"We have suggested 400 acres for the pilot project estimated to take 16 months to complete once it starts," he said.

On project's implementation, he said that the process of gathering information about land's status had just started after which a proposal would be submitted to the planning and development department for approval.

"As per rules of business and government laws, tree plantation within municipal/town limits is the function of municipal administrations. If the task of establishing an urban forest is assigned to the social forestry department, then necessary order/resolution is to be issued by the competent authority," he said in reply to another question.

The project, he said, would help reduce urban heat island effects, improve air quality and contribute to economy.

The Malir riverbed and embankments, according to experts, are suitable for planting tree species, including guava, coconut, chiku, jamun, custard apple (sharifa), date palm, mango, papaya, babul, Acacia modesta (phulai), lignum, moringa (sohanjina), shisham and palm species.

**Hurdles in the project**

Speaking about the impediments in the project's implementation, another forest department official said that one of the main challenges would be removal of encroachments from the land, a large part of which had been illegally used for cultivation of vegetables with sewage for a long time while some people had also built other infrastructure.

The removal of encroachments, he said, was a sensitive matter, fearing that it might involve litigation and delay the project.

Commenting on the project, Dr Zafar Iqbal Shams, senior ecologist and professor at Karachi University's Institute for Environmental Studies, appreciated the idea but was of the opinion that the government should also focus on some immediate measures to improve the city's environmental conditions.

"As it appears that the project would take time to implement, the government would do good to take notice of city's degraded state of many parks," he said, adding that Karachi had hundreds of small and big parks.

The concept of urban forestry, he said, involved the whole city and shouldn't be looked at from only one perspective of allocating a separate space for an urban forest.

"If you go into areas such as Landhi, Lyari, Shah Faisal Colony and Malir, you would see parks almost barren. Why can't we improve these spaces first?" he said.

In his opinion, selection of species is a scientific job and one should carry out soil and underground water examinations before plantation in a specific area.

"There are drought-resistant plants requiring less water as well as species which help improve soil condition and address the issue of sewage and water leakages. The other principle is to avoid monoculture and plant indigenous species," he said.

He also regretted that conservation of the existing trees was not on the government's priority list. "Even right now, you would see a mafia engaged in cutting down trees and there is no one to stop them."

Asked about the pathetic state of parks, Abdul Jabbar said that parks were in the KMC and KDA jurisdictions and the corporation had a separate department for it.

"Having said that, the forest department under a memorandum of understanding signed last year with the KDA is engaged in plantation in a park in Gulistan-i-Jauhar. So far, we have planted 500 trees and plan to take care of another park in the same area once the KDA promises availability of water to the park," he said.

He admitted lack of inter-departmental engagement, emphasising that collaborative efforts were needed to make Karachi green.

"I think there should be an official forum or committee comprising officials from the forest department, Karachi Development Authority, Karachi Metropolitan Corporation, Karachi Water and Sewerage Board as well as a few independent experts to monitor and improve the city's plantation conditions," he said.

(By Faiza Ilyas Dawn, 15, 06/02/2019)

**Climate risks**

THE warnings are coming fast and furious. The latest takes the form of a report from the International Centre for Integrated Mountain Development, that finds that even if global warming is limited to 1.5 degrees Celsius (which is unlikely), 36 per cent of glaciers along the Hindu Kush and Himalayan range will have melted away by 2100. This will lead to surging river flows from 2050 to 2060, with declines after that. That means floods, droughts, and severe energy crises within our children's lifetimes.



There is no denying Pakistan's vulnerability. Germanwatch's Long-Term Climate Risk Index in 2018 identified Pakistan as the seventh-most country affected by climate change based on data compiled from 1997 to 2016. An IMF report last year ranked Pakistan third among

countries facing water shortages.

Sadly, there are no signs that Pakistan is heeding the warnings. Rapid urbanisation and infrastructure development are driving deforestation, only part of which will be redressed by the 10-billion-tree tsunami. Economic plans centred on connectivity may increase carbon emissions by 300pc over the next 15 years. The desire for a quick fix for Pakistan's energy crisis has led to an anachronistic obsession with coal, particularly under CPEC. We continue to focus on water-intensive industries, without thinking about efficiencies. And then there's the booming population.

*There are no signs that Pakistan is heeding the warnings.*



The PTI government acknowledges the challenges but shies away from highlighting the sociopolitical implications of climate change. The most crucial is internal migration. According to a recent Oxfam report on climate-induced migration in Sindh, over 40 million people in South Asia will migrate by 2050. In a country with many ethnic, linguistic and sectarian divisions, and which is highly weaponised, the resulting competition for resources is a recipe for persistent conflict.

Climate change also has a neglected gender dimension. Women who in rural areas are responsible for sourcing potable water may face the punishments of failing to secure scarce water supplies. They will also be denied nutrition and educational and occupational opportunities as they are left behind in resource-scarce communities to care for the young and elderly while men migrate.

Then there's the regional aspect. The Indus Waters Treaty which has worked well so far was not designed for an era of climate change. Our hyper-patriots are typically hyperbolic when it comes to projecting conflict with India, but their predictions of a water war future are not infeasible. There is certainly a water dimension to Pakistan's growing economic and security reliance on China, given that China is upstream of India, and could retaliate on Pakistan's behalf to any Indian attempt to limit our water supply.

But there is less discussion of water as a future point of contention in Pakistan-China ties. After all, both countries to some extent compete for the same water source in the Hindu Kush and Himalayan range. Some have pointed out that China's involvement in Pakistan's agricultural sector as part of CPEC, which would likely involve the export of water-intensive crops to China, may be an indirect way to benefit from Pakistan's water supply.

In this context, the government should initiate transborder water-sharing agreements that go beyond Pakistan-India ties to include other Indus Basin countries such as China and Afghanistan, or even all the nations up to Myanmar that will be affected by the glacial melt.

Climate change experts are recommending the interventions needed to manage the resource fallout of climate change. But the government also needs to prepare for the sociopolitical aspects.

It should start by strengthening interprovincial coordination under the 18th Amendment, as climate-relevant subjects such as the environment and agriculture fall under the provincial domain, and internal migration will demand a collaborative approach.

A public-awareness campaign must be launched on an urgent basis. In a low-literacy, high-faith population, climate change is likely to be perceived as divine intervention, and ignored. The media can play an important role both in putting climate change on the political agenda and highlighting the ways in which people can make a difference, for example, by saving water and electricity. One hopes the deepening antagonisms between the government and fourth estate do not prevent such productive messaging.

The government can also initiate regional cooperation. The glacial melt report was requested by the eight affected countries and produced by more than 200 scientists. Such joint efforts will be key to assessing and mitigating climate-related risks. For them to succeed, the government will have to reduce the suspicions around academics and advocacy groups that receive foreign funding and engage with regional counterparts. Without progressive thinking, Pakistan will face the worst, unprepared.

(By Huma Yusuf Dawn, 07, 11/02/2019)

### **Urban forestry project to be launched within a month**

The Sindh government will begin work on its Urban Forestry project within a month. Karachi will be the first city where work on the project will be initiated.

Sindh Forests and Wildlife Minister Syed Nasir Hussain Shah made the announcement while attending a dialogue on 'Corporate Social Responsibility' (CSR) on Wednesday. The event, organised by the National Forum for Environment and Health (NFEH), was held at Karachi Gymkhana.

The minister urged philanthropists, non-governmental organisations (NGOs) and the corporate sector to actively participate in the upcoming urban forest drive. According to the minister, the forest department has identified sites in Karachi where trees will be planted to promote urban forestry. These sites include banks of Malir, Lyari rivers and other major storm water drains.

Native plants and trees will be most suited for this drive, he said, adding that the initiative is being undertaken on the directives of Pakistan Peoples Party (PPP) Chairperson Bilawal Bhutto Zardari.

Shah said that a meeting had been held last week with various stakeholders including Local Government Minister Saeed Ghani and Karachi Mayor Wasim Akhtar to discuss the impending urban forestry initiative. The project will gradually expand to other areas in the province, he said. Besides, the forest department is conducting a campaign to vacate forest land in the province which has been occupied illegally, added Shah.

(By APP The Express Tribune, 15, 22/02/2019)

### **'Sindh has no mechanism to check air quality'**

At a time when the global community is obsessing over environmental degradation and pollution, the Sindh Environment Minister Taimur Talpur confessed on Monday that "there are only two air quality monitoring apparatuses" in Karachi, and they too are unable to properly determine the air quality in the teeming metropolis.

The admission came during the question-answer session in the Sindh Assembly, when Talpur said that one monitor was fixed atop the Sindh Environment Protection Agency's head office and the other in the office of the District Central deputy commissioner. "In addition, we have one mobile van that has the capability of assessing air pollution in urban areas of Karachi," he said, adding that besides Karachi, there was no monitoring unit in the rest of the province. SEPA dispatches the mobile van to the area wherefrom complaints of poor air quality and breathing difficulties are received.

#### **Minister's plan**

The minister's response astonished many in the House, half of which was empty due to the Opposition's walkout. "This is so serious. How can you tackle the issue given the prevalent circumstances?" asked Pakistan Peoples Party MPA Marvi Faseh.

Talpur informed the House that the department had prepared a feasibility report to get new equipment and revamp the labs. "This scheme will cost around Rs1 billion and we will set up the main labs and its units at the district level across the province," he said. "I also request the federal government to help and allocate some funds so that we can jointly resolve this issue," he added.

Karachi is one of the largest cities in the world and is said to be among the 10 most-polluted cities in terms of air quality. "I have submitted a report to the court and also requested the chief minister to approve the scheme."

To a question regarding cement factories and other industrial units causing pollution in the province, the minister said there are six cement factories that run on coal. "We have directed all factories to install modern technology to minimise the pollution," said Talpur. "Lucky Cement and Power Cement Factory have made efforts to curtail air pollution by trapping the harmful substances before they are released into the air."

#### **Water pollution**

With regard to untreated water and industrial waste being released into the sea, rivers and canals, the minister referred to the directives of the judicial commission on water and sanitation. "We took action and sealed many factories, but their owners went to court and got stay orders," he explained, adding that the courts had given limited time to all factories and industries to install the treatment plants.

Talpur said that his department was keeping an eye on the issue and will take action if the orders were not implemented. Asked about the penalty, he said, "We impose Rs5 million on those who violate the law. But I think this is a meager amount, so we are going to make an amendment to the 'Sindh Environment Protection Act' to increase the penalty to Rs50 million for those operating large scale industries."

During the session, Muttahida Majlis-e-Amal's Abdul Rashid asked about the progress on Greater Karachi Sewerage Plan, also known as the S-III project. The minister replied that one plant had been constructed, while two others were still under construction and would likely be finalised by 2019.

"Around 470 MGD of sewerage water will be treated per day," he said, adding that the court has also ordered the Defence Housing Authority (DHA) and Karachi Port Trust (KPT) to install their treatment plants too. "We are also going to install combined treatment plants with 50% funding from the federal government," he said. "It will treat 100 MGD of sewerage per day, but unfortunately the federal government is not cooperating and releasing funds," he said.

Rashid, however, expressed concern over the slow pace of work on the S-III and said, "Lyari River is one of the major components of the S-III, but I don't see any progress on it." The minister asked him to arrange a joint visit to review the ongoing work.

#### **Opposition protest and walkout**

Earlier, as the session started with Deputy Speaker Rehana Leghari in the chair, Opposition members from Pakistan Tehreek-e-Insaf, Muttahida Qaumi Movement and Grand Democratic Alliance started their protest, demanding the chairmanship of the Public Accounts Committee (PAC).

Leghari warned them to be seated and take part in the Assembly proceedings, but they did not heed her. The Speaker continued the Assembly proceedings by starting the question-answer session. After a few minutes of protest, the Opposition members walked out of the session.

The Assembly also adopted a resolution, felicitating the Sindh Assembly on completing 80 years of its existence. The resolution was moved by PPP MPA Ghazala Siyal. Later, the Speaker adjourned the session till today (Tuesday).

(By Hafeez Tunio The Express Tribune, 04, 12/03/2019)

### **Is Sindh ready for natural disasters or all-out war?**

During the last week of February, Pakistan and India came closer to war than at any other time in the past 20 years. After Pakistani fighter jets shot down two Indian warplanes in response to India's botched air strike the day before, fears that India could target major Pakistani cities with missiles were imminent.

Ultimately, Pakistani statesmanship and external pressure were able to dissuade India from escalating hostilities. But while Pakistan's response to Indian intrusion reaffirmed Pakistanis' faith in their forces' defence capabilities, the entire episode has pointed out glaring gaps elsewhere.

Pakistan's military may be fully capable of responding to any aggressive adventure, but is the country's civil apparatus prepared to deal with the fallout from any potential conflict or even a natural disaster?

The situation is particularly worrisome in Karachi, Pakistan's largest metropolis and the heart of its economy. Neither the Sindh government nor the district authorities have made adequate arrangements or even chalked out a comprehensive strategy for large-scale rescue and relief efforts should the country face war or any other calamity.

#### **What strategy?**

Sindh government departments and local administrative units are not prepared to carry out civil defence measures or arrange necessary awareness campaigns and drills to prevent chaos in the city. Making things worse, there is also an acute shortage of funds, fire tenders, machinery and other equipment needed to manage disasters.

The absence of a centralised control room to monitor and respond to fallout from conflict or disaster and the unavailability of data on available resources adds more fuel to this fire.

The Civil Defence Department and the Provincial Disaster Management Authority (PDMA) are also dysfunctional while the District Disaster Management Authorities (DDMA) has not yet been set up.

A survey by The Express Tribune revealed that the responsibility to perform relief work in case of war or natural disaster lies with the Karachi Metropolitan Corporation (KMC), the district municipal corporations, Karachi Port Trust (KPT), the cantonment boards and the Defence Housing Authority.

However, in the absence of administrative capabilities on the part of the government, it is the welfare organisations – equipped with trained staffers and volunteers and stocked with adequate funds, ambulances, mobile hospitals, funeral buses and mortuaries – that are not only providing the services in Karachi but also operate in rural areas of Sindh.

They also provide firefighting equipment and ensure the provision of food supplies and medicines in calamity-hit regions. In addition to NGOs, both KPT and KMC have a number of fire brigades and urban rescue services.

While this may give some sense of relief, there is also little to no coordination between government bodies and NGOs. Although former Karachi commissioner Shoaib Siddiqui tried to bring all government and non-government bodies on the same page, he was transferred to another city in 2016 after which all coordination efforts came to a complete halt and were not pursued further.

#### **Warning signs**

In the wake of recent Pakistan-India tensions, the Sindh government put Karachi on high alert and directed relevant bodies to provide details of their rescue machinery. Provincial and district government representatives held a few meetings but no action was taken. As a result, neither the Sindh home ministry nor district authorities compiled data on available rescue machinery.

Furthermore, the Sindh Civil Defence Department has not been functional for 30 years due to official negligence and lack of funds. Only 135 of 308 department posts are filled and many offices in Sindh have no staff altogether. Meanwhile, the siren system has been out of order since 1990. Only the department's director has access to a van; other staff members do not even have cars.

"The department faces an acute shortage of funds and manpower. There is an ongoing hiring freeze because of which several positions remain vacant," said Sindh Civil Defence Department Director Khadim Hussain Bhutto. While he informed The Express Tribune that the department currently has over 1,000 trained volunteers who have been alerted to take prompt action in case of emergency, he admitted that he does not have list of the volunteers' names.

Civil Defence Department Assistant Director of Training Khursheed Baig, when contacted, claimed volunteers' data was available at all of the department's district offices.

"All volunteers are highly skilled and registered with Civil Defence. Staff members will be a call away if there is a war or catastrophe," he said. Baig added that the department has also provided basic rescue training to around 27,000 people from all walks of life.

#### **Fire fighting**

In Karachi, the KMC Fire Brigade is tasked with rescue operations in the event of any calamity. Despite limited resources and not enough firefighters or equipment, the fire brigade has been at the forefront of disaster relief in the city thanks to highly-committed and well-trained staff. The department has lost 20 firefighters in the line of duty.

"Of 48 fire tenders that we have, only 22 are in working condition," said KMC Fire Brigade Deputy Chief Fire Officer Imtiaz Afzal. "We only have 513 firefighters with vacancies for 264 more due to a ban on hiring," he added.

KMC also has an Urban Search and Rescue (USAR) department to rescue people trapped in disaster situations. Although the department has some machinery and advanced equipment donated by the administration of Boston, US, according to USAR in-charge Muhammad Humayun, 70% of it is non-functional.

According to The Express Tribune survey, KPT has made preparations to deal with disasters and a siren system is in place to warn people if a war breaks out. Surveyed officers revealed that KPT is equipped with fire tenders and other equipment, however, concerned officers refused to provide further details.

Many NGOs are working as aid organisations in Sindh to tackle emergency situations. An example is the Sindh Boy Scouts Association that carries out different programmes, exercises and training courses to stay up to date with international standards.

Similarly, Edhi Welfare carries out rescue operations whenever there is an emergency situation. With a network of offices sprawled over 15 cities of Karachi and Sindh where its ambulance service is able to reach emergency sites within minutes.

Other NGOs include the Alamgir Welfare Trust, the Hilal-e-Ahmar (Red Crescent), Chhipa Welfare Association, Saylani Welfare Trust and Al-Khidmat Foundation.

According to experts, in case of war, disaster or any other untoward incident that has the potential to cause large-scale destruction, Karachi is not prepared to tackle the situation. Therefore, there is an urgent need for government bodies to coordinate with NGOs and be on the same page, so that the city can smoothly handle and manage disasters in an efficient way. (By Syed Ashraf Ali The Express Tribune, 04, 19/03/2019)

### **Exploitation of local islands in name of development, tourism lamented**

Tapping into the enormous archival history of Sindh, noted historian Gul Hassan Kalmati gave a thorough breakdown of the history of Karachi and sea islands of Sindh to students at the Shaheed Zulfikar Ali Bhutto Institute of Science and Technology on Tuesday.

Author of Karachi Sindh Jee Marvee, Mr Kalmati highlighted how different islands, including areas in the city of Karachi, were being exploited either in the name of development or tourism, without caring about the indigenous populations that inhabited these areas or the rich cultural and religious identities that were integral to the history of Sindh.

Manora, he said, used to be an island but because of development and construction of a road network, it no longer could be considered one, which has been the fate of many other islands of Sindh.

#### *Islanders' basic problems highlighted*

Another island, Shams Pir, was also mentioned where Mr Kalmati lamented that the locals were facing severe drinking water shortages. "The locals keep on voting for the same party, but they are to date deprived of potable water, and there tends to be no electricity at times for days," he said.

"Most of these islands are heavily inhabited by fishermen and their livelihood is under threat, and though many organisations are working for them, including the government, you will not find any sort of conveniences available for them to lead a comfortable life. I have even seen locals loan each other drinking water, the situation is so dire. And it is likely that the situation on these islands will become worse with time."

Mr Kalmati lamented how commercialisation was overcoming the cultural and historical significance of the province, encroaching on people's livelihoods and also taking a toll on the climate. Some of the ways this was being carried out was through large-scale development, destruction of mangroves and blocking of open routes to the sea for fish catch.

Bin Qasim Park in Karachi was also discussed by Mr Kalmati and he criticised the authorities concerned for changing the original name, which was Rupchand Bilaram Park. "We discarded the name of somebody who was from Sindh and instead changed the name to that of an invader," he said.

The same treatment has been meted out to Jahangir Kothari Parade, which is a historically significant structure, but because of development in the surrounding areas, it has practically become inaccessible to the public.

Culture, religion, historical and traditional lifestyles are all under threat in such areas, he stressed. The locals on these islands are in no way being provided their basic resources such as healthcare or educational facilities and as a result they suffer greatly. (By Haneen Rafi Dawn, 15, 20/03/2019)

### **Karachi's CBC bans use of polythene bags in its jurisdiction**

The Cantonment Board Clifton (CBC) has decided to impose a ban on the use of polythene bags in its jurisdiction. As part of this campaign, residents will be persuaded to use paper or cloth bags instead of polythene ones. Shopkeepers selling household groceries and other items have also been directed to stop the commercial use of polythene bags.

A special campaign will run for 15 days to raise awareness among residents and visitors to Sea View, which also falls under the CBC jurisdiction. After the 15-day campaign ending on April 4, the CBC will fine those found violating the ban.

The Sindh government has already banned the sale and use of plastic bags and products. Section 14(3) of the Sindh Environment Protection Act 2014 states that “no person shall import, manufacture, stockpile, trade, supply, distribute or sell any scheduled plastic product which is non-degradable”. At several times during the last couple of years, the Sindh government has made announcements to this effect. The last such move came in November last year, when the Sindh Cabinet decided to impose a phase-wise ban on the use of polythene and plastic bags in the province, with Sukkur being the first district. The ban would be enforced in Karachi in the next phase, the Cabinet had announced. However, it was hardly ever enforced.

#### **Cost to the environment**

According to the CBC administration, the decision to ban polythene bags has been taken due to their various negative effects on the environment. Over the last few years, the CBC has launched various drives such as plantation campaigns and other activities to improve the environment.

However, all these activities have been overshadowed by the unrestricted use of polythene bags, which have been found to be the single largest contributor to solid waste pollution. These polythene bags do not only increase the garbage spread in the streets but also affect the sewerage system when they get stuck in the drainage lines.

According to CBC representatives, between 320 and 350 metric tons of garbage is lifted from their jurisdiction on a daily basis. In the absence of a recycling mechanism, the plastic waste is disposed of in landfill sites in Surjani and Hub.

Polythene bags have also become a major threat to marine life. In turn, they are also dangerous for humans, who consume the same marine life that inadvertently swallows these plastics. Experts have warned that when these polythene bags find their way into the sea, they are broken down into micro plastic particles and are then consumed by marine life. This poison is included in human food through fish, prawns and other sea food.

#### **Shopkeepers warned**

Meanwhile, shopkeepers and vendors within the CBC’s jurisdiction have been instructed to stop the use of polythene bags.

These instructions would be announced repeatedly on mega-phones and in the form of written notices by CBC teams during the 15-day movement. Action against violators would then be initiated after April 5. Heavy penalties will be imposed on shopkeepers found violating the ban.

The CBC is also considering distributing paper or cloth bags among residents and shoppers to encourage the use of these alternative materials.

In response to a question regarding how the ban would be enforced on picnickers coming to Sea View, a spokesperson said that they had already placed garbage bins at short intervals along the promenade from McDonald’s to Village Restaurant.

“People are unaware of the damage caused by polythene bags and so they don’t throw the garbage in the bins although they are placed after every few steps,” said the spokesperson.

The restriction would be imposed on the citizens coming for picnic as well as vendors running the stalls at Sea View, said the CBC spokesperson. Besides, banners are being put up at different locations to raise awareness among residents of Clifton and those coming for picnic.

(By Aftab Khan The Express Tribune, 04, 20/03/2019)

### **Plastic sea**

ON March 16, curators at a wildlife museum in Davao City in the Philippines, received a call to collect a young whale that was severely emaciated, breathing its last and vomiting blood. By the time the marine experts reached the site, the whale was declared dead. But the real shock came when the large mammal’s body was transported to the museum’s lab for an autopsy — 40kg of plastic bags were recovered from its stomach. This included 16 rice sacks, four banana plantation-style bags and multiple shopping bags. Unable to digest nutrients due to the massive amount of plastic clogging its intestines, the whale likely died from starvation or gastric shock. In May 2018, another whale was recovered from the waters of southern Thailand. After five days of suffering, the unfortunate animal coughed out bits of plastic before it passed away. During the autopsy, 8kg of plastic bags were pulled out from its stomach. In 2017, an Ocean Conservancy report found that the Philippines and Thailand were among the top five countries dumping more plastic into the ocean than the rest of the world combined. But the issue is clearly not just a Southeast Asian phenomenon.

Modern civilisation’s addiction to plastic — and convenience — is costing the planet dearly. There is evidence that plastic has even infiltrated the deepest parts of the ocean ie over 10km below the surface. The worldwide production of plastic has increased to nearly 300m tonnes a year. Over 8m of that ends up in the oceans, where it can take anywhere from 100 to 1,000 years to disintegrate. When the first synthetic, mass-produced plastic was created in the early 20th century, it was heralded as one of the greatest inventions of modern times. Low-cost and easy to manufacture, it went on to change every aspect of human life and commerce. Unfortunately, its greatest strength — its durability — has come to haunt us and our future generations. Plastic is suffocating us all.

(By Editorial Dawn, 08, 20/03/2019)

### **Sepa directs importers to shift coal stockpiles to PIBT**

The Sindh Environmental Protection Agency (Sepa) has directed coal importers to remove stockpiles of their goods from unauthorised places within three days and store them at the Pakistan International Bulk Terminal (PIBT).

The action had been taken after reports emerged that coal was being dumped in the open at various places in the city, which has endangered public health and the environment.

The areas where coal stockpiles were found included Adil Kanta off National Highway near Gulshan-i-Hadeed, Ghaghar Phatak, Ali Hassan Kanta in Razzaqabad, Juma Goth, and Cattle Colony.

“Coal importers have been asked to immediately remove stockpiles of coal from unauthorised places in Karachi within three days.

Coal cannot be stored at any place except the Pakistan International Bulk Terminal. If any violations occurred, stern action will be taken against the violators,” says a press release.

Improper handling of coal is also a violation of the order of Supreme Court dated 20-06-2018 under the Human Rights Case No. 29999-S, it adds.

The press release also states that 12 coal companies were called for “personal hearing” after which directives were issued. (By The Newspaper’s Staff Reporter Dawn, 16, 22/03/2019)

### **Karachi administration gears up for hot weather**

This year is expected to be the hottest year since 2015. Experts at the Pakistan Metrological Department (PMD) have predicted that the temperatures will rise in the coming days, with heat waves expected in May, while June will also be extremely hot. In light of the PMD’s predictions, the Karachi Water and Sewerage Board (KWSB) is taking precautionary measures to improve water supply in all areas of the city, said KWSB Managing Director Asadullah Khan.

A meeting of engineers and PMD officials is being called in this regard. The meeting will prepare a strategy for the provision of water in all districts including remote areas of the city, said Khan. He informed that all facilities were being provided to the employees of KWSB according to the terms and conditions to ensure efficiency in the organisation.

#### **Resolving pressing concerns**

According to Khan, important decisions regarding the provision of available facilities to KWSB employees in accordance with the rules and regulations, the provision of water supply to the city and the improvement of the sewerage system have been taken at a meeting of the governing body. “I especially thank Local Government Minister Saeed Ghani and the members of the governing board,” he said referring to these decisions.

Khan briefed about the measures in separate meetings with members of the Sindh Assembly, a delegation of KWSB CBA United Workers Front and dignitaries of the city. MPAs Saeed Ahmed Afridi and Rabistan Khan informed the KWSB MD about the water supply and sewerage system issues in their respective constituencies, PS-120 and PS-122.

Besides, several delegations of citizens from different areas of the city met MD Khan to discuss their problems. Khan issued instructions to the officials and engineers present at those meetings for the resolution of these problems.

#### **Ensuring productivity**

A delegation of the united workers front, headed by CBA Chairperson Muhammad Naeem and the CBA President Muhammad Shafi, met KWSB MD in his secretariat and congratulated him for presenting KWSB employees’ problems and for getting the approvals in the meeting of KWSB’s governing body.

The leaders of the union said that KWSB employees ensure water supply to the city without any intervals despite rough weather conditions and other circumstances, continuing their efforts even on government holidays. Performance can be improved if the employees’ issues are addressed, claimed the leaders. They maintained that the stability of the organisation and better services for citizens depended on the provision of facilities and opportunities to the employees according to the terms and conditions. The leaders expressed their gratitude to MD Khan for resolving the issues and assured that KWSB employees will leave no stone unturned in their service to the citizens.

“Officials, engineers and all other employees of KWSB will have to work harder than ever due to the ever growing population and increasing water demand,” said MD Khan. “We would have to apply all our abilities to cope with the challenges faced in this regard,” he added.

(By Our Correspondent The Express Tribune, 04, 25/03/2019)

### **PM to inaugurate fully renovated Bagh Ibne Qasim: mayor**

Mayor Wasim Akhtar said on Wednesday that the city’s municipal administration had fully renovated and restored Bagh Ibne Qasim, said to be the biggest park in the country stretching over 130 acres, and it would be formally inaugurated by Prime Minister Imran Khan on March 30.



Addressing a press conference at the iconic park to announce its complete renovation and reconstruction, he said that new irrigation system had been laid to solve the water issue for good as the park would be watered twice a day.

He said that water was being brought from Nehr-i-Khayyam through pipeline and supplied to the park after treatment.

The mayor said that the park was in a dilapidated condition due to negligence and its restoration was indeed a challenging task for the Karachi Metropolitan Corporation.

He said that the KMC also removed different encroachments, including a four-storey building that stretched over an acre.

The mayor said that the poorly maintained sewerage lines had caused massive damage to the walls of the park.

He said that he was thankful to the Supreme Court for ordering action against encroachments.

City Council's parks committee chairman Khurram Farhan, director general parks Afaq Mirza and media committee chairperson Sabheen Ghori were also present on the occasion.

The mayor said that 300 flowering trees were also planted in the park which miserably lacked such trees.

Responding to a question, he said that he was in contact with the Sindh governor, chief minister, local government minister and others for the improvement of the city. "I appeal to the prime minister to ensure that the province get its due share fully," he said.

The mayor said that only the city had right on the money being given to the province by Bahria Town in the wake of Supreme Court's order. "A lot of [the] city's problems will be solved if this money is spent on Karachi and its district Malir," he said.

The mayor said that the municipal administration would try to keep the park maintained through public private partnership.

Replying to another question, he said that action was still being taken against encroachments on parks and KMC land.

He said that owners of houses constructed illegally on the land of Hill Park had been given 30-day notice to vacate the possession of the park's land. "Hill Park will be made a model park after removal of all encroachments on its land," he said.  
(By Tahir Siddiqui Dawn, 16, 28/03/2019)

### Masters of disaster

FARMING communities across Pakistan panicked at recent reports in dailies that the country faced the risk of a super flood this year. It transpired that the reports were based on a briefing to the National Assembly's Standing Committee on Water Resources by government officials. The Meteorological Department was quick to clarify that there was no scientific method to predict floods so far out in advance and that record snowfall in the northern parts of the country did not necessarily mean there would be floods.



Dig a little deeper into how and why this alarm was sounded and it becomes clear that it was aimed at driving home a point, a very pertinent one, that the country is not at all prepared for a major flood and that the funds allocated for flood preparedness were absolutely inadequate. Even if the possibility of floods due to rising temperatures and greater snowmelt combined with monsoon rains was somewhat overplayed, the intentions seemingly were noble. The method could have been more discreet though.

Super flood or not, is the country capable of handling a large-scale natural calamity or a man-made disaster? If the answer is in the negative, one must ask if we can afford such complacency after the 2005 earthquake. It has been almost a decade and half since the quake claimed 70,000 lives. Pockets of the affected population are yet to be fully rehabilitated. Schools, roads and other damaged infrastructure are still to be completely rebuilt.

*It is mainly the LGs' job to tackle disaster. But do they even exist?*

Another call to come out of our comatose state came in the shape of 2010 floods. An area of almost 38,000 square kilometres remained submerged for weeks, impacting some 20 million people. Reconstruction of damaged infrastructure and livelihood relief alone were estimated to be \$10 billion.

The National Disaster Management Authority and its provincial counterparts do exist. However, most people do not realise that their mandates hardly go beyond coordination and liaison between various government entities that are mobilised when disaster strikes.

The major responsibility of disaster management lies with the local governments. Do they even exist in the country? Where some remnants of local government can be seen, are they up to the task in terms of technical expertise and capacity? How about resources, both financial and in terms of equipment?

Just imagine what would happen if a major fire were to break out in a city like Karachi or Lahore. Isolated fires in individual buildings result in loss of life because those whose responsibility it is to respond to such emergencies lack capacity and wherewithal, and a

general lack of preparedness all around. When did you last witness, leave alone participate, in a fire drill in a government or private building? It may be the government's job to ensure that construction designs meet safety standards like emergency exits, fire extinguishing apparatus etc, but it is our lives we are talking about here.

Why do the occupants of public or private office buildings and high-rise apartments need government departments to underline the importance of evacuation drills? Do they even know how many elderly or disabled persons on any given floor of a building or house would require assistance during evacuation? Are people trained to help them, or have volunteers been designated to ensure orderly evacuation? Have safe areas been identified for people to congregate after the evacuation?

No, governments don't do this and it is not their responsibility to organise communities to take care of themselves. Go to the internet and download guidelines for doing most of this. Do not forget that our cities are densely populated and stampedes cannot be ruled out in emergencies.

There is, however, no getting away from the fact that the bulk of disaster management responsibility lies with various tiers of government. Particularly, the disaster prevention and mitigation part where advance planning, policymaking and its implementation are concerned. Every government parrots the donor advice that growth needs to be led by the private sector, but does precious little to encourage the insurance industry to introduce products tailored for traders and farmers. In case of a disaster, the rich should be recompensed by their insurers, while the government helps the less fortunate.

It is a shame that despite muddling through countless emergencies in the last seven decades, officialdom still cannot tackle something as basic as a damage-and-needs assessment which is nothing more than an audit of the scale and extent of losses and prioritisation of areas in need of relief and rehabilitation. Every time a calamity occurs, we go running to the donors requesting them to do the damage assessment because 'we lack capacity'. In truth, we lack credibility. We ask the donors to assess the damage so that we can play the victim and ask for donations and loans.

(By Shahzad Sharjeel Dawn, 07, 01/04/2019)

### **CBC to start three-day campaign against use of plastic bags**

Following the ban on plastic bags by the Cantonment Board Clifton (CBC), banners have been placed outside shops in various markets in the area. Starting from Monday, a three-day awareness campaign will also be carried out, after which implementation will begin. Shop owners will be facing heavy fines along with having their shops sealed if they failed to comply with the ban.

Banners and posters were placed outside all commercial markets within the area including supermarkets. Through the banners, shop owners are being advised to use paper instead of plastic bags. Banners on awareness against the use of plastic bags are also placed in all residential areas within CBC jurisdiction including Sea View as, according to officials, shop owners and residents have to come together to make this possible.

According to CBC officials, announcements will be made in the residential and commercial areas through megaphone during the campaign while pamphlets will also be distributed. The campaign will continue till April 10. In its second phase, implementation will be ensured through vigilance teams. The penalties can range from Rs1,000 to Rs20,000 and strict action will include sealing shops that continue to use plastic bags.

(By Our Correspondent The Express Tribune, 05, 07/04/2019)

### **Breathing poison**

THE reality is inescapable, and it is terrifying: the air we breathe is killing us. Pakistan is second on the list of the top 10 countries with the highest mortality due to air pollution; India and China tie for first place. These are among the findings of a major study by the US-based Health Effects Institute and compiled in a report titled State of Global Air 2019. According to its data, a total of 2.4m people died in China and India from air pollution-related conditions in 2017; in Pakistan the same year, 128,000 deaths were attributed to the same cause. The health burden is incalculable: air pollution is the fifth leading cause of premature death globally, which makes it more lethal than malaria, road accidents, malnutrition or alcoholism, and nearly as deadly as tobacco use. Children are particularly susceptible due to their physiology. In fact, minors in South Asia can expect to have their lives cut short by 30 months due to the toxic air. Excessive particulate matter is a daily peril for Pakistanis: according to the report, 52pc of people in this country are exposed to household air pollution. That's not all: Pakistan's entire population lives in areas that exceed WHO's air quality guidelines.

These chilling figures call for an immediate, top-down course correction. Not only do we have a national emergency on our hands, but the situation has a bearing on our international commitments. Among the SDGs are specific environmental targets, including improvement in ambient air quality. Legislators had a recent opportunity to engage with experienced advocates in this field. Air Quality Asia, a global advocacy group that drives change through national policy, held a meeting in late March with a gathering of parliamentarians. Indeed, the country's leadership has a critical role to play if we are to stave off disaster. Examples from our own part of the world illustrate how decisive government action can turn back the clock on toxic air. China, for instance, declared war on particulate matter a few years ago, strictly implemented emission limit regulations, and began to adopt clean-energy technology. As a result, it has begun to see steadily falling rates of air pollution. Pakistan, however, has adopted an inexplicably paradoxical approach. While environmental awareness and the importance of a 'green Pakistan' have increased, the country is embracing coal-fired power ever more tightly. Can cheap electricity ever be a substitute for breathable air?

(By Editorial Dawn, 06, 08/04/2019)

## Dust storm batters lower Sindh

At least four people, including two minor girls, died and scores of others were injured as strong winds, accompanied by dust and sand, bludgeoned Karachi and its surrounding areas starting late Sunday night and going well into the next day.

With the maximum wind speed recorded at over 70 kilometres per hour, the city almost came to a standstill as the strong gusts uprooted trees and electricity poles, besides causing damage to schools and other facilities. The worst affected were the coastal areas of the city, where the Karachi Port Trust also reported that two vessels docked at the South Wharf almost started drifting away, while three other boats are reportedly missing.

According to the Meteorological department, the system of strong winds and rains would head towards the northern part of the country on Tuesday [today]. The unusual weather system entered the country from Iran on Saturday and affected a few districts of Balochistan, while also covering cities of Sindh.

Between the night of Sunday and Monday, the strong winds, which battered the city for several hours, seriously affected visibility, bringing it down from six kilometers to just half-a-kilometer.

### The damage

The weather had reportedly turned pleasant after the hours-long spell through the night, however, the wind speed picked up again on Monday, uprooting trees, poles and roofs made of tin and causing widespread damage. The poor visibility caused several traffic accidents, leaving several people injured.

In Ghulam Muhammad Goth area of Bhains Colony, a man was seriously injured after the wall of his house collapsed, according to the Chhipa rescue services spokesperson. He added that the victim, 18-year old Kashif, succumbed to his injuries during treatment at the Jinnah Postgraduate Medical Centre.

In a separate incident, a five-year-old girl was killed in Khamosh Colony after wall of her house collapsed. The body was shifted to the Dr Ruth Pfau Civil Hospital for medico-legal formalities, where the girl was identified as Tanzila, daughter of Muhammad Ibrahim.

Another man was killed within the limits of Jamshed Quarters Police Station after a tree fell on him. According to Jamshed Police SHO Shamshad Hussain, the deceased was a traveler and was reported dead when the tree was cleared by residents and rescue workers.

A van caught fire near Abdullah College in North Nazimabad, as a result of which seven members of a family sustained burn injuries. Chhipa volunteers, quoting eyewitnesses, said that a live wire suddenly fell on the van while it was passing under an electric pole. The wire caught fire, which soon engulfed the entire van.

The injured were shifted to Abbasi Shaheed hospital. Later, they were shifted to the burns ward at the Civil hospital. According to police sources, at least two of the victims sustained serious burn injuries in the incident.

Meanwhile, at least 10 students were injured when the roof of a private school in Korangi Industrial Area collapsed. According to SHO Aurangzeb Khattak, nine of the injured were discharged from the hospital after being administered first aid, while one student remained under treatment. The incident, he said, occurred when the roofs of the second and third floors of the school building started cracking due to torrential winds.

In another incident, five girls were injured when the roof of the Avicenna School collapsed. The school is located on Tipu Sultan Road within the limits of Charbahar Police Station. According to SHO Jamshed, the girls are aged between seven and 13 years and were injured when the cement roof and false ceiling of their classroom collapsed due to the strong winds.

In a similar incident within the limits of Kalakot Police Station, six girls aged between six and nine years were injured in a madrassah when their classroom's roof collapsed. In Jascon Police Station limits, two young children, a boy and a girl, were injured when the roof of their home near Kemari Kamela Chowk collapsed. The injured were shifted to Dr Ruth Pfau Civil Hospital, where they were identified as three-year old Yousuf and seven-year old Husna.

The roof of a house also collapsed in Taiser Town, but no casualties were reported. In Korangi's Zaman Town area, a man was injured after the walls of his house collapsed. He was shifted to JPMC. In Korangi no. 2.5, another wall collapse incident injured two people who were also taken to the JPMC.

Meanwhile, a car reportedly overturned on the Expressway within the limits of Baloch Colony Police Station. The female driver, who lost control of the vehicle due to the gusty winds, remained safe.

Several electricity poles also fell near Qayyumabad and Clifton Do Talwar due to which traffic flow was disrupted. Several cars parked in the Sindh High Court premises were damaged as trees fell on them while a rickshaw was completely destroyed after a tree fell on it in Gulistan- e-Jauhar. Another old tree in the Karachi Press Club's premises was also uprooted. Several trees were also uprooted in various neighborhoods, including Gulshan-e-Iqbal, Gulshan-e-Hadeed and Korangi.

**Routine disrupted**

Aviation operations were partially affected due to the chaotic winds. According to chief meteorologist Abdul Rasheed, though rains are uncommon during the month of April, the current system of strong winds was unprecedented. On Tuesday (today), Karachi and its surrounding areas are likely to witness rain accompanied by strong winds.

After a brief spell of rain, the system would head towards the north of country, said the chief meteorologist, adding that the Met department was updating authorities at the Jinnah International Airport on a regular basis while a warning of low visibility of only 500 meters had also been given for both the airports and the sea. Fishermen should keep a radio system to remain updated with the weather conditions, he added.

**Other parts of Sindh**

The dust storm, drizzle and gusty winds gripped other areas of the lower Sindh region on Monday, disrupting the supply of electricity and affecting movement of traffic on the highways and cities. However, no weather-related casualties were reported from any of the areas.

The gusts began to blow in the wee hours as the weather brought down the temperature, with Hyderabad recording the highest of 31 degrees centigrade. The blustery winds uprooted trees and signboards at many places besides damaging the Hyderabad Electric Supply Company's transmission system.

The storm also ripped up thatched huts in the rural areas in Hyderabad, Mirpurkhas, Umerkot, Tando Muhammad Khan, Badin, Jamshoro, Thatta, Tharparkar and other districts.

Widespread outages were reported during the storm. But the system was restored in the afternoon. The company's spokesman, Sadiq Kubar, told The Express Tribune that power supply from three grid stations and 14 power feeders of 11KV was halted. According to him, four towers of 132 KV transmission line also fell, including three in Jamshoro district's Thana Bula Khan area alone. The Pakistan Meteorological Department has forecast that the weather pattern will continue on Tuesday in the upper Sindh region.

(By Sajid Rauf / Aftab Khan The Express Tribune, 04, 16/04/2019)

**Dust storm paralyzes life in Karachi**

Life in Karachi almost came to a standstill on Monday because of a severe dust storm that wreaked havoc on the city's fragile municipal infrastructure as well as the transmission and distribution system of the K-Electric.

Strong winds that swept across the city not only uprooted trees and electric poles but also destroyed houses in different parts of the city. Four people were killed and over 60 injured in different incidents.

A number of foreign and domestic flights to and from Karachi airport were either cancelled or delayed because of poor visibility. People of Karachi had to spend a sleepless night between Sunday and Monday and during the day they also endured hours-long breakdowns.

Although the KE claimed to have fixed the faults, a large number of areas remained without power till evening.

*Many areas remain without electricity for hours; rain with thunderstorm likely today*

The areas affected included Malir, Landhi, Korangi, blocks of Gulshan-i-Iqbal, Gulistan-i-Jauhar, North Karachi, North Nazimabad, residential blocks of Scheme 33, Federal B. Area, Defence, Clifton and several others.

"Power supply in the city remained at routine levels despite gusty winds and a severe dust storm," said the power utility in a statement.

It claimed that despite the intensity of the storm, the KE's rapid response teams maintained strict vigilance as the city experienced strong winds along with light rain in various areas on Sunday night and early hours of Monday morning.

"The overall power infrastructure remained intact during the inclement weather. During the windstorm, a few localised faults emerged in some parts of Malir, Korangi, Shah Faisal, a few blocks in Gulistan-i-Jauhar and Gulshan-i-Iqbal, which were swiftly attended and rectified by KE teams," it said.

**Thunderstorm likely today**

Karachi is likely to have cloudy weather on Tuesday (today) with thunderstorm/rain, the Met department said.

"The system entering from Iran passed through Balochistan before reaching Karachi at night. It would be cleared by tomorrow afternoon and the hot weather conditions that lost their severity due to the dust storm would resume soon," said Abdul Rasheed of the Pakistan Meteorological Department.

Sharing details of the dust storm, a spokesperson of the Met department said that it started on Sunday night after 11pm and reached its peak at 10.30am on Monday morning with wind speed of 64km per hour. It gradually moved towards Badin and other interior parts of Sindh.

“That was the maximum speed we recorded. Though harsh and destructive, the dust storm helped bring the temperature down,” he said, adding that a Met department observatory in Pehalwan Goth did not record any rain as it was negligible.

The maximum and minimum temperature was 31 degree Celsius and 23.5 degree Celsius, respectively. The level of humidity was 43 per cent.

The maximum and minimum temperature recorded on Sunday was 37.7 degree Celsius and 24 degree Celsius.

### **Mayor imposes emergency**

Mayor Wasim Akhtar imposed an emergency in the Karachi Metropolitan Corporation to deal with any situation ahead of forecast of heavy rains and dust storm in the city.

Talking to Dawn, he said that he had directed the municipal services, fire brigade, health and medical, parks and engineering departments to stay alert and make all arrangements ready.

The mayor said that the parks department was also directed to remove all fallen trees from main roads.

He also appealed to citizens to take all precautionary measures during the present weather and avoid going out unnecessarily or standing under hoardings or beneath trees.  
(By Dawn Report Dawn, 15, 16/04/2019)

## **Earth Day 2019**

TODAY marks Earth Day. As Pakistan is hit once again by heavy rains and winds that have destroyed the wheat crop in parts of Punjab, while Sindh protests water shortages that have restricted farming, there is a need for greater awareness of the impact of the changing weather patterns. Whether we acknowledge it or not, climate change is having an effect on every aspect of our lives. Matters will get worse for future generations, unless we radically rethink our lifestyles. The destruction of planet earth is just one of the consequences of a capitalistic world that goes about its business unchallenged. Not only have we lost many lives due to extreme weather, the impact on largely agrarian economies has been catastrophic. Pakistan is indeed one of the countries that is most vulnerable to climate change, and has witnessed everything from flooding to heatwaves and droughts in recent times. And there are plenty of instances of climate-based migration, most recently in Badin. Along with destruction and the displacement faced by humans, the mass extinction of animals and plant life is ongoing through deforestation and the obliteration of their habitat, pollution and unlawful and excessive hunting.

The theme for Earth Day 2019 is to ‘Protect Our Species,’ which was created in response to the destruction of natural life due to human activity. Pakistan boasts an enviable biodiversity, but much of it is threatened due to the short-sightedness of our decision-makers. The current prime minister calls himself an environmentalist, but labels are meaningless until they are translated into action. Most people believe there is little that individuals can do at a private level to combat climate change, as the responsibility falls on large corporations and politicians. But then, we have the example of 16-year-old Greta Thunberg in Sweden. During a phone-meeting with a meteorologist in June 2018, before she began her school strike, Greta told him: “You are not radical enough. I have to do something myself.” That should be hint enough.  
(By Editorial Dawn, 08, 22/04/2019)

## **Heatwave**

Heat and dust mark summer months in the subcontinent. Heatwave is not an uncommon phenomenon in May and June in Sindh and other parts of Pakistan. At this time of the year in the plains, the earth is scorched. However, what unsettles people are the memories of the severe heatwave of 2015 and the horror it caused. That heatwave had killed 2,000 people in the Sindh province, mostly in its capital Karachi, when temperatures had soared to 49 degrees Celsius and even beyond. A heatwave has once again struck Sindh, including its capital Karachi, as on April 30 the mercury shot up to 42 degrees Celsius. The Met office had forecast a three-day heatwave from May 1 to 3. Now it is expected to continue till May 4. According to the Met office forecast, temperature in Karachi is likely to be between 40 and 42 degrees Celsius during the heatwave. The Sindh government and NGOs have set up special centres in hospitals and other locations for treatment of heatstroke cases in various places of the province, including Karachi. The government has asked people to take special precautions against heatwave and how to deal with cases of heat and sun stroke. Hospitals have been put on alert to deal with the situation arising out of the increasing temperature. People have been asked to eat lightly and consume only light food and drink lots of water and other liquid stuff as heat causes dehydration and also affects the digestive system. Big eaters should resist the temptation to go on gorging on junk and greasy food to avoid diseases related to indigestion. It is the time of the year to avoid bursting with indigestion even if one is bursting with money.

The experience of 2015 shows that the most vulnerable people were labourers who worked in the sun during the day and they did not have drinking water available at hand. This should not happen again.  
(By Editorial The Express Tribune, 16, 01/05/2019)

## **Karachi swelters at 42°C**

The city is expected to experience extreme temperatures in the next few days. The latest spell of the heatwave in Karachi, forecasted by the Pakistan Metrological Department, started showing its effects on Tuesday as extremely hot gusts of wind blew



across the city due to the hot and dry wind blowing from Balochistan and the north-west. The suspension of wind blowing from the sea added to the hot weather. Mercury was recorded to hit 42 degree Celsius on Tuesday.

Following the warning issued on April 27 by PMD, another advisory was issued Tuesday evening by the heatwave centre stating that the heatwave may persist till May 4. Temperatures are expected to drop from May 5.

South-west winds blowing from the sea suspended on Tuesday morning while hot, dry and partially dusty winds from the north-west gusted into the city and consequently reduced visibility from six kilometres to 1.5km.

The hot winds blew all afternoon and gradually the temperature escalated. Minimum temperature on Tuesday was recorded at 24.5 degree Celsius, with the moisture levels being measured at 62% in the morning and 15% to 18% later in the day.

Although routine life was affected and traffic on the roads was relatively less than on an average weekday, the moisture level in the air remained moderate and fortunately the situation is not yet reminiscent of the 2015 heatwave.

**Precautionary measures**

Sindh government claims to have completed arrangements for the prevention of heat strokes in the coming days. At more than a 100 spots scattered across the city, water troughs have reportedly been installed and heat stroke centres and hospital camps have been established. The government has also assured of coordination between the district administration, the health department, Karachi Water and Sewerage Board (KWSB), traffic police, K-Electric and all private hospitals.

Besides, the staff of hospitals under the Sindh health department and the Karachi Metropolitan Corporation (KMC) are on high alert and have been restricted from taking offs in the next three days.

Emergency wards have been established in all government and private hospitals including Jinnah Postgraduate Medical Centre (JPMD) and Dr Ruth Pfau Civil Hospital. The availability of drips, ORS, showers and other medical

facilities to treat heat affected patients have also been ensured.

**Exercising caution**

PMD and health experts have advised citizens to avoid being out in the sun unless necessary and drink as much water as they can.

Along with remaining hydrated, citizens are advised to wear light clothes and cover their heads with wet towels if they do find themselves exposed to the heat.

Speaking to The Express Tribune, Abbasi Shaheed Hospital Deputy Medical Superintendent Dr Anwar Sohail Qureshi said that arrangements at the hospital were complete.

Dr Qureshi said that diseases triggered in the extremely hot weather include gastro-intestinal diseases, diarrhoea, and skin related ailments. Heat stroke symptoms include headache, dizziness and losing consciousness, he added.

He advised that people eat light foods, drink cold beverages, juices and increase their water intake to remain hydrated. If they are to spend time outside during the heatwave, they are advised to cover their heads with wet towels, he added.

According to him, during the current weather children, athletes, labourers and the elderly are most vulnerable as they are more likely to spend time outside.

(By Aftab Khan The Express Tribune, 04, 01/05/2019)

**‘No country can ignore the impacts of climate change’**

Day two of the conference on climate change titled ‘An Existential Challenge for Pakistan’ organised by the Pakistan Institute of International Affairs (PIIA) comprised reading of several technical papers focusing on subjects including good governance and conservation, water resources and future projections.



Speaking about good governance and conservation in the context of climate change, architect and town planner Arif Hasan said that climate change had motivated the government here to set up many centralised organisations such as the National Disaster Management Authority and Provincial Disaster Management Authorities. However they did not really have the capacity to deal with disaster situations. Then there are also mitigation and management issues regarding infrastructure and land departments.



"During the 2010 floods, I worked in areas where the floods took place and the volume of water in earlier floods was far more though the disaster was bigger in 2010. It was because the land departments were not functioning well. There was no cleaning of canals, no desilting of drains, deforestation had also taken place with failure of the irrigation department in carrying out its normal functions," he said.

"Then between 1983 and 2010, there had been much construction on the flood plains with villages and even schools there while under the law there shouldn't be any settlements there. Then in 2011, too, it was the same story," Mr Hasan pointed out.

About the heat island effect in Karachi where over a thousand people died when the temperature went up to 42 degrees Celsius for six days in 2015, he said that earlier the city had also witnessed higher temperatures of 48 degrees Celsius and still no one had died. "So what changed? Human settlements and the nature of these settlements changed. Research by Dr Noman Ahmed of NED University shows that those rushed to hospitals at the time came from high-rises in katchi abadis where there is little ventilation so there is a need for cheap methods of insulation and ventilation," he said.

He also said that Pakistan had spent lots of money in developing infrastructure but not much for maintenance.

Dr Mohammad Zia Hashmi, head of the water section of the Global Change Impact Studies Centre (GCISC) in Islamabad spoke about the 'Impact of climate change on Pakistan's water resources from the mountains to the sea'. Looking at the journey of water from the snowy and glacier-rich northern mountainous part of the country to the confluence of the Indus River with the Arabian Sea at the endangered Indus River delta, he said that basically everything was about water. "If we can think of water in a better way, we can handle climate change in a better way, too," he said.

Dr Mohammad Mansha, director, Earth Sciences, Pakistan Space and Upper Atmosphere Research Commission, had several climate predictions such as floods, droughts, cyclones, about which he said that they were expected to increase in frequency and severity in the coming decades.

Speaking about priorities in the face of climate change, Dr Shahbaz Mehmood, head of the Climatology and Environment Section at GCISC, said that Pakistan for almost the last decade had consistently been ranked among the top 10 countries most affected by climate change. "The major climate change-related concerns of Pakistan include increased risk of extreme climate events, increased monsoon variability, food insecurity, health risks and rising sea levels. He also said that the mean annual temperature over Pakistan has increased with a greater increase in Sindh and Balochistan.

Adil Najam, dean, Frederick S. Pardee School of Global Studies, Boston University, USA, spoke about 'Pakistan in the age of adaptation'. "Because the world has been unwilling and unable to respond to the great threat of global climate change in time with appropriate measures of mitigation, we are now condemned to live in what I call the 'Age of Adaptation'," he said. "Adaptation after all, is essential. Ignoring the impacts of climate change is no longer a luxury that any country can afford, least of all, Pakistan," he added.

Retired General Tariq Waseem Ghazi; chairman emeritus, Pakistan Nuclear Regulatory Authority Jamshed Azim Hashmi; former member Pakistan Atomic Energy Commission Javed Iqleem and PIIA's chairperson Dr Masuma Hasan also spoke.  
(By Shazia Hasan Dawn, 16, 05/05/2019)

### UN environment report

THE UN has compiled an expansive draft report on the state of the world's environment, and as the document's key findings indicate, there is reason for grave concern. What the report sums up is the fact that due to decades of overconsumption and unsustainable lifestyles, humans have had a devastating impact on the planet. In particular, a growing population requires tens of billions of tonnes of resources; this is having a debilitating impact on the land, the rivers and seas, and the air. The figures are indeed alarming. According to the estimates, 75pc of land, 40pc of oceans and 50pc of rivers "manifest severe impacts of degradation". One does not have to be an environmental scientist to realise that plastic refuse is choking our drains and floating in our seas, untreated sewage is flowing into our waters and destroying marine life, and toxic air is making it hard for us to breathe.

But although the prognosis is grim, a poisoned dystopian future can be avoided if the international community — especially the industrialised states who tend to be the biggest polluters — come up with a workable plan of action to combat the effects of environmental degradation and climate change. While population control should be a central plank in the strategy, increasing the use of renewables in the energy mix can also go a long way in reducing our carbon footprint. Moreover, there must be a rationalisation of the use and manufacture of plastic. For example, in Pakistan, the ubiquitous plastic 'shopper' has wrought considerable damage. The move should be towards more environment-friendly materials, eventually phasing out single-use plastics.

While some critics have said this country has no proper climate change policy, the fact is that the whole global community must work on a common plan, as environmental degradation does not confine itself to borders. And in this regard, those who have withdrawn from major climate accords — such as the US — and other developed states must play a bigger role in reducing their carbon footprint.  
(By Editorial Dawn, 08, 05/05/2019)

### Heatstroke centre attack

IT is unfortunate that the ugly face of extremism and intolerance manifests itself in so many different ways in this country. News emerging from Sukkur shows that extremist vigilantes are more than willing to resort to violence to enforce their myopic code on others. On Thursday, armed men, believed to be associated with a religious outfit, stormed a heatstroke camp set up in Sukkur and started firing into the air. The camp had been set up by the local municipal corporation as temperatures have been scorching in upper Sindh over the last several days, regularly crossing 40°C. The extremists had apparently warned the organisers to refrain from operating the camp during fasting hours, arguing that it was a violation of the Ehteram-i-Ramazan Ordinance. When the organisers resisted their diktat, the extremists attacked a camp in the Ayub Goth centre. The local authorities have shut down the heatstroke camps and say they will be reopened after “necessary consultations”.

No one has the right to take the law into their own hands. Besides, in their extreme religiosity and enthusiasm to ‘punish’ others, the attackers blindly ignored the fact that Islamic injunctions allow the sick, the infirm and travellers to not fast. Considering the high temperatures in the region, the city administration did the right thing by setting up camps to ensure that those suffering from heatstroke could easily get access to medical help and water. Moreover, even the Zia-era Ehteram-i-Ramazan Ordinance allows exemptions for eateries in hospitals, railway stations, airports etc. The bottom line is that fanatics cannot be allowed to impose their narrow views on others, that too at gunpoint. The administration must trace out those involved in the attack and bring them to justice, so that others are deterred from indulging in such violence and moral policing. In the longer run, it is the collective responsibility of the state, society and the clergy to actively resist intolerance and extremism, and to promote a more inclusive worldview.

(By Editorial Dawn, 08, 11/05/2019)

### World Environment Day

FORTY-FIVE years ago on this day, the United Nations’ World Environment Day was first celebrated. Throughout the world, on June 5, efforts are made at creating greater awareness of environmental issues and finding solutions to the world’s most pressing climate-related problems. Since 1974, the day has increasingly assumed global significance, with country after country realising the import of a joint natural heritage that transcends borders. Glass ceilings have been shattered and information is easily accessible to everyone. And yet, despite all their technological advancements and research, societies and governments have moved away from a basic truth about the crucial link between human existence and nature. In all these years, we have only seen climate patterns change at an accelerating speed, with commerce and convenience trumping environmental concerns in a world where so-called ‘free-market’ greed and desire reign supreme — with no realistic alternatives in sight to replace that system.

In the past few years alone, we have witnessed our mighty rivers and oceans clogged with toxic waste and plastic; the death of coral reefs that maintain the ecosystem for diverse marine life; ferocious wildfires swallowing everything in their path; glaciers melting at terrifying speed; rising water levels, heavy rainfall and flooding that destroy and displace in equal measure; droughts and heatwaves that scorch the earth and kill vegetation, animal and human life; rising food shortage; and large-scale climate-caused migration. And it is only expected to get worse. Despite growing evidence of the catastrophes posed by climate change, there are still some among those occupying the most powerful positions in the world who deny the reality of global warming. In 2015, the Paris Agreement stated that the responsibility for halting climate change rests with each nation. Its aim was to reduce global warming to below 2°C — unfortunately, we are not even close to achieving that goal, and greenhouse gas emissions continue to increase.

As many parts of Pakistan are currently gripped by a suffocating heat wave, policymakers must reflect on whether they are keeping their promise. That Pakistan is the world’s seventh most vulnerable country to the risks of climate change is an oft-repeated statistic. This year’s theme in particular — ‘air pollution’ — is something the country is no stranger to. For the past few years, several parts of the country have been enveloped in thick smog at certain times of the year, presenting a health emergency. According to a Washington-based report, Pakistan is second only to India and China when it comes to mortality rates connected to poor air quality. Pakistan may be fortunate to have a prime minister who refers to himself as an environmentalist and clings to an idealism that is refreshing. But until the idealism translates into long-lasting change that can be seen (and breathed), it will remain a hollow and futile sentiment.

(By Editorial Dawn, 08, 05/06/2019)

### Sepa’s lab, air monitoring units dysfunctional due to financial crunch

Efforts of the Supreme Court-mandated water commission to improve monitoring and regulatory capacity of the Sindh Environmental Protection Agency (Sepa) seem to have gone to waste as the agency’s environmental monitoring stations and laboratory for testing water quality have been inoperative for the past few months owing to financial constraints, it emerged on Friday.

Sepa’s laboratory and air quality monitoring units had restarted their operation on the directives of the water commission only last year. The commission inspected these facilities at Sepa’s head office in Karachi in 2017 and found them dysfunctional owing to financial constraints.

The commission was tasked by the Supreme Court to hold an inquiry into the state’s failure in providing clean drinking water and sanitation facilities in the province.

*Three monitoring stations made operational on the intervention of SC-mandated water commission last year*

Its terms of reference included examining the statutory role played by Sepa in the issues mandated to it under the Sindh Environment Protection Act, 2014.

#### **No funds**

According to sources, the city has three dysfunctional environmental monitoring stations; two of them installed at Sepa's head office in Korangi and the office of the deputy commissioner Central in North Nazimabad, respectively, while the third one is a mobile environmental monitoring station.

These systems, they said, were provided to Sepa in Sindh and to other provincial government departments as part of the Rs1.23 billion project launched by the Pakistan Environmental Protection Agency in collaboration with the Japan International Cooperation Agency (Jica) in 2007.

JICA's share in the project was 79 per cent (Rs973 million). The federal government bore 21pc (Rs260m) while the Sindh government was to provide technical assistance and environmental monitoring equipment.

Sources said that the project's objective was to measure air pollution levels especially in the city's industrial zones.

They said that these stations did carry out air monitoring for some years before they fell into disuse in 2012 following devolution under which the project was transferred from the federal government to the provincial government without any financial assistance. They were made operational on the intervention of the water commission in 2017.

Sepa's website shows that the last air quality index and vehicular emission reports were uploaded in Nov 2018 and March 2018, respectively.

When contacted, Ashique Langha, director of Sepa, Karachi office, admitted non-operation of air quality monitoring units and said: "The sensors of air quality units either need replacement or calibration for which we have received [financial] support from the World Wide Fund for Nature-Pakistan [WWF-P] under a memorandum of understanding."

A Lahore-based company, he said, had completed its assessment of the equipment and would soon start its job to make them operational.

"We can't test heavy metals at the laboratory as the equipment requires some repairs but we are still carrying out tests for some parameters," he replied to another question.

The department, he said, faced serious funding constraints and it had not yet received its release for the fourth quarter, apart from capacity issues and manpower.

"The department is yet to receive reply of the proposals sent to the finance department," he said.  
(By Faiza Ilyas Dawn, 13, 08/06/2019)

### **Environmental concerns**

It was only last year that the Sindh Environmental Protection Agency had revived its water-testing laboratory and air quality-monitoring systems, after receiving instructions to do so by the Supreme Court's water commission in 2017. According to a report published in this paper on Saturday, however, it has now come to light that Sepa's air quality-monitoring stations and water-testing laboratory have been out of service for the past several months. The reason? It is the same issue that was pointed out after the 18th Amendment was passed and the agency came under the provincial government, and it remains a challenge that seems to plague many government departments in Sindh — the lack of finances. Three environmental monitoring systems were provided by the Pakistan Environmental Protection Agency and the Japan International Cooperation Agency in 2007. The functioning of these operations is vital to the health of Sindh's population, where public health services are few and of poor quality. Sindh has also been hit by a series of health scares in recent years, along with severe water shortages. In fact, the water commission had pointed out that the quality of drinking water in Sindh had deteriorated, with 78.1pc of the water samples collected found not suitable for drinking purposes, largely due to untreated sewage water mixing with freshwater bodies.

It is widely acknowledged that the bad quality of water along with the lack of awareness of basic hygiene and sanitation practices leads to serious illness. In fact, many illnesses in the country are directly connected to the poor quality of water and air, which has led to a high percentage of entirely preventable illnesses in the population. The suspension of vital services cannot simply be an issue of lack of funds. That there is wide-scale lethargy, incompetence, mismanagement and misuse of funds in the government sector is common knowledge. Whatever the real reason may be, the provincial government must urgently look into the matter and not seek excuses.

(By Editorial Dawn, 06, 10/06/2019)

### **Study depicts threat posed by plastic pollution**

Plastics are impacting our air, soil and water quality and polluting our food systems. They are even pushing our aquatic and other life to extinction and damaging ecosystems. The issue of plastics has become so pervasive globally as well as in every large city of Pakistan that a collaborative and proactive approach is needed to address it.

The World Wide Fund for Nature-Pakistan (WWF-P) shared these concerns on Thursday in the light of a recent study which finds that an average person in the world could be ingesting approximately five grams of plastic every week, which is the equivalent weight of a credit card.

The study was commissioned by the WWF International and carried out by the University of Newcastle, Australia, on the impacts of microplastics on humans.

It's the first global analysis to combine data from over 50 studies on the ingestion of microplastics by people.

According to experts, its findings are an important step towards understanding the impact of plastic pollution on humans. It also further confirms the urgent need to address the plastic system so that it does not pollute ecosystems in the first place.

According to the study, the largest source of plastic ingestion is drinking water with plastic found in water (groundwater, surface water, tap water and bottled water) all over the world.

Inhalation, it says, estimates represent a negligible proportion of microplastics entering the human body but may vary heavily depending on the environment.

"Plastic pollution is a major threat to wildlife, not only through microplastic ingestion, but via entanglement and habitat destruction. Plastic pollution also has damaging economic consequences, with the UN Environment Programme (UNEP) estimating its annual economic impact on the ocean economy at US\$8 billion," it says.

Of the consumables studied, those with the highest recorded plastic levels include shellfish, beer and salt. Leakage of plastic into our environment and food chain has been met so far with an inadequate global response by governments.

"The long-term effects of plastic ingestion on the human body are not yet well documented. But studies have shown that beyond a certain exposure level, inhalation of plastic fibres seems to produce mild inflammation of the respiratory tract. In marine animals, higher concentrations of microplastics in their digestive and respiratory system can lead to early death.

"Research studies have demonstrated toxicity in vitro to lung cells, the liver, and brain cells. Some types of plastic carry chemicals and additives with potential effects on human health," it says.

Sharing his concerns, Hammad Naqi Khan, director general, WWF-P emphasised the need to promote alternatives as well as to develop a comprehensive strategy to ensure zero plastic waste in Pakistan.

"Policies about banning plastic products should be implemented in letter and spirit and community awareness programmes can be helpful to discourage use of plastics in our daily lives," he said.

Pakistan could learn from the examples of countries like Rwanda where such bans had been introduced, he added.

Muhammad Moazzam Khan, technical adviser on marine fisheries, WWF-P, said the current study depicted a realistic picture of how plastics were damaging the environment and harming human life.

Referring to a recent local study, he said it found that more than 300 pieces of microplastics in one gram of sand along the Clifton beach.

"This is alarming as microplastics consumed by marine animals find their way to humans through seafood," he said, suggesting the need for more research to assess the situation of plastics including microplastics in Pakistan.

Sharing some data, he said around 13,000 tonnes of garbage was generated in the city and only 8,000 tonnes was lifted by the civic agencies to the dumpsites. However, the remaining 5,000 tonnes of garbage was unaccounted for which went into the sea or remained on land.

"The large quantity of garbage becomes part of the ecosystem and pollutes the urban environment," he said.

The present study, the WWF International says, should serve as a wake-up call to governments.

"Not only are plastics polluting our oceans and waterways and killing marine life — it's in all of us and we can't escape consuming plastics. Global action is urgent and essential to tackling this crisis," said Marco Lambertini representing WWF International.

(By The Newspaper's Staff Reporter Dawn, 16, 28/06/2019)