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NEWS COVERAGE PERIOD FROM JANUARY 23RD TO JANUARY 29TH 2017

SOUND BYTES: 'CLIMATE CHANGE IS A BIGGER THREAT TO PAKISTAN THAN TERRORISM'

Dawn, January 26th, 2017

KARACHI: Marked by smog in Punjab and fog in Sindh, winter this season was delayed for at least a month across the country, a phenomenon being observed along with other climate variations for the past few years. In the case of Karachi, the month of December for many seemed like an extended part of summer. And just when they were about to lose hope, they were pleasantly surprised when the weather suddenly turned cold and was later accompanied by rains.

Faiza Ilyas spoke to Dr Qamar-uz-Zaman Chaudhry, presently serving as International Climate Change Specialist at the Asian Development Bank, to ascertain if these weather patterns are a part of climate change, and if there is a national or provincial strategy in place to tackle the impact of climate change.

Dr Chaudhry is also the former special adviser to the secretary general of the UN World Meteorological Organisation for Asia and the lead author of Pakistan's National Climate Change Policy.

It's not different from what we have been experiencing for the past five to six years, that is, delay in the start of winter season and then rains. But, the pattern is quite different from the long-term normal weather patterns.

Fog and smog both have a lot to do with prolonged dry weather. Extended dry periods normally make lower atmosphere stable that causes increased concentration of pollutants — local and trans-boundary — in the lower atmosphere. Low temperatures caused extended smog conditions in Punjab. These pollutants disperse only when rain cleans the atmosphere or at least a wind pattern reduces the concentration of pollutants.

Q: How is climate change affecting Pakistan, particularly Sindh?

A: I am fully convinced that climate change is a bigger threat to Pakistan than terrorism, and Pakistan can experience severe impacts of extreme climate disasters, with water stress affecting food and energy security.

Severe drought and catastrophic floods in different parts of the country are becoming a norm. Additionally, the intensity and frequency of these events has also increased over the last 10 to 15 years.

As far as Sindh's changing climate is concerned we can expect drier, hotter and erratic rainfall events in the future.

Q: Is there any recent study to assess the threat from melting glaciers?

A: The recent analysis of ice samples by the Pakistan Meteorological Department suggests a significantly higher presence of local and trans-boundary black carbon deposits on glaciers.

These black carbon layers accelerate glacier melting by absorbing higher solar radiation. Further, the temperature record of the last 100 years indicates that warming trend in northern Pakistan is higher than the country's plain areas.

The Hindu Kush-Karakoram-Himalayan (HKH) glaciers are the main source of water in the Indus river system supplying above 70 per cent of available water. The present warming trend, which is part of global warming, is likely to accelerate the melting of our HKH glaciers.

This scenario suggests floods in the short term and water stress on a long-term basis threatening the country's water security, food security and energy security.

Q: Do we have any strategy in place to face climate change?

A: The National Climate Change Policy 2012 of Pakistan recognises the climate change risks that include projected recession of the HKH glaciers due to global warming and carbon soot deposits from trans-boundary pollution sources, threatening water inflows into the Indus River system.

It also speaks of the rising temperatures resulting in enhanced heat and water-stressed conditions, particularly in arid and semi-arid regions, leading to reduced agricultural productivity.

While Punjab and Khyber Pakhtunkhwa have developed drafts on their respective climate change policies, Sindh and Balochistan are trying to follow the federal climate change policy and are in the process of developing climate change action plans.

The federal ministry of climate change has recently developed the 'Framework for Implementing the Climate Change Policy (2015-2030).'

Q: Can you list a few areas for immediate intervention?

A: We desperately need steps for water conservation, especially use of high-efficiency irrigation systems, energy efficiency and conservation, and increased use of power generation through renewable energy.

The establishment of a reliable natural disaster early warning system, creating awareness on climate change, and developing capacity of communities to deal with extreme climate events are equally critical.

<http://www.dawn.com/news/1310736/sound-bytes-climate-change-is-a-bigger-threat-to-pakistan-than-terrorism>

TURKISH FIRM TO SET UP 100MW SOLAR PLANT IN BAHAWALPUR
The Express Tribune, January 27th, 2017.

LAHORE: To provide cheap electricity to people in Bahawalpur, the Punjab government has reigned in a Turkish company to set up a 100MW solar power plant at Quaid-e-Azam Solar Park within the stipulated time of six months.

Under the agreement signed on Thursday between Punjab and Zorlu Enerji Holding, the Turkish firm will provide electricity at a rate of six cents per unit.

Punjab Chief Minister Shehbaz Sharif was the chief guest at the signing ceremony held in Model Town, where provincial ministers, Turkish Counsel General Serdar Deniz and Zorlu Energi Holding's representatives were also present.

While the government has allowed six months for the completion of the power project, Shehbaz urged the Turkish firm to complete this plant in four months. The government also handed over the documents of the land to the company.

The chief minister said Turkish President Recep Tayyip Erdogan on his recent trip to Pakistan had assured him of all-out support to end power outages in the country. He added that other Turkish companies were ready to establish more projects in Punjab.

Terming the agreement a 'welcome step', Shehbaz said this project was the first move towards ending the energy crises, which is the main reason for the tattered economy of Pakistan.

He criticised the National Electric Power Regulatory Authority (Nepra) for keeping rates of electricity on the high end, hoping solar projects would help to reduce the prices determined by the power regulatory authority.

The CM said that earning profit should never be the priority of any government institution and rather it should be public service.

Despite long marches and sit-ins, Shehbaz said, the government had already completed a 100MW solar power project and was working on a 3,600MW gas power project also.

During his speech, he also bashed leaders of the both the leading political parties, saying the nation was aware of the smear campaign against the PML-N government.

"Mr Niazi has done nothing for the people of Khyber-Pakhtunkhwa," he said while referring to Imran Khan. "He has dedicated all his efforts towards the smear campaign instead of serving the people under his party's rule."

Without naming former president Asif Ali Zardari, Shehbaz alleged that leaders with millions of dollars stashed abroad were busy making false accusations against the provincial and federal governments.

He appealed to the politicians to do constrictive politics and resolve the problems of the people of Sindh, Balochistan, K-P and Punjab. "Time has come that allegations, lies, hypocrisy and wrong statements should be avoided and work is actually done for the welfare of the people," Shehbaz said.

He also stressed the need for setting up low-cost energy projects so that electricity could be provided to the people at cheaper rates. By June, he added, 1,320MW Sahiwal coal power project will be completed and work on two hydel projects of 4,000MW and 4,500MW was also under way.

The Zorlu CEO expressed the hope that more similar projects would be established and promised that every effort would be made to complete this project before six months. “Pakistan is our second home and a number of Turk companies are already working with the Punjab government,” he added.

Turk Consul General said the agreement signed between Turk Company and Punjab government would result in enhancing economic cooperation between the two countries.

<http://tribune.com.pk/story/1308197/deal-agreed-turkish-firm-set-100mw-solar-plant-bahawalpur/>

NA PASSES CLIMATE CHANGE, CENTRAL LAW OFFICERS BILLS

Business Recorder, 27 January 2017

ISLAMABAD: The National Assembly passed ‘The Pakistan Climate Change Bill, 2016’ and ‘The Central Law Officers (Amendment) Bill, 2016’ to establish Pakistan Climate Change Authority and rename standing counsel as assistant attorney general respectively.

The National Assembly passed both the bills in the absence of the opposition, which was out of the House as a protest against scuffle between Pakistan Tehreek-e-Insaf (PTI) and ruling Pakistan Muslim League-Nawaz (PML-N) members.

According to objective of the Pakistan Climate Change Bill, 2016, “Pakistan’s per capita emission of greenhouse gases today is one of the lowest in the world. Yet it ranks amongst the top ten countries most affected by climate change during the last twenty years. It now regularly suffers from the vagaries of climate change, including climate-induced phenomena such as recurrent floods, droughts, desertification, glacial melt, and seawater intrusion.

“Extreme climatic events have resulted in tragic loss of lives and colossal damage to the economy. Indeed, they have significantly impeded out efforts to promote sustainable growth and development and to ensure economic prosperity of the people.

“The Framework for Implementation of the National Climate Change Policy for the period 2014-2030 serves to integrate climate-friendly policies into our national and economic planning. The Framework spells out appropriate adaptation actions as well as mitigation measures covering all sectors of the economy.

“Pakistan is a party to the United Nations Framework Convention on Climate Change (UNFCCC), 1992, and Kyoto Protocol to the UNFCCC, 1997. It is also initiated the process for ratifying the Paris Agreement, 2015 which recognises that climate change represents an urgent and potentially irreversible threat to human societies and the planet and thus is a global challenge, requiring the widest possible cooperation by all countries.

“For the aforesaid purposes amongst others, it is considered necessary to establish an independent Pakistan Climate Change Authority which will, under the guidance of a high-powered Pakistan Climate Change Council (chaired by the Prime Minister and with representation from all provinces,

including the chief ministers), provide a framework for mitigating and adapting to the effects of the changing climate on various sectors of the economy and developing response strategies to the effects of climate change. The proposed authority will also identify and supervise the transfer of appropriate technology, including renewable technology, and strengthen capacity-building measures.

“The Bill also establishes a Pakistan Climate Change Fund, managed by a Board. Money from the Fund will be utilised to meet expenses of both the Authority and the Fund itself and for financial assistance to suitable adaptation and mitigation projects and measures designed inter alia to combat the adverse effects of climate change.

“The Bill has been developed with the support and participation of various governmental and non-governmental stakeholders in the climate change arena. It is also in accordance with international best practices and standards.”

The government also introduced two bills; ‘The Constitution (Twenty-fifth Amendment) Bill, 2017’ and ‘The Compulsory Teaching of the Holy Quran Bill, 2017.’

According to objective of The Constitution (Twenty-fifth Amendment) Bill, 2017, “It is proposed to increase the entitlement of pension of widows of the judges of Supreme Court of Pakistan and High Courts from 50 % to 75 % by amending Paragraph -4 of the Fifth Schedule of the Constitution.”

<http://epaper.brecorder.com/2017/01/27/5-page/844775-news.html>

NEWS COVERAGE PERIOD FROM JANUARY 16TH TO JANUARY 22 ND 2017 GLOBAL WARMING IS TOP THREAT TO POLAR BEARS

Business Recorder, January 16, 2017

US wildlife authorities released on Monday a broad plan to try to save Arctic polar bears from going extinct, as global warming melts away their icy habitat at an increasing pace. With just 22,000 to 31,000 polar bears estimated to be left in the world, the US Fish and Wildlife Service’s Polar Bear Conservation Management Plan calls for a series of actions to save these iconic creatures.

Above all, it calls for reducing global greenhouse gas emissions, which arise from the burning of fossil fuels and contribute to a warming climate.

“This plan outlines the necessary actions and concrete commitments by the (Fish and Wildlife) Service and our state, tribal, federal and international partners to protect polar bears in the near term,” said Greg Siekaniec, Alaska Regional Director of the FWS.

“But make no mistake; without decisive action to address Arctic warming, the long-term fate of this species is uncertain.”

The plan also calls for reducing conflicts between humans and bears, along with protecting their habitat and minimising the risk of contamination from oil spills.

Close management is urged for polar bear hunting, or a practice known as “subsistence harvest” that is legal for indigenous people and involves killing less than four percent of the bear’s total population per year. “Most of these actions are already under way, in partnership with Alaska Native

communities, non-profit groups, and industry representatives who participated in the plan's creation," said a statement from the FWS.

The plan focuses on the two US subpopulations of polar bears that live off the coast of Alaska.

But its efforts should also help conserve polar bears in the rest of their northern range, which includes Russia, Canada, Norway and Greenland. Polar bears were listed as threatened under the Endangered Species Act in 2008 because of the loss of sea-ice habitat.

Since then, conditions in the Arctic have deteriorated due to global warming.

<http://www.brecorder.com/general-news/172/124384/>

IT CAN POWER A SMALL NATION. BUT THIS WIND FARM IN CHINA IS MOSTLY IDLE.
International New York Times, January 15, 2017

Javier C. Hernández

JIUQUAN, China — On the edge of the Gobi Desert, the Jiuquan Wind Power Base stands as a symbol of China's quest to dominate the world's renewable energy market. With more than 7,000 turbines arranged in rows that stretch along the sandy horizon, it is one of the world's largest wind farms, capable of generating enough electricity to power a small country.

But these days, the windmills loom like scarecrows, idle and inert. The wind howls outside, but many turbines in Jiuquan, a city of vast deserts and farms in the northwest province of Gansu, have been shut off because of weak demand. Workers while away the hours calculating how much power the turbines could have generated if there were more buyers, and wondering if and when they will ever make a profit.

"There's not much we can do right now," said Zhou Shenggang, a manager at a state-owned energy company who oversees 134 turbines here; about 60 percent of their capacity goes unused each year. "Only the state can intervene."

China, the world's largest emitter of greenhouse gases, has pointed to its embrace of wind and solar power and other alternatives to coal to position itself at the forefront of the global effort to combat climate change.

More than 92,000 wind turbines have been built across the country, capable of generating 145 gigawatts of electricity, nearly double the capacity of wind farms in the United States. One out of every three turbines in the world is now in China, and the government is adding them at a rate of more than one per hour.

But some of its most ambitious wind projects are underused. Many are grappling with a nationwide economic slowdown that has dampened demand for electricity. Others are stymied by persistent favoritism toward the coal industry by local officials and a dearth of transmission lines to carry electricity from rural areas in the north and west to China's fastest-growing cities.

That has left China unable to generate enough renewable energy to make a serious dent in air pollution and carbon emissions, despite the state-driven building spree. Even with its unmatched arsenal of turbines, China still lags the United States. Wind power now accounts for 3.3 percent of electricity generation in China, according to the nation's National Energy Administration, compared with 4.7 percent in the United States.

Chinese officials have described the challenges facing the wind sector as growing pains, and they say the investments in renewable energy will pay off in the long term. The costs of wind projects are falling rapidly with advances in technology and more efficient construction, making them more competitive with plants powered by fossil fuels like coal and natural gas.

And the government has vowed to continue investing heavily in renewable energy. It said this month that it intended to spend at least \$360 billion through 2020 on developing renewable energy sources.

Analysts said that China's success would depend on its ability to overcome both political and practical obstacles, including resistance to renewable energy from local governments and a lack of turbines near major cities.

"This is partly a political fight," said Paolo Frankl, head of the renewable energy division at the International Energy Agency. "Still, it's a very, very robust and solid trajectory."

Sebastian Meyer, research and advisory director at Azure International, a renewable-energy consulting firm in Beijing, said China was "leapfrogging everybody" with its investments in renewable energy but needed to push through painful policy decisions, such as allowing more flexibility in setting energy prices.

"For years, they've been talking about power-sector reform," he said. "But really they need a different market approach that incentivizes more use of renewables going forward."

The Jiuquan Wind Power Base, approved by the government in 2008, epitomized China's ambition to become a global leader in clean energy. The government vowed to invest \$17.4 billion by 2020 and build a vast farm capable of generating 20 gigawatts of power, more than the combined wind capacity of several countries.

Painting and assembling wind turbines in Gansu Province in 2009. Some of China's most ambitious wind projects are underused. Credit: Doug Kanter/Bloomberg

But the unfinished project has been slow to take off, even as the government continues to build it out.

Part of the problem is the location. Gansu is a barren, mountainous province, chosen for its strong winds and potential for growth. But it is far from the booming cities of eastern China, making transmission of electricity difficult.

Gansu now has some of the highest rates of underutilization in the wind sector in China; in 2015, 39 percent of wind capacity in the province was wasted, according to statistics compiled by the National Energy Administration.

Mr. Frankl said inefficiency in Gansu was “astronomically high” and underscored the need for China to build more ultrahigh-voltage transmission lines to carry electricity long distances, and to position new turbines closer to major metropolises.

In Gansu and elsewhere, the central government has also run up against local resistance. Advocates for the wind industry contend that local officials have reduced production quotas for wind farms to give an advantage to coal companies.

The coal industry, a major driver of economic growth in many provinces, wields significant influence in China. While the government has pledged to curb the spread of coal plants as part of its plan to make 20 percent of China’s energy renewable by 2030, it has continued to add them in some places.

“The cake is only so big,” said Yan Jing, a Greenpeace activist in Beijing who studies climate change and energy issues. “It’s hard for new energy companies to take a slice from traditional players.”

Even if more transmission lines were constructed, Ms. Yan said, the government would have trouble persuading businesses along China’s heavily developed eastern coast to buy electricity from faraway provinces.

“The authorities failed to consider the demand factor, namely, ‘How can we get closer to buyers?’” she said. “There should be more development of clean energy in eastern parts of China so electricity can be absorbed locally.”

In introducing a new energy plan last week, officials acknowledged that the focus on building turbines far from urban centers had created imbalances. He Yongjian, an official at the National Energy Administration, said the government would now build a majority of new turbines in the east, partly to reduce the need to transmit power long distances.

But building wind farms in the east might be difficult, given the preponderance of coal plants, a lack of strong winds and a scarcity of undeveloped land.

The tepid demand for electricity in an economic downturn has also exacerbated the troubles for renewable energy. Demand for electricity grew by only 0.5 percent in 2015, the slowest rate of growth since 1974, and it is expected to remain weak until consumer spending picks up.

At the Jiuquan Wind Power Base, Mr. Zhou oversees a small wind farm for a branch of China Resources Power Holdings, a state-run energy company based in Shenzhen that operates two wind farms in Gansu. He said the wind industry’s problems had hurt morale and productivity. The branch in Jiuquan has made small cuts in salaries and benefits for its 32 employees because of its challenges in selling electricity. Other wind farms in the area have resorted to layoffs, according to interviews with workers.

Outside the company’s offices, a walled compound along a desert highway, trucks carrying coal rumbled down dusty roads. Mr. Zhou, wearing a bumblebee-yellow uniform and fiddling with a pencil, surveyed the vast stretch of immobile turbines from his desk.

“The only thing I can do is encourage my employees to do a good job,” he said. “I assure them that over the long term, the new energy sector is very promising. The difficulties right now are only temporary.”

<https://www.nytimes.com/2017/01/15/world/asia/china-gansu-wind-farm.html>

IN DAVOS, BRACING FOR A SHIFTING U.S. STANCE ON CLIMATE CHANGE
International New York Times, January, 15, 2017

Stanley Reed

LONDON — However slowly and tentatively, nations around the globe appear to be taking some steps to confront the growing threat of climate change.

But on Friday, Donald J. Trump, a self-described climate change doubter, will assume the presidency of the United States. And the same week, half a world away at the World Economic Forum in Davos, Switzerland, climate experts will be pondering what his ascent means for their efforts to make progress on the issue.

After all, Mr. Trump has threatened to scupper the Paris deal on climate change and questioned the science of global warming, and he may try to roll back regulations devised to curb greenhouse gas emissions.

“I think there is going to be a lot of talk about what the rest of the world does with the United States’ not playing leadership roles, especially on climate,” said David G. Victor, a professor of international relations at the University of California, San Diego, who plans to moderate panels at Davos on the changing energy industry.

Mr. Victor forecast that some participants would be “critical of the United States” and try to figure out which governments could fill any vacuum created by Mr. Trump’s administration.

This is not an easy question to answer, he suggested. France and Germany, European Union heavyweights, might have been expected to step up, but they are distracted by issues like migration and “Brexit,” Britain’s effort to withdraw from the union.

While it may not become apparent at Davos, Mr. Victor said, “I expect in the real world the Chinese are going to become one of the leading countries” on climate change.

The future of the energy industry is also likely to be paramount. Because fossil fuels like oil, coal and natural gas produce the bulk of greenhouse gas emissions blamed for global warming, major changes that are already underway in how we generate electric power, fuel our vehicles or heat our homes are required to address climate change, most experts say.

A gathering like Davos, of course, has no real power, but it brings together influential people with important messages. “All these perspectives come together in one place,” said Daniel Yergin, the oil

historian, who has been going to Davos for a quarter-century. “You pick up signals earlier for change,” said Mr. Yergin, who is also vice chairman of IHS Markit, a research firm.

Ideas that bubble up in the snowy Swiss mountains can take root in the world outside. In 2014, for instance, Christophe de Margerie, the charismatic chief executive of the French oil giant Total, told fellow oil chiefs that they needed to take a much more active role in shaping the climate agenda, which was likely to be crucial for their industry.

Mr. de Margerie was killed in a plane crash that fall, not long after major European oil companies including Royal Dutch Shell and Italy’s Eni, along with state-owned companies like Saudi Aramco and China’s CNPC, formed a group called the Oil and Gas Climate Initiative. The group, now chaired by Robert Dudley, BP’s chief executive, has acknowledged that its activities and products contribute to greenhouse gas emissions blamed for climate change, and it announced in November that it would spend \$1 billion on technology to reduce emissions.

A strong contingency of energy executives is expected to gather again at Davos this year at a time when major changes are roiling their industry. The surge in wind and solar energy has electric utilities, especially in Europe, scrambling to adapt. Digital advances are opening the way for new power providers and traders, while electric cars are taking off.

Several sessions planned for Davos will focus on this energy transition, according to Roberto Bocca, a former oil executive who is head of energy industries at the World Economic Forum, the Geneva-based organization that runs the conference. The organizers will try to highlight promising technologies that could make a dent in global warming.

Innovations in fracking and drilling have also created ferment in the oil and gas industry. The boom in North American output set off by those innovations has upended the traditional industry, slashed prices and put financial pressure on the major exporting countries.

In the latest chapter, after pumping hard to let prices fall and force American output down, OPEC, led by Saudi Arabia’s oil minister, Khalid al-Falih, who regularly attends Davos, and Russia have agreed to trim output to prop up prices.

Some analysts say these shifts, which are transforming the energy industry, will move ahead regardless of which governments, including the Trump administration, are in power. “A historian who looks back 50 years from now is likely to say this was the time when the game changed,” said Dieter Helm, a professor of energy policy at the University of Oxford. “I think the climate change issue is being addressed by technological change” like electric cars, the next generation of solar and other advances.

A question likely to come up at Davos is whether these changes are happening fast enough to avoid dangerous levels of global warming. Noting forecasts that demand for oil would continue rising until 2040, Mr. Yergin referred to “a conviction on the part of many that the technology is not there now to achieve those goals.”

“The answers will ultimately come from technology, and it is just not there now,” Mr. Yergin said.

He also suggested that the United States would remain a crucial variable in the climate and energy equation. “What happens in the United States will be very important,” he said.

<https://www.nytimes.com/2017/01/15/business/world-economic-forum-davos-shifting-us-stance-on-climate-change.html>

FPCCI SEEKS INCENTIVES FOR HORTICULTURE EXPORTERS

Business Recorder, 17 January 2017

N H Zuberi

KARACHI: Chairman, Regional Standing Committee on Horticulture Exports, of Federation of Pakistan Chambers of Commerce & Industry (FPCCI), Ahmad Jawad has said exporters can immediately raise Pakistan’s horticulture exports to \$1 billion if they get support of the government.

Citing that the horticulture exports amounted to \$641 million in 2015-16, he said, internationally, horticulture sector has been gaining importance since last two decades in the world trade.

He said that factually, in recent years, developing countries have created a space for themselves in this market, but they are not able to move beyond 4% to 5% of the world trade and in comparison Pakistan’s share is just 0.3 percent.

“However Under Strategic Trade Policy Framework (STPF) for 2015-18, the commerce ministry chalked out a Short-Term Export Enhancement Strategy and under it, the ministry has identified four areas including horticulture but it has been given no incentive in the PM’s Exporters Incentive Package of Rs 180 billion which is unfortunate,” he lamented.

FPCCI standing committee chairman urged the Government to admit that horticulture sector had not received the attention it deserved. He said Pakistan’s horticulture industry is well-distributed among the various climate zones which range from the sub-zero temperature of mountains of North to dry and humid plains of Punjab in the centre of the country and to the coastal areas of Balochistan and Sindh.

He said it has been proved that the potential for horticulture exports is enormous and by putting it under the STPF, government has accepted this fact. However, there is a growing need for the government to strengthen the sector and that can only be done by giving it more attention, he added. He urged the government to provide some support to exporters for Hot Water Treatment (HWT) plants and CA stores under equity sharing arrangements and incentives on freight-on-board (FOB) value, so that this sector perform more in the CPEC trade route as well.

Immediate vice president and chairman Regional Standing Committee on Trade and Industry of FPCCI, Riaz Khattak, said business community has raised serious concern over a rapid decline in the country’s exports and called for immediate steps to reverse the tide, as Pakistan ranks 138 on Ease of Doing Business index.

Khattak also pointed out that India had used protectionist policies very effectively and now its exports were worth nearly \$300 billion. “They were just \$23 billion two decades ago and have grown 15% per year on an average, why don’t we use this yet,” he asked.

Abdul Malik, Chairman of All Pakistan Fruit and Vegetable Exporters, Importers and Merchants Association (PFVA) also has written a letter to Finance Minister Ishaq Dar, asking him to include the horticulture sector in the Rs180-billion package. The letter asked the government to provide 5% incentive on freight-on-board (FOB) value and a three-year holiday from the 1.25% tax including withholding tax (WHT) and Export Development Fund (EDF).

<http://epaper.brecorder.com/2017/01/17/3-page/840244-news.html>

FALCONS, DRONES, DATA: A WINERY BATTLES CLIMATE CHANGE
International New York Times, 20 January 2017

David Gelles

On a misty autumn morning in Sonoma County, Calif., Katie Jackson headed into the vineyards to assess the harvest. It was late in the season, and an army of field workers was rushing to pick the grapes before the first rains, however faint, began falling.

But on this day, Ms. Jackson, the vice president for sustainability and external affairs at Jackson Family Wines, was not just minding the usual haul of cabernet, chardonnay and merlot grapes. She also checked on the sophisticated network of systems she had put in place to help crops adapt to a changing climate.

Ms. Jackson, along with her siblings and mother, owns and operates Jackson Family Wines, one of the largest family-owned winemakers in the country. Best known for its Kendall-Jackson chardonnay, a supermarket staple, the family also produces dozens of other wines on five continents. After decades in the business, the Jacksons are sensitive to slight variations in the weather, and they are convinced of one thing: It is getting hotter and drier, and that could be a problem.

As California endures a yearslong drought, the Jacksons, like other winemakers, are grappling with new realities. Grapes, though a surprisingly resilient crop, are ripening earlier. Nights are warmer. Aquifers are running dry.

As a result, the region's wine country has become a laboratory for the reshaping of agriculture nationwide. Because, of course, it's not just California that's warming up.

The Jacksons are going beyond the usual drought-mitigation measures. They are using owls and falcons, to go after pests drawn by the milder winters. They are finding new ways to capture rainfall. And since fossil-fuel consumption is one of the biggest drivers of climate change, they are trying to become more energy efficient, in part through the use of old-school farming techniques.

Climate change is forcing the Jacksons to confront questions both practical and existential: Can you make fine wine with less water? Will good grapes still grow here in 20 years? What will become of an industry central to California's identity, one that says it contributes \$114 billion a year to the nation's economy?

Wearing jeans, a plaid shirt and hiking boots, her hair pulled back in a loose ponytail, Ms. Jackson, 30, caught a ride with one of the vineyard managers to a hill overlooking the picturesque Alexander Valley, an area that produces some of California's best wines.

At the peak, she stopped to inspect a shed housing the recently-updated belly of the vineyard's irrigation system. Inside was a new energy-saving variable-frequency drive that allows for more precise, efficient watering.

Nearby was a solar-powered weather station. If the sensors decide it has become too cold in the middle of the night (climate change, of course, doesn't mean it's always hot), new wind machines will automatically start circulating warm air to protect the vines.

Beside that was an owl box — occupied — part of an effort to control pests without pesticides. And just below the peak was a man-made reservoir, one of more than 100 added to manage what is any farm's most precious resource: water.

“The climate has been getting warmer and warmer, and we're seeing more extremes, from really wet to really dry,” Ms. Jackson said. “Little by little, we're learning.”

So far the drought has not wreaked havoc on the California wine business. No harvests have been destroyed and quality remains strong. Moreover, many of the Jackson vineyards are in pockets of the California coast that benefit from the cool, humid fog.

But the challenges here are hardly theoretical. Already, climate change is threatening the world's coffee supply. Several reports suggest that rising temperatures around the globe could imperil major winemaking regions in the coming decades. One study suggested that by 2050, many regions in Europe, including much of Italy and swaths of Southern France, could become unsuitable for wine grapes. The same study suggested that California production could fall by 70 percent by the century's midpoint.

Already, winemakers in the region are noticing distinct changes that signal a hotter, drier future.

“It used to be there were a lot of nights when it would get 28 and 29 degrees, but now when farmers wake up, they're less likely to have a mud puddle with ice on it,” said Daniel Sumner, a professor of agricultural and resource economics at the University of California, Davis. “The growers are going to have to be a little bit more nimble.”

Climate change wasn't a pressing concern for Jess Jackson, a San Francisco lawyer, when he bought an 80-acre pear and walnut orchard in Northern California in 1974. Mr. Jackson wanted to try his hand at winemaking, and planted grapes on the land.

About a decade later, he released the first vintage of Kendall-Jackson. Aged in French oak barrels — a rarity for an American wine — Kendall-Jackson was an instant hit. Mr. Jackson was soon acquiring more vineyards throughout California.

Mr. Jackson, who died in 2011, raised his children around the business. Ms. Jackson worked her first harvest cleaning tanks and filters in a cellar. Today, she leads the company's sustainability efforts, pushing for the use of less water, lower fossil-fuel consumption and more natural farming techniques.

In 2008, the company formalized its sustainability program and began measuring its energy and water usage and its greenhouse gas emissions. “They are leaders,” said Rex Stults, the government relations director of Napa Valley Vintners, a trade group. “But this is becoming an important topic for just about everybody.”

The clearest sign of the Jackson family’s efforts can be found in the network of more than 100 reservoirs scattered across its vineyards. Some have cost as much as \$1.5 million to build.

On this morning, Ms. Jackson was visiting a reservoir on the sloping hills of the Stonestreet Estate Vineyards. The property is home to 800 acres of merlot, cabernet and chardonnay grapes, and another several thousand acres of uncultivated land.

Though it was late in the summer, the reservoir, which draws groundwater from a well, was still full. Two deer were drinking at its edge. The reservoir is connected to a gravity-fed drip irrigation system that pulls the water down the hills and through the vineyards. It now provides most of the water for the winery, which previously relied on wells and rain.

“We’ve seen a really sharp decrease in rainfall,” Ms. Jackson said. “Having these in place meant we were able to have enough water to get us through the year. It’s the biggest thing we’ve done to deal with the drought.”

As California heats up, winemakers are confronting new challenges large and small — some very small.

Mice, voles and gophers love vineyards. “We’re seeing more pest pressures due to warmer winters,” Ms. Jackson said, walking through rows of cabernet grapes. Another emerging issue: Grapes ripen earlier, and swallows and crows are eating fruit before the harvest. “It’s a big problem,” she said.

That explains the owls. Sixty-eight boxes are occupied by hungry barn owls; during the harvest, a falconer comes to some vineyards every day, launching a bird of prey to scare away other birds with a taste for grapes.

The Jacksons have also begun analyzing their crops with increasingly sensitive tools. Ms. Jackson recently installed devices that measure how much sap is in the vines. They transmit the data over cellular networks to headquarters, where software calculates how much water specific areas of vineyards do or don’t need. “Data-driven farming,” Ms. Jackson said.

The Jacksons are also monitoring their crops using drones equipped with sensors that detect moisture by evaluating the colors of vegetation. The wrong color can indicate nutritional deficiencies in the crops, or irrigation leaks.

“Previously, it would require an experienced winemaker to go and look at the grapes,” said Clint Fereday, the company’s director of aviation. “Now we can run a drone, tag an area of the vines with GPS, and go right to the spot that has a problem.” The drones have other uses, too. An infrared camera can scan for people guarding illicit marijuana operations on nearby lands.

Not all the changes being made on the Jackson vineyards involve advanced technology. Some are simply ancient farming techniques that the drought has made increasingly relevant.

Field hands plant cover crops, like rye and barley, between every second row of vines, to help keep the soil healthy. The family is stepping up its composting program. Pressed grapes are composted, then placed beneath rows of vines, since the organic matter is better at retaining moisture than soil.

Ms. Jackson's husband, Shaun Kajiwara, is a vineyard manager for the company, overseeing the grapes that go into many of the upscale labels. Walking through rows of vines that will yield \$100 bottles of wine, he said that in recent years the company had begun planting new vines that send roots deeper into the soil, drawing more ground water and requiring less irrigation.

The company also began sanitizing the 51,000-gallon tanks it uses to blend chardonnay with ultraviolet light instead of water. There is an elaborate new rainfall capture system. And workers have devised a system to recycle the water used to wash barrels. In total, these efforts are saving 28 million gallons each year in the company's California wineries.

"Each year we're finding more and more ways to make use of this water that was going down the drain," said Sam Jamison, the general manager of the label La Crema.

Now Ms. Jackson is overseeing an ambitious groundwater recharge project. This winter, the company plans to capture storm water runoff and flood a large, flat vineyard near the La Crema winery. If all goes as planned, the water will seep down and help replenish an aquifer from which the farm draws.

All these efforts have put the Jacksons in an enviable position: They have more water than they need.

In 2015, Ms. Jackson learned that the Green Valley Creek, an important tributary for the Russian River, was in trouble. Once a healthy stream, the drought had shriveled it to a series of stagnant pools, only occasionally connected by flowing water, adding to problems for the coho salmon, an endangered species. The Jacksons grow pinot noir grapes on a hill near the creek, and maintain a reservoir there; Ms. Jackson offered to release water in a bid to help the fish. Soon PVC piping was rigged up to the reservoir, winding down two miles of hillside to the creek.

Pushing away overgrown branches, Ms. Jackson made her way to the creek's edge, where she met up with David Hines, an in-stream flow specialist with the National Marine Fisheries Services. "It doesn't look like much, but this is an important tributary for coho," Mr. Hines said. In an eddy no larger than a kiddie pool were three baby coho, a few inches long and not more than seven months old.

"They're the young of the year," Mr. Hines said.

For Ms. Jackson, it was all of a piece with her efforts to ensure a healthy future for her family's business. And the family's efforts are making a difference. Since 2008, Jackson Family Wines has reduced its annual water usage by 31 percent.

"My family knows we aren't out of the drought yet," Ms. Jackson said. "There's still a lower snowpack. There's less groundwater in the Central Valley."

Water conservation can only accomplish so much. Jess Jackson had resisted expanding his winemaking operations to Oregon. The colder northern climate wasn't nearly as suitable for wine production, he thought, and California's perfect conditions weren't going anywhere anytime soon.

But since his death, his family has concluded otherwise. Oregon is producing some of the best pinot noirs around. In 2013, the company bought its first winery in Oregon. Last year, it expanded again, buying two properties with tasting rooms and more than 100 acres of planted vineyards outside Portland. Ms. Jackson says the northward expansion is part of the unending search for good wines. But it doesn't hurt that, in contrast to California's increasingly hot and dry climate, Oregon is comparatively cool and lush.

"Our sustainability efforts are always looking at water security issues," Ms. Jackson said. "The more abundant water in Oregon is nice to have."

One morning, Ms. Jackson and Mr. Kajiwara climbed aboard the company helicopter and headed north. Below them, fields of marijuana interrupted the rows of vineyards, and golden hills gave way to thick forests.

After a 30-minute ride, they touched down next to a new reservoir at the Jackson family's Pine Mountain property. Situated in Mendocino County, the land is higher in altitude, about 3,000 feet, and was acquired a few years ago for its cooler, wetter climate. The grapes grown here are used to make Captûre wines, which sell for up to \$140 a bottle.

Ultimately, Mr. Kajiwara believes that with the right mix of new rootstocks, cover crops and fortuitous rainfall, some of the Jackson vineyards might not need irrigation at all. "In a few years, I think we could be dry-farmed up here," he said. "Our reservoir will just be insurance."

It is a snapshot of the future for the Jackson family: a vineyard north of traditional wine country, where natural features might offset some of the deleterious effects wrought by climate change. And, in combination with the adaptations Ms. Jackson has put in place, it might just be enough to allow the company to keep making fine wines for many years to come.

<https://www.nytimes.com/2017/01/05/business/california-wine-climate-change.html? r=0>

NEWS COVERAGE PERIOD FROM JANUARY 9TH TO JANUARY 15TH 2017

'CLIMATE CHANGE CONSTITUTES A REAL THREAT TO COUNTRY'

Business Recorder, January 11, 2017

ISLAMABAD: National Post Monsoon 2016 Review Conference was held at National Disaster Management Authority (NDMA) on Tuesday. The conference was presided over by Major-General Asghar Nawaz, Chairman NDMA.

While welcoming the participants, the chairman NDMA appreciated the collaborative role of various federal and provincial departments to mitigate the flood threat during monsoon season 2016.

He stated that climate change presents a real threat and emphasized the need to further strengthen integrated coordination mechanism amongst all relevant stakeholders in order to ensure better preparedness.

The chairman NDMA also reiterated that the aim of such conferences is to identify the gaps, record the lessons learnt and to devise most appropriate strategy for future.

Structured presentations were given by the representatives of all provincial and regional disaster management authorities, Pakistan Meteorological Department (PMD), Federal Flood Commission (FFC), National Highways Authority (NHA) and Representatives of Tarbela Dam and Mangla Dam Authorities, WAPDA, SUPARCO and Engineers Directorate, GHQ.

Chairman NDMA while appreciating the efforts of all concerned, highlighted that notwithstanding resource constraints and challenges thereof, a concerted as well as coordinated proactive response is much warranted to thwart the effects of flood disasters. He also emphasized the need for up-gradation of the capability of Pakistan Meteorological Department (PMD).

In the end, the chairman NDMA observed that paucity of training human resources was a major concern and capacity building up to district and union council level was direly needed to cope up with emergency situations.

He specifically emphasized that response must be configured according to degree of vulnerability for optimum utilization of resources, improvement in response to urban flooding in major city centers, rationalization of requirement of rescue equipment at district level by taking into account equipment held by the Army and provinces, completion of flood protection work before June 2017, standardizations of reporting format and creations of synergy in relief/rescue efforts.-PR

<http://epaper.brecorder.com/2017/01/11/8-page/838434-news.html>

CHINA'S TRANSPARENCY IS WILD CARD FOR CLIMATE PACT

BEIJING — President-elect Donald Trump has called climate change a “hoax” created by China and said he would withdraw from the global Paris Agreement to curb greenhouse gas emissions.

That threat has lent new urgency to a question that has loomed over the agreement since it was signed in 2015: whether China will properly report and submit its carbon emissions data for verification.

Like some other nations, China, the world's biggest polluter, has refused to accept international monitoring of its emissions and says it will provide data to outside observers. In the past, conflicting data about the country's energy use has raised questions about accuracy.

Under President Obama, US officials worked to pressure China and other developing nations to provide more accurate data, viewing that as a difficult but critical part of establishing clear global benchmarks in climate change policy.

China has indicated that it wants to take on a leadership role to promote the Paris Agreement. But if Washington withdraws or lets up on its demands, the incentives for Beijing to do that through greater transparency will be greatly reduced.

The Paris Agreement rests on a foundation of transparency and good faith: Countries are supposed to report and submit for verification their carbon emissions data. Without accurate and timely reporting, there is no way to monitor progress and adjust policies.

International negotiators are expected to draw up standards that will apply to both developed and developing countries, unlike the bifurcated reporting requirements of older climate deals. This means that China and India will be compelled to provide the same kinds of information as, say, France and Japan.

At a summit meeting in Marrakech, Morocco, in November, officials discussed a plan to establish standards and mechanisms for reporting emissions. Over the next two years, negotiators will engage in “the most technically complex and politically contentious issues,” said Li Shuo, a Beijing-based climate policy analyst at Greenpeace East Asia.

China, he said, “still has a long way to improve its transparency system.”

A country’s greenhouse gas output is determined by extrapolating data about energy use rather than directly measuring it. Accurate annual coal consumption statistics are critical for these calculations because industrial coal burning is the biggest source of greenhouse gas pollution.

But China’s coal statistics are subject to official corrections and changes, and updates are released just once every five years, when the country conducts an economic census.

The last census revealed that China’s coal-derived energy use was 12 to 14 percent higher than previous estimates for every year since 2005. Furthermore, there are persistent differences between coal consumption statistics reported on the provincial and national levels.

“Over time, it would be desirable if the reporting systems are improved,” said Glen Peters, a scientist at the Center for International Climate and Environmental Research-Oslo. “The fact that the census leads to 10 percent revisions in such an important commodity is a little worrying.”

He added, “The US, for example, also has revisions, but generally less than 1 percent in the first year and maybe 0.1 percent in following years.”

Another problem is that China has been reluctant to release its own calculations of emissions, so other nations rely on calculations made by foreign scientists.

The Chinese government has submitted emissions estimates to the United Nations only twice, for 1994 and 2005. Most other developing nations have also submitted only two estimates, but some, including Brazil and Mexico, have submitted three or more.

There is “no good reason” China is dragging its feet, said Li, the Greenpeace analyst.

Under the Paris Agreement, countries will have to submit estimates every two years.

“International forces are quite attractive in terms of putting pressure on improving the transparency system,” Li said.

At a news conference in Beijing in November, Xie Zhenhua, a special envoy on climate issues, said that although he believed China’s data was accurate, China was still a developing nation and

struggling to establish the same type of reporting and verification systems that developed nations used.

“It was mentioned in the Paris agreement that a greater degree of flexibility should be offered to developing countries, and, first of all, funding and technical support should be provided to them to help improve their capacity,” Xie said.

“How to establish a system of transparency should only be considered on this basis,” he added. “China is also in such a phase of development.”

China will compile emissions data from four data sources: national and provincial governments, businesses, and a planned cap-and-trade carbon market, said Chai Qimin, a senior director at the National Center for Climate Change Strategy and International Cooperation.

The different areas of reporting “can be used to check against one another,” he said. “At least major discrepancies won’t happen.”

In any case, researchers say, other market forces are helping for now. They expect coal consumption in China to remain flat or drop, as has been the trend in the past two years. That is mainly because of the slowing Chinese economy. China promised two years ago that its greenhouse gas emissions would peak in 2030 — a goal that experts now say will be met easily.

<https://www.bostonglobe.com/news/world/2017/01/10/china-transparency-wild-card-for-climate-pact/F5vLcp0ZtSwpbnRXq3LobO/story.html>

‘DESERTIFICATION IS RISING DUE TO WATER SCARCITY, CLIMATE CHANGE’

Dawn, January 14th, 2017

ISLAMABAD: Due to the scarcity of water and climate change, desertification of land is increasing across the country each year and the level of underground water is also dropping.

Various stakeholders on Friday gathered at the Ministry of Climate Change to devise a strategy to stop desertification and make barren land fertile.

Desertification is the process by which fertile land becomes a desert, typically as a result of drought, deforestation and inappropriate agriculture practices.

Chairing the meeting, Secretary Ministry of Climate Change, Syed Abu Ahmed Akif emphasised on the importance of combating desertification and land degradation in Pakistan and appreciated the UNDP’s programme for making 800,000 hectares of barren land fertile by 2020 in collaboration with the Ministry of Climate Change, provincial governments and local communities.

The UNDP’s programme is titled Sustainable Land Management Programme (SLMP) and in 2015, a Programme Steering Committee was established to monitor the programme.

“Better management of land resources through this program will go a long way in poverty reduction, better livelihood, food security and improved ecosystems in the country,” Mr Akif said.

Joint Secretary Ishrat Ali told the meeting that the programme is introducing modern approaches and advanced technology in those areas of Pakistan which were affected by land degradation and those which are at risk of desertification.

Talking to Dawn, SLMP National Coordinator, Hamid Marwat, who participated in the meeting said that the problem was particularly acute in a number of places including Chakwal, Khushab, Bakkar, Lakki Marwat, DI Khan, Tharparkar, Sanghar, Umerkot, Pishin, Killa Abdullah, Lasbela and other areas.

“Drinking water is not available in these areas and the underground water table has dropped to 1,000 feet. The water level further decreases due to boring and after some time, boring does not work either,” he said.

“We have decided to establish small dams in 14 districts and store rain water throughout the year. Moreover, efforts are being made to facilitate agriculture and provide employment, otherwise people start cutting trees to sell,” he added.

Mr Marwat said deforestation will further increase problems and stressed on the need for establishing more dams and increasing the capacity of existing ones as that of the Tarbela Dam was increased by almost 25pc due to siltation.

He said local communities are also being encouraged to plant saplings.

<http://www.dawn.com/news/1308297>

USDA ANALYSIS SAYS ETHANOL SHARPLY CUTS GREENHOUSE GAS EMISSIONS

Business Recorder, January 15, 2017

The US government on Thursday said that ethanol is better for the environment than previously expected in a report boosting the country’s biggest biofuel a week ahead of a new administration that has some in the industry concerned.

The report, the first of its kind from the US Department of Agriculture (USDA) to examine the actual impact of ethanol, said the biofuel reduces greenhouse gas (GHG) emissions by 43 percent relative to gasoline.

That marks a potential blow to critics who have questioned whether ethanol, the foundation of the country’s biofuels program, is better for the environment than petroleum-based fuels.

The analysis puts the emissions benefits at the high end of those outlined by the US Department of Energy and comes just a week ahead of the inauguration of President-elect Donald Trump. Trump voiced support for ethanol on the campaign trail, especially in Iowa, but at least two of the major players in the incoming administration are critics of the country’s biofuels program and environmental regulations.

The Renewable Fuel Standard (RFS) was signed into law by George W. Bush in 2005 and sets annual requirements for used of biofuels including ethanol. It has become a battleground for entrenched oil and corn interests in Washington.

Uncertainty over the future of the program grew after Trump's nomination of Oklahoma Attorney General and regulation critic Scott Pruitt, Trump's nominee to head the Environmental Protection Agency, the agency that oversees the RFS program.

Trump has also appointed billionaire and RFS critic Carl Icahn as a special advisor.

Greenhouse gas emissions from ethanol are less than some forecasts because less land use was dedicated to it than expected and corn yields have risen, the analysis showed. The analysis compared the biofuel with 2005 gasoline, before regular blending of the fuel with ethanol. Now, most gasoline is blended with about 10 percent ethanol.

USDA Agriculture Secretary Tom Vilsack said in a statement that the "report provides evidence that corn ethanol can be a GHG-friendly alternative to fossil fuels, while boosting farm economies."

The analysis forecasts the emissions cuts, versus gasoline, to rise to 50 percent by 2022 if trends in corn yields, fuel switching and efficiency continue.

"This should answer the critics who have repeated Big Oil's polemic that renewable biofuels somehow increase carbon emissions," said Renewable Fuels Association President and CEO Bob Dinneen.

<http://www.brecorder.com/fuel-a-energy/193/123909/>

NEWS COVERAGE PERIOD FROM JANUARY 2ND TO JANUARY 8TH 2017
PAKISTAN BORE FULL BRUNT OF EL NIÑO
The Express Tribune, January 2nd, 2017.

Sehrish Wasif

The Express Tribune, January 2, 2017

ISLAMABAD: In 2016, Pakistan failed to prepare itself to deal with extreme weather events mainly because of shortage of funds and lack of interest on part of the government.

Despite knowing the country's vulnerability to climate change, the federal government has not yet released Rs19 billion to the Pakistan Meteorological Department (PMD). The amount was promised to the Met Department in June of 2016 for procuring modern weather radars to upgrade the domestic weather forecast system.

Meanwhile, the National Flood Protection Plan was also not approved because of the paucity of funds.

Pakistan reeled under the full impact of El Niño, experiencing some unusual extreme weather events which claimed as many as 500 lives. The severe El Niño of 2015-16 also resulted in marking 2016 as the hottest year on record across the world.

"Although El Niño ... ended in April of 2016, but Pakistan suffered its effects throughout the year," said chief of Met office, Dr Ghulam Rasul.

He said under its impact, snowfall occurred as late as February and March in 2016.

Between March 9 and 29, heavy rains claimed 141 lives and damaged 1,058 houses across the country, according to the National Disaster Management Authority (NDMA).

In April and May, temperatures started rising and in May and June snow started melting in the northern regions because of which the water flow in Tarbela and Mangla dams was recorded 17-20 percent above normal, he said.

The country experienced heavy rains in April too which claimed 127 lives and damaged 1,948 houses between April 2 and 25.

Highest number of deaths were reported from Khyber-Pakhtunkhwa where 97 people were killed, followed by Gilgit-Baltistan with 18 deaths and Azad Kashmir where 11 people had died. On June 1, major cities across the country were hit by strong windstorms in which 15 lives were lost in Islamabad Rawalpindi as well as in parts of Khyber-Pakhtunkhwa.

In the same month, Pakistan experienced an intense heatwave which lasted till the start of the monsoon season.

“During the summer of 2016, temperatures in rural Sindh continuously remained above 50° Celcius for 23 days while in Jacobabad, the mercury level touched 54°C in 2016,” said Dr Rasul.

The monsoon season in the country was also suppressed by the impact of El-Nino.

“The monsoon season was shortened by 30 days and lasted just 63 days instead of 90 days which is its normal duration,” he said.

In July, extreme flood events were reported from northern areas, especially from Chitral.

On July 2, 29 deaths occurred after a flash flood hit Ursoon Valley in District Chitral.

Also in July, rainfall across the country was 13 percent below average and the same pattern was observed in August as well. The month of September was almost dry.

However, the Met office claimed that Pakistan received 25 percent above average rain since the onset of the monsoon season.

In early September, heavy monsoon floods triggered by rains swamped vast areas in Punjab and Azad Kashmir, killing at least 139 people. “Insufficient rainfall in the last month of monsoon followed by a dry spell, which lasted till December, has caused a drought-like situation in the country,” said Dr Rasul.

Due to the dry spell, Pakistan also experience another extreme weather event known as smog which persisted over Lahore for a few days before dissipating, creating a negative impact on public health, he said.

Fog, which usually starts in December, also occurred in November, he said.

According to the Motorway Police, between January and November 2016, at least 15 major road accidents were reported on the Motorway and GT Road between Peshawar and Rahim Yar Khan due to fog. At least 19 lives were lost in these accidents.

<http://tribune.com.pk/story/1281467/pakistan-bore-full-brunt-el-nino/>

‘GOVERNANCE CRISIS WILL EXACERBATE IMPACT OF CLIMATE CHANGE ON KARACHI’

Dawn, January 5th, 2017

Faiza Ilyas

KARACHI: Given the governance-related crisis Karachi is facing, climate change will have profound impacts on its urban infrastructure systems and services, its built environment and ecosystem services, and therefore on its urban population and economy.

The scale of these impacts will very likely exacerbate the existing social and economic tensions and environmental drivers of risk, especially for marginalised and low-income groups lacking basic services, warns a recently prepared report.

Titled Drivers of Climate Change Vulnerability at Different Scales in Karachi, the report is produced by the Human Settlements Research Group of the UK-based International Institute for Environment and Development under a project.

It is authored by a three-member team comprising experts on urban planning, development and environmental issues — Arif Hasan, Arif Pervaiz and Mansoor Raza.

As a counterpoint to the discussion on vulnerability at the institutional level — in terms of governance challenges and the politics guiding it — four working-class settlements of Karachi (Rehri Goth, Pahar Gunj, Machhar Colony and Labour Square) were surveyed under the project with a view to understanding their layout, the lived experience of people residing there and the social, economic and related issues as well as the challenges facing the residents.

The survey’s findings constitute an important part of the report that discusses the state of basic services in Karachi and the vulnerability (to climate change) this engenders. It includes an analysis of specific city trends that are increasing the vulnerability of residents and the city as well as providing a list of recommendations with the conclusions drawn from the assessment.

Pointing to the potentially dangerous land use practices currently in place in the city, the report warns that they “foretell of more serious ecological impacts in the city. Sensitive areas are being occupied (for example, drainage channels are being blocked by formal and informal developments), green cover is decreasing, open spaces are shrinking and, in areas such as Machhar Colony and Rehri Goth, land is being reclaimed in potentially dangerous ways that will endanger those who build their homes on it.”

Karachi, according to the report, has no social housing, and government policy requires that even the poor access homes from the market, which does not cater to low-income groups which, in the absence

of assets and formal-sector jobs, also do not have access to credit from housing banks. The solution to this requires major political changes in the 'privatisation' ideology and involves bringing state land into the low-cost housing market.

It calls upon the government to reduce basic service deficits and improve infrastructure systems (water supply, sanitation, storm water and waste water drains, solid waste disposal, transport and telecommunications, healthcare, education and emergency response), which, it says, can significantly reduce hazard exposure and vulnerability to climate change, especially for those who are most at risk and vulnerable.

"The interconnected nature of current development imperatives, disaster risk reduction and climate adaptation can best be pursued under a comprehensive climate change adaptation strategy and action plan. An important part of such a plan will be improvements in the existing institutions of governance and the creation of strong horizontal linkages between them," it says.

Karachi's coast, it says, is daily receiving ever-decreasing river flow and more than 450 million gallons of raw sewage. As population pressure and economic compulsions continue to make land for housing unaffordable, vulnerable people are being pushed into ecologically risky areas in search of land for homes.

The process of (unplanned) densification will continue because there are no ideas or planning processes in place that will be able to bridge the demand/supply gap in housing.

"Impending climate change will likely have a huge impact on the coastal and fishing communities, so any climate adaptation strategy must begin by understanding and responding to the challenges these communities face," it says.

Migration, the report points out, would continue to increase due to changes in the rural economy, cropping patterns and increases in the rural population, and so anticipating the nature and scale of migration and dealing with migrants and their needs and impacts would have to become an essential part of urban planning in the city.

"So far, issues related to migration do not figure in Karachi's strategic development plan except as numbers. However, various academic studies are under way; how these can help politicians and planners take informed decisions needs to be understood and promoted," it says.

Findings of the community surveys showed that the basic survival needs (food, health expenditure and utilities) constituted the bulk of their household expenditure and were also the main source of worry; this, combined with no reported instances of savings, implied that people lived from "hand to mouth", leaving them with little or no financial resources to draw upon in times of need.

The provision of basic services such as adequate solid waste collection and easy availability of clean drinking water was found inadequate in all four settlements while flooding was considered as a major concern by all communities.

"More than two-thirds of respondents reported that at the time of a disaster, community/neighbours and, to a lesser extent, NGOs, provided assistance, with a very small number reporting receiving help from government sources," the report says.

Many of the issues highlighted in the report relate to the governance systems. In Karachi, due to the prevailing adversarial relationship between the two main political entities, the report authors believe, city-level institutions have been battered out of shape or destroyed.

“So new, responsive and representative institutions are needed, that can better plan, organise and deliver improved services (health, education, water, sanitation) that meet the minimum requirements of the city’s residents — especially the poor and marginalised. Residents are not hopeful, as they distrust the state and consider it corrupt,” the report says.

The authors hope that with the “combined pressure from civil society, chambers of commerce and industry, academia, trade unions, and shopkeepers and market operators associations, the two major political parties can be brought closer together to overcome the governance-related crisis of Karachi.”

<https://www.dawn.com/news/1306402/governance-crisis-will-exacerbate-impact-of-climate-change-on-karachi>

CHINA AIMS TO SPEND AT LEAST \$360 BILLION ON RENEWABLE ENERGY BY 2020
International New York Times, January. 5, 2017

Michael Forsythe

China intends to spend more than \$360 billion through 2020 on renewable power sources like solar and wind, the government’s energy agency said on Thursday.

The country’s National Energy Administration laid out a plan to dominate one of the world’s fastest-growing industries, just at a time when the United States is set to take the opposite tack as Donald J. Trump, a climate-change doubter, prepares to assume the presidency.

The agency said in a statement that China would create more than 13 million jobs in the renewable energy sector by 2020, curb the growth of greenhouse gasses that contribute to global warming and reduce the amount of soot that in recent days has blanketed Beijing and other Chinese cities in a noxious cloud of smog.

China surpassed the United States a decade ago as the world’s biggest emitter of greenhouse gasses, and now discharges about twice as much. For years, its oil and coal industries prospered under powerful political patrons and the growth-above-anything mantra of the ruling Communist Party.

The result was choking pollution and the growing recognition that China, many of whose biggest cities are on the coast, will be threatened by rising sea levels.

But even disregarding the threat of climate change, China’s announcement was a bold claim on leadership in the renewable energy industry, where Chinese companies, buoyed by a huge domestic market, are already among the world’s dominant players. Thanks in part to Chinese manufacturing, costs in the wind and solar industries are plummeting, making them increasingly competitive with power generation from fossil fuels like coal and natural gas.

Sam Geall, executive editor of Chinadialogue, an English- and Chinese-language website that focuses on the environment, said that the United States, by moving away from a focus on reducing carbon emissions, risked losing out to China in the race to lead the industry.

Mr. Trump has in the past called the theory of human-caused global warming a hoax and picked a fierce opponent of President Obama's rules to reduce carbon emissions, Scott Pruitt, the Oklahoma attorney general, to lead the Environmental Protection Agency.

The investment commitment made by the Chinese, combined with Mr. Trump's moves, means jobs that would have been created in the United States may instead go to Chinese workers.

Even the headline-grabbing numbers on total investment and job creation may understate what is already happening on the ground in China. Greenpeace estimates that China installed an average of more than one wind turbine every hour of every day in 2015, and covered the equivalent of one soccer field every hour with solar panels.

China may meet its 2020 goals for solar installation by 2018, said Lauri Myllyvirta, a research analyst at Greenpeace, who is based in Beijing.

But despite these impressive numbers, China's push to clean its air and reduce its greenhouse gasses faces political pressure from the politically powerful coal industry.

Mr. Geall and Mr. Myllyvirta both said that Thursday's announcement was missing any language on curtailment, or the amount of electricity generated by wind and solar that never finds its way to the country's power grid. In China, wind power curtailment was 19 percent in the first nine months 2016, Mr. Myllyvirta said, many times higher than in the United States, where curtailment levels are often negligible.

The main reason for curtailment, he said, is that China is plagued by overcapacity in electricity generation and operators of China's grid often favor electricity generated from coal.

In recent years the country has also been building coal-fired power plants at a furious pace, although that has recently slowed along with China's economy. Another omission from Thursday's announcements, Mr. Myllyvirta said, was the absence of any specific target to reduce coal consumption.

But both Mr. Geall and Mr. Myllyvirta said Thursday's announcement set the stage for still more power generation from renewable energy and a gradual shift away from coal.

"My experience with China is when a numeric target gets written down, it gets implemented," Mr. Myllyvirta said. "It doesn't always get implemented in the way you like, but it does get implemented."

<http://www.nytimes.com/2017/01/05/world/asia/china-renewable-energy-investment.html>

February 2017

NEWS COVERAGE PERIOD FROM FEBRUARY 20TH TO FEBRUARY 26TH 2017

'CLIMATE CHANGE MAY HIT KINNOW EXPORT'

Dawn, February 20th , 2017

ISLAMABAD: Although Pakistan's kinnow exports to Indonesia surged to \$23 million in 2016 as compared to \$3m in 2013 in the wake of a Preferential Trade Agreement, the ongoing export season has been affected by climate change and it is most likely that this year's target will not be achieved.

The chairman of the regional standing committee of Federation of Pakistan Chambers of Commerce and Industry (FPCCI), Ahmad Jawad, said on Sunday that the target was 350,000 tonnes, but the crop had been hit by sudden hailstorms and the exporters were unable to meet the buyers' demand.

"Our agriculture sector is being badly affected by climate change, disturbance of seasons and decreasing underground water level," the FPCCI official said in a statement.

Mr Jawad said the situation could worsen if appropriate measures were not taken.

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"The whole world is being affected by climate change and Pakistan can become the most affected country if pre-emptive measures are not taken."

He said a hail detection radar system was presented recently at the Fruit Logistica event in Berlin.

"If such technology is introduced in Pakistan through public-private partnership, we can save our products from hailstorms and other threats of climate change, especially for kinnow and mango crops."

Rising sea levels, changing weather patterns and decreasing water resources might not have just a one-time colossal impact, but a more pronounced effect in altering urban and rural economic landscapes for good, he said. According to the World Bank, rising temperatures will impact multiple sectors of the economy, especially food, energy and water.

In Pakistan, extreme heat and changing rainfall pattern are expected to have a detrimental impact on the agricultural sector. He said it was time for the government to design an effective strategy to tackle the climate change issue .

<https://www.dawn.com/news/1315868>

NEWS COVERAGE PERIOD FROM FEBRUARY 13TH TO FEBRUARY 19TH 2017

NEW YEAR, OLD APPRAISAL: PDMA RECYCLES 2015 WEATHER REVIEW

The Express Tribune, February 15th, 2017.

Sohail Khattak

PESHAWAR: Weather anomalies continued to haunt Khyber-Pakhtunkhwa in 2016, killing 300 people and damaging over 4,500 houses across the province. However, the government seems to be progressing at a slow pace to curb the damages.

The Provincial Disaster Management Authority (PDMA) K-P in its recently issued, “Disasters: overview of 2016”, has called for tangible measures by the disaster management institutions by describing the province as geographically vulnerable to natural calamities.

The PDMA has ironically learnt the same lessons from the natural calamities which it had learnt in 2015 and had mentioned it in its overview of 2015.

In its previous review, PMDA called for structural and institutional measures to reduce the risks and damages of the calamities which included “resilient structures by implementing building code, removal of encroachments to avoid flooding, improvement of town planning and municipal facilities and construction of check dams and reservoirs to reduce velocity of floodwater, establishment of divisional disaster management units.”

Unlike the previous year, 2016 remained safe from deadly earthquakes, however, torrential rains triggering landslides and heavy snowfalls causing avalanches and severe cold affected the people and their properties.

According to the report, the disasters started in March when an avalanche buried and killed 10 students at Susan village of Chitral who were on way to their school.

April was considered to be the most brutal month of the year in which 100 people were killed in torrential rains and landslides in district Mansehra, Shangla and Kohistan and 950 houses were damaged.

A cluster of houses and 25 people were buried under 40 meters of mudslide in Kandia village of District Kohistan where the government and locals lacked any resources to recover the bodies.

In July, glacial lake outburst flood (GLOF) along with heavy rain hit Chitral district killing at least 29 people.

PDMA issued weather advisories based on information received from the meteorological department and issued directions to its district offices.

Officials privy to the matter said the risk reduction measures of the authority have remained ‘limited only to books.’

“Every year people die in natural calamities exactly in the same manner,” said an official requesting anonymity.

“The PDMA held survey of sensitive and disaster-prone areas in eight districts and vulnerable areas were identified. That survey was limited to books as nothing was done to protect the areas,” said the official, adding that more than 90 per cent of the province is built without following building code and the PDMA has no plan to secure the already built areas.

“Except for Hayatabad, entire Peshawar is built without proper building codes and the PDMA has no plan to secure it from earthquake,” he added.

<https://tribune.com.pk/story/1327120/new-year-old-appraisal-pdma-recycles-2015-weather-review/>

PAKISTAN CONCERNED OVER ADVERSE IMPACT OF CLIMATE CHANGE

Business Recorder, 15 February 2017

AAMIR SAEED

ISLAMABAD: Pakistan is concerned over adverse impacts of climate change as the country contributes only 0.8 percent to total greenhouse gas emissions globally.

Federal Minister for Climate Change Zahid Hamid said expressed these views on Tuesday while chairing an inception workshop on “Developing National REDD + Strategy and Developing National Forest Reference Emission Level (FREL), Forest Reference Levels (FRL), National Forest Monitoring System (NFMS) and Measuring, Reporting and Verification System (MRV)” held in Islamabad.

“The theme of the workshop is extremely important to Pakistan. The adverse impacts of climate change are of immense concern for Pakistan. We contribute only 0.8 percent to total global greenhouse gases emissions, ranking 135th in the world,” said Zahid Hamid.

He further added Pakistan is ranked 7th amongst the countries most vulnerable to climate change. Pakistan today faces many major risks related to climate change, including glacier melting, variable monsoon, recurrent floods, rise in sea level, higher average temperature and higher frequency of droughts. Millions of people are affected and colossal damage is caused on recurring basis.

He also highlighted that these threats pose major survival concerns for Pakistan, particularly in relation to the security of country’s water, food and energy. They have enormous adverse consequences for all socioeconomic sectors, including agriculture and livestock, water resources, marine and land ecosystems, forests and biodiversity, infrastructure and human health.

The minister said that to minimise the adverse effects of climate change in Pakistan, the government has prepared a framework for implementation of the Climate Change Policy for 15-year period.

He informed the participants of workshop that the government has also prepared a National Forest Policy that has been approved by the Council of Common Interests and will be implemented through the provinces. The policy also provides for mainstreaming REDD + as a tool to curb deforestation and enhance forest cover and forest carbon stocks implementing a mass forestation programme of largely indigenous species over the country.

He also told the audience that the REDD + development process in Pakistan started in 2010 and Pakistan became member of UN-REDD+ as partner country in 2011. From 2011 Ministry of Climate Change has conducted a series of capacity building workshops for provincial forest departments’ professionals and other stakeholders from academia and civil organisations.

He further added that Pakistan signed a REDD + Readiness Grant from FCPF during 2015 worth US \$3.8 million for implementation of REDD+ Readiness activities in Pakistan.

The Ministry of Climate Change (MoCC) through its Office of the Inspector General of Forests (OIGF) is implementing the REDD+ Readiness Preparation Project with the financial support of the Forest Carbon Partnership Facility (FCPF) of the World Bank.

The project is aimed at making necessary technical, institutional and legal preparations needed for formally implementing the REDD+ programmes in Pakistan. Major objectives of project are to develop the National REDD+ strategy and its implementation framework, management and institutional arrangements for REDD+ implementation, development of baselines (forests reference emission levels/ reference levels), development of the national forest monitoring system including measurement, reporting and verification systems, development of social and environmental safeguards and capacity building outreach and awareness raising.

<http://epaper.brecorder.com/2017/02/15/21-page/849937-news.html>

CLIMATE ACTION POLICY

Syed Akhtar Ali

Business Recorder, Feb 19TH, 2017

Climate change is a catastrophe that can be avoided by combined human action and co-operation, as human civilisation has been able to tackle many issues that threatened its well-being and survival in the past. What level of effort and sacrifice has to be made by individual countries and the relative proportion that is to be there has remained a matter of contention.

Climate Change is caused mainly by the accumulation of Green House Gases (GHG) such as CO₂, SO_x, NO_x, Methane, etc. Predominantly, it is CO₂ which is a product of combustion of fuels and biodegradation of organic materials. These emissions lead to rise in temperature of earth and atmosphere giving affecting metrological balance and melting of Glaciers etc causing droughts, floods, hot summers, and rise in the ocean level threatening inundation of many coastal cities like Karachi and others.

Pakistan's contribution to the problem (emission levels) is miniscule indicated by its rank of 135 commensurate with its ranking in many other development indicators. Energy consumption and thus emissions have long been considered as indicator of development and thus any thought of any limitations on it appears to be a limitation on development itself. For developing countries, including Pakistan, who are at best at an early stage of development, the demand of limiting emissions is akin to resisting and opposing their development.

For developed countries, perhaps development peak has already occurred and thus action and sacrifice can be made on their part. Being technologically developed, it is easy for them to rearrange their resource inputs and reduce emissions which activity can in fact boost their economies.

Developing countries are not able to do this by themselves without technical and financial assistance from the developed world. Even if such assistance comes through, most of it may be loans and very little grants leading to indebtedness.

International discussions and even polemics have occurred on whether the load has to be borne by developed countries alone or some effort may also come from the developing countries. The conundrum is that although individual countries' emissions are miniscule in per capita terms, combined and in absolute terms the developing countries contribution as a whole to the problem aggregates to a significant number.

It has therefore been agreed that they will estimate their own share and level of effort and declare the ensuing targeted emissions as their plan of action and submit such affirmations in the form of Intended Nationally Determined Contributions (INDCs).

Developing countries including Pakistan have been in confusion as to what should be their target and what kind of commitments can be made. And even estimating the emission levels and possible reduction without damaging their economies has been beyond most developing countries.

India submitted its INDC in 2015 and Pakistan could do it only in last year. The issue still remains as to whether any reduction in emissions can be targeted, as our current emissions or even projected ones say of 2035 are going to be too low.

A reduction in emissions say from 2035 level may tantamount to limiting our development. Pakistan's climate change policymakers, perhaps under pressure of announcing some commitment and to be the part of international process and to be able to benefit from mitigation assistance packages that are to ensue, have submitted INDCs, committing to a reduction of 20% emissions from 2035 level.

In my view, more creativity and effort should have gone into estimating and decision on INDC commitments. We could have reviewed other countries, especially, of the region, particularly India. India has not agreed to any absolute limitation on its emissions at all. India has committed to reduce emission intensity by 33-35% by 2030 over the 2005 level.

This is reasonable as this amounts to improving energy and emission efficiency by implementing conservation policies. Pakistan should also make its INDC submissions on these lines. Things are not at a level of finality at this stage. There is still time to come up with emission reduction targets and approach that are consistent with our unrestricted rights to growth.

We can show our sincere commitment to the international community by agreeing to promoting conservation, renewable energy induction and development of emission sinks like forestation. This would be taken more seriously than a kind of commitment that eventually may not be implementable.

Unfortunately, Ministry of Climate Change (MCC) is in its infancy, although it is trying to do a lot. Climate change is a multi-sectoral issue. In this context Planning Commission can come to the rescue of MCC. Planning Commission has multi-sectoral resources which can be marshaled to support MCC. For example, they have a full-fledged energy wing, which is building an integrated energy model.

Energy contributes to 50% of GHG emissions in Pakistan. Emission module could be added to the Energy model without much difficulty. There are many other ways and means through which PC can be of help.

For Planning Commission, yet it is another opportunity to meaningfully contribute and improve its image in a target area that is rapidly evolving. In fact it is through such opportunities like climate

action and inter-provincial integration that Planning Commission can renew itself, legitimizing its very existence which has emerged from many quarters even from within government departments.

Concluding, although our contribution to the causes of climate change is insignificant, the consequence and catastrophe that is threatening us is very dreadful. We have been declared third most endangered country in terms of climate risk, the impact of which has already beginning to tell on us in the form of floods and hot summers.

There is threat of droughts and floods alternating. And our largest city Karachi is on the coast facing risks from inundation from ocean and many others. We have to plan and prepare for mitigation steps and infrastructure in order to be able to deal with the challenge adequately. Crisis is an eventually not planned for.

<http://fp.brecorder.com/2017/02/20170219143237/>

NEWS COVERAGE PERIOD FROM FEBRUARY 6TH TO FEBRUARY 12TH 2017

ENVOY, CM DISCUSS WIND POWER PROJECTS

Business Recorder Feb 7th, 2017

Ambassador of Denmark in Pakistan, Ole Thonke met Punjab Chief Minister Mian Shahbaz Sharif here on Monday. Matters of mutual interest, promotion of bilateral relations and co-operation in different sectors were discussed. Wind power project being set up in South Punjab with the co-operation of Danish company VESTAS, Faisalabad Waste Water Treatment Project and co-operation in health sector also came under discussion. The meeting agreed to make speedy progress on the project of power generation through wind in South Punjab.

Talking to Danish Ambassador, Shahbaz Sharif said that there are good relations between Pakistan and Denmark and stressed upon the need to enhance economic co-operation between the two countries. He said that speedy work being carried out on energy projects is unprecedented in the history of the country. He said that besides traditional sources, power generation plants through alternative sources are being set up. He said that work is being done on generation of electricity through hydel, solar, gas, coal and other sources and all out resources are being utilized for rapid completion of energy projects.

Shahbaz Sharif said that solar projects are being established in Quaid-e-Azam Solar Park Bahawalpur. He said that work is also continuing speedily on 3600 megawatt gas-based projects in the province. He told that Danish company VESTAS is working on the project of electricity generation through wind in Punjab and expressed the hope that this project will be completed within stipulated period.

He said that 6.7 cent tariff for wind power project will result in provision of cheap electricity to the consumers. He told that Denmark is working with Punjab government in health sector and Pakistan and Denmark have to take speedy steps to enhance co-operation in trade, economic and social sectors. He said that a very conducive atmosphere has been created for investment in Punjab.

CM said that Danish investors should fully benefit from investment opportunities in Punjab. Speaking on the occasion, Danish Ambassador said that there are vast opportunities in Pakistan especially Punjab. He said that all out efforts will be made to complete wind power project with the co-operation

of Danish Company VESTAS in the specific period. He said that getting tariff of 6.7 cent for this project is good news.

He said that under the leadership of Chief Minister Shahbaz Sharif, Punjab government has extended co-operation at every level with regard to rapid progress on this project. He said that Shahbaz Sharif has forwarded the projects with Punjab speed and term Punjab Speed is an honour of Chief Minister Shahbaz Sharif. Provincial Minister for Housing Syed Haroon Sultan Bukhari, Chairman Planning and Development, Secretary Housing, Energy, Primary and Secondary Health, CEO Punjab Investment Board, MD NTDC and MD WASA Faisalabad were also present on the occasion.

<http://fp.brecorder.com/2017/02/20170207138831/>

GOVT, ADB SIGN AGREEMENTS FOR CLEAN ENERGY, TRANSPORT POLICY

Dawn, February 8th, 2017

Khaleeq Kiani

ISLAMABAD: With the multi-billion-dollar China-Pakistan Economic Corridor (CPEC) already under way, Pakistan has engaged the services of the Asian Development Bank (ADB) to prepare a master plan for the transport sector and a scheme for development of clean energy.

The federal government and ADB signed an agreement on Tuesday, with Finance Minister Ishaq Dar in attendance. Under the agreement, the Manila-based agency would provide a \$325 million loan to facilitate the 'Access to Clean Energy Investment Programme'. The plan would mostly finance off-grid renewable energy sources in Khyber Pakhtunkhwa and Punjab.

ADB Country Director, Werner Liepach said the most significant aspect of clean energy project is that it would benefit 2.6 million students, including 1.2 million girls.

Of the \$325m loan, \$237.3m would be spent on projects in Khyber Pakhtunkhwa and the remaining amount in Punjab.

The project's Khyber Pakhtunkhwa component will involve installation of around 1,000 micro-hydropower plants in off-grid locations, and installation of solar energy units in about 8,187 schools and public health facilities.

In Punjab, solar energy units will be installed in about 17,400 schools and public health facilities. At least 30pc of these schools are for girls only.

The programme will be implemented over a period of five years (2017-2021) and includes provision of training to women to draw benefit from the availability of electricity.

The project will also provide for strengthening of the procurement, monitoring and internal audit functions of Khyber Pakhtunkhwa and Punjab including the establishment of an information and communications technology driven programme performance monitoring system.

The two-year project for formulation of National Transport Policy was kicked off at the Planning Commission and will cover all transport areas – railways, roads, ports and shipping, aviation, and logistics services.

The project inception function was attended by DFID Country Head, Joanna Reid, ADB Country Directors, Werner E Liepach, and Minister for Planning, Ahsan Iqbal on Tuesday.

The formulation of the transport master plan will be funded by United Kingdom through a \$15.4m package while the ADB will provide technical expertise and other assistance. The project is expected to curtail Pakistan's transport losses, currently estimated at four to six per cent of the GDP.

The project seeks to create a safe, efficient and sustainable transport system to realise Pakistan's Vision 2025 that envisages a comprehensive National Transport Policy and master plan that will help cut travel time and costs and boost the country's economic outlook by positioning it as a regional hub for trade and business.

The UK government through its Department for International Development (DFID) is funding the project under its Pakistan Economic Corridors Programme (PECP).

<http://www.dawn.com/news/1313325>

`GB DEVISING STRATEGY TO STOP DEFORESTATION`

Dawn, 10 February 2017

GILGIT: Gilgit-Baltistan Chief Minister Hafeezur Rehman has said that government is devising a strategy to stop deforestation in the region.

A statement issued here on Thursday said that the chief minister assured foreign organisations of support for protection of forests and addressing issues related to climate change in the region.

It said that the chief minister held a meeting with Inspector General of Forest Syed Mehmood Nasir and head of a Finland-based organisation, working on climate change, in Islamabad on Wednesday to discuss prevention of deforestation and implications of climate change in the region.

On the occasion, inspector general of forest told the meeting that owing to deforestation and smoke of firewood carbon dioxide was being included in the air. He said that it was the main cause of climate change.

Mr Nasir said that a mega project titled `Red plus strategy` was being initiated to protect forests in the country. He said that the project would also be executed in Gilgit-Baltistan. He also sought support of GilgitBaltistan government in execution of the project.

Speaking on the occasion, the chief minister said that climate change was a burning issue. He said that it was a good omen that federal government in collaboration with various foreign organisations was working on the issue.

http://epaper.dawn.com/DetailImage.php?StoryImage=10_02_2017_007_004

NUCLEAR PROLIFERATION, CLIMATE CHANGE DISCUSSED AT KLF

Dawn, February 11th, 2017

KARACHI: Dr Pervez Hoodbhoy and Dr Zia Mian's conversation on Climate Change and Nuclear War at the Karachi Literature Festival on Friday evening turned out to be a thought-provoking discussion on the possibilities of nuclear warfare.

With a warning that they were going to take up the thoroughly unpleasant subject of nuclear weapons and climate change, Dr Hoodbhoy reminded the audience that in 1981, a million people had gathered in New York's Central Park to demand an end to nuclear proliferation. "Now [the US] has an unstable president... with a finger on the nuclear button," he said, to which Dr Mian pointed out that Trump was facing resistance from the people of the United States including its judges.

"Everyone there sees how reckless Trump could be when given control of nuclear weapons. There is a bill being prepared to take away his power of starting a nuclear war over a tweet," he said.

Dr Hoodbhoy responded to that saying, "But there is no transparent command and control system."

Sharing the history behind the nuclear arms race, Dr Mian said before World War II, a group of scientists in the US had warned of an arms race if the US bombed Japan. "They suggested that the US tested [the weapon] in a barren area and call over observers from Japan to make them realise the power of an atom bomb.

They also suggested that the UN and the American people be asked their opinion before exploding a nuclear bomb over Japan. The US government did none of those things and after Hiroshima and Nagasaki, though WWII ended, [it led to] an arms race between the USA and the USSR."

Knowledge of the kind of devastation a nuclear weapon could wreak, there was a fear of nukes among the people, which reached its peak during Ronald Reagan's era in the 1980s. After the disintegration of the USSR, however, that sense of foreboding appears to have dissipated, he said.

Dr Hoodbhoy argued that that fear had travelled to the subcontinent in 1998 when India and Pakistan tested their nuclear weapons. "Now our Defence Minister Khawaja Asif says things like, what good are nukes if they are not used? And in India, Defence Minister Manohar Parrikar wants to rethink his country's no-first-use policy of nuclear weapons."

In an environment in which India thinks that Pakistan will aim its Nasser missile at their tanks because they are far more in number, and India is looking to retaliate by aiming its nukes at Pakistan's cities, no one from either country is asking questions about nuclear devastation.

Dr Hoodbhoy and Dr Mian agreed that nuclear weapons provided the armies of both countries a way of demanding a higher defence budget.

"When we hear statements from the Indian army that their Cold Start Doctrine, which could cut Pakistan into salami slices was still very much alive, our army likes it because it also gives them a political purpose and a justification to develop more weapons. Thus we have an arms race in the subcontinent... which is good only for the armies," said Dr Mian.

“The progress of developing these weapons has brought us to a point where we have nukes small enough to be easily launched by two people,” Dr Hoodbhoy said.

Dr Mian added that the problem did not lie with the armies but rather nuclear weapons.

“How bad is it going to get and how fast?” Dr Hoodbhoy asked.

Dr Mian responded saying that it was a commendable step to be a part of the Paris Climate Change Agreement but there was an uncertainty about how the treaty would be implemented.

“Coming back to President Trump, who says that climate change is a Chinese excuse and their way of increasing trade.”

Dr Hoodbhoy agreed that if the US withdrew from the treaty, there was a possibility that other countries might not take it seriously.

<http://www.dawn.com/news/1314138>

US SCIENTISTS RAISE BAR FOR SEA LEVEL BY 2100
NEWS COVERAGE PERIOD FROM JANUARY 30TH TO FEBRUARY 5TH 2017
Business Recorder, 30 January 2017

MIAMI: In the last days of Barack Obama’s administration, US government scientists warned even more sea level rise is expected by century’s end than previously estimated, due to rapid ice sheet melting at the poles. The report by the National Oceanic and Atmospheric Administration (NOAA) set the “extreme” scenario of global average sea level rise by 2100 to 8.2 feet (2.5 meters), up half a meter from the last estimate issued in 2012.

“We raised the upper limit of our scenarios,” lead author William Sweet told AFP.

“It is possible. It has a very low probability. But we can’t discount it entirely.”

The figures are among the highest ever issued by the US government, and take into account new scientific studies on the disappearing ice cover in Greenland and Antarctica.

“Recent (scientific) results regarding Antarctic ice sheet instability indicate that such outcomes may be more likely than previously thought,” said the report, released on January 19.

It also revised the lower end of the anticipated range, saying nearly one foot (0.3 meters) is expected by 2100, up from four inches (0.1 meters) previously.

This put the NOAA report closer in line with the 2013 United Nations Intergovernmental Panel on Climate Change, which said global sea levels would likely rise from one to three feet by the end of the century. The US space agency NASA has also warned that significant sea level rise is “unavoidable,”

given mankind's continued burning of fossil fuels like oil and gas that contribute to warming the planet.

In 2015, NASA said the Earth is likely locked in to at least three feet of sea level rise, and probably more.

But the big question remains: how soon? Researchers do not know how soon the seas will rise, and whether they will hit these levels in this century or beyond. "We are not projecting anything. Everything is dependent on the amount of future heating, ocean and atmospheric heating," explained Sweet.

Though experts warn that the past is not an accurate predictor of future sea level rise, global average sea level has climbed eight to nine inches since 1880, when modern record-keeping began.

Much of that has taken place in recent years, as global warming has accelerated. Seas around the world have risen an average of nearly three inches since 1992. The NOAA report also pointed to regional dangers of sea level rise, with some portions of the US coast more likely to see above-average rise and increased flooding than other parts of the world.

"The world's ocean is not going to rise like water in a bathtub," said Sweet.

With the exception of Alaska and the Pacific Northwest, almost all US coasts are expected to see greater than global average sea level rise in the next eight decades.—AFP

<http://epaper.brecorder.com/2017/01/30/13-page/845568-news.html>

MINISTER VOWS TO RAISE VOICE FOR CLIMATE CHANGE-HIT SMALL FARMERS
Business Recorder, 2 February 2017

LAHORE: Punjab Minister for Environment Begum Zakia Shahnawaz has said that small farmers, especially women were worst hit by the impact of climate change. The situation in many parts of Punjab was depicting the same reality and hence, urgent policy measures were needed to save the lives and livelihoods of millions of people in extreme vulnerability.

She expressed these views while chairing the launching ceremony of a report highlighting budget analysis of Punjab (2016-17), in particular reference to allocation against climate change adaptation. The ceremony was organised by Oxfam and Indus Consortium under GROW Campaign here on Wednesday.

The Provincial Minister acknowledged that GROW campaign has been instrumental in making the voice of small growers and women farmers heard at various levels.

Experts, civil society representatives, farmers, academia and Parliamentarians also shared their concerns regarding climate change induced disasters and termed it a real threat to small farmers, especially women. They viewed that agriculture was one of the pillars of Pakistan's economy and major livelihood source of rural communities of Pakistan. It has a heavy reliance on Punjab province but current situation and vulnerability to agriculture and livestock sector due to climate change was hampering the progress of the sector.

Aneela Bibi, research Associate Federal Ministry of Finance earlier presented the key finding of Climate Changed focused budget analysis of Punjab. According to the report, despite declining situation of agriculture in Pakistan, a mere 3.36 percent of the Public Sector Development Programme (PSDP), or Rs 23,497 million was allocated to agriculture for the year 2015-16. As a percentage of the total budget this has also been declining over recent years i.e. from 10.28 percent in the year 2010-11 to current levels.

The report further elaborated that tackling climate change was also under-resourced as only 0.15 percent of the PSDP allocated to this urgent priority responsible for causing hundreds of lost lives and billions of lost dollars every year in Pakistan. The PSDP allocation for 2015-16 amounted to PKR 1,055 million.

Haibat Ali Khan, Chief Environment (PPH) Planning & Development Department of Punjab said that in the budget allocation process; utmost importance to be given to small farmer's issue by ensuring developmental projects for rural community's participation.

Earlier, women farmers from communities from Rajanpur, Layyah and Multan, areas prone to climate change impacts, informed the audience that due to climate change and natural disasters, their crops are washed away, food couldn't be stored, and livestock has perished due to lack of vaccinations. This resulted in discontinuity in education of their children and poor healthcare of the household in addition to other impacts. On behalf of all women farmers and small growers, they appealed to the government to come up with gender inclusive and pro poor policies and plans with appropriate resource allocation.

Javeria Afzal, ACD Oxfam, on behalf of Muhammed Qazalbash, Country Director Oxfam explained that Oxfam has been creating awareness among the rural communities on climate change adaptation and has also provided them a platform to raise their voice for pro poor policies and legislation. She pledged for continued support for reducing poverty, strengthening the voices of marginalized people and to bridge the gap between policy makers and citizens, especially rural communities.

Ashiq Hussain Bukhari, Coordinator Provincial Steering Committee, Prof Dr Sajid Rasheed Ahmad, Principal, College of Earth and Environmental Sciences (CEES), Waseem Ahmed Cheema, Director EPA, Muhammad Mehmood, Secretary Agriculture Punjab, Kiran Simon and Jamshaid Fareed from Indus Consortium also expressed their views during the ceremony.

<http://epaper.brecorder.com/2017/02/02/13-page/846267-news.html>

GOVT URGED TO FOCUS ON CLIMATE CHANGE

Business Recorder, 5 February 2017

Zahid Baig

LAHORE: A study conducted by Oxfam and the Indus Consortium, under their joint campaign on climate change and need for adaptation, has urged the Pakistani government to adopt the multi-hazards vulnerability risk assessment approach in each district of Punjab for development of local adaptation plans of actions (LAPA) in agriculture and allied sectors.

The study recommended incorporation of findings of local adaptation plans of action in district annual development plans and allocate financial resources, specifically for development of projects/schemes for women. It also suggested voluntary programmes for mass awareness on climate change, especially for women, and establishment of Climate Farmer Field (CFF) schools in each district.

The report further urged the provincial government to make water stealing a non-bailable offense. Higher rates of fines should be introduced according to the gravity of the offense and the stealer's purchasing power.

The study, entitled "Climate Public Expenditure Review," was launched recently in Lahore.

The discourse on climate change, the impacts and the need for measures for adaptation in the face of this unprecedented challenge, has now been perceived as quite serious at different levels in Pakistan. The shift in paradigm on climate change discussion started receiving attention during the last few years, especially in the wake of heavy floods which occurred in 2010 and 2011. These were followed by more such calamities with frequent intervals inflicting huge damages on the agriculture sector of the country. They disrupted livelihoods, especially those linked with the agriculture sector of the country.

Scientific evidences predict that the extreme weather events will become more frequent as a result of climate change in the coming years.

The recommendations also call for making annual canal maintenance and cleaning process more effective besides launching surveys of the agricultural areas to provide water every six months, taking into account the area, population and types of crops.

Appropriate legislation to stop the use of fertile lands for development purpose and acknowledgement of women farmers' contribution to GDP were some other demands of the growers.

Also recommended was training and equipping small farmers, especially women, with latest technology and products that will amplify their output by using Climate Farmers Field Schools (CFFS). Compensation was also recommended for small farmers and women against flooding on irrigated land according to law; either they are to be given alternative lands or effective methods be adopted to ensure flood mitigation.

The recommendations also called for developing crop insurance programs to influence farm-level risk management strategies with respect to climate-related loss of crop yields, besides ensuring these programmes for small farmers, including women.

It suggested that the government develop farm-level resource management innovations to address the risk associated with changing temperature, moisture and other relevant climatic conditions, besides bearing onetime cost to ensure placement of renewable energy resources instead of diesel (solar, wind energy, etc.), especially in drought-hit areas of the province.

March 2017

NEWS COVERAGE PERIOD FROM MARCH 27TH TO APRIL 2 ND 2017

KARACHI SWITCHES OFF ITS LIGHTS ON SATURDAY FOR EARTH HOUR

The Express Tribune, 27 March 2017

KARACHI: At 8:30pm on Saturday, World Wide Fund for Nature (WWF) – Pakistan joined 184 nations around the world in celebrating the 10th edition of Earth Hour – a global moment of solidarity for climate change.

Lights were turned off at landmarks across the country as people joined WWF-Pakistan's call to stand together with the millions of global residents shining a light on climate change.

Lights at important buildings in the city were dimmed at 8:30pm, including Quaid's Mausoleum and government offices together with high-rise buildings on II Chundrigar Road.

WWF-Pakistan, in collaboration with Engro Foundation, Karachi Metropolitan Corporation (KMC), K-Electric and Crescent Steel, observed Earth Hour at Frere Hall. Participants of the event included Karachi Mayor Wasim Akhtar, former environment minister Shaikh Muhammad Afzal, Sindh Environmental Protection Agency Director-General Naeem Ahmed Mughal and other senior officials.

Akhtar said it is high time to act against the adverse impacts of climate change and promote alternative energy options in the country. He said that although the Earth is facing serious climate change threats, including a rising sea level, increasing temperature, melting of glaciers, heavy floods and widespread rainfall, these can be addressed if industrialised countries take practical measures to reduce greenhouse gases and adapt environmentally sustainable practices. He said there is also a need to make efforts for the conservation of water and energy resources at the local level.

WWF-Pakistan Director-General Hammad Naqi Khan said the country has embraced the true essence of the movement. "We have come a long way since 2010 when WWF-Pakistan first celebrated Earth Hour," he said. "The seed we sowed has taken root and the masses today are comparatively well-aware of the climatic changes around us. If we take a look into our past, we will understand that movements have shaped our lives and the Earth Hour movement will shape our future. It is a constant reminder that we should work towards the transformation of a more prosperous and renewable future."

Mughal said that as a nation we have to take action against hazards to nature and the Earth. He added that on an individual basis we have to make sure that we are doing no harm to the environment by ensuring that we are not spreading pollution with our lifestyles.

This year marks the 10th anniversary of Earth Hour, which started as a symbolic event in Sydney in 2007. Today, it is the world's largest grassroots movement for the environment, ensuring that people who are on the frontlines of climate change are also empowered to be the planet's first line of defence. The hour-long event continues to be the key driver of the movement, encouraging individuals, communities, households and businesses to turn off non-essential lights as a symbol for their commitment to the planet.

<https://tribune.com.pk/story/1366171/karachi-switches-off-lights-saturday-earth-hour/>

CLIMATE CHANGE 'MAKES DEADLY CHINA POLLUTION WORSE'

Business Recorder, 27 March 2017

PARIS: Global warming has boosted the frequency and severity of deadly air pollution peaks in northern China, scientists said on Monday.

Toxic particles in the air cause nearly a million premature deaths in the country every year, according to earlier research.

“Climate change increases occurrences of weather conditions conducive to Beijing winter severe haze,” a team reported in the journal *Nature Climate Change*.

In Beijing and other major northern cities, the number of days each year with weather tailor-made for extreme smog rose from 45 to 50 in the period 1982-2015 compared to the previous three decades, a ten-percent jump, the study found.

The trend is set to worsen if warming continues unabated.

Persistent episodes of health-wrecking haze would become another 50 percent more frequent — and last nearly twice as long — during the second half of this century, the scientists found.

The main danger, experts agree, is particle pollution, especially toxic, microscopic flecks smaller than 2.5 micrometres in diameter — about 40 times thinner than a human hair.

The burning of coal, along with vehicle emissions and dust, are the main sources of these ultra-fine specks, which can cause severe respiratory problems and increase the risk of heart disease.

Small enough to enter human cells, they can also affect the immune and nervous systems.

In major cities across northern China, the number of days with “severe haze” jumped from 12 to 18 to 25 during the winters of 2014, 2015 and 2016 respectively.

Severe haze days happen when the concentration of small particles exceeds 150 micrograms per cubic metre of air.

In January this year, a thick blanket of sun-dimming haze settled over the Beijing-Tianjin basin — home to more than 100 million people — for eight consecutive days, causing tens of thousands to flee cities and vent their anger on social networks such as Weibo and WeChat.

For several days running, the density of particles 2.5 micrometres or less was higher than 500 micrograms per cubic metre, more than three times the danger threshold set by the World Health Organization.

“I would rank air pollution as the number one or number two concern of ordinary people in northern cities in China,” co-author Hong Liao, a researcher at Nanjing University’s School of Environmental Science and Engineering, told AFP.

A report by China's environment ministry last year showed that 265 of the country's 338 biggest cities failed to meet new health standards for small-particle pollution in 2015.

The perfect storm of geographic and weather conditions that favour lung-searing smog include sharp temperature differences between the lower and upper atmosphere, faint winds, and certain patterns of atmospheric flow.

The researchers, led by Wenju Cai of the Qingdao National Laboratory for Marine Science and Technology, combined these elements to create a "haze weather index", which they matched against 60 years of weather records.

Averaging across 15 climate models, they also calculated a sharp increase in the number of smog-inducing days from 2050 to 2100.

After a particularly bad episode in January 2013 — which sparked protests and caused \$3.4 billion (3.2 billion euros) in health and production losses — the Chinese government took sharp measures to reduce air pollution, but with limited success.

"In spite of stringent emission controls, severe haze days in Beijing have continued to increase, as clearly seen over the past three winters," Renhe Zhang, a researcher at Fudan University, said in a commentary also published in Nature Climate Change.

"A global effort to slow down global warming is also urgently needed to decrease the risk of heavy air pollution in Beijing," he added.

The problem is not confined to China. In 2013, nearly a million untimely deaths in India were also attributed to fouled air, not including so-called household air pollution, mainly from primitive cook stoves.—AFP

<http://epaper.brecorder.com/2017/03/27/16-page/860914-news.html>

PLANS READY TO COUNTER IMPACT OF POSSIBLE HEATWAVE: OFFICIALS

Dawn, March 31st, 2017

KARACHI: In view of the possible return of extreme weather conditions which had killed around 1,500 people in the metropolis some two years ago, the Sindh government has chalked out a contingency plan to save lives this summer, it emerged on Thursday.

"The provincial disaster management authority (PDMA) of Sindh is spearheading the plans to save people from possible extreme weather events in a coordinated manner," a senior Sindh government official told Dawn.

But critics blamed the government for not keeping its promises after the deaths of hundreds of people in Karachi. The provincial and city administrations remained unable to ensure widespread tree plantation, adequate water supply to water-deficient areas and uninterrupted power supply during the long summer months.

The government officials said the PDMA had realised that disasters and climate change were becoming an increasing threat to the world in general and Pakistan and Sindh in particular. “There is a dire need to evolve a comprehensive plan to avert the negative impact of disasters,” they added.

Officials in the city administration, however, said they had completed their contingency plans against heatwave. They feared it was extremely plausible when temperatures had already climbed close to 40 degrees Celsius even though the traditional summer months had not yet begun.

The deputy commissioners of the six city districts had submitted their plans to Karachi Commissioner Aijaz Khan, the officials said.

According to the plans, every DC would be focal person for their respective district. They would coordinate with the Met office, PDMA Sindh, the health ministry, Karachi Metropolitan Corporation, Jinnah Postgraduate Medical Centre, Civil Hospital Karachi and K-Electric.

The officials claimed that as per last year’s practice, the city administration this year, too, would set up response centres equipped with basic medical facilities, shelters and shades as well as water facility for people.

Market associations, philanthropists and private organisations would be taken into the loop for establishing such shades.

The commissioner asked the K-Electric representative at a meeting that it should ensure minimum load-shedding during such conditions. The authorities would also establish tertiary-care facilities at major government and private hospitals to augment efforts to save people suffering from heatstroke.

The Met office was asked to issue a warning for possible heatwave at least three days in advance.

This year again, the authorities promised launch of a plantation campaign in the city with each district being tasked to plant at least 10,000 ‘environment-friendly’ trees.

<https://www.dawn.com/news/1323893/plans-ready-to-counter-impact-of-possible-heatwave-officials>

NEWS COVERAGE PERIOD FROM MARCH 20TH TO MARCH 26TH 2017

\$40BN NEEDED TO REDUCE GREEN HOUSE GAS EMISSIONS

Dawn, March 22nd, 2017

Jamal Shahid

ISLAMABAD: Federal Minister for Climate Change Zahid Hamid has said Pakistan needs \$40 billion by 2030 to meet its voluntary international commitment to reducing green house gas emissions by 20pc.

Addressing at a national workshop on ‘Forging Partnership for Climate Compatible Development’ organized by LEAD Pakistan, he said \$14 billion annually was also required to adapt to climate change impacts.

He said that Pakistan had developed comprehensive policies and plans that include both adaptation and mitigation measures, however, availability of adequate finance had been a major issue to implement them.

“Securing such levels of investment is a major challenge. We hope that the financial commitments in the Paris Agreement regarding the availability of at least \$100 billion per year by 2020 will be released,” he added.

Zahid Hamid told the audience that Pakistan climate change bill had just been passed by the Senate and would become law after receiving assent from the President

According to the minister, Pakistan is among the few countries in the world with a law specifically dedicated to climate change. He called the approval of Pakistan Climate Change bill a historic and red-letter day for the climate movement of Pakistan.

He said the new law established three important institutions, the Pakistan Climate Change Council, Pakistan Climate Change Authority and Pakistan Climate Change Fund.

Explaining the new institutions, Hamid said the Pakistan Climate Change Council would be chaired by the prime minister and will include chief ministers, provincial environment ministers, Chief Secretaries of AJK and Gilgit Baltistan and representatives of non-governmental organizations, scientists and researchers.

He said the council would approve and monitor implementation of a comprehensive adaptation and mitigation policies and may direct any government agency to prepare and implement climate change projects.

He explained that Pakistan Climate Change authority shall comprise the chairperson, member adaptation, member mitigation and member climate finance.

“The authority will formulate comprehensive adaptation and mitigation policies, plans and projects designed to meet Pakistan’s obligations under international and advise the government regarding appropriate legislative, policy and implementation measure and actions related to disaster preparedness and raising awareness in relevant sectors affected by climate change.

Speaking about the Climate Change Fund, the climate change minister said that the fund would be utilised for expenditures incurred by the authority, for financial assistance to suitable adaptation and mitigation projects and for sustainable development of resources and research.

Speaking to the participants, CEO LEAD Pakistan Ali Tauqeer Sheikh said that Pakistan Climate Change Act can serve as a framework for this transition and is expected that the proposed institutional changes will strengthen climate action governance and ownership in the country.

<https://www.dawn.com/news/1322000>

PAKISTAN MUST BUILD MORE DAMS, GROW FORESTS TO TACKLE CLIMATE CHANGE, SAYS MET CHIEF

Dawn, March 24th, 2017

Faiza Ilyas

KARACHI: Building more dams and enhancing the country's forest cover are two vital steps Pakistan must immediately take to counter the growing threat of climate change.

This was stated by Dr Ghulam Rasul, the Director General of Pakistan Meteorological Department (PMD), while speaking to journalists on the sidelines of a programme held to mark the World Meteorological Day at the Institute of Meteorology and Geophysics on Thursday.

“Right now, the country has a low water storing capacity which we must enhance by building more dams and properly maintaining the already existing reservoirs.

“This will not only save the nation from recurring floods, but help us meet our water and electricity requirements,” he explained, appreciating government campaigns for increasing forest cover.

Forests, he pointed out, were a precious asset and investing in trees was like investing in human life and its survival. “Their benefits are countless: they reduce temperature; absorb carbon; release oxygen; prevent floods; increase rain and above all, create an ecosystem that provides food for birds and other animals. But, it takes time — at least a decade — after their plantation to see their impact.”

To a question, he said undoubtedly the period of spring season had reduced as summers now remain for a longer period.

“We are experiencing prolonged summers, delayed winters followed by brief spring. For some years, the snowfall period has shifted from December-February to February-March. But, fortunately, this year we had snowfall in January, which will replenish our resources as snow melting will start by end of April,” he said, adding that though snowfall only lasted for a month, it was 15pc more this year.

On the possibility of a heatwave this year in Karachi, he said it was too early to predict as there was ‘high variability in weather trends’.

“What is important is to have an efficient early-warning system, on which we are working. The PMD is going to sign accords with France and Oman to exchange expertise and strengthen weather forecast and early-warning systems. A proposal to replace old radars and install new ones and establish automatic weather stations has also been submitted to the government,” he said.

When asked about the smog and prolonged fog experienced this winter, he said trans-boundary pollution had become a big issue and Pakistan should take up this issue at international forums if research indicated that pollution was coming from another country.

According to the information shared during the event, high-resolution future climate scenarios for the country indicate notable changes in the basic climate parameters and the long-term trend of mean temperature over Pakistan shows a warming of 1.16 degree centigrade, which is more than the global warming trend.

Pakistan, it was stated, had some of the oldest met observatories in the region, a few of them dating back to the 1860s. The oldest one, however, was set up in Manora, Karachi, in 1856. Other old

stations, totalling 19 in number, are located across Pakistan which included areas like Sibi, Cherat, Kalat, Pasni and Dalbandin.

The number of old and new observatories now stands at 67.

Speaking on this year's World Meteorological Day theme of 'Understanding clouds', chief meteorologist Abdul Rashid said clouds played an important role in regulating the earth's energy balance, climate and weather.

On this day, he said, the World Meteorological Organisation had published an updated International Cloud Atlas, the single most authoritative and comprehensive reference for identifying clouds.

Former PMD director Mohammad Muslehuddin underscored the need for sharing the climate knowledge provided by PMD, with government agencies and civil society for more comprehensive action against climate change.

Country manager of the International Centre for Integrated Mountain Development-Pakistan Dr Abdul Wahid Jasra also spoke at the event.

The ceremony was followed by an exhibition featuring meteorological instruments including various types of thermometers, a whirling hygrometer for measuring humidity, a nephoscope for measuring cloud velocity, altitude and direction, siphon rain gauge and anemometer (a device for measuring wind speed). Many of the instruments, according to the PMD staff, were obsolete and had been replaced by modern gadgets.

Visitors were also briefed on the PMD weather forecast and seismic network system.

<https://www.dawn.com/news/1322428/pakistan-must-build-more-dams-grow-forests-to-tackle-climate-change-says-met-chief>

WHY THE WORLD ECONOMY HAS TO BE CARBON FREE BY 2050
International New York Times, March 23, 2017

Johan Rockstrom

STOCKHOLM — Global warming is a scientific fact as much as the hole in the ozone layer or Earth's orbit around the sun. Global temperature records have been broken three years running. Arctic Sea ice is declining rapidly. Sea levels are rising. For some societies, such as small island nations in the Pacific and Indian Oceans, environmental havoc is not a distant threat. It has arrived.

To reduce the risk of a global environmental catastrophe, and to avoid reversing the course of human progress, the world must urgently bend the curve of global emissions away from fossil fuels. Global warming must be kept below an increase of 2 degrees Celsius (3.6 degrees Fahrenheit); beyond that we will face major social and economic consequences.

The math to keep the increase below that critical level doesn't get much simpler. Emissions must peak no later than 2020, and we must reach a fossil-fuel-free world economy by 2050.

National pledges made for the Paris Climate Agreement fall short. Indeed, the political landscape is dominated by governments willing to make only incremental progress: two steps forward and one step back, or giant leaps back, in the case of the United States, where President Trump has threatened to retreat from international climate action and has proposed devastating cuts in funding for climate science and international collaboration.

The vast divide between what is necessary and what politicians are willing to do leaves many scientists nervous that we could blow our last chance to reduce the grave risk to our environment and world stability.

Still, there are good reasons for cautious optimism. Despite the halting progress made by politicians, history shows that the modern world has been shaped by major moments of disruption. Think about the recent United States election, Brexit, the global financial crisis of 2008 and the rapid advances made in the technology sector in recent decades.

To help rethink the climate challenge, my colleagues and I developed an environmental corollary to Moore's Law, which says that computing power doubles every 24 months. A "carbon law" states simply that the world must halve emissions every decade to stand a chance of reaching a stable climate system for the planet.

We emit about 40 gigatons of carbon dioxide a year. Assuming emissions start falling by 2020, and using the carbon law as our guide, we should halve carbon dioxide emissions to 20 gigatons by 2030. We then should reach 10 gigatons by 2040, and leave a small residual of five gigatons by 2050.

To make this happen, we must ramp up technology to pull carbon dioxide from the atmosphere, protect the oceans and land that absorb half of our emissions already, and transform the world's food system from a major carbon emitter into a major carbon store.

A carbon law of halving emissions every decade can be adopted at all levels: for individuals, families, communities, companies, cities and nations. Those with the biggest carbon footprint need to do the most.

The global economy is on the right trajectory.

Global emissions growth from fossil fuels has plateaued for three years running, even with strong economic growth, thanks to efforts in China, but also progress in the United States, and some 20 other countries where net domestic emissions are declining. The renewable energy sector is expanding rapidly and employs more people in the United States than fossil fuels combined.

Installation of renewables in the energy sector is doubling every five to six years and has been on this course for a decade. If we keep doubling at this pace, renewables will reach 100 percent before 2050.

We can say good riddance to coal by around 2030, saving millions of lives as air quality improves. And bye-bye to oil by 2040. At this pace and scale, we can be close to carbon-free by 2050.

<https://www.nytimes.com/2017/03/23/opinion/why-the-world-economy-has-to-be-carbon-free-by-2050.html>

PAKISTAN PASSES CLIMATE CHANGE ACT, REVIVING HOPES AND SCEPTICISM

The Express Tribune, March 24, 2017

ISLAMABAD: The parliament passed a climate change bill that officials promise “will fast-track measures needed to implement actions on the ground” in a country that has so far lagged on climate action.

The new law establishes a policy-making Climate Change Council, along with a Climate Change Authority to prepare and supervise the implementation of projects to help Pakistan adapt to climate impacts and hold the line on climate-changing emissions.

The legislation has received cautious backing from climate change experts, who say they welcome its potential but question whether the government should instead be offering more direct support to provinces to implement environmental projects.

Pakistan has earlier passed measures to address climate change, but most have been little implemented, critics charge.

The Senate passed the Climate Change Act 2016 this month, following the bill’s passage in the National Assembly in December.

The legislation is expected to be approved by the president in the coming weeks, a requirement under the Constitution.

Federal Minister for Climate Change Zahid Hamid called the legislation ‘historic’ and said it would “fast-track measures needed to implement actions on the ground”.

Former government under president Asif Ali Zardari had introduced a comprehensive National Climate Change Policy (NCCP) in 2013 but it languished under the current government.

Upon coming to power in June 2013, Prime Minister Nawaz Sharif also downgraded the Ministry of Climate Change to a division and slashed its budget by more than 60 per cent.

He later elevated its status back to a federal ministry ahead of the historic climate change conference in Paris in 2015.

Climate expert Qamaruz Zaman Chaudhry, who was the lead author of the NCCP, credits the climate change minister, who also helped draft a national environmental protection act 20 years ago, with pushing ahead the current legislation.

The new bill will help the provinces with adaptation and mitigation strategies and projects, he added.

“The Climate Change Act will also ensure awareness of climate policy at the highest level,” he said, adding, “The climate change council will hopefully expedite action, and the implementation of climate projects will pick up.”

Hamid said that Pakistan today faces major climate-related risks, including glacial melt, variable monsoons, recurrent floods, sea intrusion, higher average temperatures and greater frequency of droughts.

Millions of people across the country have been affected, and major damage has been caused by recurring natural disasters.

Under a 2010 amendment to the Constitution, handling of environment, food and agriculture issues was largely delegated to the provinces. But “climate change is multi-dimensional in nature and no one province can handle it. We need a federal body to do the necessary coordination among the provinces and to access the available global climate finance,” Hamid said.

The new law establishes a Pakistan Climate Change Council, Pakistan Climate Change Authority and Pakistan Climate Change Fund.

The council will be a decision-making body chaired by either the prime minister or a person nominated by him.

The government will appoint federal and provincial ministers, chief ministers and chief secretaries as members of the council. Other members of the body, which will total around 30 people, will be scientists and researchers, representatives of business and industry, and experts from non-governmental organisations concerned with climate change.

The Climate Change Authority will be an autonomous government department, housed in Islamabad and led by scientists, academics, industrialists, agriculturalists and serving and retired government servants, with a chairperson appointed by the prime minister. It will formulate adaptation and mitigation policies and projects designed to meet Pakistan’s obligations under international climate accords like the recent Paris Agreement.

Projects are to be implemented by the provinces. The Climate Change Fund will support adaptation and mitigation schemes, and other measures including research.

Hammad Naqi Khan, director-general of WWF-Pakistan, one of the country’s oldest environmental NGOs, questioned whether the new bodies would have regulatory teeth.

“While I appreciate the fact that we now have new legislation in place to address issues related to climate change, the fact remains that we have policies for everything but where is the enforcement?” he asked.

He pointed out the earlier example of the Pakistan Environmental Protection Council, set up under the 1997 Environmental Protection Act.

Ejaz Ahmad, an environmentalist who recently retired from WWF-Pakistan, argued that the government needs to support the provinces in implementing climate change policy, rather than creating new federal bodies.

“I don’t understand the need to add another layer of responsibilities to those who don’t have the capacity to deliver. Perhaps it would have been better to strengthen existing policies and fill the gaps,” he said.

<https://tribune.com.pk/story/1364644/pakistan-passes-climate-change-act-reviving-hopes-scepticism/>

CLIMATE CHANGE LAW RECEIVES CAUTIOUS BACKING FROM EXPERTS

Dawn, March 25th, 2017

ISLAMABAD: Officials have expressed hope that a climate change bill passed by parliament will fast-track measures needed to implement actions on the ground in the country that has so far lagged on action in the field.

The new law establishes a policy-making Climate Change Council, along with a Climate Change Authority to prepare and supervise the implementation of projects to help Pakistan adapt to climate impacts and hold the line on climate-changing emissions.

The legislation has received cautious backing from climate change experts, who say they welcome its potential but question whether the government should instead be offering more direct support to provinces to implement environmental projects.

The country has earlier passed measures to address climate change, but most have been little implemented, critics charge.

The Senate passed the Climate Change Act 2016 this month, following its passage in the National Assembly in December. The legislation is expected to be approved by the president in the coming weeks.

The Federal Minister for Climate Change, Zahid Hamid, called the legislation historic and said it would fast-track measures needed to implement actions on the ground.

The PPP government introduced a comprehensive National Climate Change Policy (NCCP) in 2013, but it languished under the Pakistan Muslim League-Nawaz government.

Upon coming to power in June 2013, the PML-N government also downgraded the Ministry of Climate Change to a division and slashed its budget by more than 60 per cent. It was later elevated back to a federal ministry ahead of the historic climate change conference in Paris in 2015.

Climate expert Qamar-uz-Zaman Chaudhry, who was the lead author of the NCCP, credits the climate change minister, who also helped draft a national environmental protection act 20 years ago, with pushing ahead the current legislation.

Mr Chaudhry said the new bill would help the provinces with adaptation and mitigation strategies and projects.

The Climate Change Act would also ensure awareness of climate policy at the highest level, he said. The (climate change) council will hopefully expedite action, and the implementation of climate projects will pick up.

Mr Hamid said that Pakistan today faced major climate-related risks, including glacial melt, variable monsoons, recurrent floods, sea intrusion, higher average temperatures and greater frequency of droughts.

Millions of people across the country have been affected, and major damage has been caused by recurring natural disasters.

Under a 2010 amendment to the Constitution, handling of environment, food and agriculture issues was largely delegated to the provinces.

“But climate change is multi-dimensional in nature and no one province can handle it. We need a federal body to do the necessary coordination among the provinces and to access the available global climate finance,” Mr Hamid said.

The new law establishes a Pakistan Climate Change Council, Pakistan Climate Change Authority and Pakistan Climate Change Fund.

The council will be a decision-making body chaired by either the prime minister or a person nominated by him. The government will appoint federal and provincial ministers, chief ministers and chief secretaries as members of the council.

Other members of the body, which will total around 30 people, will be scientists and researchers, representatives of business and industry, and experts from non-governmental organisations concerned with climate change.

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Projects are to be implemented by the provinces. The Climate Change Fund will support adaptation and mitigation schemes, and other measures including research.

Hammad Naqi Khan, Director-General of WWF-Pakistan, one of the country’s oldest environmental NGOs, questioned whether the new bodies would have regulatory teeth.

“While I appreciate the fact that we now have new legislation in place to address issues related to climate change, the fact remains that we have policies for everything but where is the enforcement?” he asked.

He pointed out the earlier example of the Pakistan Environmental Protection Council, set up under the 1997 Environmental Protection Act.

The council was headed by the prime minister and required under the law to meet at least twice a year, but it rarely did so, while environmental protection agencies were widely regarded as toothless and unable to enforce the law.

“This new council and authority are all good things on paper, but we will only see their benefits when they materialise,” Mr Khan said.

<https://www.dawn.com/news/1322685>

NEWS COVERAGE PERIOD FROM MARCH 13TH TO MARCH 19TH 2017
FOREWARNED IS FOREARMED: ‘WE NEED TO BE BETTER PREPARED FOR THE HEATWAVES’

The Express Tribune, March 13, 2017

KARACHI: Summer in Karachi has become synonymous with heatwave, a deadly occurrence that has claimed the lives of hundreds of people. In 2015, 874 people died due to heatwave related illnesses in Karachi.

A consultative workshop, ‘Supporting Karachi City in Mitigation of Extreme Heat Impacts’, was organised by the Urban Unit, an environmental consultation firm, at Movenpick Hotel on Monday.

Representatives of Urban Unit spoke about how the rise in mortality rates could have been avoided in 2015 and what steps need to be taken to prevent further deaths in the summer of 2017.

“In 2015 there was no heatwave warning for the common man. We are a reactive society and are not proactive,” said senior environmental engineer Kiran Farhan. “The situational analysis throws light on what went wrong, which is something we shouldn’t experience again,” she said.

“When the heatwave struck, the most badly hit areas in Karachi were Gulshan-e-Iqbal, Gulberg and Malir,” said her team member Ehsan Saqib.

“In those 10 days of June 2015, the scorching heat, coupled with fasting in the month of Ramazan and no electricity, led to many people falling ill,” he explained. People living in mud houses and consuming well water instead of tap water were the most affected, he said.

Their combined study showed that more males than females were affected by the heatwave because the males were usually outside in the heat. Besides this, they claimed that many elderly persons were affected because they were left in homes which had metal sheets as roofs. This, combined with electricity issues, led to the death of many people, they said.

Where the government failed to help citizens in distress, non-governmental organisations like the Edhi Foundation came to the people’s rescue, the report stated.

A member of the audience claimed that in 2017 on University Road alone about 12,000 trees were chopped down recently and across the city, 40,000 trees have been chopped down.

Urban Unit urged members of civil society to come forward and create public awareness about the heatwave. The team said that reactive emergency response was a strength unto itself, however, the

lack of government command and control was a weakness that needed to be improved. Better hospital facilities were discussed as an imperative need in the city, as were continuous water and electricity supply.

Speakers said the concept of water sabeels around the city during the city was inspired and very much needed.

Team member Nasira Ahsan highlighted the need for an emphasis on efficient and strategic utilisation of existing resources. “Strong engagement of the private sector is needed to generate and [develop] a heatwave management plan,” she said.

<https://tribune.com.pk/story/1354318/forewarned-forearmed-need-better-prepared-heatwave/>

LARGE SECTIONS OF AUSTRALIA’S GREAT REEF ARE NOW DEAD, SCIENTISTS FIND
International New York Times, MARCH 15, 2017

Damien Cave And Justin Gillis

SYDNEY, Australia — The Great Barrier Reef in Australia has long been one of the world’s most magnificent natural wonders, so enormous it can be seen from space, so beautiful it can move visitors to tears.

But the reef, and the profusion of sea creatures living near it, are in profound trouble.

Huge sections of the Great Barrier Reef, stretching across hundreds of miles of its most pristine northern sector, were recently found to be dead, killed last year by overheated seawater. More southerly sections around the middle of the reef that barely escaped then are bleaching now, a potential precursor to another die-off that could rob some of the reef’s most visited areas of color and life.

“We didn’t expect to see this level of destruction to the Great Barrier Reef for another 30 years,” said Terry P. Hughes, director of a government-funded center for coral reef studies at James Cook University in Australia and the lead author of a paper on the reef that is being published Thursday as the cover article of the journal *Nature*. “In the north, I saw hundreds of reefs — literally two-thirds of the reefs were dying and are now dead.”

The damage to the Great Barrier Reef, one of the world’s largest living structures, is part of a global calamity that has been unfolding intermittently for nearly two decades and seems to be intensifying. In the paper, dozens of scientists described the recent disaster as the third worldwide mass bleaching of coral reefs since 1998, but by far the most widespread and damaging.

The state of coral reefs is a telling sign of the health of the seas. Their distress and death are yet another marker of the ravages of global climate change.

If most of the world’s coral reefs die, as scientists fear is increasingly likely, some of the richest and most colorful life in the ocean could be lost, along with huge sums from reef tourism. In poorer countries, lives are at stake: Hundreds of millions of people get their protein primarily from reef fish, and the loss of that food supply could become a humanitarian crisis.

With this latest global bleaching in its third year, reef scientists say they have no doubt as to the responsible party.

They warned decades ago that the coral reefs would be at risk if human society kept burning fossil fuels at a runaway pace, releasing greenhouse gases that warm the ocean. Emissions continued to rise, and now the background ocean temperature is high enough that any temporary spike poses a critical risk to reefs.

“Climate change is not a future threat,” Professor Hughes said. “On the Great Barrier Reef, it’s been happening for 18 years.”

Corals require warm water to thrive, but they are exquisitely sensitive to extra heat. Just two or three degrees Fahrenheit of excess warming can sometimes kill the tiny creatures.

Globally, the ocean has warmed by about 1.5 degrees Fahrenheit since the late 19th century, by a conservative calculation, and a bit more in the tropics, home to many reefs. An additional kick was supplied by an El Niño weather pattern that peaked in 2016 and temporarily warmed much of the surface of the planet, causing the hottest year in a historical record dating to 1880.

It was obvious last year that the corals on many reefs were likely to die, but now formal scientific assessments are coming in. The paper in Nature documents vast coral bleaching in 2016 along a 500-mile section of the reef north of Cairns, a city on Australia’s eastern coast.

Bleaching indicates that corals are under heat stress, but they do not always die and cooler water can help them recover. Subsequent surveys of the Great Barrier Reef, conducted late last year after the deadline for inclusion in the Nature paper, documented that extensive patches of reef had in fact died, and would not be likely to recover soon, if at all.

Professor Hughes led those surveys. He said that he and his students cried when he showed them maps of the damage, which he had calculated in part by flying low in small planes and helicopters.

His aerial surveys, combined with underwater measurements, found that 67 percent of the corals had died in a long stretch north of Port Douglas, and in patches, the mortality reached 83 percent.

By luck, a storm stirred the waters in the central and southern parts of the reef at a critical moment, cooling them, and mortality there was much lower — about 6 percent in a stretch off Townsville, and even lower in the southernmost part of the reef.

https://www.nytimes.com/2017/03/15/science/great-barrier-reef-coral-climate-change-dieoff.html?rref=collection%2Fbyline%2Fdamien-cave&action=click&contentCollection=undefined®ion=stream&module=stream_unit&version=latest&contentPlacement=2&pgtype=collection

PAKISTAN BECOMES FIFTH COUNTRY IN THE WORLD TO ADOPT LEGISLATION ON CLIMATE CHANGE

The Senate on Friday passed the Pakistan Climate Change Bill 2017, making the country the fifth in the world to adopt comprehensive legislation on the issue.

The layout report of Senate Standing Committee on Climate Change was presented by Senator Samina Abid on March 16 in the Senate. The National Assembly has already approved this Act.

The legislation was passed to meet the country's obligations under international conventions relating to climate change and to address its effects.

Climate Change Minister Zahid Hamid, who introduced the legislation, said that Pakistan ranks 153rd in greenhouse gas emitting countries but is the seventh-most vulnerable to climate change.

"The Pakistan Climate Change Act 2016 has been hammered out to tackle the pressing climate risks and secure global funding for implementing projects to boost country's climate resilience, protect lives and livelihoods of the people, mainly those associated with agriculture," he explained.

He added that the country is likely to produce four times more greenhouse gas emissions by 2020, and would need \$40 billion to mitigate the effects.

During the debate in the Senate prior to the approval, the move to promulgate the Climate Change Act was appreciated by the opposition, which acknowledged its unprecedented significance.

Senators Sherry Rehman and Azam Swati commented that this law was need of the hour.

The federal minister said that as proposed in the law, efforts would be expedited to establish the Pakistan Climate Change Council, which would be chaired by the prime minister.

"The Council will also comprise chief ministers and ministers holding the environment and climate change portfolios of all provinces and Gilgit-Baltistan, Azad Jammu and Kashmir, and the Federally Administered Tribal Areas. Besides, the advisory body will consist of 30 other members, 20 of them from non-governmental organisations, researchers, scientists, technical experts, and educationists concerned with climate change," Hamid said.

<https://tribune.com.pk/story/1357877/pakistan-becomes-fifth-country-world-adopt-legislation-climate-change/>

G20 MINISTERS FAIL TO GET US ON BOARD FOR TRADE, CLIMATE

Dawn, March 19th, 2017

BADEN: Finance ministers from the world's biggest economies on Saturday failed to get the US to renew an anti-protectionist pledge and a vow to fight climate change, in the face of Donald Trump's "America First" push.

After a two-day meeting, ministers from G20 developed and emerging nations said they were "working to strengthen the contribution of trade to our economies" but failed to spell out a pledge to reject protectionism in a closing statement.

An entire section on action against climate change was dropped from the final document, sparking dismay among America's partners as well as environmental activists.

“I regret that our discussions today were unable to reach a satisfying conclusion on two absolutely essential priorities that our world and which France would have liked to see the G20 continue to take firm and concerted action on,” said French Finance Minister Michel Sapin.

Host German Finance Minister Wolfgang Schaeuble however struck a conciliatory tone, noting that in the US the matters of finance and trade were divided in two portfolios.

“Trade questions are not the responsibility of the finance minister... that’s why it was a bit complicated, that’s true,” he said, as the American delegation was led by US Treasury Secretary Steven Mnuchin.

The conspicuous omissions come as Trump champions a “Buy American” strategy that includes threats to penalise companies that manufacture abroad by heavily taxing their products.

Carried to power on the back of a political storm over deindustrialisation in vast areas of the US, Trump vowed in his inauguration speech to “follow two simple rules: buy American and hire American.” Since taking office, he has withdrawn the US from a trans-Pacific free trade pact and attacked export giants China and Germany over their massive trade surplus.

His stance has been condemned by Washington’s trading partners, and led Beijing to issue a stern warning against sparking a trade war.

Trump himself insisted at a tense Washington press conference Friday, following his first meeting with German Chancellor Angela Merkel, that “I’m a free trader but also a fair trader”. He also rejected a description of his policies as “isolationist.”

References to action against climate change under the Paris Accord were absent from the G20 statement, unlike at a China-led summit last year.

Delegates said the US team was unable to commit as they had not been given instructions from Washington to do so at the meeting in the western German spa town of Baden-Baden.

The exclusion of climate marked a new setback for environmental action, activists say, after Trump proposed to take the axe to environmental financing.

Under his first national budget proposal, he suggested cutting financial resources for the Environmental Protection Agency (EPA) by a third, as well as eliminating contributions linked to UN climate change programmes.

<https://www.dawn.com/news/1321321>

NEWS COVERAGE PERIOD FROM MARCH 6TH TO MARCH 12 TH 2017

‘CHANCE OF EL NINO AT 50PC IN 2017’

Business Recorder, 6 March 2017

SYDNEY: The chance of an El Nino in 2017 has increased in the last two weeks, the Australian Bureau of Meteorology (BOM) said on Tuesday, indicating a 50 percent chance the weather event resurfaces over the next six months.

The BOM said the eastern Pacific Ocean has warmed over the last fortnight, driving many of its climate models towards the El Nino threshold over the next six months. An El Nino is often associated with below average warmer, dry weather across the Asia Pacific region.

El Ninos are particularly damaging to Australia, with the last one in 2015/16 – the strongest in nearly 20 years – curtailing agricultural production from one world's largest agricultural exporters. A El Nino this year would potentially emerge as farmers in Australia plant wheat crops, Australia's largest rural export.

Should dry weather persist, production from the world's No. 4 exporter may be stunted, providing some support to benchmark wheat prices, which remain depressed by ample global supplies.—
Reuters

<http://epaper.brecorder.com/2017/03/06/13-page/855474-news.html>

SEA INTRUSION TERMED IMMINENT THREAT TO FOUR COASTAL DISTRICTS

Dawn, March 8th, 2017

THATTA: Several hundred people including scholars, literary figures and activists of various political, nationalist, religious, social, peasant and labour organisations, attended an event organised by the Pakistan Fisherfolk Forum (PFF) at the twin bridge — known as Doolha Darya Khan Bridge — between Thatta and Sujawal on Tuesday.

PFF Chairman Mohammed Ali Shah, Dr Mukhtiar Mahar, columnist Nisar Khokhar, Mustafa Mirani, Fatima Majeed, Mir Baloch, Mehboob Brohi and scores of other activists threw flowers and petals — signifying their urge to see release of adequate water downstream Kotri to save the Indus delta — at a selected point beneath the bridge.

The event was part of the PFF campaign for the protection of the delta, streamlining of the Indus River network and to check further environmental degradation.

Speaking to the participants, Mr Shah announced start of a march from this point to Hyderabad, where the PFF has convened a big gathering on March 14 to mark the International Day of Rivers. He said that the marchers would pass through various districts of lower Sindh before reaching their destination.

Mr Shah observed that they had to throw flowers and petals on the dried up riverbed instead of the flowing Indus. A minimum 35 million acre feet (maf) water was not being released downstream Kotri which was essentially needed to save the delta, he added, and urged the authorities concerned to pay due attention to the issue.

The audience prayed for availability of adequate water to ensure prompt and regular release of water.

The PFF chairman noted that sea intrusion had already devastated the coastal region and eaten up hundreds of thousands of acres of fertile land along the coastline. According to a study, Thatta, Sujawal, Badin and parts of Malir (Karachi) district were vulnerable to sea intrusion and might vanish by 2050, he said, and termed the situation 'alarming'.

Criticising the federal government for its indifferent attitude towards downstream flows from Kotri, Fatima Majid, Nisar Khokhar and Mustafa Mirani expressed the view that such an attitude had made the life of local population miserable.

Endorsing their view, Mehboob Brohi, Mir Baloch and Dr Mukhtiar Mahar pointed out that due to non-release of sweet water downstream Kotri, some 1.8 million acres of fertile land in the coastal districts of Thatta, Badin and Sujawal had been eaten up by the sea. Hyper-salinity was rendering the lands next to the seashore barren, they said.

They urged the authorities concerned to take concrete measures on an emergency basis to save the four districts.

Participants adopted several resolutions urging the government not to build dams and barrages over the Indus, ensure release of a minimum 35maf water downstream Kotri and take urgent measures to save the Indus delta and ecology of the coastal belt.

One resolution said that wetlands in Sindh should be provided their legitimate share in the Indus water to protect livelihood of thousands of fishermen.

Later, the participants started their march to Hyderabad via the districts of lower Sindh.

<https://www.dawn.com/news/1319084>

PAKISTAN AMONG 7 STATES VULNERABLE TO CLIMATE HAZARDS, SENATE TOLD
Business Recorder, 9 March 2017

Zulfiqar Ahmad

ISLAMABAD: The Senate was informed on Wednesday that Pakistan is among the seven countries which are most vulnerable to adverse impacts of climate change while it is ranked 135th among the comity of nations contributing to global warming.

Minister for Climate Change Zahid Hamid said during the question-hour that Germanwatch in its latest Global Climate Risk Index 2017 showed Pakistan elevating to number 07 from 08 out of the ten countries most affected during the period 1996-2015.

“Most of the affected countries in the long-term indexes have a high-ranking due to exceptional catastrophes. To address this situation, the Ministry of Climate Change has developed a comprehensive strategy to address the climate change issue, which identifies policy approaches and implementation pathways for both adaptation and mitigation”, he noted.

He said that given Pakistan’s vulnerability to climate change, adaptation and climate resilient development remains its essential priority along with adoption of comprehensive approach on disaster risk reduction and management. He was responding to a question asked by Senator Shibli Faraz of Pakistan Tehreek-e-Insaf.

The minister threw light on various studies, steps and the legislation done to tackle the challenge.

Parliamentary Affairs Minister Sh Aftab Ahmad said in response to a volley of questions by Senators Muhammad Talha Mehmood, Ilyas Bilour and Usman Kakar, that a summary has been moved to the Prime Minister for approval to induct additional 15,693 personnel for the security of airports.

The senators complained that in the given law and order situation in the country, adequate security measures must be ensured at airports and that the quota of provinces must be strictly observed.

Chairman Senate Mian Raza Rabbani said there is no clause in the Constitution relating to the provincial quota, so how jobs could be given to provinces as per quota. The minister also agreed to this and said a bill is pending in this regard but insisted the formula in vogue is being implemented 100 per cent.

The minister agreed that in normal situation, the available strength of security personnel of the Airport Security Force (ASF) (10,667 persons) was adequate but since there is abnormal security situation in Pakistan, additional security force is needed on which the government is already working.

He explained that besides ASF, services of the Rangers and the police are also acquired for security at the airports. The senators urged the minister to give an assurance that the smaller provinces would get their due share in jobs.

The minister in-charge for aviation said that a total of 17,645 employees were working in PIA in 2011 while it had a fleet of 30 aircraft (588 employees against each plane) while in 2016, the number of employees for 38 planes stood at 14317 (376 employees against each plane).

He noted that PIA is in the process of acquiring 03 more aircraft on dry lease that would be inducted in the fleet by the end of this year. He was responding to a question asked by MQM Senator Mian Muhammad Ateeq Sheikh.

<http://epaper.brecorder.com/2017/03/09/3-page/856242-news.html>

NEWS COVERAGE PERIOD FROM FEBRUARY 27TH TO MARCH 5TH 2017

‘SINDH – MOST VULNERABLE PROVINCE TO CLIMATE CHANGE’

The Express Tribune, February 28, 2017

Mudaser Kazi

KARACHI : Sindh is more prone to climate change due to its geographical location as compared to the other provinces, said MPA Shafi Muhammad Jamot at the launch of ‘Climate Public Expenditure Review’ on Monday.

The government of Sindh, he said, has already announced the establishment of a new department to handle environment-related issues.

He was speaking at the ceremony organised by Pakistan Fisherfolk Forum and Oxfam. The session highlighted an analysis of Sindh’s 2016-17 budget with reference to allocation to prevent climate change at Regent Plaza on Monday.

The study discussed the need to have a climate change budget with a gender lens specifically, as women are more vulnerable to the adverse effects of climate change.

Jamot criticised the government for not taking immediate measures for the adaptation of local plants, protection of mangroves, controlling marine pollution and ensuring fresh water into the delta to mitigate the impact of climate change.

Other speakers also urged that budgetary allocations by the provincial government are insufficient to tackle the threats of climate change. Pakistan is among the world's top 10 countries vulnerable to climate change and can experience adverse impacts if the issue is not being handled by the government, stated another speaker.

Lead researcher Aneela Bibi confirmed that only 6% of the total development budget is related to climate change, adding that while 15% of the GDP of Sindh has been affected by climate change.

Environmental expert Nasir Panhwer said that agriculture is one of the pillars of Pakistan's economy and a major source of livelihood for rural communities.

He said that utmost importance should be given to address the issues faced by small farmers by ensuring development projects for rural communities using solar and wind energy.

Pakistan Fisherfolk Forum chairperson Muhammad Ali Shah said that small-scale farmers, especially women, are the worst hit by the impact of climate change.

Shah asserted that, "A local adaptation plan of action needs to be adopted by the government to cope with these issues and make communities resilient to climate change."

He added that the biggest threat to climate change are capitalists and remarked that, "Unequal distribution of wealth is the main cause of hunger and poverty".

Urgent policy measures are needed to save the lives and livelihoods of millions of people, remarked Pakistan Fisherfolk Forum vice-chairperson Mustafa Mirani. He added that the conversion of natural lakes into agricultural land must be stopped and the theft of water must be made a non-bailable offence throughout the country.

"In Pakistan the lower-riparian people have lost the most due to dams, whereas in other countries they are the biggest beneficiaries," he lamented.

He also demanded that new scientific research on fish breeding must be conducted due to the change in the flow of river patterns.

<https://tribune.com.pk/story/1340881/sindh-vulnerable-province-climate-change/>

'OUR DAILY BREAD' HAS HIDDEN CLIMATE COSTS

Business Recorder, February 28th, 2017

Nearly half the environmental impact of a loaf of bread comes from the "unsustainable use" of fertilisers on wheat crops, researchers said Monday. Synthetic fertilisers boost yields, but they contain or generate chemicals – ammonia, nitrates, methane and carbon dioxide, among others – that drive global warming, they reported in the journal Nature Plants.

“This arises from the large amount of energy needed to make the fertiliser, and from nitrous oxide gas released when it is degraded in the soil,” said lead author Liam Goucher, a scientist at the University of Sheffield in England. Nitrate-rich runoff from industrial-scale agriculture also damages lakes, rivers and coastal waters around the world, in some cases creating so-called “dead zones”. The study highlights a double challenge in the decades ahead: how to grow enough food to feed the world’s population – set to increase to 11 billion from seven billion – in a way that does not poison the planet.

“A key part of this challenge is resolving the major conflict embedded in an agri-food system whose primary purpose is to make money, not to provide sustainable global food security,” the study said. Food production and consumption are responsible for about one-third of total greenhouse gas emissions. Cereals such as corn, rice and wheat – usually grown with huge amounts of chemical fertiliser – account for half of the calories consumed by humanity.

To better assess the environmental cost of wheat production, researchers led by Goucher broke down the supply chain of a typical 800-gram (28-ounce) loaf of bread from “seed to feed”. In 2016, Europeans consumed, on average, about 63 kilos of bread per person, while Americans eat about half that amount. They found that ammonium nitrate fertiliser contributes 43 percent of the greenhouse gas emissions in a loaf’s life cycle, a level they described as “unsustainable.” In agriculture, more than 100 million tonnes of chemical fertiliser is used globally every year, applied to about 60 percent of all agricultural crops.

“This is a massive problem,” said the study’s senior author, Peter Horton, chief research advisor to the Grantham Centre for Sustainable Futures. “But environmental impact is not costed within the system, so there are currently no real incentives to reduce our reliance on fertiliser.” How to achieve sustainable global food security is not only a technical question but a political and economic one, the researchers added, arguing that both producers and consumers have important roles to play.

“The consumer is key,” said co-author Lenny Koh, head of the Advanced Resource Efficiency Centre at Sheffield. People who want their daily bread can either be “persuaded to pay more for a greener product, or they can apply pressure” for a change in policy, she added.

<http://fp.brecorder.com/2017/02/20170228146139/>

April 2017

NEWS COVERAGE PERIOD FROM APRIL 24TH TO APRIL 30TH 2017

‘MOTHER’ EARTH?

Dawn, April 24th, 2017

Hajrah Mumtaz

AS Earth Day 2017 passed on Saturday, a number of news headlines from the preceding days provided reason to reflect on how humanity’s habit of heedless consumption and propensity to pollute is killing the planet.

In this age of fake news and alternative facts, one reality that was for decades held by many to fall into the former category has in recent years finally emerged as an undeniable truth: climate change is real, under way, the result of human activities, and devastating. So much evidence has mounted up over the years, from warming seas to melting Arctic ice and a thinning ozone layer that it would take a Trump-like approach to facts to argue any different. Most recently, scientists rang the alarm bells over the Great Barrier Reef, the world's only living structure that is visible from outer space.

According to the Australian Research Council's Centre of Excellence for Coral Reef Studies, the miracle that took hundreds of thousands of years to develop and is one of the Earth's most complex ecosystems has suffered two consecutive years of 'massive bleaching events'. This refers to the evacuation of the polyps that live in the physical structure of the coral, and that give coral its distinctive colour. They, along with millions of other organisms, are abandoning the Great Barrier Reef, or dying, because ocean temperatures are rising beyond the levels they can survive.

The sort of destruction being recorded in this World Heritage site was not expected for another three decades or so. The word being used is 'terminal', and researchers have warned that what's happening here should be taken as indicative of the similar, less visible, havoc being wreaked by climate change on the rest of the planet.

Not content with this aspect of humanity's handiwork, we're having an effect beyond the confines of the planet as well. This month saw the seventh European Conference on Space Debris, held at the European Space Agency (ESA) Space Operations Centre in Darmstadt, Germany. Space debris is stuff like spent rocket parts, fragments from defunct spacecraft or satellites, or leaked liquids like coolants that have solidified into pellets in the cold of space.

Radar stations have tracked some 18,000 objects in orbit, of which only seven per cent are operational satellites. But radars can only track objects of size; the ESA estimates that there are hundreds of thousands of bits of junk in orbit, ranging in size from millimetres to a metre. A major issue that came under discussion at the conference was what is known as the Kessler syndrome: frequent collisions of space debris with each other and operational satellites exponentially increase the amount of space debris, leading to many more collisions – eventually leading to the loss of use of certain orbits because anything put there would definitely get hit.

The sizes of this garbage don't seem to present reason for alarm. But consider this: on Aug 23, a solar panel of the ESA's flagship Earth observation satellite, Sentinel-1A, was hit by a piece of debris probably no more than a few millimetres in size. It caused damage over a 40cm-wide area, affected the satellite's electrical power, and knocked the satellite itself into a slightly different orbit and orientation.

That's because anything in orbit travels at orbital velocities, which are measured in kilometres per second. And to come to grips with how much mankind has sent barrelling into space, so far 7,000 spacecraft have in total been launched in the 60-year history of space exploration (since the launch of Sputnik One in 1957). But the effort to bring the entire world online means that companies such as Space X, Samsung and Boeing are set to send more than 10,000 satellites into orbit in due course.

It may feel superfluous to be discussing these issues in Pakistan which, not being heavily industrialised, does not have too much responsibility to shoulder in such matters. But it is precisely

countries such as this that stand most heavily affected by climate change in particular, and least capable of dealing with the fallout.

There is already a growing body of experiential evidence, for example, that the traditional seasons for sowing and reaping crops and fruit are shifting, but this is barely being discussed at policy level, despite the existence of a ministry for climate change.

Further, if the mindset that underpins harmful practices were taken as a yardstick, we would certainly appear on the list of those that care not about the adverse consequences of current practices. Our domestic record of polluting practices, including our inability to curtail the use of polythene, or to treat sewage or industrial effluent, is damning.

At least in world good news, there was this headline on Earth Day: “Britain goes a full day without coal” in the push to move away from coal-fired power generation. Pakistan is still in the process of setting up coal-fired plants.

<https://www.dawn.com/news/1328885>

NEWS COVERAGE PERIOD FROM APRIL 17TH TO APRIL 23RD 2017
CURTAILING CARBON EMISSIONS: CHINA’S EFFORTS
Business Recorder, 18 April 2017

Dr Maqsudul Hasan Nuri

On climate change, the US and China have some policy differences. The Trump Administration believes that the climate change mantra is a ‘hoax’ peddled by some countries, including China. In addition, it argues that it is a ‘waste of money’ and ‘threatens’ US jobs. China, on the other hand, thinks that it is a developing country with a large population (one -seventh of the world) and hence cannot forfeit the right to its own development while the US seems scrapping on its promises.

Also, in China’s view, this sets a negative example for others to follow. In addition, non-adherence to Paris Agreement may not affect the already-rich countries but China, as a developing country, has to undertake ‘peaceful development’ and ensure ‘safe and prosperous future’ for Chinese citizens together with strategic opportunity to develop alternative clean technologies.

According to President Xi, China would get 20 per cent of its energy by 2013 from non-fossil fuels through alternative energy-generation (hydro, nuclear, wind and solar). Moreover, he stated at the World Economic Forum in Davos, Switzerland, that the Paris Agreement on Climate Change was ‘hard won’ and therefore should remain in force and all signatories should stick by it.

In this connection, a report release in January 2007 by the Ohio-based Institute of Energy Economics and Financial Analysis remarked that China – given its domestic investments in renewable energy sectors – was now a world leader.

Not only that, the report added, China was going global: e.g., last year (2016) it invested \$32 billion in large overseas deals involving renewal energy. Moreover, by 2020, its domestic coal consumption would come down to 58 percent and perhaps 60 percent by the end of 2017.

In pursuance of this policy, China has chalked out a plan for greenhouse gas “cap and trade” program. As per the program, the government will tax domestic companies and state enterprises that generate large amounts of carbon dioxide.

In fact, the above revision in China’s climate change policies has arisen from a combination of factors: rapid economic growth, major infrastructure development and increased need for coal in steel and cement industries which tend to degrade ecology. Presently, the US is the largest and China is the second largest user of coal.

Concurrently domestic reasons as well a sense of global responsibility, such as, acute pollution crises (air, land and water) – together with health hazards posed by increased carbon emissions, pollution and rising temperatures have played a part. Additionally, scientific knowledge has afforded economic opportunities to curtail carbon emissions in lieu of clean and renewable technologies.

In 2016, China’s growth rate slowed down from double digit to 6.7, but despite the stimulus package to limit carbon economy during the early year, the overall coal consumption declined in 2016. Hence solar and wind-generated energy has become a major priority in China’s future energy policy. Already, it has started limiting coal consumption in three largest cities of China – following adverse effects on the environment.

Given these commitments, China may be able to control level of carbon emission by 2025 — five years ahead of its stated goals of 2030. This is despite the pro-coal pressures by major state-owned industries for going ahead with fast-paced development.

US President Donald Trump thinks that climate change is a ‘hoax’ – little realizing that the world population, now 7.5 billion – is going to rise to almost 8.5 billion by 2030. Thus it would increasingly need clean water, energy and air in future. That China has taken the initiative on acquiring clean technologies: clean transport, clean air, clean water, clean buildings and fuel efficiency is quite timely. Its new industries are manufacturing electric cars, batteries, nuclear, wind, solar and geo-thermal technologies. As an illustration, a very large number of electric vehicles have been sold in China already and this trend may be catching up in other countries soon.

Already coal is difficult to exploit as ‘fracking’ technology is expensive, albeit involving low labour. Even in coal-rich states such as West Virginia, the population employed in coal mining is as low as five percent. Trump won his elections by appealing to coal miners and to the vested interests.

Not only that, clean energy consciousness is growing in progressive states in the US like New York and California as they are making plans for clean and efficient use of energy by rolling back redundant, energy-heavy coal plants instead of energy-efficient systems. In fact, the Obama administration had already taken some steps to reduce the CO2 emissions by 2025, one quarter below 2005 levels.

Should this happen, many European, Middle Eastern and South Asian countries could follow suit. Thus, China could become a global leader in low-carbon technologies by attaining high ground in building renewable and eco-friendly energy technologies (solar and wind) – should Paris Agreement be reneged by the US and other rich countries.

(The writer is Visiting Professor of International Relations at Department of Defence and Strategic Studies,

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<http://epaper.brecorder.com/2017/04/18/20-page/867891-news.html>

OVER 181,000 WHEAT BAGS SPOILED DURING RAINS, FLOODS IN 2011, SAYS MINISTER

Dawn, 22 April 2017

Bhagwan Das

KARACHI: Sindh Minister for Food Nisar Ahmed Khuhro said that over 181,080 bags of wheat were spoiled because of rains and floods in 2011 but failed to put the losses in monetary terms despite being repeatedly asked by legislators during Question Hour in the Sindh Assembly on Friday.

He said in answer to a question by Muttahida Qaumi Movement-Pakistan (MQM-P) legislator Hargundas Ahuja that the largest quantity of wheat (over 55,000 bags) spoiled in Ghotki district and over 49,000 bags spoiled in QambarShahdadkot district.

Other districts where the food department incurred substantial losses were Sanghar, Jacobabad and Shikarpur where over 12,000 bags each spoiled. Losses in other districts were relatively low, he said.

About disposal of the spoiled wheat, the minister said that it was disposed of through open bidding and auction at the rates ranging between Re1 per 40kg and Rs22 per 40kg. A total of Rs296 million were generated from the sale of the spoiled wheat, he said.

The minister did not put the losses the government incurred on account of the spoiled wheat in monetary terms despite being repeatedly asked by several legislators belonging to MQM, Pakistan Tehreek-i-Insaf etc. MQM's Dewan Chawla asked whether it was ensured that miscreants did not mix the spoiled wheat with healthy grain during grinding and flour-making process. The minister replied it was not the job of the food department. There were other departments and local government organisations which monitored the grinding operations of flour mills to check quality of flour, he said.

Storage capacity Responding to a question by PTPs Khurram Sherzaman about storage capacity and conditions of godowns, the minister said the government usually procured around 1.2 million metric tonnes of wheat but it had a storage capacity of 700,000 metric tonnes and around 500,000 tonnes had to be stored in private warehouses, some of which were godowns, grounds with plinth or open spaces. The bags were fumigated and covered with plastic sheets to protect the grain from insects, animals and weather, he said.

The minister said the government had rehabilitated and repaired godowns at a cost of over Rs102m while another Rs680m scheme had been launched to build cemented plinths to increase the storage capacity of the godowns.

MQM legislator Qamar Rizvi asked about capacity of Setharja godown and the minister said the godown capacity was 12,345 tonnes while two plinths with a capacity of 5,000 bags were also ready and three other similar plinths were under construction. An open space was also available where around 50,000 bags could be stored, he added.

Recruitments in dept In a question asked by a PTI legislator about recruitments in the department made between January 2012 and August 2013, the minister said that 644 people were hired, 123 of them belonged to Karachi, 117 to Hyderabad, 143 to Sul(kur, 97 to Larkana and 111 to Mirpurkhas, he said.

To another question by the legislator why no female had been recruited, the minister said the department maintained urban-rural quota and other quotas reserved for women, minorities etc but if nobody had applied or could not qualify the recruitment process they failed to get the job.

PML-F's Rafique Banbhan asked why the rate of wheat supplied to mills was different from town to town across the province. The minister said the difference in the rate depended on distance, transportation cost, storage cost etc but it was negligible.

For example, he said, currently wheat was provided at Rs1,620 per 40kg to the mills in Karachi, while the rate for 40kg wheat for Larkana mills was Rs1,580.

http://epaper.dawn.com/DetailImage.php?StoryImage=22_04_2017_119_004

PEOPLE URGED TO PROMOTE CLIMATE-RELATED EDUCATION

Business Recorder, 23 April 2017

LAHORE: WWF-Pakistan marked Earth Day 2017 with the aim to encourage people to promote environmental and climate education campaigns across the country. In this connection, a number of activities were organized by WWF-Pakistan in different cities which engaged education institutes, corporate entities, civil society organizations, local communities and government departments.

Commenting on the day, Hammad Naqi Khan, Director General WWF-Pakistan said that education can play a pivotal role in addressing environmental problems which are increasing day by day. It can also help create public support for conservation of Earth's resources and can be a voice for change. With quality education, we can inspire action towards environmental protection and sensitize people to adapt green technologies. He was of the view that people should switch to alternative energy, discontinue use of plastic bags, conserve freshwater bodies and make effective and wise use of natural resources.

He also stated that since the last couple of years, humans have been breaking the wrong kind of record i.e. the rising temperature record. Each passing year is declared the hottest year compared to the previous one. It is time to take environmental and climate issues seriously and mobilize people to develop public momentum to mitigate greenhouse emissions, increase tree cover, reduce pollution and protect endangered species. He also emphasized that environmental education should be a compulsory subject and taught in schools across the country.

In Lahore, WWF-Pakistan in collaboration with Agility organized a main event at Ali Institute of Education (AIE). Around 70 employees of both organizations planted indigenous trees within the

premises of AIE. While another event, in partnership with Teradata, was organized at Changa Manga. The participants planted local tree saplings and showed commitment to protect Earth through increasing tree cover in the city. The participants also conducted a visit to WWF-Pakistan's Vulture Centre.

In line with this year's theme, WWF-Pakistan in collaboration with Beacon House School System, Islamabad conducted a wilderness exposure trip of over 100 students to Nathiagali. It served as an insightful experience to understand the various challenges faced by our fragile ecosystems.

A major event in Karachi was held with Martin Dow at Korangi Industrial Area which was attended by a large number of participants including officials of both organizations. In Kashmore, the event was organized in collaboration with Sindh Wildlife Department, Sindh Education Department and Sindhu Mallah Tanzeem, a local community-based organization. More than 300 students attended the event where they presented tableaux and took part in speech competition. While, another event regarding the day was organized at Kund Malir, Balochistan which aimed to provide real natural experience to the participants.

The theme for 2017 Environmental and Climate Literacy highlights the vital role of education in providing solutions to challenges confronting Mother Earth. It also provides an opportunity to engage and educate the youth who can make a significant contribution towards conservation of Earth's resources in the country. In this regard, WWF-Pakistan under its School Outreach Programme and Youth Development Programme engages more than 125,000 students including teachers across country. The programmes focus mainly on creating more mature and environmentally conscious students who are future leaders.

Participants at Earth Day activities pledged to plant more trees in their homes and neighbourhoods; encourage paperless environment in offices; promote green environment; use energy efficient appliances; adopt recycling and showed commitment for sustainable use of resources.

<http://epaper.brecorder.com/2017/04/23/5-page/869423-news.html>

EARTH DAY OBSERVED: EXPERTS CALL FOR EDUCATING PEOPLE ON ENVIRONMENT, CLIMATE

The Express Tribune, April 23rd, 2017.

Mariam Shafqat

LAHORE: Education can play a pivotal role in addressing environmental problems, which are increasing day by day, said WWF-Pakistan Director-General Hammad Naqi Khan on Saturday.

Earth Day 2017 was marked in Lahore on Saturday themed around environmental and climate literacy, highlighting the vital role of education in providing solutions to challenges confronting the planet.

WWF-Pakistan in collaboration with Agility organised an Earth Day event at Ali Institute of Education (AIE) in Lahore. Around 70 employees of both organisations planted trees within the premises.

“With quality education, we can inspire action towards environmental protection and sensitise people to adapt green technologies,” he said in a statement issued for the day.

Hammad was of the view that people should switch to alternative energy, discontinue use of plastic bags, conserve freshwater bodies and make effective and wise use of natural resources. “In the past couple of years, humans have been breaking the wrong kind of record – the rising temperature record.”

Each passing year has been declared the hottest year compared to the previous one. “It is time to take environmental and climate issues seriously and mobilise people to develop public momentum to mitigate greenhouse emissions, increase tree cover, reduce pollution and protect endangered species,” he stressed.

Another event, in partnership with Teradata, was organised at the Changa Manga forest.

The participants planted saplings and showed commitment to protect earth through increasing tree cover in Lahore. They pledged to plant more trees at their homes and neighbourhoods, encourage a paperless environment, use energy efficient appliances and adapt recycling for sustainable use of resources.

The Access to Climate Justice Committee (ACJC) also celebrated Earth Day at the Lahore High Court auditorium.

ACJC Chairperson Asif Ali Sayal said the government remained politically negligent on tackling climate change. “Even though a climate change law has been passed, it was done without taking environmental experts on board,” he lamented.

“Environmental protection should not be taken as an action but as an attitude since there is a need to involve communities through government institutions at all levels,” Asif said. “We should formulate a law, which requires every person to participate in or contribute towards environmental friendly activities.”

<https://tribune.com.pk/story/1391266/earth-day-observed-experts-call-educating-people-environment-climate/>

NEWS COVERAGE PERIOD FROM APRIL 10TH TO APRIL 16TH 2017

UNESCO ASKED TO PROVIDE EARLY WARNING SYSTEM

The Express Tribune, 12, April 2017

Sehrish Wasif

ISLAMABAD: The Pakistan Meteorological Department has requested the United Nations Educational, Scientific and Cultural Organisation (UNESCO) to include a scientific study on glacier melting as one of the components in its project – Strategic Strengthening of Flood Warning and Management Capacity of Pakistan.

Currently, Pakistan lacks scientific data on glacier melting and without it the country cannot prevent the annual flooding in the country.

Every year massive amount of water from melting glaciers is mixed with the monsoon rainwater in the major reservoirs of the country and is later dumped into the sea, said Met office chief Dr Ghulam Rasul.

It is estimated that every year an amount of 30 to 40 million acres feet of rainwater during monsoon is being dumped into the sea in Pakistan.

Devastating floods are integral part of the history of Indus Basin which is habitat to more than 200 million people. Catastrophic floods of recent past broke the historical records and became a challenging threat to human beings, livestock, property, infrastructure and ecology.

Dr Rasul raised this important point at an international workshop on ‘Strategic data for reliable models and timely flood forecast’, which concluded here on Tuesday.

While talking to The Express Tribune, he said that currently Pakistan lacks accurate and updated scientific data on melting glaciers.

“Since ages Pakistan is using data on glacier melting based on estimations, some say it is 70 per cent, some 80 per cent and so on,” he said.

He said a need has been felt to have a model to gather data on melting glaciers for better calibration and simulation.

“It will help Pakistan know when the temperature has risen in northern areas when glaciers start melting and how much water is coming into the reservoirs,” he said.

Therefore, pre-emptive measures can be taken easily before the water from glacier melting is stocked in reservoirs during the monsoon season, he said.

“One of the major reasons behind flooding in Pakistan is that water from both glacier melting and monsoon rains gathers simultaneously in the reservoirs due to which they overflow and generate flooding,” he said.

Once having data on it will help conserve water separately for various purposes when required, he said.

Protecting humans and natural resources as well as infrastructure demanded immediate attention. UNESCO, through International Hydrological Programme, Regional Science Bureau for Asia and the Pacific and Islamabad office, is working close with the government of Japan through Japan International Cooperation Agency to support the government of Pakistan in meeting flood related challenges.

<https://tribune.com.pk/story/1381087/unesco-asked-provide-early-warning-system/>

POLICY BEING FINALISED FOR BIOMASS TECHNOLOGY

Dawn, April 15th, 2017

ISLAMABAD: Policy recommendations were finalised to support the use of biomass technology in industry at a consultative stakeholders' workshop held on Friday.

The event was organised by the Alternate Energy Development Board (AEDB) and United Nations Industrial Development Organisation (UNIDO).

The finalised policy recommendations will be submitted to the AEDB for making the necessary changes in existing policies, regulations and procedures related to biomass.

The quality standards will be used by the customs department of the Federal Board of Revenue (FBR) to ensure that only gasifiers complying with the stated standards are imported in the country.

Recognising the need for tapping all possible energy sources available to Pakistan, especially renewable sources such as biomass, UNIDO is implementing a Global Environment Facility (GEF) funded project on "promoting sustainable energy production and use from biomass in Pakistan". The project aims to promote market-based adoption of modern biomass technologies for industrial and rural energy applications with particular focus on the introduction of biomass gasification technology.

The consultative stakeholder workshop was attended by over seventy experts, including representatives from AEDB, the National Electric and Power Regulatory Authority (Nepra), provincial energy departments, private sector, academia and several other stakeholders.

United Nations Resident Coordinator, Neil Buhne described biomass as a 'huge resource' for the country with immense benefits. He linked promoting biomass with the achievement of several sustainable goals and highlighted the importance of biomass as part of the larger bio-economy with volume of over \$2 trillion globally.

AEDB Chief Executive Officer Amjad Ali Awan, who chaired the meeting, highlighted the importance of biomass energy technologies both as a means to address energy challenges in the country and an important opportunity to save fuel and diversify its energy mix to include clean indigenous energy sources.

<https://www.dawn.com/news/1327017>

NEWS COVERAGE PERIOD FROM APRIL 3 RD TO APRIL 9 TH 2017
HIGHER AVERAGE TEMPERATURE IN MARCH IS THE 'NEW NORMAL'
Dawn, April 4th, 2017

Kalbe Ali

ISLAMABAD: The average temperature in the month of March in the federal capital and in many other parts of the country was higher than the traditional average and the met office has declared the changing pattern as the "new normal".

The mercury level across the world is rising due to the impact of global climate change and a similar pattern is visible in Pakistan as well.

The highest average temperature in Islamabad last March was 25°C which is slightly above the traditional average of 24.6°C.

This pattern of a higher maximum temperature was witnessed in several areas of the country including Lahore, Peshawar, Karachi and most of Punjab, Khyber Pakhtunkhwa, Sindh and Balochistan.

However, the pattern was not that common in the northern parts of the country including Azad Jammu and Kashmir, Gilgit-Baltistan and Fata. The average maximum temperature in Parachinar, Muzaffarabad, Gilgit and Skardu was lower than the traditional maximum temperature.

“These are clear signs of climate change. The average high temperature during March was higher due to it raining less,” said Dr Ghulam Rasul, DG Pakistan Meteorological Department.

“Though there were three rain spells in March, the total rainfall was less than the normal rainfall in the same month,” he explained.

Because of it raining less, the minimum temperature was also higher in Islamabad and the lowest temperature in Murree was 3.5°C, which is about two degrees higher than the traditional average lowest.

Despite it raining for over 11 days, total precipitation in Murree was 49.30 mm compared to the historic average of 181.2 mm in March over ten days.

Similarly, Islamabad received rainfall for 11 days when the historic average is nine days but the total precipitation accounted for only 16.47mm against the historic average of 87.7mm.

“The rain spells are the same but the rainfall has decreased. The clouds fizzle out when they cross over the hilly areas of the country,” a met office official said, explaining that this is the reason why the average maximum temperature in March has been lower than the historic average in the northern areas.

The maximum temperature in the first three days of April this year was 33.5 °C, 34°C and 33°C respectively while the average minimum temperature was 30.5°C.

The met office has said a fresh westerly wave has entered Pakistani airspace and is likely to persist up to Thursday.

A hailstorm is expected in Islamabad, upper Punjab, upper KP and Kashmir between Tuesday evening and early morning on Thursday. Heavy rains are also expected in Malakad, Hazara and Kashmir.

Rain and thunderstorm along with gusty winds are expected in scattered places in KP, Fata, Islamabad, Rawalpindi, Gujranwala, Lahore, Sargodha, Faisalabad, Kashmir and GB. Three rain spells are expected in April, the same as April last year.

<https://www.dawn.com/news/1324765/higher-average-temperature-in-march-is-the-new-normal>

ISLAMABAD: Federal Minister of Climate Change Zahid Hamid has emphasised that central and provincial governments should ramp up efforts for implementing the climate change policy in coordination with each other, which will mitigate the risk of disaster and damage to the national economy.

The minister stated this while discussing a plan for improved execution of the climate change policy in the third meeting of the National Climate Change Policy Implementation Committee on Monday.

“A standardised pro forma will be prepared by the Ministry of Climate Change and it will be sent to all departments and ministries concerned at the federal and provincial levels for updating their progress on policy implementation,” Hamid said.

He asked the ministries and departments to seek funds for climate change projects in their annual budgets. “Climate change policy and Sustainable Development Goals (SDGs) should be integrated,” he suggested.

Meeting participants reviewed the progress on decisions taken in the previous meeting. The first decision required the provinces to make efforts to implement the actions identified in a framework.

Governments of Khyber-Pakhtunkhwa, Azad Jammu and Kashmir, Gilgit-Baltistan and Balochistan have presented reports on their performance in that regard.

The second decision was that Pakistan Environmental Protection Agency and provincial environmental agencies should be included in the assessment of climate change impact.

A concept note on the effects of climate change on development projects has been developed by the Ministry of Climate Change and the United Nations Development Programme.

It was also decided to constitute a committee for rationalising the environmental quality standards in consultation with the provinces and broader stakeholders.

The committee will revise the standards on the basis of scopes of different sectors and industry-specific issues.

<https://tribune.com.pk/story/1373443/provinces-step-efforts-cope-climate-change/>

PAKISTAN UNDER STRONG INFLUENCE OF CLIMATE CHANGE

The Express Tribune, April 8, 2017

Sehrish Wasif

ISLAMABAD: Pakistan continues to remain under strong influence of climate change this year as well.

“It is very rare that Pakistan has received heavy rainfall which continues for more than three days in the month of April,” said Pakistan Meteorological Department Director General Dr Ghulam Rasul.

While talking to The Express Tribune, he said the recent rain spell along with gusty winds continued for more than three to four days with high intensity over upper parts of Khyber-Pakhtunkhwa, Gilgit-Baltistan, AJK and adjoining northern parts of Punjab.

“In April, rain spell of low to moderate intensity continues for hardly two days,” he said.

During last three days RawalaKot has received 150 millimeters of rainfall which is somewhat unusual in this month, he said.

Having heavy downpours this month is good for the country because it will help raise water level in depleting reservoirs, he added.

“It is expected that Pakistan will not face water shortage at least in April and May and farmers will get the required amount of water for wheat crops,” he said.

However after the rain spell in April, the coming week will remain hot and dry, he said.

“Though one or two more good rain spells are expected in April, meanwhile glaciers will also start melting by the end of this month which will also help fill the two major reservoirs of the country,” said Dr Rasul.

Talking about snowfall in Murree and upper parts of Pakistan, he said, “It is a normal thing. Sometimes these areas do receive rainfall in April.”

However because of the snowfall in Murree, the mercury level in Islamabad, Rawalpindi and in adjoining areas went down by 10 degrees Celsius, he said.

Moreover, Islamabad and Rawalpindi were hit by a strong windstorm Thursday night. The wind blew with speed of 100km per hour at various places of the twin cities.

“PMD had already issued alerts for the strong windstorm,” he said.

According to Pakistan Meteorological Department, Global Climate Indicators such as North Atlantic Oscillations (NAO), Indian Ocean Dipole (IOD) are expected to remain neutral in April 2017, however, El Nino and Southern Oscillations (ENSO) are in developing phase.

<https://tribune.com.pk/story/1377724/pakistan-strong-influence-climate-change/>

May 2017

NEWS COVERAGE PERIOD FROM MAY 29TH TO JUNE 4TH 2017

TURBAT REELS UNDER RECORD HEATWAVE

Dawn, May 29th, 2017

Intikhab Hanif

LAHORE: Vast areas of Punjab, Sindh and Balochistan reeled under the severe heatwave that intensified on Sunday, the first day of Ramazan, creating a record for the highest-ever temperature in Turbat.

A shallow westerly wave is, nevertheless, likely to bring some rain over scattered places of upper parts of the country and some north-eastern cities in Punjab, including Lahore, in the next 24 hours.

It drizzled in Mianwali and Sargodha at the time of Iftar to the relief of heat-stricken people.

A dust storm hit many central and north-eastern Punjab cities, including Lahore, Gujranwala, Mianwali and Sargodha at the night, blowing away intense heat that had continued to exist even after sunset.

Turbat experienced a blistering 53.5 degrees Celsius maximum temperature, a new record.

The previous highest temperature of Balochistan's remote city was 52 degrees Celsius recorded on May 30, 2009.

For those living in Punjab cities like Lahore, surviving in Turbat-like 53.5 degrees C temperature seemed unbelievable. For them, temperatures around 40 were enough to test their endurance.

The Met department said that the heatwave persisting over the past few days intensified and centred over Sindh, Balochistan and Punjab on Sunday, making it one of the hottest days of the current summer.

The maximum temperature in Sibbi was recorded at 50 degrees C, Jacobabad and Dadu 49, Larkana 48 and Nokkundi, Dalbandin, Sakrand and Sukkur 47.

Karachi's maximum temperature was recorded at 36 degrees C, but the heat index was much more intense in the open.

In Punjab, Bhakkar recorded 47 degrees C maximum temperature, Bahawalnagar and Multan 45, Bahawalpur 43, Faisalabad 41 and Lahore and Chakwal 40.

Except for Peshawar, the weather remained relatively better in Khyber Pakhtunkhwa and mild in upper parts of the country, including the summer resorts of Murree, Nathiagali, Swat, Kaghan and Naran.

The Met department said the dry continental air prevailing over most parts of the country was helping the blazing sun to scorch the plains in the country.

However, a shallow westerly wave over upper parts of the country will reduce the impact of the heatwave at a few places in Hazara, Rawalpindi, Sargodha and Lahore divisions and Azad Kashmir by producing rain there on Monday.

<https://www.dawn.com/news/1335991>

HEATWAVE, ADVENT OF RAMAZAN LEAVE ROADS DESERTED

Dawn, May 29, 2017

Intikhab Hanif

LAHORE: The city streets wore a literal deserted look as people observed first of Ramazan on Sunday, preferring to remain indoors despite the repeated power suspensions that disallowed them the ideally cool refuge against the heat outdoors.

Canal was undoubtedly the only place in the city thronged by those badly hit by weather and power suspensions. They included Lahorites of all hue — women, children and the old — beating the heat in an otherwise dirty canal's ice cold water.

The rest of the city looked haunted. It appeared as if the hot wind was ruling it taking full advantage of the absence of its inhabitants.

All eateries and stores were closed as were the wholesale and retail markets of all kind. The business at the petrol pumps was bearish and served as a parameter for estimating how many people were on the roads during the day time.

“Are you going office,” asked the worker of a petrol pump in Garhi Shahu. And when asked why he was curious, he said the clientele was abysmally low. “Roza (fasting) and garmi (hot weather) has pushed back people to their homes. We have earned only Rs100,000 as against Rs one million on Sundays,” he said at 4pm.

Streets remained busy in Lahore till Sehari. Afterwards, most of the people, fasting or not, went to sleep which was disturbed in many localities by repeated and extended power suspensions. Those affording solar energy or power generators were an exception.

For the majority, the fire spiting sun and the hot wind were a bogey, and they did not dare leave their abodes which too were not ideal refuge against the harsh weather. There was also less rush in mosques for the mid-day prayer (Zuhr).

Normalcy started returning in the late afternoon when the disc of the sun started gradually losing its strength. The bathers at the canal from nooks of the city too began to return to their abodes, creating traffic mess on different portions of the road on both sides of the canal.

The major indication that life was returning to normal was the rush at the shops selling traditional Iftaar items like samosas, pakoras, sherbet, fruit etc. Mosques where philanthropists had arranged for Iftaar too drew rush.

It was also a day of collecting donations and Ramazan charity by hordes of beggars which have recently invaded the city. Many of these donation collectors could well be fake, trying to use first of Ramazan to make a quick buck. They were present everywhere, in mosques, at samosa shops and outside grocery stores.

A bearded man offered Maghrib prayer at a Gulberg mosque and started seeking ration for Ramazan immediately after the prayer. A few days ago he was seen begging money for the four-month rent of

his house. "I am not a beggar. But I need money to keep the shelter for my family," he was saying. A dust storm, nevertheless, lashed the city at around 9.30pm, sweeping away the accumulated heat. The Met department also expected light rain during the night though.

<https://www.dawn.com/news/1336063/heatwave-advent-of-ramazan-leave-roads-deserted>

SHC RESERVES VERDICT ON PETITION SEEKING INQUIRY INTO HEATWAVE DEATHS
The Express Tribune, May 30 2017

KARACHI: The Sindh High Court (SHC) reserved on Monday its verdict on a petition seeking a judicial inquiry into the deaths of nearly 1,000 residents during the heatwave coupled with severe load-shedding in the city in 2015.

A two-judge bench, headed by Justice Irfan Saadat Khan, reserved its order after hearing arguments from the lawyers representing the non-profit organisations, K-Electric (K-E), the National Electric Power Regulatory Authority (Nepra) and others.

The petitioners, including singer Shahzad Roy, had argued that over 1,000 persons died and 40,000 others suffered heatstroke during the heatwave because the federal and provincial governments did not aptly respond to the situation and delayed declaring emergency until June 23 – when 426 people had already died. The petitioners had also blamed the K-E for the deaths as it had failed to provide uninterrupted power supply that could have mitigated suffering of the citizens during the heatwave.

The petitioner had pleaded to the court to constitute a judicial commission, headed by a retired judge of either the high court or Supreme Court, to establish reasons for the deaths and hold the government functionaries responsible for their failure to take preventive measures. The court was also requested to ascertain the K-E's role during the heatwave.

While hearing the matter on May 24, the bench had come down hard on the power utility's management, stating the court will not sit idle if unannounced load-shedding continues to cause distress to residents. The bench had directed K-E and the relevant authorities to appear on May 25 along with details of measures that they had taken to control the unannounced load-shedding.

On Monday, the petitioners' lawyer, Faisal Siddiqui, argued that entire area should not be deprived of electricity if one person defaults on paying their bill. He added that even if it is a matter of theft of electricity, the person committing the crime should bear the brunt of the power cuts, not those in the adjoining houses.

He added that the K-E should provide electricity to the citizens under the national power policy, but the management was resorting to power suspensions instead of taking action against those involved in power theft. This act of K-E is illegal, he contended.

Siddiqui recalled that the Supreme Court had in 2014 ordered the power utility not to cut-off power supply during the month of Ramazan. But in spite of such order, up to 80% of the areas in Karachi were in the dark during sehri on the first day of Ramazan this year, he stated.

The lawyer further alleged that the K-E management had constantly violated the apex court's directives during the holy month of Ramazan in 2015 and 2016. He said when Nepra sends a show-

cause notice to the power utility, its management obtains a stay order from the court. The lawyer charged K-E with exploiting the judicial system.

Siddiqui argued that K-E should be given directives in the light of Nepra's directions to take action only against those involved in power theft instead of suspending power supply to the entire locality.

A lawyer representing Nepra informed the court that action will be taken against the K-E management, if the power regulator receives any complaints in this regard. To this argument, the judges inquired whether Nepra could act on its own against unannounced load-shedding. The lawyer replied that the authority will take action only if any particular area, where unannounced load-shedding is being carried out, is identified.

Dissatisfied with the reply, the judges asked why the petitioners or anyone else should identify areas to Nepra and why the regulatory body was not monitoring the situation on its own. The bench observed that the petitioners would not have needed to come to the court had Nepra been fulfilling its obligations.

After hearing arguments from both sides, the bench reserved its judgment to be announced at a later date.

Meanwhile, Jamaat-e-Islami (JI) Karachi Amir Hafiz Naeemur Rehman approached the SHC to take action against K-E management for hours-long load-shedding in the city.

After filing the petition, the JI leader said he has requested the court to take the K-E management to task for continuing the illegal practice of suspending electricity supply to the parts of the city despite recovering electricity bills regularly from the consumers.

In the petition, he maintained that under the Article 245 of the Constitution, the army may be requested to take over the power utility as it has failed to deliver to its consumers. He further requested for carrying out forensic audit of K-E.

Rehman alleged that the current management of the KE wanted to escape after plundering Rs200 billion of the public money and the federal government was supporting them in this.

In the petition, the K-E chief executive officer, Nepra and water and power ministry and others have been named as respondents. The matter is likely to be taken up for hearing in the court on May 30.

<https://tribune.com.pk/story/1422325/shc-reserves-verdict-petition-seeking-inquiry-heatwave-deaths/>

MET OFFICE TEAM TO INVESTIGATE GLACIAL MOVEMENT IN GB

Dawn, June 1st, 2017

Jamal Shahid

ISLAMABAD: A team from the Meteorological Department will investigate Khurdupin glacier surge in Shimshal Valley, a tributary to the Hunza River in Gilgit-Baltistan, blocking the Shimshal River.

“At the moment the surge is a source of great concern as it has completely blocked Shimshal River, creating a small lake, which can threaten settlements downstream such as the Passu Village, one of the largest in that region,” said Department of Meteorology Director General Dr Ghulam Rasul, whose team will leave in a few days to study the glacial movement.

In 2010, a similar natural phenomenon occurred in Gilgit-Baltistan when a massive landslide completely blocked the Hunza River, creating the breathtaking 28km long Attabad Lake.

According to Dr Ghulam Rasul, the glacial surge has been caused by, what he called, the geo-glacio-hydrological hazard, in which landslides, gravity and rising temperatures among other factors are all in action at the same time, causing the glacier to move or shift downhill.

“So far, we believe that rising temperatures, a possible impact of climate change, has a greater role in causing the glacial surge. If we look at the temperature of Gilgit alone, it has constantly been hovering around 40°C throughout last week,” said Dr Ghulam Rasul.

The incident came to light when locals started circulating images of a small lake on the Shimshal River.

Dr Ghulam Rasul explained that there were no early warning systems to predict when glaciers could surge. He explained that his department had identified half a dozen other locations in Shimshal Valley, where other glaciers could surge any day. Rising temperatures are likely to cause glacier movements, he said, “And there are numerous other glaciers in the Central Karakoram that are also surging.

There are about 10 to 12 sites in Hunza Valley where massive land sliding and glacier surges are just waiting to happen and could have devastating effects downstream, said Dr Ghulam Rasul.

According to the official, similar hazards have been identified in the Chipurson Valley, bordering Afghanistan and China. The Chipurson Valley experiences two to three glacial lakes out-bursts floods (GLOF) events annually.

GLOF is a type of flood that occurs when the glacier containing a body of water fails. The failure is triggered by erosion, earthquake, increasing temperatures, and a buildup of water pressure or an avalanche, causing the water to overflow.

Dr Ghulam Rasul said such events were extremely rare that occurred once in a hundred years.

<https://www.dawn.com/news/1336633/met-office-team-to-investigate-glacial-movement-in-gb>

TRUMP KEEPS WORLD GUESSING ON PARIS CLIMATE DEAL PULLOUT
Business Recorder, June 1 2017

WASHINGTON: Donald Trump has decided to pull the United States out of the Paris climate accord, US media reported Wednesday, as the president kept the world guessing — saying an announcement will come in the “next few days.”

An American pullout would deal a devastating blow to global efforts to combat climate change less than 18 months after the historic 196-nation pact was signed in Paris, fruit of a hard-fought agreement between Beijing and Washington under Barack Obama's leadership.

Trump said early Wednesday an announcement was imminent on whether the United States will remain part of the landmark deal on cutting carbon emissions.

"I will be announcing my decision on the Paris Accord over the next few days. MAKE AMERICA GREAT AGAIN!" the president tweeted, as several US media reported he had made up his mind to quit the accord.

The Axios website was first to report Trump's decision was made, citing two sources with knowledge of the matter, while other media including CNN, CBS, ABC and Politico reported the White House was expected to announce a withdrawal once details of the process have been worked out.

The United States is the world's second biggest carbon emitter, after China.

Under Obama, Washington had pledged to reduce greenhouse gas emissions by 26-28 percent below 2005 levels by 2025.

Under Trump, who once called climate change a "hoax," the country has resisted intense pressure from its partners to commit to respecting the global accord.

Since taking office on January 20, however, Trump has sent contradictory signals on the Paris deal — reflecting the different currents within his administration, on climate change but also on the wider issue of the United States' role in the world and their relation to multilateralism.

White House spokesman Sean Spicer, asked on Tuesday whether Trump believes human activity is contributing to climate change, told reporters, "Honestly, I haven't asked him that. I can get back to you."

The head of the Environmental Protection Agency Scott Pruitt, who met with Trump on Tuesday, has overtly advocated quitting a deal he judges "bad" for America.

Other top Trump advisers, including daughter Ivanka and Gary Cohn, the head of the president's National Economic Council, are said to favor staying in the treaty. And the corporate world has by and large come out in favor of the US keeping its seat at the table. A dozen large groups including oil major BP, agrochemical giant DuPont, Google, Intel and Microsoft, have urged Trump to remain part of the deal.

Trump's position on the Paris accord was a focal point of last week's G7 summit in Sicily in which leaders of the world's six other largest industrial democracies pressed him to renew the US commitment to the deal.

A frustrated German Chancellor Angela Merkel later warned that Europe "must take its fate into its own hands," citing the differences with Washington on climate change as evidence of their divergent paths.

She described the discussion as “very difficult, not to say very unsatisfactory.”

US Defense Secretary Jim Mattis responded in a television interview Sunday, assuring that Trump was “wide open on this issue as he takes in the pros and cons of that accord.”

Cohn, the Trump economic adviser, also said last week that the president’s views “are evolving.”

UN Secretary-General Antonio Guterres has weighed in, arguing on Tuesday that the United States should not leave the Paris Agreement.

“But even if the government decides to leave the Paris agreement, it’s very important for US society as a whole — the cities, the states, the companies, the businesses — to remain engaged,” he said.—
AFP

<http://epaper.brecorder.com/2017/06/01/6-page/878979-news.html>

GLOBAL CARBON PRICES MUST SOAR TO MEET PARIS CLIMATE TARGET
Business Recorder, June 1 2017

LONDON: The cost of emitting carbon dioxide must rise to \$50-\$100 per tonne by 2030, much higher than the current price in Europe of less than \$6, if countries are to meet climate pledges made under the Paris Agreement, economists said on Monday.

It follows a call this month by a group of more than 200 businesses and governments, including oil majors Shell and BP, for a worldwide carbon pricing system to prevent dangerous levels of global warming.

For now, 40 countries, more than 20 cities and some other areas price carbon emissions using taxes or emissions trading systems (ETS). But the schemes only cover about 15 percent of global heat-trapping greenhouse gases, and the businesses say pricing systems need to be extended to the rest of the world.

The Commission on Carbon Prices, a group of 13 leading economists supported by the World Bank, said in their report that carbon dioxide prices would need to be \$40-\$80 per tonne by 2020, rising to \$50-\$100 per tonne the following decade.

“If we are going to meet the commitments of Paris, we will have to have prices (at those levels) ...

The costs of not doing it will be much higher,” Columbia University Professor Joseph E. Stiglitz, a commission member, told a news briefing.

High prices for carbon dioxide, against which most greenhouse gasses are priced, make it more expensive for firms to emit the pollutants and encourage investment in low carbon technology, such as wind and solar power or energy efficiency measures.

Under the Paris deal, more than 190 countries pledged to keep planet-warming well below 2 degrees Celsius (3.6 degrees Fahrenheit) to stave off the worst effects of climate change.

Prices in Europe's ETS, the world's largest carbon market, now trade around 5 euros (\$5.60) a tonne and are forecast to average just over 16 euros a tonne from 2021-2030.

Stiglitz said it was reasonable to expect global carbon prices to rise much higher and many firms based investment decision on much higher prices than now. Shell and BP work out the feasibility of projects based on a carbon price of \$40.

The commission said carbon pricing needed to be combined with policies to promote energy efficiency, renewable energy and innovation.

While carbon pricing was a good idea for all nations, poorer countries might need to start at a lower level and build to a higher price, the report said.—Reuters

<http://epaper.brecorder.com/2017/06/01/18-page/879085-news.html>

WORLD FORGES AHEAD WITH PARIS CLIMATE DEAL WITHOUT TRUMP

Dawn, June 3rd, 2017

BRUSSELS: The world forged ahead on Friday with the Paris climate deal after President Donald Trump pulled the US out of the pact, triggering bitter condemnation from all corners of the globe.

Trump announced Thursday that his administration would immediately stop implementing the 195-nation accord brokered by Barack Obama in 2015 in tandem with Chinese leaders.

The European Union said it was increasing efforts with China, the world's biggest polluter, to galvanise global efforts to implement the deal while India vowed to stick to the pact regardless of the United States.

Trump also faced a backlash at home where Democratic state governors, city mayors and powerful companies drew up plans to meet the pact's greenhouse gas emission targets.

"Americans will honour and fulfill the Paris agreement by leading from the bottom up — and there isn't anything Washington can do to stop us," former New York mayor and billionaire Michael Bloomberg said. However, Russian President Vladimir Putin spared Trump more

withering criticism and urged the world to work with the New York tycoon on climate.

In Brussels, European Council President Donald Tusk said the EU is "stepping up our cooperation on climate change with China" following a summit with Chinese Premier Li Keqiang.

But EU officials said the two sides failed to formally endorse a joint statement on the issue due to a lingering but separate trade row.

Expressions of shock and regret poured in from around the world, including from Pacific islands at risk of being swallowed by rising seas, who accused Washington of "abandoning" them.

German Chancellor Angela Merkel, the EU's most powerful leader, pledged "more decisive action than ever" to protect the climate after Trump's "highly regrettable" decision.

In a nationalistic “America First” announcement from the White House Rose Garden, Trump said he was withdrawing from a UN-backed deal that imposes “draconian financial and economic burdens” on the United States while going too easy on economic rivals China, India and Europe.

“We don’t want other leaders and other countries laughing at us anymore. And they won’t be.” Trump offered no details about how, or when, a formal withdrawal would happen. At one point he suggested a renegotiation could take place, an idea that was unceremoniously slapped down by partners.

“There is nothing to renegotiate here,” EU climate commissioner Miguel Arias Canete told reporters in Brussels.

Vice President Mike Pence said that Trump “has demonstrated his commitment ... to put American workers, American consumers, American energy, and the American people first.”

Ever the showman, the 70-year-old Trump gave his decision a reality TV-style tease, refusing to indicate his preference either way until his announcement.

Opponents of the pullout — said to include Trump’s daughter Ivanka — had warned that Washington’s global leadership role was at stake, along with the environment.

A dozen large companies including oil major BP, agrochemical giant DuPont and tech heavyweights Google, Intel and Microsoft had urged Trump to stick to the pact.

Following the announcement Tesla boss Elon Musk and Disney chief Robert Iger said they would no longer participate in presidential business councils. “Climate change is real. Leaving Paris is not good for America or the world,” Musk said.

White House officials acknowledged that under the deal, a formal withdrawal might not take place until after the 2020 election, and leaders will certainly push Trump to reconsider his decision in the meantime.

India’s environment minister Harsh Vardhan said his country is committed to the Paris accord “irrespective” of the position of other nations. Indian Prime Minister Narendra Modi — who has said failing to address climate change would be “morally criminal” — is due to visit the White House shortly.

<https://www.dawn.com/news/1337074>

NEWS COVERAGE PERIOD FROM MAY 22ND TO MAY 28TH 2017
RISING SEAS SET TO DOUBLE COASTAL FLOODING BY 2050: STUDY
Business Recorder, May 22, 2017

PARIS: Rising sea levels driven by global warming are on track to dramatically boost the frequency of coastal flooding worldwide by mid-century, especially in tropical regions, researchers said on Thursday.

A 10-to-20 centimetre (four-to-eight inch) jump in the global ocean watermark by 2050 — a conservative forecast — would double flood risk in high-latitude regions, they reported in the journal *Scientific Reports*.

Major cities along the North American seaboard such as Vancouver, Seattle, San Francisco and Los Angeles, along with the European Atlantic coast, would be highly exposed, they found.

But it would only take half as big a jump in ocean levels to double the number of serious flooding incidents in the tropics, including along highly populated river deltas in Asia and Africa.

Even at the low end of this sea rise spectrum, Mumbai, Kochi and Abidjan and many other cities would be significantly affected.

“We are 95 percent confident that an added 5-to-10 centimetres will more than double the frequency of flooding in the tropics,” lead author Sean Vitousek, a climate scientist at the University of Illinois at Chicago, told AFP. Small island states, already vulnerable to flooding, would fare even worse, he added.

“An increase in flooding frequency with climate change will challenge the very existence and sustainability of these coastal communities across the globe.”

Coastal flooding is caused by severe storms, and is made worse when large waves, storm surge and high tides converge. Hurricane Sandy in the United States (2012), which caused tens of billions of dollars in damage, and Typhoon Haiyan in the Philippines (2013), which left more than 7,000 dead or missing, both saw devastating flooding.

Rising seas — caused by the expansion of warming ocean water and runoff from melting ice sheets and glaciers — is also a contributing factor.

Sea level ‘wild card’

But up to now, global estimates of future coastal flooding have not adequately taken into account the role of waves, Vitousek said.

“Most of the data used in earlier studies comes from tidal gauge stations, which are in harbours and protected areas,” he explained. “They record extreme tide and storm surges, but not waves.”

To make up for the lack of observational data, Vitousek and his colleagues used computer modelling and a statistical method called extreme value theory.

“We asked the question: with waves factored in, how much sea level rise will it take to double the frequency of flooding?” Not much, it turned out.

Sea levels are currently rising by three to four millimetres (0.10 to 0.15 inches) a year, but the pace has picked up by about 30 percent over the last decade.

It could accelerate even more as continent-sized ice blocs near the poles continue to shed mass, especially in Antarctica, which Vitousek described as the sea level “wild card.”

If oceans go up 25 centimetres by mid-century, “flood levels that occur every 50 years in the tropics would be happening every year or more,” he said.

The US National Oceanic and Atmospheric Administration (NOAA) predicts global average sea level will rise by as much as 2.5 metres (98 inches) by 2100.

Global average temperatures have increased by one degree Celsius (1.6 degrees Fahrenheit) since the mid-19th century, with most of that happening in the last 70 years.

The 196-nation Paris Agreement, inked in 2015, calls for capping global warming at well under 2C (3.6F), a goal described by climate scientists as extremely daunting.—AFP

<http://epaper.brecorder.com/2017/05/22/16-page/876888-news.html>

ANTARCTICA IS GREENING DUE TO GLOBAL WARMING

Business Recorder, 22 May 2017

MIAMI: Plant life is growing on Antarctica like never before in modern times, fuelled by global warming which is melting ice and transforming the landscape from white to green, researchers said on Thursday.

Scientists studying moss in an area spanning 400 miles (640 kilometers) have found a sharp increase in growth over the past 50 years, said the report in the journal *Current Biology*. Plant life exists on only about 0.3 percent of Antarctica.

“Temperature increases over roughly the past half century on the Antarctic Peninsula have had a dramatic effect on moss banks growing in the region,” said co-author Matt Amesbury, of the University of Exeter.

“If this continues, and with increasing amounts of ice-free land from continued glacier retreat, the Antarctic Peninsula will be a much greener place in the future.”

Five moss cores — or column-like samples drilled from the Earth — showed evidence of what scientists called “change points,” or points in time after which biological activity clearly increased.

Areas sampled included three Antarctic islands — Elephant Island, Ardley Island, and Green Island — where the deepest and oldest moss banks grow, said the report.

“This gives us a much clearer idea of the scale over which these changes are occurring,” said Amesbury.

“Previously, we had only identified such a response in a single location at the far south of the Antarctic Peninsula, but now we know that moss banks are responding to recent climate change across the whole of the Peninsula.”

The polar regions are warming more rapidly than the rest of the Earth, as greenhouse gasses from fossil fuel burning build up in the atmosphere and trap heat.

The Arctic is warming the fastest, but Antarctica is not far behind, with annual temperatures gaining almost one degree Fahrenheit (half degree Celsius) each decade since the 1950s. “The sensitivity of moss growth to past temperature rises suggests that ecosystems will alter rapidly under future warming, leading to major changes in the biology and landscape of this iconic region,” said researcher Dan Charman, a professor at Exeter. “In short, we could see Antarctic greening to parallel well-established observations in the Arctic.”

Researchers on the project also came from the University of Cambridge and the British Antarctic Survey.—AFP

<http://epaper.brecorder.com/2017/05/22/16-page/876887-news.html>

TRUMP PROMISES CLIMATE DECISION NEXT WEEK AFTER G7 STALEMATE

Dawn, May 28, 2017

TAORMINA: President Donald Trump said on Saturday he would decide next week whether the United States would abide by the 2015 Paris agreement on cutting global carbon emissions.

The unexpected announcement came as a summit of G7 leaders in Sicily wrapped up in deadlock on the issue, with US partners voicing frustration at the president’s failure to commit to the deal aimed at stemming global warming.

“I will make my final decision on the Paris Accord next week!” Trump tweeted.

The meeting’s final declaration reflected a stalemate between the US and the six other participating countries, who are all strongly committed to the Paris accord.

“The United States of America is in the process of reviewing its policies on climate change and on the Paris Agreement and thus is not in a position to join the consensus on these topics,” it stated.

“Understanding this process, the [other participants] reaffirm their strong commitment to swiftly implement the Paris Agreement ... In this context, we all agree on the importance of supporting developing countries.”

German Chancellor Angela Merkel criticised what she called “a very difficult, not to say very unsatisfactory” discussion with Trump on the issue.

French President Emmanuel Macron struck a more positive note, saying the talks had been useful. “I think there was progress and there was a real discussion and exchange of views,” he said, voicing hope that Trump would decide to keep his country within the Paris framework.

But Gary Cohn, Trump’s economic advisor, on Friday said the president had told his G7 colleagues that he regarded the environment as important. “His views are evolving, he came here to learn,” Cohn said. “His basis for decision ultimately will be what’s best for the United States.”

<https://www.dawn.com/news/1335806>

NEWS COVERAGE PERIOD FROM MAY 15 TH TO MAY 21ST 2017

TOGETHER WE'RE CUTTING CLIMATE AND DISASTER RISKS

The Express Tribune, May 16, 2017

Robert Glasser

It's a simple fact that as we continue to pump record levels of greenhouse gas emissions into the atmosphere we are ramping up disaster risk around the globe now and for generations to come.

It goes with the sobering reality of warming and rising seas and widespread changes in the Earth's systems that are influencing storms, winds and rainfall.

The toll this takes on human life, economies and government expenditures will be high on the agenda when world leaders gather in Mexico for the Global Platform for Disaster Risk Reduction in late May.

Latest figures show that disasters — 90 per cent of which are classed as climate related — now cost the world economy \$520 billion per year and push 26 million people into poverty every year.

In the 22 years that have passed since COP1, the first UN conference on climate change, we have seen greenhouse gas emissions reach critically high levels which bodes ill for those who already live on drylands, cyclone-exposed coastlines, flood plains, below unstable hillsides or in parts of the world dependent on glacier meltwater.

Over that time span we have also seen a doubling of weather and climate related disasters, which can further weaken least developed countries like Haiti that lost over 600 lives and around a third of its GDP when it was struck by Hurricane Matthew last October. By some recent estimates the bill for Haiti's recovery, from that Category 4 hurricane, comes to \$2.8 billion, an extraordinary sum for a country where 60 per cent of the population lives in dire poverty.

The Philippines lost thousands of its citizens partly due to the slow passage of Typhoon Haiyan across the warming, rising waters of the Pacific Ocean in 2013. And again, the economic losses and the cost of rebuilding ran into billions.

Meanwhile the drylands of the Sahel and southern Africa already at high risk from rising temperatures breached the limits of their capacity to sustain human life adequately in the last 12 months, as country after country declared a state of national emergency and millions suffered the devastation of hunger and the loss of their livelihoods.

Just five years after the first famine of the 21st century was declared over, Somalia is again on the brink underlining the fact that 80 per cent of the world's hungry live in countries which are heavily prone to hydro-meteorological disasters.

Climate change, aggravated by phenomenon like El Niño, is not the only driver of disaster risk but it is the joker in the pack as the world tries to understand how it combines with other key risk factors, such as poor risk governance, rapid and unplanned urbanisation, poverty and environmental degradation.

Much of this understanding and better planning needs to be done now and at the local level. Adopting the Sendai Framework for Disaster Risk Reduction two years ago, UN member states agreed to substantially increase the number of national and local disaster risk reduction strategies in place by 2020. These strategies will be the bedrock for decreasing disaster losses by 2030 through reducing mortality, economic losses and damage to critical infrastructure.

It is imperative that we break down any silos that exist between the exponents of disaster risk reduction whose remit extends beyond climate-related hazards and those whose focus is on climate action. As these national and local plans are put in place there is an opportunity to ensure joined up action across the 2030 Sustainable Development Agenda, including the Paris Climate Change Agreement, and an obligation to avoid duplication of effort. The achievement of many of the Sustainable Development Goals, including those related to poverty, hunger, climate action, sanitation and clean water depend on this.

Both of us recognise that reducing greenhouse gas emissions and keeping global temperature well below 2 degrees C is the greatest long-term contribution that governments, local governments and the private sector can make to disaster risk reduction.

Meanwhile local planning for improved disaster risk management helps create a grassroots, societal demand for action and ever rising ambition, nationally and globally, for climate action above and beyond existing pledges.

The outcome of this fifth global platform has the potential to bring the worlds of disaster risk and climate risk closer together, and that can only be a good thing for resilience, people everywhere and the future stability of our world.

While it is the poor and the vulnerable who are in the firing line now, no country or continent will be immune if we don't take responsibility and seize the opportunity to act today.

<https://tribune.com.pk/story/1410590/together-cutting-climate-disaster-risks/>

POLITICAL PARTIES IN BLISS OF IGNORANCE ON CLIMATE

The Express Tribune, May 20th, 2017.

Mariam Shafqat

LAHORE: Pakistan ranks seventh on the list of countries most vulnerable to climate change, claimed environmental experts on Friday. They termed the situation as an alarming one which needed immediate attention.

Perhaps even more alarmingly, only one of the national-level political parties seemed to pay significant attention to the subject in its manifesto. This was revealed during a workshop organised by Individualland Pakistan (IL) on climate change at a local hotel. IL is a research-based consultancy and advocacy group. The workshop, attended by students and social activists, hoped to sensitise people on climate change and stressed on the need for strategies to counter the threat to the state and citizens.

The workshop also shared the findings of a comprehensive analysis of manifestos of 15 political parties with regards to climate change. The mixed method research, carried out in 2016, focused on estimating the basic understanding of political parties about climate change.

To thoroughly gauge the opinions of politicians on the subject, IL conducted interviews with them. The four-tier analysis started with quantitative word search for “climate change” and the “environment” in the political manifestos of the selected parties.

The study found out that only national level political party consistently mentioned the core word of climate change in their manifestos. The research found out that Pakistan People’s Party Parliamentarians mentioned the word “environment” 28 times and “climate change” nine times. PPP accepted that the phenomenon posed threats to the country. The majority of the climate change mitigation measures mentioned in the manifesto of PPP were related to water and flood management.

The ruling party, PML-N, mentioned the environment 11 times and climate change just twice in its manifesto. The party links climate change to already lost or potential loss of business opportunities. At the same time, Muttahida Qaumi Movement (MQM) and Pakistan Muslim League-Quaid, mentioned the environment just three times in their manifesto, with no mention of climate change whatsoever.

Moreover, the study also discovered out that no party, except for PML-N, mentioned the word global warming in their manifestos. Session moderator Sundas Syed also shared data related to climate change in Pakistan, including the rise in temperatures and decrease in rainfall, with the help of info graphics based on extensive research.

<https://tribune.com.pk/story/1414323/political-parties-bliss-ignorance-climate/>

CLIMATE CHANGE, POOR TECHNIQUE WREAK HAVOC ON CROPS: VC
Business Recorder, May 21, 2017

FAISALABAD: The shrinking profitability in agriculture sector, injudicious use of inputs, poor farming techniques, postharvest practices and effects of climate change on crops are not only making the sector incompatible with the rest of world but also aggravating the woes of the farming community.

This was stated by University of Agriculture Faisalabad (UAF) Vice Chancellor Prof. Dr. Iqrar Ahmad Khan at media briefing on the objectives and successes of U.S. Pakistan Center for Advanced Studies (USPCAS) in Agriculture and Food Security.

He said that sixty percent of water and inputs at the agricultural fields are being wasted due to imbalance usage and unavailability of modern technologies. He said that climate change is playing havoc with the crop production and food security. He said that support price of 40 kg wheat was fix at Rs. 1,300 whereas after including interest rate of banks and other charges, it costs Rs. 1,500 to the government against its international market price of Rs. 1,000.

He said the fast-changing demography, climate change and international trade policies are impacting the economies of the countries. In this scenario, agriculture seems to be more important than what might have appeared as a source of food security only.

He revealed that during the recent seminar at GHQ with Army Chief General Qamar Javed Bajwa as chief guest, Chairman Higher Education Commission Prof. Dr. Mukhtar Ahmad invited the participants to visit UAF if they want to see a visible change in academic ranking and research at any university of the country. He said such encouraging remarks and appreciations at the highest level put a huge challenge for us to make more efforts thereby to sustain the change and good initiatives.

He added that under USAID funded USPCAS, five chairs including climate change, precision agriculture, biotechnology, outreach and policy had been established to address the problem of sector by making it compatible to international market. He said that at the faculty-student exchange program, as many as 138 slots had been created to send to University of California USA for capacity building and to gain from their experience. He said that 50 people out of 138 slots have got the training under the program. He said that the slots had been bifurcated in research, curriculum reforms and stakeholders.

He said in order to achieve its objectives USPCAS-AFS is working in five dimensions including efficient governance and leadership; effective curricular reforms; high quality applied and policy research; internationally competitive multidisciplinary graduate training; and technical and financial sustainability.

He said that USPCAS has initiated commissioned research keeping the need of the farmers and trends in agriculture in view. He said that the University had kicked off three new degree programs including seed science and technology, climate changes and human nutrition. He stated that due to bad food habits and diminishing outdoor healthy activities, 40 percent of population suffers from malnutrition, obesity and other health issues that invite our attention to diversify our food by blending corn and wheat flour and putting other options on the table.

<http://epaper.brecorder.com/2017/05/21/5-page/876566-news.html>

NEWS COVERAGE PERIOD FROM MAY 8TH TO MAY 14TH 2017
EROSION-HIT PEOPLE CRY OUT FOR GOVT HELP
Dawn, May 8th, 2017

Fareedullah Chaudhry

LAYYAH: The residents of the areas threatened by Indus waters erosion have started moving to safer areas along with their belongings and cattle as river water level has started rising.

According to locals, they have started moving their household items and livestock to safer areas on self-help basis in view of the rising Indus waters that play havoc every year in this season.

They deplored “inaction” of the district administration and elected representatives in their hour of need.

They said that more than 300 house of two settlements of Ghoshkori and Korai villages had already been engulfed by the Indus waters.

The residents of Dongiwala village have also started shifting their belongings, including cattle, to safer places. Some of the village residents are also taking doors and windows along after dismantling their kutchha houses to use the material for reconstruction of their abodes at some safer places.

The residents, including Atta Muhammad, Nasir Khan and Ikhalq Ahmed told Dawn the government had announced Rs10 million grant for dykes and spurs to avert river erosion in the area. They said after dumping some 16 truckloads of stones at some places along the river the work was stopped, leaving the other threatened areas at the mercy of floodwater.

Criticising their elected representatives for not taking timely measures to check the erosion, they demanded the government should help the poor residents of the threatened areas.

<https://www.dawn.com/news/1331754>

CLIMATE TALKS OPEN IN BONN, WITH ALL EYES ON WASHINGTON

Dawn, May 9th, 2017

BONN: Uncertainty over America's future in the climate-rescue Paris Agreement loomed large over UN talks that opened in Bonn on Monday to work out the nuts and bolts of implementing the hard-fought international deal.

US President Donald Trump has yet to announce whether he intends keeping a campaign promise to withdraw Washington from the pact in whose birth his predecessor, Barack Obama, was instrumental.

"There's no question that if the US withdraws it is going to create difficulties ... in the negotiations," Paula Caballero of the World Resources Institute think tank said as climate envoys met for their first session since Trump's arrival in the White House.

She was confident, though, that these challenges would not be "unsurmountable", noting that businesses, cities and individual US states were firmly on track to a green energy future.

A total of 196 countries — all except Nicaragua and Syria — are parties to the 2015 deal which Trump threatened to "cancel".

The 11-day Bonn huddle is meant to start drafting a "rulebook" to guide member countries in the practical execution of the pact, which seeks to brake global warming by curbing fossil fuel emissions.

But the negotiations risk being overshadowed by fears that the world's number two carbon polluter will withdraw and throw the entire process into disarray.

The US did send a delegation to the talks, though smaller than in previous years. Delegation head Trigg Talley, who represented the US under Obama, declined to answer questions on the team's new brief.

Earlier, a State Department official said: "We are focused on ensuring that decisions are not taken at these meetings that would prejudice our future policy, undermine the competitiveness of US businesses, or hamper our broader objective of advancing US economic growth and prosperity."

Obama and China's Xi Jinping led a diplomatic push which saw the deal sealed in the French capital in 2015, after years of tough bartering.

Widely hailed as the last chance to stave off worst-case-scenario global warming, the pact was savaged by a campaigning Trump, who called climate change a "hoax" perpetrated by China.

With the rest of the world on tenterhooks ever since, Trump has said he will make his decision before the next G7 meeting on May 26-27 in Sicily.

Some fear a US withdrawal from the agreement would dampen enthusiasm among other signatories for ramping up national emissions-cutting targets.

Current pledges place the world on track for average global warming of around three degrees Celsius over pre-Industrial Revolution levels — far above the limit of two degrees Celsius (3.6 degrees Fahrenheit) targeted in the Paris deal.

The Trump administration has already proposed slashing funds for the UN climate science panel, for the Green Climate Fund that helps poor countries combat global warming, and for the UN climate forum under whose auspices the negotiations take place.

There has been a chorus of appeals from US and foreign business leaders, politicians and NGOs for Washington not to abandon the agreement.

On Monday, 200 global investors managing more than \$15 trillion (13.7 trillion euros) in assets, urged the G7-rich country group, which includes the US, to "stand by their commitments to the Paris Agreement".

"Global investors are eager to open their wallets to a low-carbon future," said Mindy Lubber, president of CERES, a non-profit organisation that works with North American companies on sustainable projects. "But it won't happen without clear, stable policy signals from countries worldwide — in particular, the US government whose waffling on the Paris Climate Agreement is hugely troubling," she said in a statement.

The key mission of the May 8-18 meeting in Bonn is to start drafting "rules" for putting the agreement into action: what information must countries include in their emissions updates, for example, and how must they report? The rulebook must be finished by 2018.

<https://www.dawn.com/news/1331956>

MANGO MAY BEAR THE BRUNT OF CLIMATE CHANGE

Dawn, May 09th, 2017

Khalid Hasnain

LAHORE: The country's mango production will considerably drop this year, as the climate change factor has badly affected a majority of fruit farms and orchards, lowering the yield especially in southern parts of Punjab.

Since Pakistan's last year mango production was reported to be 1.7 million ton with two-third and one-third share of Punjab and Sindh respectively, growers and experts believe this year's yield will be even less than the average production. However, the situation, according to them, is not bad in Sindh reportedly.

“The last year's yield was very encouraging in mango clusters of Punjab, comprising the districts of Khanewal (mainly Kabirwala tehsil), Multan and its Shujabad tehsil, Muzaffargarh and Rahim Yar Khan. But this year, the situation is somewhat bleak, as the climate change has hit the mango belt,” said Syed Fakhar Imam, former National Assembly speaker and a Multan-based progressive farmer.

“But the situation in Sindh is different. Punjab is the main affectee of climate change that hit the mango,” he said.

Mr Imam was of the view that this time the [inappropriate] weather hit the fruit formation mainly.

Punjab is also a major producer and exporter of three main mango varieties—Sindhri, seasonal Chaunsa (formerly known as SamarBehisht/fruit of the heaven) and white Chaunsa (late variety). Since seven percent of the total production is exported each year, some quantity of other varieties — Anwar Ratol and Dosehri—is also exported to various countries, especially Dubai. “The horticulturists and pomologists should find out reasons [for low yield] other than the climate change. They must get last six months' data related to climate, temperature, cold, rainfall, dust storms, humidity, irrigation, use of pesticides etc. And after finding all the reasons, they should make recommendations as to how farmers can maintain good yield,” he said.

Imam expressed dissatisfaction with those deputed to research on such issues. “I wonder, what they have been doing despite witnessing [climatic] changes. They should have done something for the farmers in advance,” he said.

Commenting on the situation, Pakistan Kissan Ittehad Chairman Khalid Khokhar said mango exports would badly come down. “It is possible that Pakistan may not be able to export mango this year, as the yield has reduced to 50pc on an average.”

He said this year March surprisingly turned to be cold like January or February. And later the dust storms and sudden increase in temperature affected the fruit.

“Farmers are worried, as they will hardly be able to recover cost,” he feared.

<https://www.dawn.com/news/1331906>

CHINA INVITES INDIA TO JOIN ONE-BELT-ONE-ROAD PROJECT

Dawn, May 09th, 2017

Jawed Naqvi

NEW DELHI: Chinese Ambassador Luo Zhaohui has called on India to join its One-Belt-One-Road project and assured New Delhi that the China-Pakistan Economic Corridor (CPEC) would not impinge on anyone's sovereign rights.

The Chinese embassy on Monday released the text of Mr Luo's remarks made to an Indian think-tank on Friday.

"Some people in the West misread China and tend to think that the 'Dragon' and the 'Elephant' are inevitable rivals, and that China would not like to see India developing. This conception is wrong. We hope to see India develop well and we are more than happy to help India develop to achieve common development," he said in an address at the United Services Institute.

Despite recent tensions between the two countries, President Xi Jinping and Prime Minister Narendra Modi will have opportunities to meet each other on the sidelines of summits to be held by the Shanghai Cooperation Organisation, G20 and BRICS.

"We need to properly manage differences. As two large neighbours, it is natural that we have some differences. Even family members may have problems," Mr Luo said.

There was a need to set a long-term vision for China-India relations. "Here's my suggestion. First, start negotiations on a China-India 'treaty of good neighbourliness and friendly cooperation'.

"Second, restart negotiation on China-India free trade agreement. Third, strive for an early harvest on the border issue. Fourth, actively explore the feasibility of aligning China's 'One-Belt-One-Road Initiative' (OBOR) and India's 'Act East Policy'," he said.

The OBOR and regional connectivity could provide China and India with fresh opportunities and highlights for the bilateral cooperation. The OBOR is a major public product China has offered to the world. As close neighbours, China and India could be natural partners in connectivity and the OBOR.

"Now the GDP of India is roughly that of China in 2004, some 13 years ago. China leads India by 13 years, mainly because we started reform and opening up 13 years earlier," Mr Luo said.

He said China and India differed in political systems and China enjoys stronger policy consistency. "India's political system has its own advantages, but sometimes may cause fluctuations in its policies or at least in its pace of development. As soon as China set reform and opening-up as its centre task, the whole nation is in full sail."

India still has reservations over the OBOR, saying that the CPEC passes through Azad Jammu & Kashmir, raising sovereignty concerns.

"China has no intention to get involved in the sovereignty and territorial disputes between India and Pakistan. China supports the solution of the disputes through bilateral negotiations between the two countries. The CPEC is for promoting economic cooperation and connectivity. It has no connections to or impact on sovereignty issues," the envoy said.

He recalled that China and India have had successful experience of delinking sovereignty disputes with bilateral relations even earlier.

"In history, we have had close cooperation along the ancient Silk Road. Why shouldn't we support this kind of cooperation today? In a word, China is sincere in its intention to cooperate with India on the OBOR, as it is good for both of us."

The perception that China was partial to Pakistan over others was erroneous. “Some Indian media say that China always puts Pakistan first when handling its relations with South Asia countries. I want to tell you this is not true.

Simply put, we always put China first and we deal with problems based on their own merits. Take Kashmir issue for example, we supported the relevant UN resolutions before 1990s. Then we supported a settlement through bilateral negotiation in line with the Simla Agreement. This is an example of China taking care of India’s concern.”

On promoting India-Pakistan reconciliation, China hopes that both sides could live together in peace.

“The development of China, India, Pakistan and the stability of the whole region call for a stable and friendly environment. Otherwise, how could we open up and develop? That’s why we say we are willing to mediate when India and Pakistan have problems. But the precondition is that both India and Pakistan accept it. We do this only out of goodwill. We do hope that there is no problem at all. When the Mumbai terrorist attack on Nov 26, 2008, took place, I was Chinese Ambassador to Pakistan, and I did a lot of mediation at that time.”

China strongly opposes terrorism and is ready to work with India, Pakistan, Afghanistan and the international community in fighting the menace.

<https://www.dawn.com/news/1331943/china-invites-india-to-join-one-belt-one-road-project>

UN CLIMATE TALKS FRUSTRATED OVER US STANCE

Dawn, May 10th, 2017

BONN: UN climate negotiators in Bonn were left frustrated on Tuesday as the White House postponed a meeting to determine whether the US will stay in the 196-nation Paris Agreement to curb planet-harming fossil fuel.

As uncertainty mounted over the hard-fought pact’s future under US President Donald Trump, China’s leader Xi Jinping came to its defence.

China and France “should protect the achievements of global governance, including the Paris Agreement,” the foreign ministry in Beijing quoted Xi as telling his newly-elected counterpart Emmanuel Macron in a phone call.

Trump’s predecessor Barack Obama, who alongside Xi was instrumental in the agreement’s birth in 2015, also entered the fray on Tuesday. Big emitters like the US and China, he said, must “lead the way” in the fight against climate change. Negotiators in Bonn had their eyes firmly on a White House meeting called to discuss the topic on Tuesday, but a senior administration official confirmed: “It’s been postponed.” No new date was given.

The May 8-18 Bonn meeting is meant to start designing a “rulebook” for implementing the global deal to limit average global warming to two degrees Celsius over pre-industrial levels.

This is the ceiling at which scientists say the planet can avoid worst-case-scenario climate change impacts — rising seas, harsher droughts, more intense storms, disease-spread and conflict over dwindling natural resources.

The agreement was savaged by Trump during last year's US presidential election campaign, during which he threatened to "cancel" it if elected.

The Bonn meeting, a technical discussion held every year to prepare for an annual round of political-level negotiations, has been overshadowed by fears that a US withdrawal would throw the entire process into disarray.

At an open session late on Monday, speaker after speaker reiterated the deal must not be "renegotiated" — a proposal of Trump's Energy Secretary Rick Perry.

Some fear a US U-turn would dampen enthusiasm among other signatories to increase their emissions-cutting targets.

This is key, as current pledges place the world on track for warming much higher than the ceiling of two degrees Celsius written into the agreement.

"If Trump withdraws from the accord, it will be a hard blow but not a surprise," said Seyni Nafo, chief negotiator for the Africa Group.

"It risks undermining the dynamic" of give-and-take built up over years in the UN climate negotiations process.

An American withdrawal would threaten not only its own pledge of cutting emissions 26-28 per cent from 2005 levels by 2025, but also those of poorer countries which depend on funds that rich nations have promised in climate aid.

The new US administration has already moved to cut funding for climate bodies including the UN Framework Convention on Climate Change (UNFCCC) secretariat hosting the annual negotiations.

American participation in Bonn was described as low-key by colleagues. And there has already been a spillover effect.

"There are countries which are more cautious," in making proposals, said a delegate. "They are taking a wait-and-see approach."

<https://www.dawn.com/news/1332200>

STAY IN OR LEAVE THE PARIS CLIMATE DEAL? LESSONS FROM KYOTO

Brad Plumer

International New York Times, May, 12, 2017

WASHINGTON — The architects of the Paris climate accord deliberately designed it to be supple, adaptable to the differing political and economic environments of the nearly 200 countries that signed

it. The authors were mindful of its predecessor, the Kyoto Protocol, which was roundly rejected by the United States because it set binding emissions targets for wealthy countries while letting most developing nations, including China, off the hook.

But now, as forces within the Trump administration continue to debate whether to leave the Paris agreement, they face a far different calculus. The accord, agreed to in 2015, is largely nonbinding, imposing no serious legal restraints on the United States or any other nation. While that makes the treaty a less rigorous plan to fight global warming, it also means there are few compelling reasons to exit.

That flexible structure has given ammunition to those urging the Trump administration to stick with Paris, a group that includes Ivanka Trump, diplomats like Secretary of State Rex W. Tillerson, and hundreds of corporations. The United States, they argue, can stay within the Paris deal and adjust its domestic plans for cutting greenhouse gas emissions however it sees fit. Staying has little cost. Leaving, by contrast, could result in immense diplomatic blowback, send confusing signals to industry and deprive American diplomats of the ability to influence future talks.

Within the White House, Trump advisers like the chief strategist Stephen K. Bannon have urged the president to follow through on his promise to exit the deal. They have tried to argue that staying in the Paris accord could entangle the United States in a series of legal obligations, much as Kyoto did. But this argument has been rejected by both outside legal scholars and those who fashioned the original deal. Even fossil-fuel companies that sharply opposed Kyoto, like Exxon Mobil, have urged the United States to stick with Paris. In a letter to the White House, Exxon argued that the flexible accord was “an effective framework for addressing the risks of climate change.”

or the negotiators of the Paris agreement, this was all by design. The accord includes more safety valves than the Kyoto deal, so that countries like China and India, which are trying to balance emissions against economic growth, would not be scared off.

“Paris was designed to be less brittle than Kyoto, so that it could bend without breaking,” says David G. Victor, professor of international relations at the University of California, San Diego, who had long argued for a Paris-like agreement. “Whether the Trump administration decides to leave or not will be a big test of that approach.”

Under the Paris deal, every country submitted a voluntary pledge for how it planned to address climate change, with no penalties for failing to meet those goals. Todd D. Stern, the lead climate negotiator in the Obama administration, said that the voluntary nature of the pledges was intentional. Unlike with Kyoto, nations would not have to submit to emission cuts dictated from above by United Nations negotiators. They could submit plans tailored to their domestic circumstances and would not have to fear being stuck with them if circumstances changed, as happened to Japan in 2011 after a reactor meltdown at Fukushima forced the closing of the country’s nuclear fleet.

As part of that deal, the Obama administration pledged to cut domestic greenhouse gas emissions 26 to 28 percent below 2005 levels by 2025 as well as commit up to \$3 billion in aid for poorer countries by 2020. China vowed that its emissions would peak around 2030 and that it would get about 20 percent of its electricity from carbon-free sources by then. India would continue to reduce its carbon intensity, or CO₂ output per unit of economic activity, in line with historic levels.

Countries would then meet regularly to assess their progress and increase their ambitions as feasible. While the current pledges would not keep global warming well below 2 degrees Celsius, the agreed-upon goal, there is some evidence that this “soft diplomacy” is nudging countries toward greater action. A recent study from the Grantham Research Institute found that the mere existence of Paris had prodded dozens of countries to enact new clean-energy laws.

With the Trump administration aiming to dismantle a variety of Obama-era climate policies, including the Clean Power Plan, it is unlikely that the United States will be able to meet its earlier goal. Opponents of the Paris deal, including the administrator of the Environmental Protection Agency, Scott Pruitt, have warned that the United States could be on the hook for Mr. Obama’s pledge. But legal experts and architects of the treaty say this is not how Paris was designed.

There is no legal obstacle to simply staying in the treaty and submitting a weaker pledge, and even reneging on aid goals.

“We dealt with this specific question when designing the deal,” Mr. Stern said. “We didn’t want a situation where if something came up and a country couldn’t meet its target, they’d have no choice but to leave.”

The Paris deal does still impose a few smaller legal requirements on countries for reporting their progress and submitting fresh plans over time. But, Mr. Stern said, the administration has ample reason to stay in the talks and shape future rules that govern those requirements.

During both the Bush and Obama administrations, for instance, the United States pushed for all countries to adhere to a single set of transparency rules for reporting emissions, while China has long argued for a weaker set for developing countries. If the United States were to leave, it would lose its ability to shape these discussions.

“If you’re interested in pushing China to do more,” Mr. Stern said, “then the best way to do that is to have us at the table.”

<https://www.nytimes.com/2017/05/09/climate/paris-climate-agreement-kyoto-protocol.html>

IFC PLEDGES \$238M FOR WIND POWER IN SINDH

Dawn, May 13th, 2017

KARACHI: The International Finance Corporation (IFC), which is a member of the World Bank Group, will provide \$66 million and mobilise further \$172m to build the largest wind farm in Sindh, according to a handout issued by the IFC on Friday.

The IFC will provide these funds in a landmark transaction to help build Pakistan’s largest wind power farm.

The financing to Triconboston Consulting Corporation will help construct and operate three 50-megawatt wind farms. Triconboston is majority-owned by the Sapphire Group, a leading Pakistani industrial group, with significant interests in textile and power.

The project is part of the IFC's broader efforts to foster private participation in Pakistan's power sector to increase investments, help diversify energy sources, cut the cost of electricity and reduce the use of polluting and expensive fossil fuels.

Pakistan suffers from frequent power cuts that cost the country an estimated two per cent of gross domestic product (GDP) every year.

"The new wind farm will generate reliable, clean energy at lower prices and help reduce pressure on the country's power grid while mitigating climate change," said Triconboston CEO Nadeem Abdullah.

Sapphire already commissioned its first 52.8MW wind farm in 2015.

This is the first time in Pakistan that a portfolio of three separate plants will be internationally financed by a single consortium, bringing further innovation to Pakistan's project finance market.

The plant is expected to be fully commissioned by the end of 2018 and will make its greatest contributions during the high-demand summer months, providing clean power to about 600,000 residential customers.

"The IFC has been at the forefront of investing and mobilising financing to support private sector participation in Pakistan's power sector," said Mouayed Makhoulf, IFC's director for the Middle East and North Africa region. "This is our fifth investment in wind power in the last three years in Pakistan. The project will also support Sapphire in their diversification strategy in renewables."

The development of wind power contributes to the diversification of Pakistan's energy generation mix by increasing capacity with shorter lead times and also helping to reduce electricity prices.

The work is part of the World Bank Group's Pakistan Transformational Energy Initiative and Joint Implementation Plan, which aims to mobilise \$10 billion in new generation investments to address the country's acute power shortage and improve sector sustainability.

Pakistan represents IFC's second-largest engagement in the Middle East and North Africa region, with over \$5.6bn in cumulative investments committed to date.

<https://www.dawn.com/news/1332761>

WHY LARGE BIOMASS AND WHY INDIGENOUS?

Dawn, EOS, May 14th, 2017

Global warming is caused mainly by gases such as carbon monoxide and dioxide in the atmosphere. This is a fact now known to everyone except only the stupidest among us. During hours of daylight, foliage captures oxides of carbon and water from the air. Chlorophyll, the substance that makes leaves green, uses sunlight to process the oxides and moisture into sugar for the tree's food and releases the oxygen back into the air. This process is called photosynthesis.

The less carbon in the atmosphere, the cooler the earth's temperature. That is an unalterable scientific fact. However, the process of photosynthesis slows down considerably during hours of darkness.

Now, the larger the biomass of the tree, the more carbon it will sequester. A mature banyan or pipal will hold far more carbon than, say, an ornamental rubber plant or even a fully grown date palm. It can hardly be overemphasised that trees of large biomass have the capacity to limit global warming. Moreover, the fact that our planners forever miss is that Pakistan is a hot country where we need shade. Palm trees and bushes are a poor choice for that.

Recent research shows that pipal (*Ficus religiosa*) is perhaps the only tree in the world that continues to release oxygen even in darkness. No wonder ancient Indians worshipped this wonder tree! This is the most beneficial tree if humans are serious in their attempts to control global warming.

This does not mean that simply planting countless pipal trees will halt the spread of greenhouse gases even when we do not take other measures as laid down under the Kyoto Protocol. But pipal can certainly help.

For more than two decades I have cried myself hoarse about the need to keep our foliage indigenous. But we who learn horticulture from our illiterate malis have no sense. The loss: Lahore's bird life. Forty years ago an estimated 170 species of birds were resident in the city. Today we have less than 50. And these few are restricted to Raj period plantations such as Lawrence Garden, Mayo Gardens, Aitchison College and the cantonment.

There are attempts by ignorant babus and their political masters to turn Lahore green. But, mark my words; this will only be a green desert where no birdsong other than the cawing of crows will ever be heard. — S.R.

<https://www.dawn.com/news/1332880>

IFC TO PROVIDE \$238M FOR LARGEST WIND POWER FARM

The Express Tribune, May 14th, 2017.

WASHINGTON: The International Finance Corporation (IFC) will provide and arrange \$238 million in a landmark transaction to help build Pakistan's largest wind power farm to address energy shortages and boost the development of renewable energy, IFC said Friday.

A member of the World Bank Group, IFC will provide \$66 million and mobilise a further \$172 million in financing of Triconboston Consulting Corporation to construct and operate three new 50-megawatt wind farms in Sindh province.

Other financiers include the Asian Development Bank, the Islamic Development Bank, and DEG – Deutsche Investitions-und Entwicklungsgesellschaft.

This is the first time in Pakistan that a portfolio of three separate plants will be internationally financed by a single consortium, bringing further innovation to Pakistan's project finance market.

The plant is expected to be fully commissioned by the end of 2018 and will make its greatest contributions during the high-demand summer months, providing clean power to about 600,000 residential customers, according to an IFC statement.

“The new wind farm will generate reliable, clean energy at lower prices and help reduce pressure on the country’s power grid, while mitigating climate change,” said Triconboston CEO Nadeem Abdullah. Triconboston is majority owned by the Sapphire Group, a leading Pakistani industrial group, with significant interests in textile and power. The project is part of IFC’s broader efforts to foster private participation in Pakistan’s power sector to increase investments, help diversify energy sources, cut the cost of electricity and reduce the use of polluting and expensive fossil fuels.

Pakistan is currently facing power shortages that hamper social and economic development and cost the country an estimated 2% of the gross domestic product every year.

“IFC has been at the forefront of investing and mobilising financing to support private sector participation in Pakistan’s power sector,” said IFC’s director for the Middle East and North Africa region Mouayed Makhoulouf.

“This is our fifth investment in wind power in the last three years in Pakistan. The project will also support Sapphire in their diversification strategy in renewables.”

<https://tribune.com.pk/story/1409312/ifc-provide-238m-largest-wind-power-farm/>

NEWS COVERAGE PERIOD FROM MAY 1ST TO MAY 7TH 2017

CLIMATE CHANGE & SEA INTRUSION: CALL TO AMEND 1994 ACT TO ADDRESS ISSUES

Business Recorder, May 3, 2017

HYDERABAD: One-day consultative workshop on “Review of Sindh Coastal Development Authority Act 1994 & Sindh Coastal Development Plan” was held at Centre for Coastal and Deltaic Studies (CCDS), University of Sindh Campus Thatta as the initiative of Pakistan Fisher folk Forum and Malteser International.

A number of scholars from Government, academia, and NGO shared valuable information and gave suggestions for the improvement in 1994 Act and Sindh Coastal Development Plan.

Prof Dr Mukhtiar Ahmed Mahar, Director CCDS, highlighted the need for focusing on the amendments in 1994 Act considering the current scenario in context of Climate change, sea intrusions/erosion and degradation of delta. He further suggested that the Sindh Coastal Development Authority is working on all the aspects of coastal belt therefore it is necessary that its role may be reviewed.

Akhtar Hussain Samoo, the focal person of Sindh Coastal Development Authority presented detailed contents of 5 and 20 year coastal development plans prepared in 2013. He pointed out that 20 development projects in various sectors are proposed in plan but so far work on any of the projects could not be started due to funding constraints.

Muhammad Moazzam Khan, former Director General marine Fisheries and currently the Technical Advisor WWF Pakistan, expressed that the current SCDA Act 1994 is adequate to start new projects on any of the emerging issues in coastal areas as the amending act is a very complicated and lengthy process. He suggested that rather SCDA may prepare relevant rules and regulations for effective functioning of the body.

Muhammad Ali Shah, Chairman Pakistan Fisherfolk Forum, pointed out that the Coastal Development Plan is not community focused and without the active participation of local people the plan is not going to yield any positive results. He further said that coastal development Plan does not address real issues like reduced flows of Indus river water and silt which is the main reason behind the degradation of entire ecosystem. Prof Dr Muhammad Ali Manjhi also emphasized that the issue of river water flow may be taken seriously as the area downstream Kotri including the coastal areas cannot survive any more without allowing round the year river water as suggested in technical reports.

Prof Dr Anila Naz Soomro said that countries in the world are claiming new land from sea whereas we are losing millions of acres of our land to sea. Hence projects be included in the Coastal Development Plan to check out sea intrusion/erosion and reclaim the lost land.

<http://epaper.brecorder.com/2017/05/03/5-page/871961-news.html>

A PARABLE FROM DOWN UNDER FOR U.S. CLIMATE SCIENTISTS

The International New York Times, May 6, 2017

Hobart, Tasmania — John A. Church, a climate scientist, did not look or sound like a man who had recently been shoved out of a job.

Speaking softly and downing coffee at an outdoor cafe in this old port city, he sounded more like a fellow fresh off a jousting match. “I think we had a win — a bigger win than I ever anticipated,” Dr. Church said in an interview last month.

Australian climate science went through an upheaval last year, one that engaged the press and the public in defending the importance of basic research. In the end, Dr. Church did indeed lose his job, but scores of his colleagues who had been marked for layoffs did not. Some of them view him as having sacrificed his career to save theirs.

What happened in Australia shows the power of an informed citizenry keeping watch on its government. And it may turn out to be a precursor to an attack on fundamental climate research in the United States.

Australian climate science is important not just for Australia, a country of 24 million people, but for the world. Australia is the most scientifically accomplished nation in the Southern Hemisphere, which has expanses of ocean and relatively little land.

In effect, this small country is keeping an eye on half the planet for the rest of us.

Much of the necessary work is done by scientists on the payroll of the country’s principal research agency, known as the Commonwealth Scientific and Industrial Research Organization. It was within that agency that last year’s controversy unfolded.

Budgets at the agency had been under pressure for years, much as scientific budgets have been in the United States. Then in 2015, a new boss, Larry R. Marshall, took over at the behest of the conservative government, controlled by a party known here, oddly, as the Liberals, and led now by Malcolm Turnbull. (Actual liberals join the Labor Party.)

The issue can be overwhelming. The science is complicated. We get it. This is your cheat sheet.

Though Dr. Marshall is Australian, he made his name as a scientific researcher and entrepreneur in the United States. He went back to Australia with the goal of sprinkling some Silicon Valley pixie dust on the agency, doing more to turn its fundamental research into jobs and start-up companies to benefit the economy.

Studying the agency's costs, Dr. Marshall and his aides decided that too many people were working on basic questions about the climate. If he laid off scores of them, he reasoned, he would have money to reinvest in other priorities. Those would include looking for ways to reduce emissions, and to adapt to climate changes that could no longer be avoided.

When they found out about the plan, though, the agency's scientists were dumbfounded. They were entirely in favor of research on solutions, but the notion that basic climate monitoring and analysis could be scaled back struck them as preposterous.

While the world's scientists have established that the planet is warming, that human activity is the main cause and that continued high emissions will pose profound risks, they are still far from having a complete understanding of the planetary climate.

When Dr. Marshall's plan was unveiled, Australian researchers hit the panic button. Among those who swung into action was Dr. Church.

He is an oceanographer and climate scientist with decades of experience. Working from one of the research agency's offices in Hobart, the capital of Australia's island state of Tasmania, he had become known internationally for helping to bring statistical and analytical rigor to longstanding questions about sea level rise. With a colleague, Dr. Church was the first to establish that the rise had accelerated during the 20th century, a strong indication that the pace is linked to emissions of greenhouse gases.

He also had extensive contacts in the Australian press. Dr. Church said that by the time he reached Peter Hannam, a top environmental journalist with The Sydney Morning Herald, Mr. Hannam was already sniffing out the story of the cutbacks. Once he broke it, the situation developed into an international brouhaha.

A flood of internal documents leaked. Thousands of scientists weighed in from abroad, pleading with the Australian government to reconsider. People marched in the streets. Hearings were convened.

Dr. Church stuck his neck out farther than his colleagues. In an open letter to Dr. Marshall, he urged that the cuts be rolled back and accused his boss of being "disrespectful and insulting" toward the agency's employees.

Trying to allay suspicion about his motives, Dr. Marshall took pains to make clear that he accepted the basic findings of climate research. The climate "absolutely is changing," he declared before a committee of the Australian Senate. "It is changing, and we have to do something about it."

Explaining the origins of the controversy, Dr. Marshall said in a recent telephone interview from Canberra, the national capital, “Unfortunately, with a finite funding envelope, you’ve got to make choices where you fund.”

Despite the government’s efforts to quell the controversy, the proposed layoffs became an issue last summer in a hard-fought election campaign, part of a larger argument about the perceived weakness of Australia’s climate policies.

The Liberal-led conservative coalition narrowly beat Labor, but lost seats in Parliament and returned to Canberra in a weakened position. Almost as soon as the election was over, the government partly backed down, with a new science minister, Greg Hunt, declaring that climate analysis would be a “bedrock function” of the research agency.

Originally, scores of scientists and staff members at a research center outside Melbourne had been marked for layoffs, but in the end only 20 or so left, many of them near or past retirement age. The center is now recruiting additional scientists, and may wind up larger than before the fight.

In the interview, Dr. Marshall said he wished he had communicated more effectively with the agency’s employees about the reasons for the shift in priorities. “We are a learning organization, and there are definitely things we’d do differently,” he said.

As the controversy unfolded, Dr. Church was implacable in public, but he said in our interview that he had wrestled with major doubts.

“I had sleepless nights for months,” he said. “I thought, am I doing the right thing by my colleagues? Am I looking after their positions, or am I making it worse for them and for the Australian public?”

The end, he said, came as no great shock. He was on a research ship in the middle of the Southern Ocean when the word came down that his job would not be one of those being saved.

“I’m still angry, in some sense,” he said, citing certain colleagues in the agency who he felt had not defended the integrity of science at a critical moment.

But he was able to take full retirement benefits. His reputation as a man of honor was burnished by the episode, and the University of New South Wales offered him a position that will allow him to continue his work. He expressed gratitude to that institution.

As Dr. Church and I were finishing our coffees, I noted that President Trump had offered a budget outline for the United States that, if enacted, would almost certainly require huge cuts in the basic scientific enterprise of monitoring and analyzing the climate.

Congress will have the last word after Mr. Trump presents a more detailed outline, so there is no way to know how that fight will end. But over two weekends in April, tens of thousands of Americans marched in the streets to defend science and to demand action on climate change.

That means the citizenry in the United States, just as in Australia, is alert and watching. You can bet a lot of American scientists are thinking these days about how they will respond if the government starts gutting climate research.

“I guess somebody in the United States,” Dr. Church said, “has to step out into the public and do what I did.”

https://www.nytimes.com/2017/05/08/climate/a-parable-from-down-under-for-us-climate-scientists.html?_r=0

June 2017

NEWS COVERAGE PERIOD FROM JUNE 26TH TO JULY 1 ST 2017

RISING TEMPERATURES THREATEN PAKISTAN'S FOOD SECURITY EFFORTS

Jamal Shahid

Dawn, June 26, 2017

ISLAMABAD: The steadily rising temperatures pose a serious risk to Pakistan's efforts to achieve sustainable food security and meet the food consumption needs of its fast increasing population, said the Ministry of Climate Change, basing its arguments on various projections of climate change impacts on the country's agriculture and water resources.

“Global warming induced by rising temperatures can badly affect Pakistan's food production system in the shape of crop yield losses and reduced growing cycles in various climatic zones of the country,” said climate change ministry spokesperson Mohammad Saleem.

He said like most developing countries, Pakistan was staring at certain food insecurity with its food production out of sync with the population growth.

Food availability is further threatened by shifting weather patterns with recurring severe droughts and floods that affected the country's overall crop production.

The spokesperson explained that studies carried out by the Global Change Impact Study Centre (GCISC), the ministry's research wing, pointed to an average temperature increase over Pakistan in the coming decades at a pace faster than that of the average global temperature increase.

“The temperature rise in Pakistan may exceed by about one degree Celsius by the end of this century,” Mr Saleem cautioned, quoting the GCISC studies.

Based on crop simulation models of the GCISC, wheat crop yield would be reduced by 3.4pc to 12.5pc in semi-arid irrigated areas, including Faisalabad, Sheikhpura, and 3.8pc to 14.5pc in arid areas such as Hyderabad, Badin, Bahawalpur and Multan.

Around 16pc decline in overall wheat productivity in rain-dependent areas has been forecast in various areas of the Potohar region, including Chakwal district, under different climate change scenarios towards the end of the current century, the study said.

The official said graver impacts of global warming on the country's rice crop had also been predicted.

“The rice crop yields are likely to register a fall by 12 to 22pc in almost all rice growing areas by the end of the century because of the rising global temperatures,” he said.

These simulation models further indicated that the length of cultivation periods of these important crops

would shorten which would lead to plunges in yields of not only rice and wheat but also other crops such as maize and vegetables.

The water requirements of different crops, including wheat and rice, could register a steep rise in coming decades on account of local impacts of global warming induced by rise in the global temperatures.

“The climate simulation models have revealed that net crop water requirements would sharply increase because of the global warming impacts on Pakistan's already shrinking water resources. However, reduced water availability for these food crops in coming decades, which are vital to the country's sustainable food security, may not help meet the rising water requirements of the various crops,” he said, adding: “As a result, the overall productivity of different food crops would decline as long as water conservation technologies, drought-resilient and high-yield crop varieties, rainwater harvesting programmes and direct seeding technologies were not deployed on war-footing.”

The country's agriculture sector still remains mainstay of the national economy that accounts for 21pc share in the gross domestic production, contributed 40pc share in overall employment and 18pc in the overall exports.

“However, protecting country's agriculture sector from fallouts of unfolding global warming-induced climate

change through an effective policy and science as well as technology-based adaptation and mitigation response is a key,” he added.

<https://www.dawn.com/news/134185>

NEWS COVERAGE PERIOD FROM JUNE 19TH TO JUNE 26 TH 2017
AS ASIAN SCORCHERS MULTIPLY, RECORDS FALL AND ATTENTION RISES
Salman Masood And Mike Ives

International New York Times, June 17, 2017

ISLAMABAD, Pakistan — Residents of Turbat, a remote town in southwestern Pakistan, have had to cope with punishingly hot weather for generations. But when the mercury climbed to 129.2 degrees Fahrenheit on May 28 — potentially the hottest temperature ever recorded in Asia — relief proved elusive, partly because Turbat suffers from regular electricity shortages.

Refrigerators stopped working during that May scorcher, as did ice factories.

“It got so hot that people here said that there is no difference between Turbat and hell,” Noroz Bin Shabir, a student from the town, said by telephone. “It was like a fire was burning outside.”

The temperature in Turbat prompted discussions on social media and among extreme-weather experts about whether an Asian record had really been reached.

Had meteorologists in Pakistan rounded up the reading by 0.5 degree Celsius (0.9 degree Fahrenheit), some observers asked, to an Asian record of 54 degrees Celsius, and would that adjustment prevent history from being made?

Randall S. Cerveny, the rapporteur on weather and climate extremes for the World Meteorological Organization, a United Nations agency, later said it was unclear if any rounding had been done. He added that the 129.2-degree measurement, if confirmed, and an identical one from Kuwait last summer, would be the third-highest ever recorded on the planet behind 134 degrees at Furnace Creek, in Death Valley, Calif., in 1913 and 131 degrees in Kebili, Tunisia, in 1931.

The attention paid to the temperature reading in Pakistan highlights how interest in heat records is growing across Asia alongside rising awareness of climate change. Scientists have documented a rise of heat extremes in many parts of the world, and they say the trend is consistent with what they expect on a planet that is warming because of human emissions of greenhouse gases.

“A record is an absolute thing, so it’s not just a little bit better or a little bit warmer or the average has increased by X degrees,” said Susanne Becken, a professor at Griffith University in Australia who studies how people seek information about climate change.

As heat records accumulate, “people get more and more convinced that climate change is happening,” Professor Becken said.

A recent blast of epically hot weather across vast regions of Asia has underscored how extreme heat can severely disrupt daily life, especially in poor countries at low latitudes — a problem that scientists say will worsen as the effects of climate change become more apparent.

Sixteen of the 17 hottest years ever recorded have occurred since 2000, scientists say, and 2016 was both the hottest since modern record-keeping began in the 19th century and the third consecutive record-breaking year.

The heat is pushing people around the world toward the limits of what climatologists call “thermal comfort,” with complex implications for public health and food security.

The effects have been especially dramatic in India, where officials said that more than 2,400 people, mostly laborers and farmhands, died from heat-related illnesses in 2015, the year of a severe heat wave there. That episode, one of four in India since 1998 that each killed more than 1,000 people, ranks as the fifth-deadliest heat wave in history, said Jeff Masters, the meteorology director at the online weather service Weather Underground.

The Indian government created a national prevention and management response plan for heat waves, but experts say that extreme heat in India and beyond still poses disproportionately high risks for the poor. A study found, for example, that when a deadly 2015 heat wave swept through Karachi,

Pakistan, residents with limited education and monthly incomes of less than \$196 faced a significantly higher risk of death.

Unskilled laborers “don’t have the luxury of taking the afternoon off work, so they’ll cool off under a tree for a bit but keep returning to work,” said Shravan Jha, a team manager for the Agriculture Department in Bihar, a province in India’s northeast. “There is lots of poverty here, and let’s say a construction worker takes the day off: How will he feed his kids?”

Another recent hot spot for heat records is Southeast Asia, where monthly mean temperatures in April 2016 were the highest since record-keeping began there in the mid-20th century, a study in the scientific journal Nature Communications reported this month. The heat disrupted crop production, caused a spike in energy use and “imposed societal distress,” the study said.

Extreme heat has returned again this spring, with temperatures in some parts of Southeast Asia and the Indian subcontinent pushing 104 degrees for days on end, often in tandem with shirt-soaking humidity.

“Too much concrete, fewer lakes than we used to have, and all the air-conditioners raise the temperature,” said Nguyen Ngoc Huy, a climate change expert in Hanoi, Vietnam, with ISET-International, a nonprofit research group working on disaster risk management in Asia.

For decades, the highest temperature ever recorded was believed to be a 136.4-degree reading in 1922 from what is now Libya. But in 2012, the World Meteorological Organization rejected it, in part because of what a study described as “potentially problematical instrumentation.” This transferred the record to the 134 degrees recorded in Death Valley more than 100 years ago.

Temperatures at the absolute extreme end of the scale are still rare because they are created by highly unusual atmospheric conditions, Mr. Baddour said, but the odds that Furnace Creek’s record will be broken are growing as the planet warms.

“The next record will be very amazing,” he said. “If it happens.”

NEWS COVERAGE PERIOD FROM JUNE 12TH TO JUNE 18 TH 2017

PA SESSION: SINDH GOVT ALERTED ON FAMINE IN THAR, FLOOD DUE TO MELTING GLACIER

Business Recorder, 13 June 2017

Anwar Khan

KARACHI: Ruling PPP’s MPA on Monday warned the Sindh government of the famine threat in Thar if the drought spell continues beyond August 15 and asked their party government to increase the budgetary allocations for environmental protection.

At a budget debate during the Sindh Assembly session, PPP’s woman legislator, Sharmila Farooqui said that dry weather spell could unleash starvation in Thar if rains did not fall until August 15.

She alerted her party’s government of severe implications of climate change due to melting of glacier that would trigger unexpected floods to ravage crops and caused the province to turn into food insecurity.

Farooqui said that Pakistan is one of those top ten nations that are most-affected from the climate change. She asked the PPP's government to increase budgetary allocations for environmental protection so that the province could be saved from looming climate change. She also criticized the federal government for not doing enough to respond to the climate change issues.

PTI's Khurrum Sher Zaman Khan termed the fiscal budget 2017-18 a 'political drive' for the next elections. He said that the budget offered no relief for the poor. He said that the basic problems remained same as they were ten years ago when PPP took over government in Sindh. He said that the public didn't enjoy potable drinking water, quality education and healthcare facilities anywhere across the province.

"Provincial agriculture income tax remained stagnant at 0.5 percent for the last nine years, as no steps have been taken to increase the revenues from the crops trade," he said, adding that the provincial indirect taxes stand at Rs172.7 billion whereas the direct taxes at Rs12.9 billion, hitting directly the poor. He said that government protects the big agricultural landlords.

The PTI lawmaker also criticized the PPP government for allocating a meagre amount of Rs12 billion to contribute to Karachi's development. He said that ruling party, which is elected from rural Sindh, has no interest in development of Karachi. On development of Tariq Road, he said that the NAB should investigate its reconstruction, as he smelled financial misappropriation of huge money.

MQM's female legislator, Rana Ansar warned the government of increasing Chinese citizens' arrival to the country to develop the CPEC would endanger job opportunities for the local educated youth. She apprehended that CPEC could turn into a danger game instead of game changer. She also feared that Sindh cannot benefit much from CPEC. She told the house that 10 million Chinese would be issued visa to stay in Pakistan.

Dr Seema Zia of PTI raised the issue of female officials being harassed at the Ombudsman for Protection against Women Harassment at Workplace. She said despite complaints to the ministers and concerned authorities, no steps have been taken against those harassing women officials at the ombudsman office. She said that the ministers were not interested in probing into the matter.

"The Sindh government is incompetent to utilize budgetary funds for human development," Dr Seema said, adding that Tariq Road construction has been highly costly. She said that the PPP government cannot govern the province as it ruined Karachi into a garbage stockpile.

PPP's Manzoor Wassan asked the opposition to stop dividing the province on ethnic lines and asked the PML-F and MQM not to talk about election rigging and corruption. He said Sindh government presented fiscal budget for poor people. He said the government has subsidized urea for growers and announced free education from class one to the matriculation.

He again asserted that Keamari and Bin Qasim Towns are the revenue generators for the national exchequer due to their seaports and not the whole of Karachi contributes. He said that the growers do pay agricultural income tax. He showed his tax returns in the house.

PML-N's Aijaz Ali Shah Shirazi complained that the government ignored his development schemes. He said that road infrastructure in Thatta, Badin and Sujawal has been dilapidated. He asked the

government to reopen the closed schools in said districts. He also highlighted the environmental degradation in the coastal belt of the Sindh.

He asked the government to allocate additional water quota for the proposed K-IV project for Karachi, saying “the supply of 1500 cusecs water would badly damage agriculture sector of Thatta and Badin.”

PML-N’s Shafi Muhammad Jamote called the PPP government ‘incompetent’ to take advantages of the 18th Constitutional Amendment for Sindh. He also raised the issue of environmental deterioration as the sewage ruined seas and coasts.

PPP’s Mir Hazaar Khan Bijarani praised his government for the budgetary allocations made to boost agriculture sectors with developing the irrigation systems across the province. He said that the ADP would have a positive impact on yields growth in the province.

Bijarani also criticized the Arab world for severing ties with Qatar and leaving the tiny peninsula isolated. He said that the Arab countries never expressed unity against the atrocities of Israel against Palestinians and India’s against Kashmiris in the last 70 years.

<http://epaper.brecorder.com/2017/06/13/5-page/881959-news.html>

NEWS COVERAGE PERIOD FROM JUNE 5TH TO JUNE 11 TH 2017

TWIN CITIES FALL SILENT DUE TO WEEKEND HEAT WAVE

Aamir Yasin | Ikram Junaidi

Dawn, June 5th, 2017

ISLAMABAD: Temperatures in Islamabad and Rawalpindi hit 45°C and 46°C on Sunday, leading many of the cities’ residents to stay off the roads for most of the day.

According to Met Office representative Rashid Bilal, the temperature in Zero Point, Islamabad, hit 45°C by 4pm.

Khayaban-i-Sir Syed resident Sohail Jameel told Dawn that the temperature over the last two days had been unbearable, so he had chosen to stay at home.

“As most people have been fasting, they become dehydrated if they spend even an hour under the sun. On Sunday, I decided to stay home all day and watch the Pakistan-India cricket match,” he added.

Wali Khan, a poultry vendor in Awan Market, said a number of hens had also died because of the heat. “The situation at poultry farms is the same, due to which not only have they started selling underweight hens but the price for a live hen had also dropped from Rs150 to Rs120 per kilogramme,” he said.

But not everyone in the city was displeased with the heat wave over the weekend.

Mohammad Shaukat, who owns a factory that produces coolers, said despite all his efforts he had not been able to meet the demand for coolers.

“Not only has demand for room coolers increased but the price has as well. I was selling a two-square foot room cooler for Rs4,200 but now the same room cooler is being sold for Rs5,500. I expect there will be high demand as long as it rains,” he said.

Mr Bilal said the Met Office and other departments had issued advisories regarding the hot weather. He said according to the forecast, it may rain on Monday night until Tuesday in various parts of the Rawalpindi division and Islamabad.

The Pakistan Institute of Medical Sciences (Pims) has been receiving nearly 700 patients every day with the complaints of dehydration, diarrhoea and other gastrointestinal problems.

Pims media coordinator Dr Waseem Khawaja told Dawn that up to 14 diseases that result from exposure to the heat had been recognised, including heatstroke, heat hyperpyrexia, heat exhaustion, heat syncope and heat cramps.

“Heat stroke results from the failure of the heat regulating mechanism. It is characterised by very high body temperature, which may rise to 110°F or 43.3°C, and profound disturbances including convulsions, coma and dry hot skin. Sweating is absent, or sometimes excessive.

“The outcome is often fatal, even if the patient is brought to medical centres or hospitals quickly. Treatment consists of rapidly cooling the body in an ice water bath until the temperature falls to 38.9°C,” he said.

Dr Khawaja said complications from heat stroke include an increase in the blood potassium level – which is dangerous for the heart, a decrease in the blood calcium level and possible bleeding, which requires proper treatment.

“A patient suffering from heat stroke should be kept in bed for several days, until the temperature control becomes stable. Heat hyperpyrexia is also associated with failure of the body’s heat regulating system, but without the characteristic symptoms of heat stroke. It means a temperature of above 106°F and may proceed to heat stroke,” he said.

Heat exhaustion is milder than heat stroke and is caused by an imbalance or inadequate replacement of water and salts lost in perspiration due to thermal stress. Dr Khawaja said this usually occurs after a few days of high temperature. Body temperature may be normal or moderately elevated, but it is uncommon for it to exceed 38.9°C.

“Heat cramps are another problem in high temperature, and are due to heavy, muscular work in high temperature and humidity, causing muscle pain. The cause of heat cramps is a loss of sodium and chloride in the blood.”

He added: “Another ill effect of the heat is heat syncope. A person standing in the sun becomes pale, blood pressure falls and he collapses suddenly. There is no rise in body temperature. The condition occurs due to a fall in blood pressure, due to the pooling of blood in the legs as a result of the dilation of blood vessels. Less blood goes to the heart and brain and blood pressure falls.”

Dr Khawaja said heat-related illnesses can be prevented by precautionary measures, such as the replacement of water. People working in high temperature and humidity should be encouraged to drink cool water, and those working hard under the sun require a litre of water every hour, while the requirement for sedentary workers is half a litre per hour.

There should be intervals of rest between intense work, and headaches and dizziness are signs that an individual should shift to a cooler environment and receive necessary treatment. He added that people should be even more careful in Ramazan, when water intake stalls during the daytime.

He added that people should cover their heads when in direct sunlight, and a large bottle of water is necessary every hour in hot climates. Watermelon and cucumbers can also prevent dehydration.

Dr Khawaja also cautioned against leaving children in cars, saying the sudden rise in temperatures in cars can be fatal to children.

In Rawalpindi, the bazaars and roads presented a desert look with the water shortage being the most common complaint among the citizens.

According to the Met Office, a continental air is prevailing over most parts of the country. A westerly wave is likely to enter the upper parts of the country on Monday evening/night and continue for two to three days.

It said mainly hot and dry weather was expected in most parts of the country while very hot weather conditions were expected over plain areas of Punjab, KP and upper Sindh during the daytime. About 100 patients with heat-related diseases visited Benazir Bhutto Hospital (BBH), Holy Family Hospital and the District Headquarters Hospital Rawalpindi.

Many children admitted to the hospitals had fallen ill after drinking contaminated water, taking unhygienic food or staying out in the sun.

Doctors at the three allied hospitals told this reporter that 50pc of the patients were hit by the heat wave. "Sometimes we have to admit more patients than our capacity. Gastro, typhoid, urinary tract infections and vomiting are the main problems," said Dr Haider Akhter of the BBH.

He said the central cooling system of the BBH collapsed as there were more patients against the capacity of the hospital. "The building has a central cooling system but when more patients are admitted it develops faults."

<https://www.dawn.com/news/1337506>

CLIMATE CHANGE IS REAL, PEOPLE
The Express Tribune, June 5th, 2017.

The world faces a dangerous moment, though the media in India is not focused on it. The United States has gone back on its commitment to help reduce global warming. The Paris Agreement was signed in 2015 in which nations agreed to lower the carbon dioxide emissions from their industrial plants and automobiles. This would be done by voluntarily cutting fuels like coal and petrol and diesel

and shifting to solar and wind. India is already the largest market for solar power and because of this the prices of solar energy have dropped very low.

If all nations that signed the agreement met their commitments, the rise in global warming would be limited to 2 degrees Celsius more than it was in the time before industrialisation. China is the biggest source of CO₂ emissions, with 30% of the world's total, followed by the US (15%) and the 28-nation Euro zone (9%). India contributes 7% of the emissions, but has about 15% of the world's population, so on a per person basis, India is not contributing to the problem as China and the US are.

Since India is rapidly industrialising, it can no longer ignore the problem.

We should credit Prime Minister Narendra Modi with having foresight and courage and showing leadership on this issue. He said this week that "Paris or no Paris, our commitment to preserving the climate is for the sake of future generations." The government of India has also said that all cars sold in the country by 2030 will have to be electric. The details of how this will happen are not known but if Modi can pull it off, it will make him a true world leader.

Meanwhile Trump said that he was putting American jobs ahead of concerns on climate change. He claims that if America sticks to its commitments, 27 lakh jobs will be lost in the next seven years. This is disputed and in fact one of the biggest creators of jobs in the US in the last decade has been the electric car and solar industry. It shows how isolated Trump is that even American industrialists and many of its largest companies said that America had taken the wrong decision. One can only hope that the shift from fossil fuels continues.

The data is absolutely clear: climate change is happening as a result of manmade global warming. Since 1880, the earth's surface temperature has risen at an average pace of 0.07°C every decade. This has resulted in a net warming of 0.95°C as of now. Land temperatures have risen faster than the ones of the ocean so far. But this will change by 2030 unless the world's nations cut their emissions. And once the oceans start to warm up, many countries will quickly be in deep trouble.

Indians will be vulnerable in three ways. Climate change will mean higher oceans and this will lead to huge problems in cities like Mumbai and Chennai and Kolkata, near the sea. It will also mean that the monsoon will become much more volatile and unpredictable. This will bring misery down on the Indian farmer.

The third problem will come if we continue using fossil fuels like coal. The source of our coal is the Adivasi belt in Chhattisgarh, Jharkhand and Orissa. The tribals there are being most cruelly exploited and must give up their forests and their lands for the rest of us to get coal. When Mumbai proposed to build a flyover opposite Bharat Ratna Lata Mangeshkar's house, she threatened to leave the country and got it cancelled. Adivasis do not have that power and must give up their land.

Stopping the use of fossil fuels will help all of us. More than 12 lakh Indians die of pollution every year. There is not enough pressure on government and industry to change faster. As a nation, we must use the Trump decision to bring our focus on a problem that has enormous implications not just for India but the entire world.

<https://tribune.com.pk/story/1427522/climate-change-real-people/>

China Looks to Capitalize on Clean Energy as U.S. Retreats

Keith Bradsher

June 5, 2017

Liulong, China — China's devastating pollution problems began here, in coal country, where legions of workers toiled and often died to exhume the rich deposits that fueled the country's sooty rise to economic power.

Today, these muddy plains are home to a potent symbol of China's new ambition: to bypass the United States and cement its dominant role in clean energy.

On a lake created by the collapse of abandoned coal mines, China has built the world's largest floating solar project, enough to provide light and air conditioning to much of a nearby city. The provincial government wants to expand the effort to more than a dozen sites, which collectively would produce the same amount of power as a full-size commercial nuclear reactor.

The project reflects China's effort to reshape the world order in renewable energy as the United States retreats. Such technological expertise will form the infrastructure backbone needed for countries to meet their climate goals, making China the energy partner of choice for many nations.

The wave-proof solar panels are an affordable and viable option for power-hungry countries. Delegations from Japan, Taiwan, Vietnam, Singapore and elsewhere have come to study the project while the maker, SunGrow, prepares to license the technology for overseas sale.

China is capitalizing on the leadership vacuum left after President Trump said last week that he would pull the United States out of the Paris accord to limit climate change.

China has already started an expensive campaign at home and abroad to solidify its considerable hold on solar, wind and other energy-saving businesses. If successful, China would win the economic and diplomatic spoils that the United States and some European countries have long enjoyed from dominating businesses like software, computer chips and airplanes.

China's sway will be on display in Beijing this week at the clean energy ministerial, a gathering of top energy officials from two dozen countries and the European Union that represent producers of three-quarters of the world's greenhouse gas emissions. While the United States will be there, its representatives reflect the country's deep split. Energy Secretary Rick Perry, an enthusiastic supporter of fossil fuel industries, will attend, along with Gov. Jerry Brown of California, a vocal supporter of renewable energy.

China is an unlikely champion in fighting climate change. The country is the world's largest polluter, and its problems could grow as people buy more cars and use more power. It remains deeply dependent on coal, an especially dirty source of power.

And the race in renewables hasn't been won. The United States and European Union accuse Beijing of unfairly subsidizing its green industries and have raised trade barriers against Chinese-made goods. American companies and local governments are set to continue their clean-energy push despite Mr. Trump's withdrawal from the Paris accord.

As with much in china, the clean-energy drive is much more about economic advantage, national security and political stability than an idealistic commitment to saving the earth.

The country's "made in china 2025" program, the heart of beijing's domestic industrial policy, calls for heavy spending on clean-energy research and development, as a way to bolster the economy. State-owned banks are pouring tens of billions of dollars each year into technologies like solar and wind along with energy conservation strategies like high-speed rail and subway lines.

China's "one belt, one road" plan — a \$1 trillion global offensive by president xi jinping to nurture economic and diplomatic ties through infrastructure building — is poised to bankroll clean-energy projects across asia, including the mideast; east africa; and eastern europe. The projects give china an edge, pushing countries to buy from chinese companies.

China is already dominant in many low-carbon energy technologies. It produces two-thirds of the world's solar panels and nearly half of the wind turbines. China is also rapidly expanding its fleet of nuclear reactors and leads the world by far in hydroelectric power.

"it's different from traditional energy, which is dominated by western countries," said li tao, the technical director at ja solar, the chinese supplier of sungrow's panels. "china has an opportunity to surpass western countries in new energy."

Choking pollution problems and worries that rising ocean levels could devastate coastal cities forced beijing a decade ago to begin a campaign to find green solutions. Local governments provided land for nearly free, and state-owned banks handed out enormous loans at very low interest rates. Sometimes government agencies helped companies repay their loans.

Coal is getting far less attention. While china is still building some coal-fired power plants, it has canceled plans for others. Many existing ones are running well below capacity.

"coal is over," said li junfeng, a longtime renewable-energy official at the national development and reform commission, china's top economic planning agency. "every year, it will be gradually reduced, city by city."

China's green campaign is still in the early stages.

The solar industry employs more than one million workers in everything from making panels for export to installing them domestically, though solar accounts for only 2 percent of its electricity needs. By contrast, china has four million coal miners to supply the power plants that generate 70 percent of the country's electricity.

But the clean-energy effort is already transforming coal country.

For decades, yang xuancheng, a former coal miner in liulong, here in anhui province in east-central china, toiled for 12-hour days in sweltering heat. A natural gas explosion killed half his 20-member drilling team.

When mines emptied of coal began collapsing underground, the land subsided and his boyhood village disappeared into a 25-foot-deep hole. The hole soon filled with rainwater and groundwater, creating a mile-wide lake.

The lake is now the home of sungrow's floating solar power project. Mr. Yang, 57, wires together the plastic tubes that carry the connective wiring for the panels.

"this aboveground work is so much more pleasant than the hot air down in a coal mine," mr. Yang said.

Such solar efforts have put china at the leading edge of renewables.

The united states and japan invented many of the key technologies for solar panels over the past half century. But they were more cautious about building very large factories, fearing they would have to cut prices below cost to sell all the panels. Extremely cheap chinese panels have driven dozens of western companies out of business, including several more in recent months.

Chinese players like jinkosolar and trina solar, the world's biggest makers of solar panels, invested heavily in production. Their highly automated plants churn out vast numbers of panels with consistent quality at ever-falling cost.

Gcl group, a large manufacturer in suzhou, now relies on robots for much of its production, from melting the raw materials for the silicon to assembling the final equipment. The company has nearly doubled production in the past four years even while cutting its work force nearly in half.

"if you don't have the factories as a manufacturing base, then new ideas and technical innovation will stay in the air and not amount to anything," said lu jinbiao, an executive vice president at gcl.

That technical know-how is helping chinese companies capture sales in some of the world's fastest-growing solar panel markets, like india and saudi arabia. China is tailoring the technology for developing markets that will need innovative and cost-effective solutions to meet their climate goals.

Ja solar is redesigning some panels for very hot, dry deserts and others for very humid jungles. Doing so will make them cheaper to manufacture than a module created to withstand extreme heat and extreme humidity.

The panels at the lake in liulong are made to be waterproof. Xiao fuqin, the chief engineer at sungrow's floating solar panel project, said delegations arrive almost daily from around china and across asia to examine the nitty-gritty specifications, like how to lay large power cables underwater to connect many panels.

"this technology shows that china is keeping the leading role in solar, as it has for many years," mr. Xiao said. "we have been the pioneers, and pushed our industry another small step forward."

https://www.nytimes.com/2017/06/05/business/energy-environment/china-clean-energy-coal-pollution.html?_r=0

IN INDIA, SLIGHT RISE IN TEMPERATURES IS TIED TO HEAT WAVE DEATHS

International New York Times, June 8, 2017

HONG KONG — A temperature increase of less than one degree Fahrenheit over half a century raised the probability of mass heat-related deaths in India by two and a half times, a new study has found, in the latest sign that even a slight rise can have a grave effect on health.

The study, published on Wednesday in the journal *Science Advances*, found that as the mean summer temperature and the annual number of heat-wave days increased in India from 1960 to 2009, there was a “substantial increase” in related mortality rates.

The climate change researchers also warned that future increases in global temperatures — which are projected to be far greater than those analyzed in the study — could take a “relatively drastic human toll” in India and many other low-latitude countries in the developing world.

The study “provides evidence of not only warming in India, with some parts warming more than others, but also that as warming progresses heat waves become more frequent and more intense,” said David Mark Taylor, a professor of tropical environmental change at the National University of Singapore. (He was not involved in the study.)

With the problem expected to worsen, he added, the challenge is “finding a comprehensive solution rather than a temporary fix that benefits some at the expense of the majority.”

Parts of Asia have experienced record-breaking heat waves in recent years, with temperatures well above 104 degrees Fahrenheit (40 Celsius). In 2015, more than 2,400 people, mostly laborers and farmhands, died from heat-related illness in India, according to the country’s National Disaster Management Authority.

NASA and the National Oceanic and Atmospheric Administration reported in January that the earth’s average surface temperature has risen by about 2 degrees Fahrenheit (1.1 Celsius) since the late 19th century, largely because of human-caused atmospheric emissions of carbon dioxide.

Climate scientists predict that, without preventive action to curb emissions, global mean temperatures could rise by several degrees Celsius by the end of this century and warn that a rise of more than 2 degrees could tip the earth into a future of irreversible rising seas and melting ice sheets.

The goal of the 2015 Paris climate accord was to prevent the worst effects of climate change by limiting the global temperature increase to 3.6 degrees Fahrenheit (2 Celsius). Nearly every country pledged to reduce its emissions. But President Trump announced last week that the United States would withdraw from the accord, saying that it imposed unfair environmental standards on American businesses and workers. (Environmental groups disputed the economic study that he had cited to prove his point.)

The new India study was based on data from the India Meteorological Department showing that in the 50 years up to 2009, the country’s mean summer temperature rose by more than 0.9 degree Fahrenheit (0.5 Celsius). The study also looked at statistics that the department had compiled from newspaper reports and other sources about deaths during heat waves.

https://www.nytimes.com/2017/06/08/world/asia/india-heat-deaths-climate.html?_r=0

FOOD SHORTAGES DUE TO CLIMATE CHANGE COULD FUEL VIOLENCE, UNREST: RESEARCH

Business Recorder, June 10 2017

LONDON: Food shortages caused by climate shocks like drought or floods could exacerbate violence and riots in politically unstable countries, researchers say.

Fragile states that are poor and depend heavily on agriculture are most at risk of violent uprisings since they struggle to cope with climate change, according to a study published this week in the Journal of Peace Research.

“We’ve already started to see climate change as an issue that won’t just put the coasts under water, but as something that could cause food riots in some parts of the world,” said study co-author Bear Braumoeller from The Ohio State University.

The last time the world saw a severe food crisis was in 2007 and 2008, when extreme weather events hit major grain producing regions the year earlier, causing spikes in the demand and cost of food.

The higher prices led to social and political unrest in Morocco, Bangladesh, Tunisia and Indonesia, according to a 2016 report by Global Footprint Network and United Nations Environment Programme.

Drought is becoming more frequent and severe in places like eastern and southern Africa, and that – combined with the recent El Nino phenomenon – is taking a heavy toll on rural lives and economies.

Last April, a rice farmer in the Philippines was killed during protests demanding government assistance after drought linked by some to El Nino hit hundreds of thousands of hectares of farmland.

El Nino, a warming of ocean surface temperatures in the eastern and central Pacific that typically occurs every few years, is linked to crop damage, fires and flash floods.

Moreover, the US-based Center for Climate and Security on Friday said factors like global water shortages, displacement or migration caused by climate change, and rising sea levels also posed serious threats to international security.

Braumoeller said having a stable government was key to placating growing civil unrest and violence in the face of food shortages caused by climate change.

“A capable government is even more important to keeping the peace than good weather,” he said in a statement. “Less vulnerable countries can better handle the problems that droughts or food price fluctuations create.”

Braumoeller said fragile states needed to address instability and invest in sustainable, “greener” industries to increase their economic growth, in order to cope with food shortages due to climate change.

“Development aid is important now and it is likely to be even more important in the future as we look for ways to increase climate resilience,” he said.—Reuters

<http://epaper.brecorder.com/2017/06/10/13-page/881272-news.htm>

July 2017

NEWS COVERAGE PERIOD FROM JULY 24TH TO JULY 31ST 2017

THAR WEARS GREEN AFTER HEAVY RAIN

Dawn, July 24th, 2017

MITHI: Lush green shrubs and wild grass have covered hills, plains and desert area in the wake of widespread torrential rains across Tharparkar region, which have continued intermittently for the past nine days.

Heavy and moderate rain lashed Mithi, Chhachhro, Nagarparkar, Dalhi, Islamkot, Diplo, Kaloi and several other towns and hundreds of villages on Saturday night and Sunday as well.

Besides Tharis, who were naturally jubilant over the heavy rainfall this year after a long dry spell, thousands of picnickers and revelers have thronged various picnic points of the desert region to enjoy pleasant weather and captivating natural beauty unveiled by the continuous downpour.

Huge crowds of tourists from different areas of the province are seen visiting the hills of Karoonjhar, Jain temples, Gaddi Bhit in Mithi town and other places especially during weekends.

Innumerable big and small streams have started flowing downhill towards dams and Rann of Kachh which have added to the natural beauty of the desert, making it picture-perfect.’

<https://www.dawn.com/news/1347193>

HEAT RECORDS IN ASIA — PAKISTAN IS WARMING UP

Shahid Javed Burki

The Express Tribune, July 24, 2017

I was surprised by a conversation I had with a senior official from Islamabad who was visiting Washington to hold discussions with representatives of the Trump administration. I suggested to him that one of the subjects he should take up is the need for America’s continued support for the Paris Climate Accord. “Why should that be of concern to us,” he responded.

“Global warming is their problem, they created it and they should deal with it.” Taken aback, I reminded him that while most of the accumulated carbon in the atmosphere was indeed emitted by today’s rich countries as they were industrialising, the South Asian region was among those that would suffer the most. In this context, some interesting work has been done by the World Bank analysing how Pakistan will be affected by the melting of its glaciers as the globe warms up.

Initially the melting of the ice-cover in the Himalayas will produce floods in Pakistan. These floods will be followed by water scarcity as the bulk of ice accumulated over tens of thousands years is depleted. Pamela Constable, who covers Afghanistan and Pakistan for her newspaper, recently wrote a long story titled, 'Sweltering month magnifies Pakistan's struggles'.

According to her, "Pakistan's water problems run much deeper and have far more potential to devastate the country. Unlike power, water is a finite resource, highly vulnerable to global warming. Pakistan's access to it depends partly on rivers from India, a hostile neighbor, and regionally on Himalayan glaciers that are beginning to melt. By mid-century, experts predict, the country could run out of water entirely."

But this is not the only consequence of global warming—another is the manner and speed with which Pakistan and India are heating up. In a story published by The New York Times on June 18th, it was reported that residents of Turbat, a remote town in southwestern Pakistan, have had to cope with punishingly hot summers for generations. But on May 28th, the temperature climbed to 129.2 degrees Fahrenheit, the hottest temperature ever recorded in Asia. Randall S. Cerveny, the rapporteur on weather and climate extremes for the World Meteorological Organization, a United Nations agency, said that if the Turbat reading is confirmed, an identical one from Kuwait last summer would be the third highest ever recorded on the planet. Those that were higher than these two were 134 degrees at Furnace Creek in Death Valley, California, in 1913, and 131 degrees in Kebili, Tunisia, in 1931.

It is this trend that worries climatologists and should subsequently be of great concern for Pakistan's policymakers. Sixteen of the 17 hottest years ever recorded worldwide have occurred since 2000. The year 2016 was the hottest since modern record-keeping began in the 19th century and the third consecutive record-breaking year. In all probability, 2017 will be hotter than 2016.

Rising temperatures pose a disproportionately high risk for the poor. This is not only because they do not have the means to protect themselves from heat, rather their employers also do not make allowance for hot weather in their work schedule. A study found that when a heat wave hit Karachi in 2015, city residents with limited education and monthly incomes of less than \$196 faced a significantly higher risk of heat-related deaths. Islamabad's policymakers will need to become more conscious of how climate change will affect their country. They should not rest in comfort by assuming that it is not their problem. India is moving aggressively in some areas. It has, for instance, announced that in a few years it will completely switch to electric cars. Pakistan should be equally proactive.

There was hope that the Paris Agreement signed by all nations in December 2015 would save the globe from moving towards an irrecoverable catastrophe. It appeared that states around the world were finally willing to play the role they needed to in order to slow down the rate of increase in global warming. In his book *Why Are We Waiting?*, Nicholas Stern, British economist and a leading expert in climate economics, called for an "energy industrial revolution", but it will not happen without state support. It would be helped by eliminating subsidies for fossil fuels, estimated by the International Monetary Fund at \$5.3 trillion for 2015 (6.5 percent of global output, with the inclusion of spill-over effects such as air pollution).

This is three times larger than state spending on research and development in renewable energy. The decision has now been made to sidestep the obstacles to reach binding global agreements that deliver

a price for carbon. This makes sense. Reaching agreement on the allocation of tradable pollution rights across the border is almost as difficult. Hitherto, global emissions of carbon dioxide per head have risen, not fallen. However, President Donald Trump's decision to pull his country out of the Paris accord is a major setback.

In other words, the world is faced with a problem it cannot afford to brush under the carpet. To move forward, we will need the exercise of an enormous amount of political will since some of the necessary actions will offend powerful interests. This will only be possible and effective if the entire global citizenry works in tandem vis-à-vis the adoption of measures by individual nations, regions, and the international community at large.

<https://tribune.com.pk/story/1465047/heat-records-asia-pakistan-warming/>

WITH MORE SHIPS IN THE ARCTIC, FEARS OF DISASTER RISE

Henry Fountain

International New York Times, July 23, 2017

When the *Crystal Serenity*, a 1,000-passenger luxury liner, sails in August on a monthlong Arctic cruise through the Northwest Passage, it will have a far more utilitarian escort: a British supply ship.

The *Ernest Shackleton*, which normally resupplies scientific bases in Antarctica, will help with the logistics of shore excursions along the route from Alaska to New York through Canada's Arctic Archipelago.

But the escort ship will also be there should the *Serenity* become stuck in ice or if something else goes wrong. The *Shackleton* can maneuver through ice and will be carrying emergency water and rations for the liner's passengers and 600 crew members, gear for containing oil spills and a couple of helicopters.

As global warming reduces the extent of sea ice in the Arctic, more ships — cargo carriers as well as liners like the *Serenity* taking tourists to see the region's natural beauty — will be plying far-northern waters. Experts in maritime safety say that raises concerns about what will happen when something goes wrong.

"It's what keeps us up at night," said Amy A. Merten, who works on maritime response issues at the National Oceanic and Atmospheric Administration.

Although nations with Arctic lands, including the United States, have agreed to assist each other in the event of disaster, there is very little emergency infrastructure in either American or Canadian Arctic waters, or in Russia along what is known as the Northern Sea Route.

Dr. Merten and others give *Crystal Cruises*, the *Serenity*'s owner, high marks for its preparations, and the ship, with the *Shackleton* tagging along, made its first Northwest Passage cruise last summer without incident. Edie Rodriguez, *Crystal*'s president, said the company spent three years getting ready for that first Arctic voyage. "Most important, it was about preparedness and safety," she said.

But what keeps Dr. Merten and other experts on edge is the possibility that a ship that is less prepared could have a problem that would require an extensive search-and-rescue operation.

There are relatively few government icebreakers or cutters in the region, and a long-range airlift by helicopters would be extremely difficult. So an emergency operation would most likely rely heavily on other commercial ships that happen to be in the area. A rescue could take days.

“There’s just no infrastructure for response,” Dr. Merten said. “Things could be O.K. But it would be a difficult situation.”

Among the problems that might befall ships in the Arctic, much of which is still poorly charted, is a grounding that in the worst case could lead to the breaking up and sinking of a ship. In addition to the obvious risk to lives, such an event could cause a spill of thousands of gallons of fuel — thick, heavy oil in the case of most cargo ships — that could be next to impossible to recover.

Mechanical failure, fire or a medical emergency are concerns as well.

Although the Arctic has not been the site of a major disaster involving a cruise ship in recent years, a smaller liner, the Explorer, sank off the Antarctic Peninsula in 2007 after striking an iceberg. Fortunately, several other ships were within 100 miles of the stricken ship, and the 150 passengers and crew were rescued after five hours in lifeboats.

Commercial ships in northern waters have occasionally run into trouble, sometimes with deadly results. In December 2004, the Selendang Ayu, a 740-foot Malaysian ship carrying soybeans and more than 1,000 tons of fuel oil, suffered an engine failure, drifted and eventually ran aground and broke apart in the Aleutian Islands in Alaska. Six crew members died when a Coast Guard helicopter that had just picked them up was swamped by a wave.

Sea ice, which completely covers the Arctic Ocean in winter, gradually melts in the spring and reaches its minimum extent in September. That minimum has declined by about 13 percent per decade compared with the 1981 to 2010 average, according to NASA. Scientists say warming, which is occurring faster in the Arctic than any other region, is largely responsible.

As climate change continues, more of the Arctic will be open to ships, and for longer. Some scientists predict that the region could be completely ice-free in summers by the 2030s or 2040s.

But the amount of activity over all in the region is still small, and a huge rush to the Arctic is not expected anytime soon. Even as ice coverage continues to shrink, conditions will remain variable enough that no shipping company with tight deadlines will try regular Arctic service.

“It only takes a little bit of ice to ruin your day,” said Timothy Keane, senior manager for Arctic operations for Fednav, a bulk shipping operator based in Montreal. “So if ice is in a particular area that you need to go, you’re still blocked from getting there.”

But in September, Russia will start shipping liquefied natural gas to Europe and Asia from Siberia, using 1,000-foot tankers that, by turning around and moving stern-first, can churn through ice up to seven feet thick.

And while the *Crystal Serenity*, with its casino and other amenities, was not built with polar cruising in mind, more than two dozen smaller ships, designed to carry up to 200 passengers and handle moderate ice conditions, are under construction around the world.

Any ship that sails through coastal waters in Alaska, Canada and other Arctic territory is subject to government inspection — to make sure it has the required safety equipment, for instance.

But the United States Coast Guard has only two working large icebreakers, and has not built a new one in four decades. In a May speech, President Trump said “we’re going to build many of them.” Although money for design work has been allotted, the source of funding for actual construction is still unclear.

The amount of shipping in the Arctic is currently so small that it is difficult to justify the presence of additional icebreakers or naval cutters in the region, or a helicopter base that could aid ships far from land.

“You need investment and you need infrastructure to cover this gap,” said Lawson W. Brigham, a former captain of Coast Guard icebreakers who is now on the faculty at the University of Alaska, Fairbanks.

Russia is better prepared, with several dozen icebreakers and more on the way. The Russian military is also building Arctic bases that, while they have been seen in the West as an unwanted military expansion into the region, will have search-and-rescue capability.

But even in the Russian Arctic most of the focus is on ports, said Mikhail Grigoriev, an Arctic shipping expert who is the director of Gecon, a Russian consulting firm. “Sea routes are very poorly developed,” he said, “and the time of approach of rescue vessels is considerable — up to several days.”

Given the lack of infrastructure, many experts argue that the focus should be on preventing accidents — through better training and certification of mariners, and safety requirements for ships. A new Polar Code, developed by the International Maritime Organization, sets some safety standards, but critics say it does not go far enough and includes almost no environmental protections.

Even relatively simple monitoring of ships can reduce the potential for disaster. Ed Page, a former Coast Guard captain, runs a private-public partnership, the Marine Exchange of Alaska, that uses a network of radio receivers to watch over ships around Alaska. Exchange operators can contact vessels that are getting too close to shore — a ship should usually be far from land, so that in the event of a mechanical problem, it has time for repairs without running aground — and have them change course.

Captain Page acknowledged that if something went disastrously wrong with a ship within the 1.5 million square miles of ocean his network covers, “it would be ugly.”

“But we should stop worrying about what we’re going to do when things go wrong,” he said. “We should prevent things from going wrong.”

<https://www.nytimes.com/2017/07/23/climate/ships-in-the-arctic.html?mcubz=>

PAKISTAN MONSOON: HEAVY RAINS, FLOODING KILL 93 PEOPLE
Business Recorder, 25 July 2017

Babdul Rasheed Azad

ISLAMABAD: Floods triggered by monsoon rains have resulted in killing and injuring of more people as death toll from ongoing floods climbed to 93 while 130 got injured.

According to the latest situation report issued by National Disaster Management Authority (NDMA) here on Monday, the ongoing floods have killed 30 people in Punjab, 14 in Khyber Pakhtunkhwa (KP), six in Sindh, 26 in Balochistan, one in Azad Jammu and Kashmir, 13 in Federally Administrated Areas (FATA) and three in Islamabad.

The report said that as a result of devastating floods a total 130 people have been injured and of them 77 in Punjab, 19 in KPK, 17 in Sindh, one in Azad Kashmir and 16 in FATA. The floods have damaged 283 houses of which 34 were in Punjab, 167 in KPK, five in Sindh, 36 in Balochistan, 29 in Azad Kashmir, six in FATA, five in Gilgit-Baltistan and one in Islamabad.

The authority has advised the provincial and district authorities to take appropriate steps to cope with expected flooding in next two days as a new spell of monsoon rains will hit different parts of the country.

The authority said that rainfall activity during July 25-26 is likely to increase. As per latest weather report for next 24 hours, widespread thunderstorm/rain with isolated heavy falls and one or two very heavy falls is expected over South & Southeast Sindh. Scattered thunderstorm/rain with isolated heavy falls is expected over East Balochistan, Rawalpindi, Sargodha, Gujranwala, Faisalabad, Lahore, Sahiwal, DG Khan, Multan and Bahawalpur Divisions along with upper catchments of Rivers Jhelum, Chenab, Ravi and Sutlej. Isolated thunderstorm/rain is expected in KPK.

Owing to possibility of rain in upper catchments of Rivers Jhelum, Chenab, Ravi, Sutlej and Indus, vulnerable communities along reaches of these rivers and their tributaries/ nullahs to be sensitized for requisite measures, the NDMA said.

All rivers are flowing at normal levels except; River Chenab at Marala, Khanki and Qadirabad at low to medium and River Indus at Tarbela, Kalabagh, Chashma and Guddu, River Jhelum at Mangla and River Kabul at Nowshera which are at low level. Medium flood with sharp peak of high flood is expected in River Chenab at Marala. Low to medium level water flows are expected in the nullahs of Rivers Ravi and Chenab.

The authorities so far have distributed following relief items among the floods affectees in KPK, Sindh and Balochistan: 886 tents, 100 food bags, 600 wheat bags, 200 rice bags (25-kg each), 570 blankets, 250 plastic mats, 450 kitchen sets, 1,400 mosquito nets, 150 water tanks, 1,300 jerry cans, 50 lifesaving jackets and 150 gas cylinders.

<http://epaper.brecorder.com/2017/07/25/2-page/891550-news.html>

‘FORESTS KEY TO TACKLING CLIMATE CHANGE’
The Express Tribune, July 29th, 2017

Forests are the most effective way of coping with the global warming-induced climate change which impacts the country's critical socio-economic sectors, particularly agriculture and water.

This was stated by the Minister for Climate Change Zahid Hamid while inaugurating the Monsoon Tree Plantation Campaign at the Rose and Jasmine Park in the capital on Friday.

The minister said that the government plans to plant over 103 million trees across the country over the next two months as a part of a larger plan to reinvigorate the ailing forestry sector of the country.

"Trees, in fact, help protect soil and regulate water on farms, mitigate floods, regulate weather and enrich biodiversity. Besides, crops grown in agroforestry systems are often more resilient to drought, excess rain and erratic weather patterns," the minister said.

An official of the Climate Change ministry later said that the government's plan aims to recover tree cover which had been lost owing to unchecked deforestation in the country over the past few decades.

Speaking on the sidelines of the event, MoCC Spokesperson Mohammad Saleem said that a national forest policy has been approved by the Council of Common Interests (CCI) which will help boost the country's forest cover and its resilience to climate change disasters such as floods, heat waves, sea-level rise, sea intrusion, land erosion, landslides, disappearing of natural water springs in mountain areas, erratic and shifting weather and rainfall patterns.

<https://tribune.com.pk/story/1468967/forests-key-tackling-climate-change/>

NEWS COVERAGE PERIOD FROM JULY 17TH TO JULY 23RD 2017
WITH CLIMATE CHANGE DRIVING CHILD MARRIAGE RISKS, BANGLADESH FIGHTS
BACK

Dawn, July 21st, 2017

Laurie Goering

LONDON: Climate change-driven extreme weather — from flooding and mudslides to blistering heat — is accelerating migration to Bangladesh's cities, raising the risks of problems such as child marriage, according to Unicef's head of Bangladesh programmes.

"In Bangladesh, climate change is in your face. You can't avoid it. You can see it happening," said Sheema Sen Gupta in an interview in London with the Thomson Reuters Foundation.

"Every year you have cyclones, floods, landslides. It's a given. It's now part of everyday living, and the clearest thing you see [from it] is rural to urban migration."

But surging migration to cities by rural families no longer able to make a living from farming or fishing brings other threats, from worsening urban overcrowding to child marriage, as families seek to keep girls "safe" in a new environments.

"I hesitate to say climate change and urbanisation are the major causes of child marriage. But they do compound it and make it a bit more difficult to intervene," said Sen Gupta, who has been in

Bangladesh for seven months and previously worked for Unicef in India, Sri Lanka, Myanmar, Ghana and Somalia.

However, innovative efforts to curb the threat — particularly training young people to help each other — are paying off, with Bangladesh's government now incorporating programmes started by organisations such as Unicef and Save the Children, she said.

Across Bangladesh, more than 4,000 youth clubs have been set up which gather young people regularly to listen to radio broadcasts on human rights issues, health, nutrition and other topics, and then discuss the issues.

Preventing child marriage is one of the main focuses of the groups, Sen Gupta said, with members keeping an eye out in the community for girls at risk, and then, if they see a threat, alerting community leaders, who are able to step in.

“The best tool is the adolescents themselves,” she said. “They intervene — they know who to contact, they have a helpline. They call and say a marriage is planned.”

Better yet, said Sen Gupta, a psychologist by training, the groups have created a growing conviction among many girls that early marriage is not only bad for their health and prospects, but something they can avoid with community support.

“Adolescents themselves are more able to say ‘I’m not getting married’” she said. “Girls are able to stand up to their parents.”

Monitoring of child marriage rates over the last two years suggests that numbers are falling, but Sen Gupta said Unicef is not yet fully confident of the data.

Bangladesh in February passed a Child Marriage Restraint Act, which bans marriage of girls under 18 — a significant change in a country where 18 per cent of girls are married before 15 and more than half by 18, according to a 2016 Unicef study.

However, the new ban has a gaping loophole that allows parents to agree to such marriages in “exceptional circumstances” with a magistrate's approval, Sen Gupta said.

Unicef and other partners are now “trying to frame the rules about what the exception is so everything doesn't become an exception”, she said.

Sen Gupta said that low-lying and densely populated Bangladesh, widely seen as one of the countries most vulnerable to climate change, sees the risks and has proved adept at scaling up successful pilot efforts run by non-governmental organisations into broader government-run programmes.

“Bangladesh has a good framework of climate adaptation, based on the fact that they need to survive,” she said. “Clearly there is an awareness [climate impacts] are increasing and we need to do something.” That is an attitude needed more globally, she said.

“People need to understand how important this is for kids, for their rights, for their development,” she said. “If we don’t look at climate change, at addressing these issues, we won’t make the progress we’re committed to making.”—Reuters

<https://www.dawn.com/news/1346558>

LOW-FLOOD WARNING ISSUED AS INDUS REGISTERS RAPID RISE IN WATER LEVEL Dawn, July 22nd, 2017

Wasim Shamsi

SUKKUR: The irrigation department has issued low-flood warning and declared emergency in all barrages in the province over expected rise in water level in the Indus River within next 24 hours, said the in-charge of control room at Sukkur Barrage, Abdul Aziz Soomro.

Mr Soomro told Dawn on Friday that leaves of staff had also been cancelled. The river level had risen rapidly in the wake of heavy rains in Khyber Pakhtunkhwa and Punjab and it was expected the river would rise to 250,000 cusecs at Guddu Barrage within 24 hours, hence the declaration of low flood at the barrage, he said.

He said that if it continued to rain with the same degree then the department would have to revise the flood status upwards to middle level in the first week of August.

At present water level at Guddu Barrage upstream was recorded at 198,406 cusecs and 187,108 cusecs downstream, 146,890 cusecs at Sukkur Barrage upstream and 102,000 cusecs downstream while water level at Kotri Barrage upstream was recorded at 65,628 cusecs and downstream 51,738 cusecs, said the official.

In the wake of growing fears of flood, Sukkur district administration has decided in principle to evacuate all the people who have occupied embankments of Dadu, Rice and Khirthar canals, according to a meeting presided over by Sukkur Commissioner Mohammad Abbas Baloch.

The commissioner issued directives to the officials concerned to remove encroachments from both embankments of all three canals and immediately get at least 50 foot inspection path cleared.

He stressed that no leniency should be shown towards those who were responsible for creating law and order situation and cases should be registered against such people.

He said the elected public representatives and politicians had made promises with the occupants of embankments that they would be given compensation in lieu of the government land they had been occupying.

He asked the authorities of Sui Southern Gas Company and Sukkur Electric Power Company to immediately disconnect gas and electricity supply to the occupants and submit to him a list of such connections.

The official said that the operation earlier launched against the occupants ended up ineffective and inconclusive because it had been started without planning.

Now, the operation would be launched afresh after thorough planning.

He issued directives to police and Rangers to remove all illegal occupants at all costs and submit a report in this regard to the Sindh government.

The commissioner advised the superintending engineer of irrigation circle to build a metallic road on the inspection path after removal of occupants from canals' embankments so that no one could reoccupy the canals in future.

He directed Sukkur New Taluka Assistant Commissioner Mohammad Yousuf Shaikh to make demarcations after completing survey of occupants and said that talks might also be held with the encroachers to avoid unnecessary resistance.

Officials concerned of police, Rangers, irrigation, revenue and other departments attended the meeting.

<https://www.dawn.com/news/1346793>

EMERGING CHALLENGE: 'OVER 1.6BN PEOPLE MAY FACE WRATH OF CLIMATE CHANGE'

Business Recorder, 23 July 2017

PESHAWAR: The South Asia, the home to 1.6 billion people or about one-fourth of the world's population, fears to face in future the wrath of climate change in the shape of declining water supplies, less production of food and energy and high temperature.

If timely efforts are not made to address climate change, poverty position may further aggravate in South Asia and the countries will not be in a position to make progress on Sustainable Development Goals, said Director Climate Change Centre, University of Agriculture in Peshawar, Prof Dr. Muhammad Zulfiqar.

Although South Asian countries have potential to generate energy and water available for food production, climate change remains a challenge, he said while addressing the SAARC regional consultation meeting on water, energy and food nexus in Thimphu on July 4.

Dr Muhammad Zulfiqar said food and water are essential for existence whereas energy is key to human development, emphasizing on sustainable management and exploitation of natural resources.

He said most of the South Asian countries depend on single source for more than 50 percent of their energy production, suggesting exploiting diversified resources for sustainability.

Giving the example of Bhutan, he said, it possesses the potential to generate 30,000 megawatt of electricity with 72 percent of the country's population already having access to electricity. Bhutan also has the potential to generate an average of four kWh/m²/day of solar energy.

He noted that apart from increasing population and declining agricultural land, climate change is an emerging key challenge for food, water, and energy nexus in South Asia. He said the global increase

in temperature causes shift in snow and rainfall period, such as from December and January to February, March or April.

The latter months he said have low retention capacity and the high intensity rainfall fuels floods and glacial lake outburst flood, Dr Muhammad Zulfiqar said and added with the increase in temperature, a decrease in precipitation is observed for all SAARC member countries except for Pakistan during the past century.

He further stated that less production of food and energy due to declining water supplies in the long run, high temperature causing increase in crop water requirements, energy scarcity, climate refugees due to drought, desertification and high intensity floods, are other affects of climate change.

The region accounts for 59 percent of the planet's water consumption and 51 percent of the population is food and energy deficient, he informed the moot. To address climate change issues, Dr Zulfiqar recommended countries to promote energy efficient technologies and local adoption of complementary policies and investment in water, energy and food sectors as well as focus on local level adaption plan.

<http://epaper.brecorder.com/2017/07/22/19-page/891078-news.html>

NEWS COVERAGE PERIOD FROM JULY 10TH TO JULY 16TH 2017
ENVIRONMENTALISTS SAY CLIMATE CHANGE THREAT TO FOOD SECURITY
The Express Tribune, July 14th, 2017.

LAHORE: Environmentalists said climate change due to global warming can affect agricultural output, thereby threatening the country's food security situation.

“There is a dire need to adopt measures on war-footings to create awareness among the farming community about the impacts of climate change,” Deputy Director Ministry of Climate Change (MoCC) Muhammad Saleem Shaikh said.

He informed media persons that the ministry had directed provinces to take steps to cope with impacts of climate change particularly the agriculture and livestock sectors. He added that agriculture was the backbone of Pakistan's economy and makes up 21% of the country's GDP along with employing 45% of the labour force.

Sustainable Development Policy Institute (SDPI) environmental expert Kashif Salik said various studies showed that steadily rising temperatures were posing a serious risk to country's efforts for achieving sustainable food security and meet food consumption needs.

“Growth in agricultural output is linked to temperature and rise in temperature adversely affects crops and fodder,” he said, adding that immediate action is needed to cope with the situation.

Former senior director of World Wide Fund for Conservation of Nature (WWF) Dr Ijaz said that climate suitability of crops needs to be considered before planning cultivation to obtain optimum yields.

“The farming community was persuaded [during my tenure] to use modern methods of cultivation in the areas which were prone to climate change,” he stated, adding that increased application of biotechnology innovations can allow farming of carbon absorbing crops and seeds.

Prominent environmentalist Mehmood Khalid Qamar said that deforestation was causing climate hazards. He highlighted massive deforestation as the main cause of the global climate change and urged the government to initiate reforestation efforts like the K-P’s ‘billion trees tsunami’ campaign.

<https://tribune.com.pk/story/1457490/environmentalists-say-climate-change-threat-food-security/>

PAKISTAN TO EXPERIENCE EXTREME TEMPERATURES, WARNS ADB

Dawn, July 15th, 2017

Amin Ahmed

ISLAMABAD: An increase in temperature of six degrees Celsius has been projected for the Asian landmass by the end of the century, said the Asian Development Bank (ADB) on Friday.

According to an ADB report, Pakistan is among the few countries which could experience significantly hotter climates with temperature projected to increase by eight degrees Celsius.

The report — “A Region at Risk: The Human Dimensions of Climate Change in Asia and the Pacific” — said the increase in temperatures would lead to drastic changes in the region’s weather systems, agriculture and fisheries sectors, land and marine biodiversity, domestic and regional security, trade, urban development, migration and health.

The findings highlight the severity of consequences of unabated climate change in Asia. The report warned that more intense typhoons and tropical cyclones were expected to hit Asia and the Pacific region.

Under a business-as-usual scenario annual precipitation is expected to increase by up to 50 per cent over most areas, although countries like Pakistan and Afghanistan might experience a decline in rainfall by 20-50pc, the report added.

Increased vulnerability to flooding and other disasters would significantly affect the region and the world economically, the ADB stressed, adding that climate change also posed a risk to health in Asia and the Pacific.

Already 3.3 million people die every year due to the harmful effects of outdoor air pollution, with India, Pakistan and Bangladesh being the top countries reporting such deaths.

Despite the rapidly emerging risks, Asia’s emissions of greenhouse gases are rising, not only creating global negative externalities but also immediately impacting the region’s own local population in the form of hazardous levels of air pollution.

According to the report, poor air quality affects the daily lives of citizens of Bangkok, Beijing, Delhi, Karachi, Patna and many other places. The top four countries in which these deaths occur are in Asia — China, India, Pakistan and Bangladesh.

A warmer climate for the region could endanger energy supply, the ADB pointed out. Climate change can exacerbate energy insecurity through continued reliance on unsustainable fossil fuels, reduced capacities of thermal power plants due to a scarcity of cooling water and intermittent performance of hydropower plants as a result of uncertain water discharges, among other factors.

Another concern highlighted in the report concerned low storage capacity of dams and reservoirs. Although Asia experienced rapid expansion of dam and reservoir storage over recent decades, said the ADB, the existing storage remained low when compared to many advanced economies.

Countries such as Bangladesh, India, Indonesia, Pakistan and the Philippines exhibited low storage capacity, thus making them vulnerable to discharge variability, the report said.

<https://www.dawn.com/news/1345435>

FRESH WET SPELL TO HIT PAKISTAN TODAY

Intikhab Hanif

Dawn, July 15, 2017

LAHORE: This year's monsoon rains have left 70 dead across the country since the season began on June 26, the National Disaster Management Authority (NDMA) said on Friday, adding that relevant national organisations are gearing up to meet the challenges of a fresh spell of widespread showers expected to begin on Saturday (today).

On Friday, several areas in Sindh — the first province hit by the latest weather system — received moderate to high rainfall in Islam Kot (57mm), Badin (40mm), Mithi (31mm), Diplo (20mm), Chhor (16mm), Nagarparkar (14mm), Chachhro (12mm), Dahli (8mm) and Karachi (1mm). Lahore experienced heavy but scattered rainfall with 47mm of rainfall recorded at the Met Department's Jail Road office.

The Flood Forecasting Division in Lahore, however, said that there was no immediate threat of river flooding. The Met Department reiterated that the new monsoon system would cause widespread rainfall, with scattered heavy showers and one or two very heavy showers in southern and south-eastern Sindh and eastern Balochistan till Monday.

The current rain spell is centred over north-eastern Punjab from Lahore to Rawalpindi/Islamabad, Azad Kashmir and northern parts of the country. Gujrat, Gujranwala, Jhelum and Rawalpindi-Islamabad should brace for heavy rain showers.

<https://www.dawn.com/news/1345441>

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<https://www.dawn.com/news/1345435>

ADB-PIK STUDY IDENTIFIES RISKS: PAKISTAN MAY EXPERIENCE 20-50PC DECLINE IN RAINFALL

Business Recorder, 15 July 2017

Tahir Amin

ISLAMABAD: Pakistan may experience a decline in rainfall by 20-50 percent and experience significantly hotter climate, which would lead to drastic changes in weather system, agriculture, regional security, trade and health.

This has been stated in a report titled “A Region at Risk: the Human Dimensions of Climate Change in Asia and the Pacific,” jointly produced by the Asian Development Bank (ADB) and the Potsdam Institute for Climate Impact Research (PIK).

The report maintained that people whose livelihoods depend on agriculture will be immediately affected by changes in the natural environment. The vulnerability of farmers in Punjab province of Pakistan to climate-related risks was aggravated by already existing constraints on available freshwater, access to income, and a fragile infrastructure. Their capacity for adaptation is impaired by a lack of knowledge as well as resource scarcity.

While precipitation in Pakistan has always experienced large-scale variability, the past few decades have shown a significant increase in both dry and wet spells, with northern Pakistan experiencing a significant decline in rainfall notably during the winter season, whereas the southern Indus Delta has seen a moderate increase in rainfall, which mainly results from frequent local heavy precipitation spells.

Myanmar, Philippines, Bangladesh, Vietnam, Pakistan and Thailand are among the world’s top 10 countries most affected by extreme weather events.

Furthermore, climate change could impact the variability of the monsoon and lead to changes in the intensity and timing of precipitation. This would further aggravate the water stress already present in the region at present, as farmers have to be able to plan for the monsoon onset and withdrawal in order to effectively farm their land (eg ploughing day).

Unabated climate change would bring devastating consequences to countries in Asia and the Pacific, which could severely affect their future growth, reverse current development gains, and degrade quality of life.

The report states that under a business-as-usual scenario, a 6 degree Celsius temperature increase is projected over the Asian landmass by the end of the century. Some countries in the region could experience significantly hotter climates, with temperature increases in Tajikistan, Afghanistan, Pakistan, and the northwest part of the People’s Republic of China (PRC) projected to reach 8 degree Celsius.

These increases in temperature would lead to drastic changes in the regional weather system, agriculture and fisheries sectors, land and marine biodiversity, domestic and regional security, trade,

urban development, migration, and health. Such a scenario may even pose an existential threat to some countries in the region and crush any hope of achieving sustainable and inclusive development.

The report further states that 3.3 million people die every year due to the harmful effects of outdoor air pollution, with the PRC, India, Pakistan, and Bangladesh being the top four countries experiencing such deaths.

It is estimated that in India, Bangladesh and Pakistan, approximately 130 million people reside in low-elevation coastal zones and are at risk of being displaced by the end of the 21st century under worst-case scenarios.

Climate change will also make food production in the region more difficult and production costs higher. In some countries of Southeast Asia, rice yields could decline by up to 50% by 2100 if no adaptation efforts are made.

Moreover, a warmer climate for the region could endanger energy supply. Climate change can exacerbate energy insecurity through continued reliance on unsustainable fossil fuels, reduced capacities of thermal power plants due to a scarcity of cooling water, and intermittent performance of hydropower plants as a result of uncertain water discharges, among other factors. Energy insecurity could lead to conflicts as countries compete for limited energy supply.

<http://epaper.brecorder.com/2017/07/15/3-page/888953-news.html>

NEWS COVERAGE PERIOD FROM JULY 2ND TO JULY 9TH 2017

H2 MAY PLAY KEY ROLE IN SOLVING GLOBAL WARMING, ENERGY SECURITY ISSUES, SAYS EXPERT

Dawn, July 2nd, 2017

Shazia Hasan

KARACHI: “Japan introduced Liquefied Natural Gas in 1969 but it gained popularity after prices of crude oil went up,” said Dr Ko Sakata, director, Hydrogen Programme, Institute of Applied Energy, Japan.

He was speaking at a symposium on ‘Hydrogen, Carbon-free Fuel, Democratising the Energy’ organised by the Pakistan Academy of Engineering (PAE) at a hotel here on Saturday.

In his keynote speech on ‘Global hydrogen energy system towards the sustainable low-carbon society’, Dr Sakata explained about the hydrogen boom in the last century. “It is currently the dominant energy in the world,” he said, adding that “the dissemination of energy systems is strongly dependent on external factors, such as global warming, resource of fossil fuel, geopolitics, competing energy systems, etc.”

He said that the introduction of hydrogen, carbon-free fuel or CO₂-free H₂ was expected to induce innovation in supply chains. Also, large-scale import of H₂ and realisation of distributed energy system based on H₂ are the key factors in solving the issues of global warming and energy security, he added.

“There is a need for carrying out a full-scale study in terms of economy and safety,” he said.

“Putting H2 systems on the future technology portfolio, continuous research and development and exploration of business model is important,” he added.

Speaking about his own country, he said that the introduction of LNG had helped them a lot. “More energy was needed for customers in Japan and LNG was most suitable because it had higher combustion energy,” he said. But LNG was more expensive than crude oil when it was first introduced in Japan. “Then the government brought in tax incentives to bring its cost down. By 1973, crude oil also went up in price and LNG costs became competitive,” he added.

President of the PAE Dr Jameel Ahmed Khan said: “It is a settled issue in the scientific and engineering community that H2 is the future energy vector. All the developed countries of the world are seriously preparing themselves for the H2 economy.

“So how far is H2?” he asked. “Decarbonisation of the European energy system using H2 is estimated to be accomplished by 2030. The government of Japan, too, has recently launched their ‘Hydrogen Society Strategy’ aiming to establishing a ‘Hydrogen society’ by 2040,” he said.

“However, the success of H2 economy will depend upon how efficiently we produce H2 and use it in the energy conversion systems. At present all the products and materials of the chemical industry are totally reliant on fossil feedstock. This compulsion generates sufficient motivation to develop a sustainable process to produce fuels and chemical feedstock from water and carbon dioxide using solar energy,” he said.

“H2 produced from solar energy has established itself as the most efficient, cleanest and non-petroleum commercial fuel of the 21st century,” he pointed out. “The conversion of sunlight into fuels and chemicals offers an attractive prospect for energy storage.

Therefore, major efforts are being made to develop efficient catalysts for water splitting as well as CO2 reduction,” he said.

“Solarised production of H2 will also make the energy available right at the point of use. ‘Energisation’ of rural areas will be possible through solar hydrogen in a competitive manner. This is what we mean by the concept ‘Democratising the energy’,” he added pointing to the theme of the symposium.

Chairman, Department of Automotive and Marine Engineering, NED University, Syed Mushahid Hussain Hashmi, meanwhile, spoke about the current status of fuel cell technology.

Business Development Manager at Linde Pakistan Limited, engineer Ghufran Bala, presented an overview of the ‘Demo/pilot project using membrane process for H2 production at Mainz, Germany.

Mr Toshikazu Isomura, the Consul General of Japan in Karachi, also spoke (in fluent Urdu) on the occasion.

<https://www.dawn.com/news/1342591>

K-P GOVT TO SWITCH PROVINCIAL HEALTHCARE CENTRES TO SOLAR

The Express Tribune, July 4th, 2017.

PESHAWAR: With the shortfall between power generation and demand not yet bridged, the Khyber-Pakhtunkhwa (K-P) government has decided to overcome the power problem in government-run health facilities through solar power.

Apart from providing power to healthcare facilities around the clock, the move hopes to save on grid electricity, apart from slicing the power bill of public institutions and boost its green footprint.

The solar plan, shared by the government on social media, proposes spending Rs344 million in 2017-18 across the province, including Rs241.43 million on setting up solar panels for major hospitals and other health facilities in the urban areas and Rs102.56million for district hospitals.

The plan, however, would not provide power to any offices of the health department.

The entire plan is expected to 'pay back' its cost – by saving on power bills and lost productivity – within a period of 30 months.

The plan was undertaken after the health department undertook a survey following complaints of massive disruption in providing healthcare owing to power failures.

The survey of basic health units, with the aim of providing services around the clock at the district level including at Rural Health Centres (RHC), was conducted by an Independent Monitoring Unit (IMU).

It reviewed power supply problems and determined the cost of energising these facilities using solar power. The IMU found that 60 of the 1,258 facilities in K-P were operating without any power, while 121 were witnessing 10-hours of load shedding.

Further, the IMU report showed that 14 per cent of the 221 RHCs falling in category-A of K-P healthcare facilities [excluding tehsil headquarters and district headquarters hospitals] such as sub-health centres, a clinic for tuberculosis, leprosy centre, were without power.

Officials at the K-P health ministry stated that 33 per cent out of the health facilities which the IMU had identified as having electrical problems, did not have any power. The remaining 77 per cent had non-functional electric supply including load shedding or low voltage.

According to K-P Health Secretary Abid Majeed's post, most of the facilities which had no electricity supply were found in Kohistan and Mansehra districts. Shangla and Swat had the second highest number of facilities which did not have any power.

The highest number of facilities where there was either partial supply of power or had interrupted power were from Battagram where there were 25 health care facilities which were experiencing over 20 hours of load shedding a day. Its surrounding districts such as Abbottabad, upper and lower Dir and Peshawar were also suffering.

The IMU also calculated the maximum power load of each facility based on the electric power consumption rating of all devices used in the facility such as lamps or motors connected to a distribution system. Based on this rating, the health department determined that an estimated 3,311 kilowatts of power was required to run the health care facilities on solar energy at an estimated cost ranging between Rs4,500 to Rs8,000 per kilowatt.

Based on the lower calculation, Rs4,500/kw would require Rs14.8 million while on the higher side, it would cost Rs26.5 million.

When contacted, K-P Health Secretary Abid Majeed stated that the department was trying to make arrangements to provide providing health care services to people around the clock, especially diagnostic services.

However, he said that even if the department manages to ensure the presence of staff members at the facilities but does not carry out investigations, it does not fulfil the objectives of the department.

“Our aim is to provide around the clock service including diagnostic services based on green [solar] power,” Majeed told The Express Tribune.

<https://tribune.com.pk/story/1449604/k-p-govt-switch-provincial-healthcare-centres-solar/>

TRUMP MAY FIND SOME ALLIES ON CLIMATE CHANGE AT G-20 MEETING

International New York Times, 7 July 2017

Western European efforts to isolate President Trump for rejecting the Paris climate change agreement appear to be faltering as leaders gather for a summit meeting in Hamburg, Germany, at the end of the week.

The gulf between Mr. Trump’s worldview and that of most European leaders on topics from trade to immigration will be on display in the coming days. But nowhere is the difference as stark as it is on climate change, which Mr. Trump has mocked as a hoax.

In announcing last month that the United States would withdraw from the Paris agreement, the president portrayed the pact signed by 194 nations to cut planet-warming emissions as a bad deal for America.

The German chancellor, Angela Merkel, has cast the agenda of the Group of 20 summit meeting as a stark contrast to Mr. Trump’s America First approach, particularly on climate change. She has called the Paris accord “irreversible,” and diplomats have expressed hope that the 19 other countries would make it clear that their support is unwavering. Environmental activists, hoping to highlight America’s status as an outlier, also are pushing hard for a united front against Mr. Trump.

In recent days, however, those aiming to isolate the United States on climate issues have softened their language to say they hope an “overwhelming majority” embrace the Paris agreement. Saudi Arabia has indicated it is unlikely to climb on board and Russia, Turkey and Indonesia are sending mixed signals about how forcefully they will declare their support for the Paris deal.

“Huge efforts are underway now to make sure as many countries as possible hold the line and compensate for America’s withdrawal by redoubling their efforts. How far this goes, I have my doubts,” said Dennis Snower, president of the Kiel Institute for the World Economy, a leading German think tank advising the European Commission ahead of the summit meeting.

“It doesn’t look good,” Mr. Snower said. “It does not look like we are going to have 19 countries and the United States against.”

The Group of 20 meeting is the first high-level diplomatic gathering since Mr. Trump announced last month that America would exit the Paris agreement. How full-throated a case other rich nations are willing to make for the climate deal now could set the tone for years to come.

Some fear the future of the Paris agreement itself could be at stake. At a minimum, a weak statement or one that fails to clearly cast the United States as a renegade on climate change would signal that leaders are reluctant to jeopardize deals on trade or security by antagonizing the Trump administration over climate issues.

“This is a litmus test. How does the world behave?” said Jonathan Pershing, former special envoy for climate change under President Barack Obama and now director of the William and Flora Hewlett Foundation’s environment program.

Climate change policy is playing out in two places at the Group of 20. The first is in a document currently titled “G20 Action Plan on Climate and Energy for Growth,” which tells how nations can make good on their pledges. A May 5 draft obtained by The New York Times calls for nations to meet the emissions goals they set as part of the Paris agreement. A footnote explains the United States is reviewing its policies.

An important second place is the Group of 20 communiqué, the leaders’ official report of the summit meeting, and how it will address the Paris agreement. The Trump administration clearly will not accept language that commits the Group of 20 nations to the Paris agreement, but France and Germany are indicating they will not accept anything less.

“It would be great to have a clear message that everyone understands we need to be taking action on climate change, and the Paris agreement is critical to that. Canada is really pushing for that,” said Catherine McKenna, the Canadian minister of the environment.

A proposal by Germany says leaders “take note of the decision of the United States of America to withdraw from the Paris agreement. The United States affirms its strong commitment to a global approach that lowers emissions while supporting economic growth and improving energy security needs.” The other countries, it says, agree that the Paris accord is “irreversible.”

A Trump administration official declined to say whether that language would be accepted, but maintained the United States was not trying to pull other countries away from the Paris agreement.

“From a high level, what we’re looking for is a positive outcome, one in which the chancellor and the president can walk away happy,” the official said. “We’re very much committed to a unity document.”

That is a way of saying the administration would prefer not to be left as a footnote again the way it was in the recent statement by the Group of 7's environment ministers. The Trump administration refused to support language calling the Paris agreement "irreversible" and central to the "security and prosperity of our planet." If the Trump administration and other leaders cannot agree on a way to sum up their divergent opinions on climate change, trade and other issues, Ms. Merkel might be forced to simply write a summary of where various countries stand.

"A collision course is unavoidable, but the chancellor is doing her very best to avoid one," Mr. Snower said.

It is not at all clear at this point what will emerge. Tensions are high between Turkey and several European nations, including Germany, where officials have refused to allow a demonstration of ethnic Turks at the summit meeting. Indonesia has ratified the Paris agreement but has been silent in more recent discussions, one diplomat said. Russia is similarly not showing its hand.

Saudi Arabia is a wild card. Fresh off a \$500 million arms deal with the United States that narrowly escaped Senate opposition, the Saudis are eager to keep Mr. Trump's support for the kingdom's crackdown against Qatar. Saudi Arabia, one of the world's largest per capita emitters of planet-warming emissions, has always been a reluctant participant in climate discussions.

Conservatives in the United States say Europeans should know by now that goading Mr. Trump is likely to fail.

"It's like trying to poke a bear," said Nicolas Loris, a research fellow in energy and environmental policy at the Heritage Foundation. "President Trump will stick to his convictions. I don't think any type of pressure from Merkel or any of the other 19 countries is going to change that."

<https://www.nytimes.com/2017/07/05/climate/g20-climate-change-paris-accord-trump-merkel-germany.html>

US PULLOUT GIVES 'GLOBAL PUSH' TO CLIMATE DEAL: UN CHIEF

LISBON: The US decision to withdraw from the Paris climate agreement has given a "global push" to the deal, as other signatories have strongly recommitted to the landmark accord, UN chief Antonio Guterres said Monday.

President Donald Trump, whose country is the world's second biggest producer of greenhouse gases after China, drew widespread criticism when he announced on June 1 that he would quit the 2015 pact.

"Since the decision by the US government to abandon the Paris accords, we have been witnessing a global push and a reaffirmation by all the other governments of their commitment" on climate change, Guterres told a conference in Lisbon. "It's obvious for the European Union, China and India," he added. Guterres recalled that he had recently met the leaders of China and India, describing them as countries which were "crucial" for the success of the Paris accords.

“Their commitment is clear,” he said.

“In the United States, this push is generating at the level of cities, in some states and in the business world a very strong commitment towards the green economy,” the UN chief said.

Former New York mayor Michael Bloomberg, who has become a UN special envoy for cities and climate, “is convinced that the United States will be able to reach the targets it set itself under the Paris accord,” said Guterres.

The Paris agreement, struck in the French capital in December 2015, aims to keep the increase in average world temperatures to “well below” two degrees Celsius (3.6 degrees Fahrenheit) above pre-industrial levels.—AFP

<http://epaper.brecorder.com/2017/07/04/9-page/886503-news.html>

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August 2017

NEWS COVERAGE PERIOD FROM AUGUST 28 TH TO AUGUST 31ST 2017

***GLOBAL WARMING POSES THREAT TO SURVIVAL OF SNOW LEOPARDS:
MUSHAHIDULLAH***

Business Recorder, August 28, 2017

ISLAMABAD: Federal Minister for Climate Change Senator Mushahidullah Khan said Snow leopards’ habitats in Pakistan’s north are at a serious risk of vanishing as glaciers are rapidly melting because of global warming-induced climate change impacts.

“Without slowing down global warming to stabilize glacial-melt in 20 snow leopard range countries including Pakistan, habitats of the snow leopard cannot be protected.,” Senator Mushahidullah Khan said while addressing the two-day Global Snow Leopard & Ecosystem Protection (GSLEP) Forum, which concluded in Bishkek, capital city of the Kyrgyz Republic, said a press release here on Sunday.

But, global efforts for tackling global warming have suffered a serious blow with America’s pullout from the historic global climate change accord, the Climate Change Minister emphasised in his address. The agreement, reached at the 21st session of the Conference of the Parties (COP 21) of the United Nations Framework Convention on Climate Change, is an historic accord negotiated in December 2015 by 190 countries, including the UN, to limit global temperature increases to no more than 2C above preindustrial levels.

Mushahidullah Khan warned that the United States’ pullout from the Paris climate accord would adversely affect an enhanced momentum for global climate action that to combat global warming for protecting humans, their livelihoods and wildlife from adverse fallouts of the climate change.

He recalled that the world plunged into a deep shock and anger when American President Donald Trump this year in June announced his decision to withdraw from the historic Paris agreement on climate change. “The US administration’s such unpopular decision has signaled to the world that the US government turns its back to the reality of human-caused climate change and its fallouts across all sectors of human activity & global biodiversity and fails to recognize the urgency with which we must act unitedly to fight this common global survival threat,” he added.

However, the historic major polluter America’s withdrawal must have also enraged the snow leopard and its saviours worldwide, the minister griped. Snow leopard today was fighting for his survival while glaciers that provide with habitat for him are vanishing because of climate change, Mushahidullah argued. He said, “With rapidly receding glaciers due to global warming, the habitat of the snow leopard is fast vanishing, posing a grave danger to the very survival of this snow leopard, which is reflection of God’s beauty in the mountains.”

“Thus, the world must act to protect its habitat from the global warming -induced climate change impacts,” the Climate Change Minister urged the participants of the two-day GSLEP forum. The Forum brought together nearly 20,000 delegates including heads and representatives of the governments of the 12 snow leopard range countries including Pakistan as well as of other interested nations with leaders from international institutions, donor agencies, conservation organisations, and scientific institutions.

Climate Change Minister Senator Mushahidullah Khan led Pakistan’s four member delegation to the GSLEP Forum and highlighted the country’s conservative and protective measures being taken for the snow leopard and its habitats.

The global event aimed to further strengthen the range countries’ ongoing effort to protect the snow leopard, and to galvanize international support for their ambitious plan of securing 20 snow leopard landscapes by the year 2020.

The GSLEP programme is a joint initiative by all 12 snow leopard range countries and initiated by President Atambaev of the Kyrgyz Republic. Its aim is to ensure the long-term survival of this endangered cat. The minister told the participating delegates from 12 snow leopard countries including Afghanistan, Bhutan, China, India, Kazakhstan, Kyrgyzstan, Mongolia, Nepal, Tajikistan and Uzbekistan that the GSLEP summit is great opportunity to tap for the protection of snow leopard and its habitat.

“Now, all of us have a historic opportunity to put work on snow leopard conservation in the vanguard of political and economic decisions,” Mushahidullah Khan told delegates of the GSLEP member countries at the Forum.

Talking about snow leopard conservation efforts in Pakistan, Mushahidullah said that the snow leopard conservation efforts in Pakistan dated back to the early 70’s with the government endorsement of provincial wildlife acts.

The efforts further picked up in 1990’s when the Snow Leopard Trust initiated its interventions in the country, he added. He also recalled that that Pakistani government also supported and endorsed the Snow Leopard Conservation Strategic Plan in 2007 as part of the implementation of the Snow Leopard Survival Strategy.

Since then, many wildlife conservation organisations in Pakistan have been implementing the snow leopard conservation action plans respectively, in the country by working with the local communities and government departments, the climate change minister added.

He also highlighted that an amount of \$4.5 million have been approved for a multi-year snow leopard protection and the programme would be launched next year in Gilgit-Baltistan region. The Climate Change minister also told the participants of GSLEP Forum that the Landscape Management Plan of the Karakoram-Pamir Landscape, which is one of the largest snow leopard landscapes in the world, is in its final stage and would be endorsed after review by the GSLEP Secretariat in a few weeks' time.

As a part of efforts to mitigate human-snow leopard conflict, several measures have been undertaken in the country, such as construction of predator-proof corrals and compensation programmes in the form of livestock insurance schemes initiated by the provincial governments in collaboration of non-governmental organisations, Mushahidullah Khan added.

Snow leopard range in Pakistan spreads across 80,000 square kilometers in the Hindu Kush, Pamir, Karakoram and Himalayan Mountain Ranges of northern Pakistan. An estimated 200-420 snow leopards exist in Pakistan's northern mountains across Khyber Pakhtunkhwa (KPK), Gilgit-Baltistan (GB), and Azad Jammu & Kashmir (AJK).—APP

<http://epaper.brecorder.com/2017/08/29/21-page/902279-news.html>

KARACHI RECEIVES RAIN INSTEAD OF HEATWAVE

The Express Tribune, August 30, 2017

KARACHI: Contrary to the Pakistan Meteorological Department's forecast of a short term heatwave in Karachi on Tuesday, the city received a short spell of rain helping the temperature drop down.

The rain was termed as a 'trailer before the storm' by some social media users.

The morning in the city was humid and warm due to the low sea breeze. However, in the afternoon the hot weather was tempered by the scattered rainfall.

Eastern parts of the city, including Malir, Gulshan-e-Iqbal and Korangi were the first to receive rainfall which soon reached southern areas of Defence and Clifton.

Some areas of the city were also affected by heavy winds. The gusts resulted in trees falling at Teen Talwar, Sharae Faisal and near Jinnah Postgraduate Medical Centre.

According to Met office spokesperson Dr Abdul Rashid, there are slight chances of showers in the early hours of Wednesday. However, sometimes monsoon systems react faster and can cause early short term rains before the system has actually reached, he said. Dr Rashid added that the short rainfall was scattered and it helped dropping the temperature from 40°C to 34°C.

The rain that citizens of Karachi experienced on Tuesday was not the actual monsoon system, Dr Rashid revealed. It was a pre-system rain, he said. According to him, the system will remain stronger from August 30 till September 1 and after that it will lose its intensity. During these days,

thundershowers, moderate to heavy rainfall, with strong gusty winds may occur in the lower divisions of the province, including Karachi and eastern districts of Balochistan, he said.

The city will receive heavy rainfall on Wednesday and Thursday, Dr Rashid predicted. The heavy rains may cause urban flooding in Karachi, Hyderabad and Mirpurkhas on Wednesday and Thursday and flash flooding in the vulnerable nullas and streams of eastern Balochistan, he warned.

Meanwhile, the Provincial Disaster Management Authority has also issued a warning letter to the commissioners and municipal authorities of Karachi, Hyderabad, Mirpurkhas and Shaheed Benazirabad, asking them to ensure all precautionary measures have been taken to avoid any untoward situation.

Livestock and Fisheries Minister Muhammad Ali Malkani declared a rain emergency in his department and leaves of all officials were cancelled with the directives to the officers on leave to report at their headquarters immediately.

According to the announcement issued by the livestock and fisheries department, all the field officers were directed to work round the clock, ensuring the availability of medicines, vaccines and life-saving drugs along with mobile units for performing veterinary aid in any emergency.

Fishermen were advised to not go deep at sea for one week and take precautionary measures. Officers of the fisheries wing were directed to be present at their headquarters and pass the necessary directions to the fishermen.

Pakistan Fisherfolk Forum Chairperson Muhammad Ali Shah told the Express Tribune that due to the early warning, fishermen have started to return at the jetty from the open sea and a wireless message has been sent to those who are still at sea so that they can return before the heavy rains.

<https://tribune.com.pk/story/1494456/karachi-receives-rain-instead-heatwave/>

NEWS COVERAGE PERIOD FROM AUGUST 21ST TO AUGUST 27 Th 2017

MOU SIGNED AGAINST CLIMATE CHANGE

Dawn, August 26th, 2017

PESHAWAR: The University of Agriculture Peshawar and Norwegian Church Aid (NCA) signed a Memorandum of Understanding in pursuance of strategically important theme of climate change adaptation.

According to a press release issued here on Friday, NCA and UAP's Climate Change Centre will conduct a research study in Khyber Pakhtunkhwa with the topic 'how to increase resilience of the communities through exploring the effects of climate change on the rainfall patterns, existing rainwater management and livelihood practices of communities in KP'.

The research aims to enhance community resilience and to come up with policy level recommendation by studying the effects of climate change on rainfall patterns and its further implications on existing livelihood and rainwater management practices of the local community residing in different agro-ecological zones of KP.

The study will be conducted under supervision of experienced professors who will also involve PhD students in data collection, analysis and report writing.

This MoU will lay down the foundation for long-term partnership between NCA and academia in Pakistan.

<https://www.dawn.com/news/1354004>

HEATWAVE FORECAST FOR SUNDAY, MONDAY

Business Recorder, August 27, 2017

KARACHI: The Met Office on Saturday alerted the citizens to the heat wave likely on Sunday and Monday (Aug 27, 28).

Met forecast hot weather for Monday with humidity level up to 80 percent and temperature 37 degrees Celsius. However, partly cloudy weather, chances of light rain is likely on Sunday with maximum humidity 85 percent and temperature up to 35 degrees Celsius.

The Met said that mainly hot and humid weather is likely in the most parts of the country in the next 24 hours. However, isolated rain-thunderstorm may occur in Malakand, Hazara, Rawalpindi, Gujranwala, Mirpurkhas, Sukkur and Larkana Divisions.

“Marked seasonal low lies over north Balochistan. Monsoon currents are penetrating upper parts of the country. A westerly wave is affecting Kashmir and adjoining areas,” it said.

In the last 24 hours: Scattered rain-thunderstorm fell in Upper Punjab, Malakand, Hazara, D.I Khan Kashmir and Gilgit-Baltistan. Weather remained hot and humid elsewhere in the country.

Maximum rainfall was recorded in Khyber Pukhtunkhwa as D I Khan received 77 mm, Dir 10 mm, Balakot, and Mirkhani 2 mm, each. Punjab: Lahore (Punjab University 50 mm, City 19 mm, Airport 12 mm), Gujrat 33 mm.

Joharabad 29 mm, Sargodha 27 mm, Noorpurthal 20 mm, Layyah 18 mm, Gujranwala 17 mm, Mangla 14 mm, M.B Din 8 mm, Jhang 7 mm, Sahiwal 5 mm, Faisalabad 4 mm, Jhehum 1 mm. Gilgit-Baltistan: Bagrote 10 mm, Gupis 3 mm, Hunza 2 mm, Gilgit 1 mm. Kashmir: Kotli 2 mm.

Highest temperature was recorded in Sibbi 45 degrees Celsius, Dadu 42, Dalbandin, R Y Khan, Sukkur, Rohri and Shaheed Benazirabad 41.

<http://epaper.brecorder.com/2017/08/28/3-page/901953-news.html>

NEWS COVERAGE PERIOD FROM AUGUST 14TH TO AUGUST 20 Th 2017

PAKISTAN NEEDS ACCESS TO GLOBAL FUNDS TO COPE WITH CLIMATE CHANGE

The Express Tribune, August 14th, 2017.

Awais Umar

ISLAMABAD: The world's geographical history shows that climate change is not a new phenomenon as scientists have tracked historical changes in the drivers of climate change such as greenhouse gas (GHG) emissions and continental drift.

Currently, due to anthropogenic activities, the pace of climate change is high compared to changes in the past. It is essential, therefore, to find ways to mitigate drastic impacts of the ongoing climate change wave through adaptation and prevention without compromising development targets.

Climate change is becoming a challenge for many countries as the frequencies of weather anomalies and climatic extremes have increased during the last two decades.

According to the Global Climate Risk Index, Pakistan is ranked number 7 in the list of most vulnerable countries, suffering economic losses of \$3.823 billion in the last two decades due to climate change and climate extremes.

At the 2016 United Nations Climate Change Conference, Federal Minister for Climate Change Zahid Hamid said: "We emit less than 1% of total annual global greenhouse gases, yet we are ranked amongst top 10 countries most vulnerable to climate change. Millions of people are affected and colossal damage is caused on a recurring basis."

Climate change is a global phenomenon; none of the countries alone can deal with the issue. So, there is a need to work collectively and for this purpose various international forums such as the Intergovernmental Panel on Climate Change (IPCC), UN Environment Programme (UNEP), International Union for Conservation of Nature (IUCN) and United Nations Framework Convention on Climate change (UNFCCC) have been set up.

At the 15th Conference of the Parties (COP) under UNFCCC, the developed countries agreed to pay at least \$100 billion every year to the developing countries as a climate adaptation fund till 2020.

Pakistan is already facing many socio-economic problems such as energy shortage, poverty, malnutrition, lack of health care facilities and safe drinking water. Climate change is further contributing to these by affecting livelihoods of individuals and economy as a whole.

In responding to the above situation, Pakistan is facing challenges in building community resilience and adaptation to climate change.

Fund allocation for climate change adaptation seems very low as in the 2015-16 budget the domestic allocation was only Rs39 million and in the 2017-18 budget Rs815 million has been earmarked for the Environment Division, mostly for the climate change schemes.

Pakistan needs to get access to international financial resources to meet the adaptation and mitigation costs. It was agreed in COP 22 (part of the 2016 United Nations Climate Change Conference) that developing countries need to establish a proper regulatory mechanism to cope with the challenges they face in accessing climate change adaptation funds and to bridge the gap between the donor and recipient countries.

Pakistan has submitted its Intended Nationally Determined Contribution (INDC) to the UNFCCC in which energy and transport, industry and waste and agriculture and forestry have been identified as potential sectors that need to acquire funding from the Green Climate Fund.

To meet development targets, Pakistan is likely to emit four times more GHGs by 2030, which would require \$40 billion to mitigate the effects.

For this purpose, Pakistan has recently passed the Climate Change Bill 2017 to show its commitment to combating the adverse effects of climate change by passing specific laws.

Along with the policy formulation, this bill paves the way for setting up a climate change authority which is responsible for development of the mitigation and adaptation framework for various sectors of the economy.

The climate change bill also established a climate change fund which is managed by the authority. Its core objective is to meet expenditures of the authority and fund itself and also to provide financial assistance to the adaptation and mitigation projects as well as research.

Pakistan is an energy-deficient country and instead of seeking international funds for fossil fuel energy generation (under CPEC), it needs to move for renewable energy generation.

We should look for funds to build capacity of the workforce, improve the technological resource base and strengthen institutions for renewable energy sources.

“It’s our need to consume coal to meet our development targets to fulfill needs of the growing population. We can cut out GHG emission if we are provided with sufficient resources, technology, capacity and finances to move for green energy and renewables,” said Mountain and Glacier Protection Organisation (MGPO) CEO Aisha Khan.

Pakistan requires a strong national commitment and leadership and innovative business models to gain financial and technical assistance from both domestic and international players.

It is important to note that Pakistan has not been on track in terms of implementing its Climate Change Policy 2012 and provincial climate change divisions have not performed effectively after devolution of power in 2010.

Amid this situation, Pakistan has developed its INDCs and passed the climate change bill after ratification of the Paris Climate Change Agreement to show its interest and commitment.

According to UNDP’s Climate Public Expenditures and Institutional Review 2015 for next 40 years, Pakistan would require \$10.70 billion per annum as the cost of adaptation to climate change and mitigation cost would range from \$8 billion to \$17 billion.

It requires a strong national will along with solid legislation like the climate change bill to efficiently mitigate the effects of and adapt to extreme climate changes.

<https://tribune.com.pk/story/1480833/pakistan-needs-access-global-funds-cope-climate-change/>

CLIMATE CHANGES: 'GOVERNMENT REDESIGNING AGRO-ECOLOGICAL ZONES'

Business Recorder, August 17, 2017

Khalid Abbas Saif

Punjab Agriculture Secretary Muhammad Mahmood has said that the Punjab Government was redesigning agro-ecological zones to fight climate changes, water and soil fertility and increase productivity on the bases of competitive advantage. Chairing the meeting on agrological zones at University of Agriculture Faisalabad, he viewed that ecological zones are being redefined at micro level so that per acre yield could be jacked up keeping climatic, water and soil conditions in view.

He said that agro-ecological zones redesigning will recommend farmers to grow the crops which are suitable and comparatively productive in their areas. He directed the team of Food and Agriculture Organizations to bridge the gap in the development of micro agrological zones. He said that Punjab Government was making all-out efforts to address the issues of farming community. He said that climate changes were posing a serious threat to agriculture sector. For which, tangible measures on the part of researchers, educationists, policy makers and others are needed.

He directed the committee of agrological zones to keep the latest methods in view and after the completion of their work, send the report to the international agencies for evaluation. He said that the step would not only increase the productivity but also help in making the sector a profitable profession. He said that there is a need to take the measures to fight the water abuse and misuse.

US Pakistan-Center for Advanced Studies in Agriculture and Food Security (USPCAS) Director Professor Dr Iqrar A Khan hoped that the team would come up with viable solutions in the form of agro zone that will help increase the agriculture and farmers' incomes. He said that there is rainfall volatility, increased drought and rising temperatures due to climate changes, which is affecting crop yields. He said that if we could not take the timely decision, the situation will aggravate in the years to come. He said that Punjab government was redesigning the agriculture policy to make the agriculture sector sustainable and profitable.

UAF Pro-Vice Chancellor Professor Dr Muhammad Iqbal Zafar said the country was facing great challenge of deteriorating agri land fertility, water scarcity, climate changes. He said that the government was making serious efforts to boost up productivity.

He said that redesigning agro-ecological zones would help make development in the sector. He said that country was blessed with four seasons, and fertile land system but we could not reap the fruits from its potential. He was of view that awareness must be created among the farming community about the modern agro based technologies. He said that the work on the agro zone will help ensure food security in the country.

Arid Agriculture University Rawalpindi Vice Chancellor Dr Rai Niaz said that ground water quality was deteriorating that is posing a threat for agriculture productivity. He was of the view that efforts were needed to address the issue at the national level. Muhammad Nawaz Sharif Agriculture University Vice Chancellor Dr Asif Ali said we have to develop the varieties keeping in view the changing climate as agro zones were changing.

Punjab Agriculture Research Board Chief Executive Dr Noorul Islam said that crops' shift was being witnessed. He said that if we could not take the measures to fight the challenges facing the sector, it will face a setback. Malik Muhammad Akram, DG Agriculture on-Farm Water Management said that the groundwater framework was being devised to curtail the heavy ground water pumping.

Chair Climate Change Dr Ashfaq Chatha said that they were in consultation with the international experts and also redesigning the agro-ecological zone. Water Management Research Center Director Dr Hamid Shah said groundwater quality was deteriorating rapidly that must be addressed at national level.

Imran S. Khalid, Research Fellow, SDPI, Islamabad; Fahim Ahmed, Project Coordinator, FAO, Multan; Mubashir Riaz Khan, Director UIIT, PMAS UAAR, Rawalpindi; Dr Syed Aftab Wajid, UAF; Dr Syed Hamid Hussain Shah, Director Water Management Research Centre, UAF; Ch. Abdul Ghafoor, Director Coordination, Davis Road, Lahore; Dr Ghulam Mahboob Subhani, Director Headquarter AARI, Faisalabad; Malik Muhammad Akram, DG Water Management, Lahore; Dr Dildar Hussain Kazmi, Pakistan Meteorological Department, Lahore and Muhammad Naveed Arshad, and Muhammad Shauket from UAF also participated.

<http://fp.brecorder.com/2017/08/20170817209733/>

WORKSHOP ON CLIMATE CHANGE PROJECTIONS ENDS AT MUET

Business Recorder, August 19, 2017

HYDERABAD: Two-Day training workshop on "Climate Change Projections and its impact on Water System Performance" concluded on Friday at US-Pakistan Center for Advanced Studies in Water (USPCAS-W) Mehran University of Engineering & Technology (MUET), Jamshoro.

In certificate distribution ceremony, Project Director USPCAS-W Prof Dr Bakhshal Khan Lashari said that apart from harnessing the technical skills of the participants, this workshop will also serve as a strong platform for an effective network of experienced people.

He said USPCAS-W has been established with the generous support of the US Agency for International Development (USAID) under the cooperative agreement at MUET and technically supported by University of Utah (UU), USA. He said the Center was equipped with modern water laboratories to conduct applied research on water sector in Pakistan. Dr Bakhshal added that issues related to climate, environment and water of the country will be solved by developing human capital in the sector which will bring prosperity to the people by boosting the economy of the country.

He said that USPCAS-W at MUET with the support of USAID and UU, trying its best to produce water leaders in the country. Technical Advisor to USPCAS-W Dr Jeffery Layton Ullman said that the University of Utah is dedicated to provide technical support to this Center to impart quality education and modern applied research in water sector of the country.

He said such workshops will enhance the capacity of the stakeholders of the Center, who will ultimately contribute to the development of Pakistan. On Thursday, the first day of the seminar, Deputy Director (Academics & Research) at USPCAS-W Dr Rasool Bux Mahar gave an introductory overview of the Center by sharing detailed presentation stated its aims & objectives. USPCAS-W

Faculty Ghulam Hussain Dars, Waqas Ahmed and workshop focal persons shared the aims and objectives of the workshop.

They said that the workshop aimed at to advance engineers, scientists, water managers and experts' capacity related to climate change impacts on system performance. They said that the workshop paved the way to build participants' training strength in the area of climate impact studies by using different tools such as R-statistical language and WEAP decision support tool.

Workshop resource person Rakhshinda Bano while sharing the outcomes of the workshop said that it had improved the comprehension of the participants for the climate projections and vulnerability assessment and techniques across a range of applications. On this occasion, the certificates among the participants and facilitators of the workshop were distributed by the management of the Center.

<http://epaper.brecorder.com/2017/08/19/8-page/900027-news.html>

RESEARCH PROJECT UNDER WAY ON HEATWAVE

Dawn, August 20, 2017

KARACHI: A major research project aimed at evaluating ways that can help reduce deaths caused by extreme heat exposure is currently under way in the city.

Titled Heat Emergency Awareness and Treatment (HEAT), the project will see researchers from the Aga Khan University, Johns Hopkins University, the World Health Organisation and the Aman Foundation come together to test whether novel interventions can prevent fatalities attributed to heatstroke and heat exhaustion.

The project will generate knowledge through two key interventions; a community-based programme among 16,000 people living in a low-income locality in Korangi and a clinical programme in major hospitals in Karachi.

“In the first intervention, researchers will use Aman Foundation’s operations and infrastructure in Korangi to disseminate health education messages through community leaders, bulk text messages, telehealth systems and special information sessions in schools and mosques.

“Local health workers will also evaluate the effectiveness of these campaigns by tracking data on hospital admissions and deaths. The most effective measures will then be implemented in the same community through a pilot project ahead of the next summer in 2018.

“In the hospital-based intervention, experts will build capacity of emergency department physicians on the management of heat emergencies. Trainings will revolve around issues such as emergency department preparedness as well as key skills such as rapid cooling, triage and resuscitation,” says an AKU press release.

Eventually, evidence from the emergency room will be used to develop a focused guideline to improve the treatment of such illnesses. Once protocols are prepared, further training sessions will be held in four major hospitals in the city, it adds.

The project comes in the wake of the blistering heatwave in Karachi in June 2015 which triggered a healthcare emergency. Extreme temperatures over a five-day period led to record hospital admissions and resulted in hundreds of preventable deaths.

The principal investigator of the project is Dr Junnaid Razzak, Professor of Emergency Medicine at Johns Hopkins University. Dr Nadeem Ullah Khan, Dr Uzma Rahim Khan and Dr Shahan Waheed from AKU's Department of Emergency Medicine are co-principal investigators.

<https://www.dawn.com/news/1352600>

SAPLINGS GAIN GROUND UNDER BILLION TREE TSUNAMI PROJECT

The Express Tribune, August 20, 2017

Izhar Ullah

PESHAWAR: Drenched in sweat, 35-year-old Ahmad Khan fetches water for plants in buckets from a small pool nearby. Sounds easy, but accomplishing this horrendous task under the sizzling sun which usually shoots up mercury to 40 degrees Celsius is quite the opposite.

“We water plants after every 10 days or on the day when the temperature is high,” he said while fetching water for plants.

Garhi Chandan area was a barren terrain situated at a distance of around 25 kilometres from Peshawar. The region bordering tribal areas of FR Peshawar was once a bastion of miscreants and had been declared a red zone.

Locals used to witness criminal and terror activities on a regular basis, but were not able to control it. One of the locals, who requested not to be named, told The Express Tribune that high-profile terrorists residing in Garhi Chandan used to plan terror activities and even slaughtered people.

“Now that the region has been nearly cleansed of terrorists and one million saplings have been planted under the Billion Tree Tsunami Forestation project, the land has become of immense importance not only for the local population, but also for the entire world,” he added.

Much has been reported in the media, which is confined only to documents and interviews. The most recent report by the International Union for Conservation of Nature (IUCN) praised the Khyber-Pakhtunkhwa (K-P) government for surpassing the Bonn Challenge of reclaiming more than 348,000 hectares of barren and degraded land.

A team of The Express Tribune visited the site to witness the saplings being planted in the region to check if the claims of the K-P government were true.

Entering the plantation range spread over 800 hectares or 16,000 kanals, a nursery has been set up where more than 800,000 seeds have been sown, which will have to be shifted to the plantation region to cross the target of one billion.

The IUCN report claims that more than 13,000 private tree nurseries have been established under the project across the province which has already boosted local income, generated thousands of green jobs and empowered unemployed youth as well as women in the province.

Having hilly terrains on both sides, the unpaved road that enters into the site was entirely barren before the forestation. “There wasn’t any plant in the land except for those that had grown naturally,” Muhammad Saleem, a local resident, told The Express Tribune.

The villages are far away from the plantation site since the land was barren and owned collectively by the people of the village.

Saleem said now since the plants have grown, the villagers are taking keen interest in protecting them.

The project has been executed in all the K-P districts on divisional basis. The team has checked Garhi Chandan, which is the major site of Peshawar division. The saplings consist of species of shesham, polai, chirpine, kikar, zizyphus, sanata, willow, poplar, amaltas, cypress, Eucalyptus and bakain and are planted 10 feet away from each other in squares.

“More than 4.5 million saplings have been planted in Peshawar division consisting of regions of Army Range-1 and 2, Mistri Banda, Manki Sharif, Bela Mohmandan, Azakhel, Katozai, Kheshgi, Torlandi areas of Nowshera, Charsadda, and Peshawar with reclamation of over 4,000 hectares of land,” said Shafqat Munir, Forest Department Chief Conservator Central and Southern region of the project.

Munir told The Express Tribune that the government had estimated to spend a total of Rs22 billion on the project when it was launched in January 2015. “Till now, over Rs10.5 billion has been utilised and it is expected that the target of one billion trees will be completed at a total cost of Rs14 billion.”

Eighty per cent of the funds, Munir said, have been utilised to employ, on temporary basis, some 500,000 people living below the poverty line for the project. He said the government would complete the target of one billion trees by August 31 and an event would be arranged in Islamabad to celebrate the achievement.

Water reservoirs have been constructed after every 10 hectares of land where saplings are planted. The team witnessed workers watering plants through plastic pipes connected to reservoirs where water was pumped up to the hilly terrain through motors running on generators using petrol.

When asked about the water, Divisional Forest Officer (DFO) Gulzar Khan said the water reservoirs are filled 24 hours either from rain water or from the springs connected to it.

Khan said workers have been employed on daily wages since the initiation of the project. They are receiving a wage of Rs500 per labourer. “The saplings are watered according to their maturity level.”

Furthermore, he said a normal plant needs to be watered around 15 times in a year to keep it healthy and green, depending upon its growth. He said more than 300 locals have been employed as watchmen and gardeners.

In some places, the plants were witnessed to be watered manually through buckets by the labourers, mostly by residents of the region.

Providing details of progress, Conservator Munir said that only 30 million to 40 million plants are left to be planted to achieve the goal of one billion. Seeds have been sown on more than 5.3% of the total 2.5 million hectares of barren land in the province.

Currently, 22% of the land is covered by forests, while after the completion of the project over 25% of the land of the province will be covered by trees.

About the Bonn Challenge – forestation on 348,000 hectares of land – Munir said “We have planted trees over 618,000 hectares, which is double the challenge.”

He said to achieve the target of one billion trees, 40% were regenerated naturally, 20% through farm forestry and 40% through plantations. “The 40% regeneration also occurs owing to plantation activities in the vicinity of the land,” he added.

When asked about criticism by some ecologists on planting Eucalyptus, Munir said some experts and international organisations were indulged in illogical arguments that this species of plants harmed the water table of the ground.

He said less than 10% of the total saplings are Eucalyptus planted under the project, which give oxygen, take carbon and provide timber like the rest of the plants. “I wonder why this plant is the hated one among the ecologists across the globe.”

Speaking about revenue generation from the project, Munir briefed that around Rs50 is spent on a single tree plantation if all expenses are added. On maturity, it would be Rs1,000 per tree, he said.

“Both the locals and the government will benefit from the project when the plants reach maturity level,” he said, adding that the plants would be handed over to the community after June 2018.

A mechanism has been set up for generating revenue from trees by the forest department. The community will pay Rs500 per trolley of timber, depending upon the type of tree they are supplying to the rest of the country, which will generate billions of rupees revenue after seven years when the plants mature.

About intangible benefits, he said it would help in controlling the earth’s atmosphere to combat climate change. Furthermore, he said it would protect many areas from floods like the hilly areas of Chitral.

When asked about identifying the site for plantation, he said the departments take three things into account before selecting the site for plantation.

Availability of roads is the first thing to be kept in mind, he said. Secondly, he informed, it has been to be seen if the land was barren or not agricultural. Third comes the availability of water for the plants, he added.

Importantly, Munir said that since the area had been the bastion of terrorism for quite some time, the plantations project has helped in keeping the locals away from illegal activities.

Other than the forest department's monitoring teams, the project is also monitored by a third party, World Wildlife Fund (WWF). So far, two monitoring reports have been released by the fund.

According to a report released in 2016, a copy of which is available with The Express Tribune, the survival rate of the plants sown was more than 70% in most parts of the sites.

However, the report suggested not to use pesticides as it was used in Kohat to protect the plants from external attack.

Munir admitted that pesticide was used as the plants were damaged by termites, but its effect would vanish within a year and in the future it wouldn't be used as per the recommendations of the WWF.

<https://tribune.com.pk/story/1486295/saplings-gain-ground-billion-tree-tsunami-project/>

NEWS COVERAGE PERIOD FROM AUGUST 7TH TO AUGUST 13 Th 2017

EFFECTS OF CLIMATE CHANGE

The Express Tribune, August 7th, 2017.

Climate change is a global issue and even though developing countries like Pakistan are least responsible for global greenhouse gas (GHG) emissions – Pakistan currently contributes to less than one per cent of GHG – its effects on such countries are devastating, pushing lives into near extinction.

The floods of 2010, 2011 and 2012 that inflicted severe damage not only incurred human cost but also an economic one, resulting in an economic growth on average at a rate of 2.9 per cent instead of its potential rate of 6.5 per cent. These floods were one of the many ways Pakistan has been affected by the global climate change. The country's geographical and socioeconomic fragility puts it in a vulnerable situation.

Weather conditions of not only Pakistan but also South Asia have become extremely volatile. A new study by researchers at the Massachusetts Institute of Technology corroborates this. According to the research which is based on computer simulations, the impact of climate change in the South Asian region by 2100 will make it impossible for human survival.

The heatwave of 2015 that caused the deaths of about 2,000 people in Pakistan alone can become a frequent occurrence if changes at the policy level aren't made immediately. Currently, Pakistan ranks seventh in the 10 countries that are the worst affected by climate change.

In the past two decades, Pakistan has suffered from over 130 events due to climate change – floods, droughts and heatwaves in various parts of the country. On top of that its technical and financial capacity isn't enough to tackle the adverse impacts. Limited approach by the government to ensure clean energy can worsen the situation, especially when Pakistan is already hit with an ongoing water crisis which is expected to get much worse soon.

Extreme climate conditions leading to lower agricultural outputs in the country call for urgent adaptation reforms to counter the adverse effects of climate change.

<https://tribune.com.pk/story/1475560/effects-climate-change/>

GLOBAL WARMING REDUCES PROTEIN IN KEY CROPS
Business Recorder, 7 August 2017

MIAMI: Rising carbon dioxide levels from global warming will drastically reduce the amount of protein in staple crops like rice and wheat, leaving vulnerable populations at risk of growth stunting and early death, experts warned on Wednesday.

Researchers say they still don't understand how or why carbon dioxide emissions sap protein and other nutrients from plants, but the mystery is one that could have devastating consequences across the globe.

An additional 150 million people globally may be at risk of protein deficiency by 2050 because of rising levels of carbon dioxide in the atmosphere said the report in the journal Environmental Research Letters.

The study, led by Harvard University researchers, is the first to quantify the impacts of global warming on the protein levels of crops.

It relies on data from open field experiments in which plants were exposed to high concentrations of CO₂.

Global dietary information from the United Nations was used to calculate the impact on people who live dangerously close to the edge when it comes to getting enough protein. Without it, growth is stunted, diseases are more common and early mortality is far more likely.

Carbon dioxide is a byproduct of fossil-fuel burning that helps trap heat around the Earth. Without stark action, these emissions are expected to climb in the decades to come, resulting in rising seas, hotter temperatures and more extreme weather events.

A leading hypothesis was that CO₂ might increase the amount of starch in plants, thereby decreasing protein and other nutrients. But lead author Samuel Myers, a senior research scientist in Harvard University's T. H. Chan School of Public Health, said that experiments did not back up the theory. "The short answer is we really have no idea," he told AFP. "We've looked into it pretty extensively." Protein was not the only nutrient to take a major hit. Other research has shown that rising CO₂ will cut key minerals like iron and zinc in staple crops, leading to further nutritional deficiencies worldwide.

Researchers calculated that by 2050, higher CO₂ concentrations will sap the protein contents of barley by 14.6 percent, rice by 7.6 percent, wheat by 7.8 percent, and potatoes by 6.4 percent.

“If CO2 levels continue to rise as projected, the populations of 18 countries may lose more than 5 percent of their dietary protein by 2050 due to a decline in the nutritional value of rice, wheat, and other staple crops,” said the report.

A full 76 percent of the people on Earth rely on plants for most of their daily protein, particularly in poor areas of the globe.

The hardest hit areas are expected to be Sub-Saharan Africa, where millions already don't get enough protein in their diets, and South Asia where rice and wheat are common staples. India alone may lose 5.3 percent of protein from a standard diet, putting a predicted 53 million people at new risk of protein deficiency.

Researchers said solutions may include cutting carbon emissions, supporting more diverse diets, enriching the nutritional content of staple crops, and breeding crops that are less sensitive to the harmful effects of CO2.—AFP

<http://epaper.brecorder.com/2017/08/07/13-page/896910-news.html>

‘DEFORESTATION AFFECTS CLIMATE CHANGE AS MUCH AS BURNING FOSSIL FUEL’
Dawn, August 9th, 2017

Jamal Shahid

ISLAMABAD: The cutting down and burning of forests has contributed as much to global warming as the burning of fossil fuels and efforts are being made to re-vitalise the forestry sector, said Federal Climate Change Minister Mushahid Ullah Khan on Tuesday.

“We cannot protect the country from the devastating impacts of climate change unless deforestation is stopped. Forests can help against the impacts of climate change,” he told a national consultative meeting on a World Bank funded programme called Reducing Emissions from Deforestation and Forest Degradation (REDD+).

Experts from the forestry sectors of various countries had come together to discuss various technical and policy options to increase tree cover as part of the country's climate resilience efforts.

REDD+ is a UN-led mechanism which supports countries' efforts for reducing heat trapping carbon emissions from deforestation and forest degradation, forest conservation, sustainable management of forests and the enhancement of forest carbon stocks.

Participants observed that most people assumed global warming was caused by burning oil, gas and coal when in fact, between 25pc and 30pc of the greenhouse gases released into the atmosphere each year or an estimated 1.6 billion tons of carbon dioxide was caused by deforestation, mainly the cutting and burning of forests.

Participants were told that the same amount of climate-altering carbon dioxide gases released from fossil fuel burning through any source can be removed from the atmosphere to stabilise climate change by halting deforestation.

The climate change minister said international studies showed that deforestation and land degradation accounted for a major share in overall global carbon emissions annually.

Quoting studies by UN Food and Agriculture, Mr Khan said trees are 50pc carbon.

“But when chopped down or burned, the carbon dioxide they store makes its way back into the air,” he said, adding that an ambitious World Bank funded REDD+ program worth \$3.8 million had already been launched in the country which will help forest owners in accessing money for forest protection.

The minister pointed out that lack of access to energy for cooking and heating in households, illegal tree cutting, population growth and associated wood demand surge, changes in land cover for non-forestry uses, land erosion and degradation are among the major causes of deforestation in the country.

“Controlling deforestation in the country is not possible without increasing access to renewable and alternative energy sources, particularly for cooking and heating in households, reducing the occurrence of land erosion and landslides by strengthening forested mountain slopes with vegetation and increasing public awareness about the positive effects of forests on the overall environment, human health and bio-diversity,” the minister said.

He added that the involvement of locals, community based organisations and educational institutions were key to bringing new life into the country’s unwell forestry sector.

<https://www.dawn.com/news/1350502/deforestation-affects-climate-change-as-much-as-burning-fossil-fuel>

SCIENTISTS FEAR TRUMP WILL DISMISS BLUNT CLIMATE REPORT LISA FRIEDMAN

Dawn, AUG. 9, 2017

WASHINGTON — The average temperature in the United States has risen rapidly and drastically since 1980, and recent decades have been the warmest of the past 1,500 years, according to a sweeping federal climate change report awaiting approval by the Trump administration.

The draft report by scientists from 13 federal agencies concludes that Americans are feeling the effects of climate change right now. It directly contradicts claims by President Trump and members of his cabinet who say that the human contribution to climate change is uncertain, and that the ability to predict the effects is limited.

“Evidence for a changing climate abounds, from the top of the atmosphere to the depths of the oceans,” a draft of the report states. It was uploaded to a nonprofit internet digital library in January but received little attention until it was published by The New York Times.

The authors note that thousands of studies, conducted by tens of thousands of scientists, have documented climate changes on land and in the air. “Many lines of evidence demonstrate that human

activities, especially emissions of greenhouse (heat-trapping) gases, are primarily responsible for recent observed climate change,” they wrote.

The report was completed this year and is a special science section of the National Climate Assessment, which is congressionally mandated every four years. The National Academy of Sciences has signed off on the draft report, and the authors are awaiting permission from the Trump administration to release it.

One scientist who worked on the report, Katharine Hayhoe, a professor of political science at Texas Tech University, called the conclusions among “the most comprehensive climate science reports” to be published. Another scientist involved in the process, who spoke to The New York Times on the condition of anonymity, said he and others were concerned that it would be suppressed.

The White House and the Environmental Protection Agency did not immediately return calls or respond to emails requesting comment on Monday night.

The report concludes that even if humans immediately stopped emitting greenhouse gases into the atmosphere, the world would still feel at least an additional 0.50 degrees Fahrenheit (0.30 degrees Celsius) of warming over this century compared with today. The projected actual rise, scientists say, will be as much as 2 degrees Celsius.

A small difference in global temperatures can make a big difference in the climate: The difference between a rise in global temperatures of 1.5 degrees Celsius and one of 2 degrees Celsius, for example, could mean longer heat waves, more intense rainstorms and the faster disintegration of coral reefs.

Among the more significant of the study’s findings is that it is possible to attribute some extreme weather to climate change. The field known as “attribution science” has advanced rapidly in response to increasing risks from climate change.

The E.P.A. is one of 13 agencies that must approve the report by Aug. 18. The agency’s administrator, Scott Pruitt, has said he does not believe that carbon dioxide is a primary contributor to global warming.

“It’s a fraught situation,” said Michael Oppenheimer, a professor of geoscience and international affairs at Princeton University who was not involved in the study. “This is the first case in which an analysis of climate change of this scope has come up in the Trump administration, and scientists will be watching very carefully to see how they handle it.”

Scientists say they fear that the Trump administration could change or suppress the report. But those who challenge scientific data on human-caused climate change say they are equally worried that the draft report, as well as the larger National Climate Assessment, will be publicly released.

The National Climate Assessment “seems to be on autopilot” because of a lack of political direction, said Myron Ebell, a senior fellow at the Competitive Enterprise Institute.

The report says significant advances have been made linking human influence to individual extreme weather events since the last National Climate Assessment was produced in 2014. Still, it notes, crucial uncertainties remain.

It cites the European heat wave of 2003 and the record heat in Australia in 2013 as specific episodes where “relatively strong evidence” showed that a man-made factor contributed to the extreme weather.

In the United States, the authors write, the heat wave that broiled Texas in 2011 was more complicated. That year was Texas’ driest on record, and one study cited in the report said local weather variability and La Niña were the primary causes, with a “relatively small” warming contribution. Another study had concluded that climate change made extreme events 20 times more likely in Texas.

Based on those and other conflicting studies, the federal draft concludes that there was a medium likelihood that climate change played a role in the Texas heat wave. But it avoids assessing other individual weather events for their link to climate change. Generally, the report described linking recent major droughts in the United States to human activity as “complicated,”

saying that while many droughts have been long and severe, they have not been unprecedented in the earth’s hydrologic natural variation.

Worldwide, the draft report finds it “extremely likely” that more than half of the global mean temperature increase since 1951 can be linked to human influence.

In the United States, the report concludes with “very high” confidence that the number and severity of cool nights have decreased since the 1960s, while the frequency and severity of warm days have increased. Extreme cold waves, it says, are less common since the 1980s, while extreme heat waves are more common.

The study examines every corner of the United States and finds that all of it was touched by climate change. The average annual temperature in the United States will continue to rise, the authors write, making recent record-setting years “relatively common” in the near future. It projects increases of 5.0 to 7.5 degrees Fahrenheit (2.8 to 4.8 degrees Celsius) by the late century, depending on the level of future emissions.

It says the average annual rainfall across the country has increased by about 4 percent since the beginning of the 20th century. Parts of the West, Southwest and Southeast are drying up, while the Southern Plains and the Midwest are getting wetter.

With a medium degree of confidence, the authors linked the contribution of human-caused warming to rising temperatures over the Western and Northern United States. It found no direct link in the Southeast.

Additionally, the government scientists wrote that surface, air and ground temperatures in Alaska and the Arctic are rising at a frighteningly fast rate — twice as fast as the global average.

“It is very likely that the accelerated rate of Arctic warming will have a significant consequence for the United States due to accelerating land and

sea ice melting that is driving changes in the ocean including sea level rise threatening our coastal communities,” the report says.

Human activity, the report goes on to say, is a primary culprit.

The study does not make policy recommendations, but it notes that stabilizing the global mean temperature increase to 2 degrees Celsius — what scientists have referred to as the guardrail beyond which changes become catastrophic — will require significant reductions in global levels of carbon dioxide.

Nearly 200 nations agreed as part of the Paris accords to limit or cut fossil fuel emissions. If countries make good on those promises, the federal report says, that will be a key step toward keeping global warming at manageable levels.

Mr. Trump announced this year that the United States would withdraw from the Paris agreement, saying the deal was bad for America.

<https://www.nytimes.com/2017/08/07/climate/climate-change-drastic-warming-trump.html?mcubz=0>

NEWS COVERAGE PERIOD FROM AUGUST 1ST TO AUGUST 6TH 2017

GOVT URGED TO EVOLVE CLIMATE-FRIENDLY POLICIES

Business Recorder

KARACHI: Experts on Thursday asked the government to evolve climate friendly policies to help promote use of renewable energy to scale back high level of carbon emission across the metropolis.

Speaking at the inaugural session of a two-day workshop, which World Wide Fund for Nature-Pakistan is organizing at a local hotel. The workshop is aimed to build capacity of relevant government departments and other stakeholders on Greenhouse Gas (GHG) inventory development, its reporting besides highlighting efforts of climate change adaptation and mitigation related initiatives of Karachi to a global platform – Carbon Climate Registry (CCR).

This event was organised as part of the project titled ‘introducing renewable energy solutions to enhance energy security and build climate resilience in Karachi,’ which is being implemented by WWF-Pakistan in collaboration with WWF-Sweden and K-Electric in selected union councils of Karachi.

“Joint efforts and serious commitments are required to promote sustainable development and climate friendly policies that can help promote renewable energy and contribute to low carbon emissions in Karachi,” the expert said.

Arshad Vohra, Deputy Mayor Karachi Metropolitan Corporation (KMC) said that it is certainly a good step towards making Karachi climate resilient. Karachi is already a member of C40 but no concrete measures have been taken during the last decade for its implementation.

He was of the view that greenhouse emissions produced by different sectors should be calculated to support informed decision making. He also agreed to set-up a task force at the KMC to help report and register city's climate change mitigation initiatives to the OPCC portal and CCR.

Ali Dehlavi, Regional Head Sindh and Balochistan, WWF-Pakistan said Karachi citizens are currently facing large scale environmental challenges including energy crisis, industrial and household waste, scarcity of drinking water, lack of green spaces and uneven rainfall patterns.

He was of the view that it is the right time for the city to shift to green technologies adoption that can help reduce GHGs emission.

Pamela Cabacungan, Project Officer, Mitigation, ICLEI said that Local Governments for Sustainability Southeast Asia Secretariat (SEAS), the lead trainer of the workshop shared that climate change is not an isolated subject but it affects productivity and functions of different sectors.

She was of the view that one cannot formulate actions until rudimentary data about climate change is obtained. For tackling climate change, Karachi should increase its share of renewable energy, promote sustainable public transportation, avoid deforestation and ensure efficient waste management among others.

<https://epaper.brecorder.com/2017/08/08/21-page/896071-news.html>

NATIONS WILL START TALKS TO PROTECT FISH OF THE HIGH SEAS

Somini Sengupta

International New York Times, August, 4, 2017

UNITED NATIONS — More than half of the world's oceans belong to no one, which often makes their riches ripe for plunder.

Now, countries around the world have taken the first step to protect the precious resources of the high seas. In late July, after two years of talks, diplomats at the United Nations recommended starting treaty negotiations to create marine protected areas in waters beyond national jurisdiction — and in turn, begin the high-stakes diplomatic jostling over how much to protect and how to enforce rules.

“The high seas are the biggest reserve of biodiversity on the planet,” Peter Thomson, the ambassador of Fiji and current president of the United Nations General Assembly, said in an interview after the negotiations. “We can't continue in an ungoverned way if we are concerned about protecting biodiversity and protecting marine life.”

Without a new international system to regulate all human activity on the high seas, those international waters remain “a pirate zone,” Mr. Thomson said.

Lofty ambitions, though, are likely to collide with hard-knuckled diplomatic bargaining. Some countries resist the creation of a new governing body to regulate the high seas, arguing that existing regional organizations and rules are sufficient. The commercial interests are powerful. Russian and Norwegian vessels go to the high seas for krill fishing; Japanese and Chinese vessels go there for

tuna. India and China are exploring the seabed in international waters for valuable minerals. Many countries are loath to adopt new rules that would constrain them.

And so, the negotiations need to answer critical questions. How will marine protected areas be chosen? How much of the ocean will be set aside as sanctuaries? Will

extraction of all marine resources be prohibited from those reserves — as so-called no-take areas — or will some human activity be allowed? Not least, how will the new reserve protections be enforced?

Russia, for instance, objected to using the phrase “long term” conservation efforts in the document that came out of the latest negotiations in July, instead preferring time-bound measures. The Maldives, speaking for island nations, argued that new treaty negotiations were urgent to protect biodiversity.

Several countries, especially those that have made deals with their marine neighbors about what is allowed in their shared international waters, want regional fishing management bodies to take the lead in determining marine protected areas on the high seas. Others say a patchwork of regional bodies, usually dominated by powerful countries, is insufficient, because they tend to agree only on the least restrictive standards. (The United States Mission to the United Nations declined to comment.)

The new treaty negotiations could begin as early as 2018. The General Assembly, made up of 193 countries, will ultimately make the decision.

A hint of the tough diplomacy that lies ahead came last year over the creation of the world’s largest marine protected area in the international waters of the Ross Sea. Countries that belong to the Commission for the Conservation of Antarctic Marine Living Resources, a regional organization, agreed by consensus to designate a 600,000-square-mile area as a no-fishing zone. It took months of pressure on Moscow, including an intervention by John F. Kerry, then the United States secretary of state.

The discussions around marine protected areas on the high seas may also offer the planet a way to guard against some of the effects of global warming. There is growing scientific evidence that creating large, undisturbed sanctuaries can help marine ecosystems and coastal populations cope with climate change effects, like sea-level rise, more intense storms, shifts in the distribution of species and ocean acidification.

Not least, creating protected areas can also allow vulnerable species to spawn and migrate, including to areas where fishing is allowed.

Fishing on the high seas, often with generous government subsidies, is a multibillion-dollar industry, particularly for high-value fish like the Chilean sea bass and bluefin tuna served in luxury restaurants around the world. Ending fishing in some vulnerable parts of the high seas is more likely to affect large, well-financed trawlers. It is less likely to affect fishermen who do not have the resources to venture into the high seas, said Carl Gustaf Lundin, director of the global marine program at the International Union for Conservation of Nature. In fact, Mr. Lundin said, marine reserves could help to restore dwindling fish stocks.

High-seas fishing is not nearly as productive as it used to be. “It’s not worth the effort,” he said. “We’ve knocked out most of the catches.”

Currently, a small but growing portion of the ocean is set aside as reserves. Most of them have been designated by individual countries — the latest is off the coast of the Cook Islands, called Marae Moana — or as in the case of the Ross Sea, by groups of countries. A treaty, if and when it goes into effect, would scale up those efforts: Advocates want 30 percent of the high seas to be set aside, while the United Nations development goals, which the nations of the world have already agreed to, propose to protect at least 10 percent of international waters.

Why is such a treaty necessary? At the moment, a variety of regional agreements and international laws govern what is permitted in international waters. The countries of the North Atlantic must agree, by consensus, on what is allowed in the high seas in their region, for instance, while the International Seabed Authority regulates what is allowed on the seabed in international waters, but not much more.

That patchwork, conservationists argue, has left the high seas open to pillage. Enforcement is weak. Elizabeth Wilson, a project director at the Pew Charitable Trusts, wrote in a recent paper that they “lack the coordination to protect and conserve their immense but fragile biodiversity.”

Pew offers a list of fragile high-seas ecosystems that should be protected. At the top of the list is the Sargasso Sea in the middle of the Atlantic Ocean, which is under increasing pressure from fishing trawlers, Ms. Wilson writes, and home to 100 species of invertebrates, 280 species of fish and 23 types of birds.

<https://www.nytimes.com/2017/08/02/climate/nations-will-start-talks-to-protect-fish-of-the-high-seas.html>

INTENSE HEAT ‘TO MAKE HUMAN SURVIVAL DIFFICULT IN PAKISTAN’ BY 2100
ISLAMABAD: Pakistan is among South Asian countries that are at high risk of being hit by intense heat by the end of this century that will ultimately make human survival difficult in the region.

A study based on computer simulations by researchers at the Massachusetts Institute of Technology (MIT) has made startling revelations about the impact of climate change on South Asian countries by 2100, which includes Pakistan, India and Bangladesh.

“If climate change continues at its current pace, deadly heat waves beginning in the next few decades will strike parts of India, Pakistan and Bangladesh... heat waves across South Asia in the summer of 2015 killed an estimated 3,500 people and similar events will become more frequent and intense,” according to the international researchers.

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Sehrish Wasif

The Express Tribune, August 4, 2017

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While commenting on the research, experts told The Express Tribune that Pakistan is already among 10 countries most affected by climate change and every year the situation is worsening.

Vice President of Asia-Pacific region of the World Meteorological Organisation (WMO) Dr Ghulam Rasul said, “It is unfortunate that the authorities concerned in Pakistan are not feeling the gravity of the current situation.

“The day is not too far when extreme weather due to climate change will have horrible impact on the economy, agriculture, water availability and human in this country. We did not even learn any lesson from intense heat wave that hit Karachi in 2015” and claimed more than a thousand lives.

Rasul, who is also chief of the Pakistan Meteorological department (PMD), said: “Even our local researches have projected that in the near future, it will be difficult to live in Pakistan mainly due to extreme weather events that will also trigger worst water crisis.”

He said even this year, from April onwards maximum temperatures set a new record in different parts of Pakistan.

Turbat reported a temperature of 54 degrees on May 28, and according to WMO spokeswoman Claire Nullis the hottest place on Earth appears to be the town of Turbat in southwestern Pakistan, which reported a temperature of 54 degrees Celsius in May.

Rasul said in every year the frequency and intensity of heat wave is increasing in Pakistan.

“Under the impact of climate change, summer is extending, winter is squeezing and spring is vanishing from Pakistan,” he said.

He believed that major causes behind the worsening situation are rapid urbanisation, population growth and deforestation among others.

“Pakistan is currently not capable enough of tackling the alarming situation and, if timely measures are not taken, then it would further worsen the situation,” he warned.

Former Pak-EPA Director-General Asif Shuja said the study carried out by Eltahir indicated rise of wet bulb temperature by year 2100 in Pakistan and other countries of South Asia.

He said in Pakistan temperature increase was being realised variably depending upon the decade and in five zones.

“Pakistan has seen a rise of average 0.60 degree centigrade from year 1800 to 2000 – the highest rise was in the Balochistan and Sindh areas,” he added.

The extreme temperature events have been indicated in Pakistan’s climate change policy and action plan, said Shuja.

“The government should show some seriousness in strengthening the institutions concerned and provide them with adequate resources to cater for extreme weather events, before it gets too late,” he warned.

<https://tribune.com.pk/story/1474090/intense-heat-make-human-survival-difficult-pakistan/>

IN THE CLIMATE CROSSHAIRS

Naseer Memon

The News, August 6, 2017

A report issued by the Asian Development Bank (ADB) entitled, A Region at Risk: the human dimensions of climate change in Asia and Pacific, paints a bleak scenario for the countries in the Asia and Pacific region if climate change is not contained.

The report underlines a range of risks posed to the countries located in the region. A peculiar feature of the region is Himalayas that separates the Indian subcontinent from the Tibetan Plateau. The mountain range contains nine of the ten highest peaks in the world. The highest peak on earth and the third-largest deposit of ice and snow in the world are also located in the range. Himalayas is South Asia’s water roof. Major rivers snaking through the region owe their sustenance to Himalayas.

The Indus, Yangtze, and Ganges–Brahmaputra are sources of life and livelihood for approximately 1.3 billion people. The Yangtze is the longest river in Asia and the third longest in the world. It is considered a lifeline of China as it irrigates 20 per cent of the country’s land mass. The Mekong River runs through the China Myanmar, Lao, Thailand, Cambodia, and Vietnam.

Likewise, the Indus is a lifeline of Pakistan. And, the Ganges supports diverse ecosystem of India and Bangladesh.

Additionally, the Asia and Pacific region also contains precious ecosystems of large deltas of the Yellow River, Yangtze, Pearl River, Red River, Mekong, Chao Phraya, the Irrawaddy, Indus, and Ganges. These are among the most fertile deltas in the world providing home and livelihoods to hundreds of millions of people of the region.

All the aforementioned facts signify magnitude of the potential impact of climate change in the region. Life in the region is intractably intertwined with natural ecosystems, and therefore susceptible to climatic shocks. Different forms of climate change are likely to impact life in the region.

Rapid and haphazard urbanisation in the region also makes life vulnerable to vagaries of climate. Share of urbanised population in the region has increased from 20 per cent in 1950s to approximately 50 per cent today, and it is expected to increase to 65 per cent by 2050. In absolute numbers, urban population is enormous. It has reached 1.6 billion and is expected to swell to 2.25 billion by 2030. This explains the fact that the Asia and Pacific region comprises some of the largest cities on earth. In 2014, the region had 16 of the 28 mega cities (with more than 10 million population) of the world and 28 of the 44 large cities (with 5–10 million inhabitants).

Another vulnerability dimension is a sizeable population inhabited in low elevation coastal strips. One important impact of the climate change phenomenon is increasing sea level that makes coastal communities extremely vulnerable. Some of the countries in the region have a large part of their population located in the Asian littorals — Bangladesh (48.7 per cent), Myanmar (27.8 per cent), Thailand (26 per cent) and Vietnam (54.7 per cent) are few such examples.

Although Pakistan's coastal population is lesser (3.2 per cent only), its economic significance is high. As atmospheric temperature increases, low elevation areas are exposed to greater risks. The sea encroaches large tracts of coastal areas, renders ground water unfit for human consumption and erodes livelihood resources like agriculture and fisheries.

During the last century, sea level rise of about 0.19 metres has been observed. This was the largest sea-level increase of the past 25 centuries. Due to this phenomenon, flood exposure is increasing in coastal cities (Hallegatte et al. 2013). Studying the 136 largest coastal cities, the experts estimate that the average global flood losses in 2005 were approximately \$6 billion per annum, which could potentially increase to \$52 billion by 2050.

According to Munich Re, a reinsurance company based in Munich, Germany, economic losses caused by tropical cyclone in the region (\$220 billion) are equal to 30 per cent of total global losses between 1980 and 2014. The corresponding share of fatalities was 374,000 which is 93 per cent of global mortality, indicating the high vulnerability of Asia and the Pacific to the tropical cyclone hazard.

A research study finds an alarming increase in tropical cyclone numbers by 46 per cent for the Arabian Sea. The population at risk residing within 100 kilometres from the coastline is more than 37 per cent of the population in the Asia and Pacific region.

Greenpeace estimated that in India, Bangladesh, and Pakistan approximately 130 million people reside in low-elevation coastal zones and are at risk of being displaced by the end of the 21st century under worst-case scenarios.

Like coastal communities, mountain areas inhabitants are also facing a variety of risks. Glacial loss exposes communities to another string of risks. Most glaciers are in decline and the Himalayan region is experiencing rapid retreat of glacier area. Glacial melt unleashes catastrophic floods. Having large rivers, the region faces wrath of floods every year.

According to the International Disaster Database (EM-DAT), every year an average of 125 recorded riverine flood events occurred globally between 2001 and 2015, claiming a total of over 4,000 lives. Asia shared 90 per cent of the affected people and 59 per cent of economic losses worldwide, equivalent to about 80 million people and \$23 billion annually. The 2011 flood in Thailand was the most expensive insurance loss worldwide attributed to riverine flooding, with insured liabilities estimated at \$15 billion.

Monsoonal flooding in Pakistan in 2010 caused nearly 2,000 immediate fatalities and estimated economic losses of over \$10 billion. Between 1996 and 2015, six of the world's ten most affected countries by extreme events (Myanmar, the Philippines, Bangladesh, Vietnam, Pakistan, and Thailand) were in Asia.

The report reveals that the Asian countries are likely to experience harsher summers. The Paris Accord promises to limit global warming to 1.5°C to 2°C above pre-industrial levels, however under business-as-usual scenario, Asian summer temperatures over land are projected to increase by 6°C by 2100 with no sign of a slowdown in the warming trend.

Thermal variation will have different impact on various countries in the region. Under the business-as-usual scenario, annual mean precipitation is projected to increase in the late 21st century by up to 50 per cent over most land area. By contrast in Pakistan and Afghanistan annual mean precipitation is projected to decline by 20–50 per cent over this period. This underlines the need of a well-meditated water conservation strategy in Pakistan.

Regrettably the water conservation debate in Pakistan has been confined only to construction of dams.

Changing climate scenario merits a greater focus on conservation of water resources in Pakistan. Broad-based reforms in agriculture sector to rationalise water consumption would be the key to reduce climate vulnerability of Pakistan.

Climate change is no more a fiction that could be dismissed with disregard. A complex set of challenges emanating from the climate change phenomenon deserve more serious attention and responses. Euphoria of economic development sans consideration of environmental and climatic consequences could erase all gains of decades. Public policy and peoples' practices ought to be realigned with changing realities. Asia is growing astronomically at a very high pace. Sustainability of growth could be derailed if perils of environmental backlash are underestimated and ignored.

<http://tns.thenews.com.pk/climate-crosshairs/#.WaPEvD4jHcs>

September 2017

NEWS COVERAGE PERIOD FROM SEPTEMBER 25 TH TO SEPTEMBER 30 Th 2017
US CLIMATE CHANGE POLICY MADE IN CALIFORNIA

International New York Times, 30 September 2017

Hiroko Tabuchi

SACRAMENTO — The Trump administration may appear to control climate policy in Washington, but the nation's most dynamic environmental regulator is here in California

Mary D. Nichols, California's electric-car-driving, hoodie-wearing, 72-year-old air quality regulator, is pressing ahead with a far-reaching agenda of environmental and climate actions. She says she will not let the Trump administration stand in her way.

As chairwoman of the California Air Resources Board, or CARB, Ms. Nichols is the de facto enforcer of the single biggest step the United States has taken to combat the effects of climate change: standards adopted under the Obama administration that mandate a deep cut in emissions from the 190 million passenger cars on America's roads. Together, those vehicles regularly emit more earth-warming gases than the country's power plants.

At the request of the major automakers, the Environmental Protection Agency officially opened a review of those standards last month. The move was seen as the prelude to a loosening of those targets, which require manufacturers to nearly double the average fuel economy of new cars and light trucks by 2025.

But a peculiar confluence of history, legal precedent and regulatory defiance

has given California unique authority to write its own air pollution rules. And because 12 other states now follow California's standards, the state finds itself in an extraordinary position to stage a regulatory mutiny of sorts — with much of the country's car market in tow.

"We're standing firm. We're prepared to sue. We're prepared to do what we need to do," Ms. Nichols said in a recent interview. "We aren't going anywhere."

At stake in the dispute between officials in Sacramento, the state capital, and Washington is a measure that the Obama administration estimated would eliminate as much as six billion metric tons of greenhouse gas emissions and save consumers more than \$1 trillion at the pump over the lifetime of the cars affected.

For now, Scott Pruitt, the administrator of the E.P.A., has said that he will not seek to revoke the federal waiver that allows California to set auto emissions standards — an action that would likely propel the issue to court. Automakers, similarly, have not publicly asked for such a move.

Still, the auto industry has hardly conceded defeat, several industry officials said. The car companies are urging California to negotiate a loosening of the current standards.

"We all have a common stake in working together," said Mitch Bainwol, president and chief executive of the Alliance of Automobile Manufacturers, which represents 12 major automakers in the United States. Automakers, he said, want "the certainty of achievable targets."

To understand why California has long blazed the trail for the rest of the country in air quality, gaze down from the hills above Turnbull Canyon at the Los Angeles haze.

Ringed by mountains that act as a pollution trap for the fumes from the valley's cars and factories, the Los Angeles-Long Beach area consistently ranks among the nation's worst areas for ozone and particle pollution.

But California's smog was once much worse.

For much of the 20th century, swaths of Southern California were hit with smog outbreaks that turned the skies so dark that locals once mistook a particularly intense episode for a solar eclipse. Crops wilted; school events were canceled; Hollywood studios shut down their outdoor shoots.

The state moved quickly to regulate the obvious sources, like factory smoke stacks, steel mills and coal power plants. Yet the acrid smog persisted.

"You couldn't see the mountains around L.A. on smoggy days," said John R. Balmes, a physician, air pollution expert and a member of CARB's board, who has lived in the region for almost four decades. "People's eyes would burn. They'd have headaches. They'd have problems breathing."

It took Arie J. Haagen-Smit, a Dutch biochemist at the California Institute of Technology, to link the smog to auto emissions. An avid gardener, he became alarmed in the late 1940s by the discolored leaves and flowers in his garden. He soon tracked down the culprit: the largely invisible exhaust from motor vehicles or factories was reacting with sunlight, forming ozone, or smog.

Major automakers disputed the chemist's findings. But a determined Dr. Haagen-Smit pressed his case, recreating smog in flasks to release at public hearings — proving, beyond a doubt, that cars were the source. That fervor elevated him to a job as the first chairman of the state's air resources board, set up by then Gov. Ronald Reagan in 1967.

When Congress established the E.P.A. in 1970 and passed the Clean Air Act later that year, California was granted a waiver to follow air pollution rules it had already established.

In facing off with the auto industry, Ms. Nichols has harnessed a similar passion.

At a March meeting of the CARB board — where she and her fellow board members resolved to push ahead with stricter emissions rules for cars and trucks, with or without the federal government — she stared down the auto industry representatives present.

No matter that Ms. Nichols, a former environmental lawyer and Wall Street Journal reporter who is known to keep a grueling schedule shuttling between CARB's Sacramento headquarters and her Los Angeles home, was nursing a cold and "could barely croak."

"What were you thinking when you threw yourselves upon the mercy of the Trump administration to try to solve your problems?" she scolded. "Let's take action today, and let's move on."

Ms. Nichols is on her second tour as chairwoman of the air resources board; the current California governor, Jerry Brown, appointed her in 1979, during his first stint in office. She was again tapped to head the board in 2007, when Gov. Arnold Schwarzenegger asked her to return.

A clean-car evangelist, she is often seen driving around Los Angeles, where she lives, in her zero-emissions Honda Fit in “electric violet blue.” (She recently leased a second vehicle, a Toyota Mirai, a zero-emissions hydrogen fuel cell car, also in blue.)

She initially lauded automakers for supporting an effort, started by President Obama in 2009, to harmonize a mishmash of greenhouse gas emissions and fuel economy standards set by the E.P.A., the National Highway Traffic Safety Administration and CARB. Having taken almost \$80 billion in bailout money, General Motors and Chrysler, especially, were in no position to resist.

Still, the automakers soon balked at the ambitious pace of fuel efficiency improvements under the program, which requires automakers to progressively raise the fuel economy of their cars to an average of 54.5 miles per gallon by 2025, nearly double the average in 2012. That comes to about 36 miles per gallon in real-world driving.

That aggressive target would compel automakers to speed the development of hybrid and electric cars, and to improve the fuel efficiency of their conventional fleets. Automakers also argued that meeting that target would be prohibitively costly, forcing them to raise car prices or to make more battery-powered vehicles than Americans want to buy.

In a compromise, the automakers agreed to the program, provided that the standards for the later years — 2022-25 — would be subject to a midterm review.

Just a day after his electoral victory, the Auto Alliance reached out to the president-elect, urging him to rework the standards, calling them a “substantial challenge” for the auto industry. In a similarly swift maneuver, the Obama administration cut short the review and finalized the rules, calling them “feasible, practical and appropriate,” just before leaving office.

The automakers doubled down. In a Feb. 21 letter, the auto industry alliance implored Mr. Pruitt, the E.P.A. head, to overturn President Obama’s 11th-hour decision. The standards, the alliance argued, “threaten to depress an industry that can ill afford spiraling regulatory costs.”

The E.P.A. has reversed President Obama’s decision. Last month, the agency officially called for comments on standards for model years 2021-25, widening the review’s scope. The National Highway Traffic Safety Administration, which focuses mostly on auto safety, not emissions, is expected to lead the review.

“We’re going to work on the CAFE standards so you can make cars in America again,” Mr. Trump said in a speech in Detroit this year, referring to the Corporate Average Fuel Economy standards, which were first put in place in 1975.

For a meaningful reprieve, however, automakers need Ms. Nichols on board. If CARB does not sign onto the reopened review, the automakers face the prospect of separate rules for California and its follower states — a coalition that covers more than 130 million residents and more than a third of the vehicle market in the United States.

Ms. Nichols is not budging. At the first public hearing on the reopened midterm review last week, CARB’s emissions compliance chief, Annette Hebert, threatened to abandon the review if the E.P.A. took steps to weaken the emissions standards.

Should the agency try to curtail California's ability to set its own rules — by challenging its Clean Air Act waiver, for example — the fight will more than likely end in court, said Kevin Poloncarz, a San Francisco lawyer focusing on air and climate change law.

“Pulling that waiver would be like declaring an all-out war on California,” he said.

Even in California, some critics challenge the expansive powers of a board of unelected officials with the authority to set environmental policy. All but two of the board's 14 voting members are appointed by the governor, and today include a doctor, an almond farmer and a paint company executive.

Over the years, CARB has expanded its reach, regulating products as diverse as lawn mowers and bulldozers, air fresheners, paint thinners and even hair and bug spray. It has sent inspectors to Tokyo and Stuttgart, Germany, to monitor the testing of cars manufactured overseas. And it oversees a system of air-quality management districts across California that issue and enforce their own local regulations.

The agency is insulated even from state budgetary and legislative pressures. Its \$956 million budget comes from user fees, like permits paid by polluters or the fees paid by car owners for smog certification, instead of from the state's general fund.

Accusations of overreach exploded in 2015, when Mr. Brown made a push to require a 50 percent reduction in petroleum use in motor vehicles by 2030, with CARB managing the reduction. Republicans and even some Democrats balked at the plan, and an oil industry campaign warned that the law would vastly expand CARB's authority and could even lead to gas rationing.

The governor eventually abandoned his push. He also signed legislation allowing the state Senate and Assembly to appoint one member each to the CARB board, enhancing lawmakers' control over the agency.

“What worries me is that they have unrestrained power,” said Mike Morrell, a Republican state senator who is one of CARB's toughest critics. “They think they're the masters of the universe.”

CARB's Arie Jan Haagen-Smit Laboratory in El Monte, Calif., is a reminder of the resources at the agency's command.

At the lab, 120 technicians measure emissions on new engines before they can be used in cars sold in California. They also pull cars from the road to make sure older models stay compliant. A failed test can delay certification, or in the case of an older model, an expensive recall.

Engineers at the lab helped expose Volkswagen's diesel emissions cheating, a scandal that affected about 600,000 cars in the United States. The lab is now strengthening its testing, and will move to a new state-of-the-art new facility in Riverside by 2020.

Even as CARB remains steadfast, however, Ms. Nichols is eager to persuade automakers that they ultimately stand to benefit from stricter fuel economy rules.

This year, Britain and France proposed to end the sale of new gasoline and diesel cars by 2040. Volvo recently said that the models it introduces starting in 2019 will be either hybrids or powered solely by batteries.

Without an aggressive shift toward zero- and low-emissions cars, the American auto industry risks becoming a global laggard, Ms. Nichols said. It is no time, she said, to be meddling with standards already in place.

“We want to start conversations about post-2025,” Ms. Nichols said. “That’s what we’re getting ready for.”

https://www.nytimes.com/2017/09/27/climate/california-climate-change.html?rref=collection%2Fbyline%2Fhiroko-tabuchi&action=click&contentCollection=undefined®ion=stream&module=stream_unit&version=latest&contentPlacement=1&pgtype=collection

NEWS COVERAGE PERIOD FROM SEPTEMBER 18 TH TO SEPTEMBER 24 Th 2017

LOW-COST SOLAR IMPORTS HURT US COMPANIES: TRADE PANEL

Dawn. September 24, 2017

WASHINGTON: Low-cost solar panels imported from China and other countries have caused serious injury to American manufacturers, a US trade commission ruled on Friday, raising the possibility of the Trump administration imposing tariffs that could double the price of solar panels from abroad.

The 4-0 vote by the International Trade Commission sets up a two-month review period in which the panel must recommend a remedy to President Donald Trump, with a final decision on tariffs expected in January.

White House spokeswoman Natalie Strom said Trump “will examine the facts and make a determination that reflects the best interests of the United States. The US solar manufacturing sector contributes to our energy security and economic prosperity.”

Georgia-based Suniva Inc. and Oregon-based SolarWorld Americas brought the case, saying a flood of imports have pushed them to the brink of extinction. Suniva declared bankruptcy, while SolarWorld had to lay off three-quarters of its workforce.

Cheap imports have led to a boom in the US solar industry, where rooftop and other installations have surged tenfold since 2011.

The main trade group for the solar industry and many governors oppose tariffs, saying they could cause a sharp price hike that would lead to a drop in solar installations by more than 50 per cent in two years.

Abigail Ross Hopper, president and CEO of the Solar Energy Industries Association, called the trade commission’s vote disappointing for nearly 9,000 US solar companies and the 260,000 Americans they employ.

“Foreign-owned companies that brought business failures on themselves are attempting to exploit American trade laws to gain a bailout for their bad investments,” Hopper said, warning that potential tariffs could double the price of solar installations, lowering US demand and risking billions of dollars in investment.

Suniva’s US operations are based in Georgia, but the company’s majority owner is in China. SolarWorld Americas is a subsidiary of German solar giant SolarWorld, which declared insolvency last month.

“It will be in President Trump’s hands to decide whether America will continue to have the capability to manufacture this energy source,” the company said in a statement. “President Trump can remedy this injury with relief that ensures US energy dominance that includes a healthy US solar ecosystem and prevents China and its proxies from owning the sun.” Trump has not cozied up to the solar industry, as he has for coal and other fossil fuels, but he is considered sympathetic to imposing tariffs on solar imports as part of his “America first” agenda.

Governors of four solar-friendly states Nevada, Colorado, Massachusetts and North Carolina oppose the tariff, warning it could jeopardise the industry. They cited a study showing that a global tariff could cause solar installations to drop by more than 50pc in two years, a crushing blow as states push for renewable energy that does not contribute to climate change.

“The requested tariff could inflict a devastating blow on our states’ solar industries and lead to unprecedented job loss, at steep cost to our states’ economies,” the two Republicans and two Democrats wrote in a letter Thursday to the trade commission.

A group of former US military officials also urged the Trump administration to reject solar tariffs, noting that the Defence Department is the nation’s largest energy consumer and follows a federal law calling for the Pentagon to procure 25pc of its energy from renewable sources by 2025.

Suniva called the case a matter of fairness. Even with better manufacturing methods, lower costs and “dramatically improved efficiency,” the company has “suffered substantial losses due to global imports,” Suniva said in its petition. The company declared bankruptcy this spring after laying off 190 employees and closing production sites in Georgia and Michigan.

SolarWorld Americas, meanwhile, has trimmed its workforce from 1,300 to 300, with more cuts likely.

“After nearly 30 factories have shut down in the wake of surging imports, the legacy of this pioneering American industry hangs in the balance,” said Juergen Stein, CEO and president of SolarWorld Americas.

“We believe that the promise of solar – energy sustainability and independence –s can be realised only with healthy American manufacturing to supply growing US demand,” Stein said in a statement to The Associated Press.

Hopper countered that a tariff would likely decrease the number of US manufacturers, because of reduced demand.

While the US solar industry employs about 260,000 people, fewer than 2,000 are involved in making solar panels like those made by Suniva and SolarWorld. More than half of solar jobs are in installation, with another 66,000 in sales, distribution and development.

About 38,000 jobs involve manufacture of inverters, racks and other products related to solar panels.

Hopper told reporters she was optimistic that Trump would not impose tariffs on solar imports.

<https://www.dawn.com/news/1359616>

SPEAKERS HIGHLIGHT ADVERSE IMPACT OF CLIMATE CHANGE

Business Recorder, 17 September, 2017

LAHORE: Speakers at a workshop acknowledged that the adverse impacts of climate change are leading to increased frequency and intensity of disasters, and these impacts expected to be disproportionately forceful in developing countries, especially among the poor and vulnerable populations.

The workshop titled 'Human Mobility in the Context of Climate Change Adaptation, Disaster Risk Reduction, and Sustainable Development Goals (SDGs) in the Hindu Kush Himalaya' brought together more than 30 policy makers and experts from Bangladesh, Bhutan, Myanmar, Nepal, and Pakistan.

The workshop was arranged to discuss challenges posed to the nations by natural disasters. In 2016, natural disasters such as floods and earthquakes forced more than 24 million people globally to leave their homes. This level of disaster displacement and environmental migration poses significant regional challenges in the 21st century.

The two-day regional workshop ended on Friday at the ICIMOD headquarters in Kathmandu, according to information reached here.

The forum provided a platform for government officials to share their experiences and learn how to address human mobility, including displacement and migration, in national policies.

The workshop acknowledged that the adverse impacts of climate change are leading to increased frequency and intensity of disasters, and these impacts expected to be disproportionately forceful in developing countries, especially among the poor and vulnerable populations. People will respond to these impacts with a combination of strategies, including mobility. Human mobility manifests in various forms in communities affected by disasters and environmental change i.e. evacuation, temporary or protracted displacement, migration as adaptation, internal or cross-border movement, planned relocation and other types.

The workshop concluded with recommendations to integrate human mobility provisions in national policies and programmes to implement their respective countries' international commitments regarding climate change adaptation, disaster risk reduction, and the Sustainable Development Goals. The workshop was hosted jointly by the Ministry of Population and Environment (MoPE) of the Government of Nepal, International Centre for Integrated Mountain Development (ICIMOD),

International Organization for Migration (IOM), Nepal Institute of Development Studies (NIDS), and Platform on Disaster Displacement (PDD).—PR

<http://epaper.brecorder.com/2017/09/17/15-page/671243-news.html>

DESPITE RISING SEAS AND BIGGER STORMS, FLORIDA'S LAND RUSH ENDURES

Lizette Alvarez

International New York Times, SEPT. 18, 2017

MIAMI — Florida was built on the seductive delusion that a swamp is a fine place for paradise.

The state's allure — peddled first by visionaries and hucksters, most famously in the Great Florida Land Boom of the 1920s — is no less potent today.

Only, now there is a twist: Florida is no longer the swampy backwater it once was. It is the nation's third most populous state, with 21 million people, jutting out precariously into the heart of hurricane alley, amid rising seas, at a time when warming waters have the potential to bring ever stronger storms. And compared with the 1920s, when soggy land was sold by mail, the risks of building here are far better known today. Yet newcomers still flock in and buildings still rise, with everyone seemingly content to double down on a dubious hand.

Florida mostly survived Hurricane Irma, which delivered its most severe damage elsewhere. More than a week later, nearly 400,000 weary, sweat-soaked people in the state remain without power; at least 50 did not survive the storm or its even more dangerous aftermath; and the billions in property damage are still being calculated. Meanwhile, Hurricane Maria rumbles across the Caribbean.

Many saw last week's storm as another dress rehearsal for the Big One. But it wasn't much of a reckoning for a state mostly uninterested in wrestling with the latest round of runaway development, environmental degradation and the mounting difficulties from catastrophic storms. Since the recession's end, new condominiums and houses have been built at a gallop. Many rise on or near the coast, or, in some cases, environmentally important wetlands, which were nature's way of absorbing water. Meanwhile, the seas climb higher, floodwaters roam wider, evacuations grow increasingly tangled, the cost of insurance jumps and infrastructure decays.

"People want to live here," said Craig Fugate, a Floridian who served as Florida's chief emergency manager for two Republican governors and went on to head the Federal Emergency Management Agency under President Barack Obama. "In too many cases, we have not planned for how to build and live with the hazards we have, so that when storms hit we are not wiping people out financially and putting people at extreme risk. I am not someone who says we should not grow or build, but we are continuing to build in ways that are not sustainable."

Many natural buffers, like mangroves, dunes and wetlands, that absorb wind or water have been paved over to make room for supermarkets, schools and shopping centers. Near Naples, Marco Island, where the storm made its second landfall, used to be a mangrove island that helped protect the mainland from winds and storm surges. But it became a lure for resorts and golf courses long ago.

The Florida Everglades became the symbol for shortsighted intentions gone wrong. The Army Corps of Engineers tried to control the water flow through the Everglades to help the sugar industry flourish and to make way for growth. Instead, the corps's work crippled the river of grass, and half of the Everglades has disappeared. Every corner of Florida has faced the onslaught of growth.

“Southwest Florida has lost nearly half its wetlands,” said Eric Draper, the executive director of Audubon Florida. When a storm strikes, he said, “there is no way to easily deal with all that water if the land has become paved with rooftops and parking lots and roads.”

And yet every month, sun lovers from the Northeast, the Midwest, Europe and Latin America pour into the state. Many of the new residents are more affluent, which speaks to the growing income gap and higher cost of living in Florida. People still clamor to live on the coast or near the beach, paying top dollar to live in these increasingly vulnerable areas, including the Florida Keys, which were hit hard during Hurricane Irma.

And for all the growing sophistication of alerting people to monster storms, as the state's population grows, so do the difficulties of evacuating 21 million people from a long peninsula with only two major highways heading north.

“When do we cross this point that the homes along the coast are no longer valuable because they're really losing their marketability?” wondered Cary Glickstein, the mayor of Delray Beach in South Florida. “We are certainly not there yet. We are not even close

Real estate still reigns supreme. There is simply too much money in it, and the spoils funnel into government at every level. High-rises today swallow up whole neighborhoods. Perched along Biscayne Bay and ending at the river, the Brickell neighborhood of Miami is now a canyon of towering condos. A raging storm surge coursed through its streets during Hurricane Irma. New luxury buildings reach for the sky on Miami Beach and Fort Lauderdale.

Florida's west coast and Orlando have ushered in their own building boom. And low-lying Tampa, which some risk assessors call the most vulnerable city in the state to the lashing of a serious hurricane, promotes its robust growth as a reason to settle there.

Under the leadership of Gov. Rick Scott, a Republican multimillionaire elected in 2010, and the Republican-controlled legislature, state government today exerts less control and oversight over Florida's growth, by design, than was true in recent decades.

In 2011, they eliminated the agency designed to keep tabs on excessive or unruly growth, and discarded a landmark growth-management law that forced developers to consider the impact of their projects on public amenities like parks and roads. They shifted most of the responsibility to local governments, many of which are traditionally susceptible to the financial muscle of builders and developers. Budgets for critically important water management systems were slashed. At the same time, climate change skepticism abounds.

Mr. Scott's stance has softened in recent years as the public outcry mounted. Among other things, he has pushed for more money to help the Everglades and Lake Okeechobee, Florida's largest inland lake, whose dike, designed to keep its water from flooding nearby residences, is in need of major maintenance.

But in a low-tax state, something has to give. Miami Beach, a wealthy city, has raised storm-water fees from residents to begin paying for its \$400 million plan to stay dry. The city has installed pumps to push out water and has elevated some roads, a mostly successful short-term fix. The city of Miami will ask its voters in November to provide \$100 million for new pumps and an upgraded storm water system.

“This is the new normal,” said Philip Levine, the mayor of Miami Beach, who campaigned on rescuing Miami Beach from floods. Speaking of last week’s storm and the need for modern infrastructure, he said, “If this wasn’t a wake-up call, if Houston wasn’t a wake-up call, I don’t know what is.”

Elsewhere in tax-averse Florida, though, far less is being done, and difficult measures, like revising building codes to protect from flood, are fiercely opposed by developers. The state’s aging infrastructure also makes it harder, and more expensive, to grapple with hurricanes. Federal spending on important projects remains modest as well. So sewer systems, canals, roads, and bridges go mostly neglected.

“We’ve basically been duct-taping our infrastructure for years,” said Bob Buckhorn, the mayor of Tampa. “If you keep refusing to acknowledge that climate change is real, if you keep promising an infrastructure bill that never appears, you’re not much help to us.”

Blunting development has never been easy in a state that long viewed itself as a commodity to be marketed for the greatest return, said Bob Graham, a moderate Democrat who has been governor of Florida and has represented the state in the Senate. But the fight to protect Florida’s natural resources was not particularly ideological. Two Republican governors, Robert Martinez and Jeb Bush, were relatively progressive on the issue.

Today, Mr. Graham said, that bipartisan approach has been replaced by the kind of elbow-throwing partisanship now common in Washington and beyond. “We don’t have the right to satisfy our own appetites to do anything we want,” said Mr. Graham, whose daughter Gwen is running for governor in 2018, when the seat comes open. “I am hoping this re-commoditization of Florida is short-lived.”

Still, even those with doubts about Florida’s future want their piece of paradise. For the most part, the question is not whether to keep building, but how and where to build.

Caloosahatchee River, has a view of the latest Florida boomlet. She lives in a modest house, of the sort that once dotted the city. Now McMansions for wealthier residents have bulldozed aside many of those smaller houses.

“Selling those big homes that are closer and closer to the water is more important than whatever the aftereffect will be,” Ms. Kilroy said. “I think there’s a lot of people who don’t want to look at the big picture. They don’t want to look past what’s going to affect them.”

https://www.nytimes.com/2017/09/18/us/florida-flood-irma-growth-.html?ref=collection%2Fbyline%2Fflizette-alvarez&action=click&contentCollection=undefined®ion=stream&module=stream_unit&version=latest&contentPlacement=1&pgtype=collection

NEWS COVERAGE PERIOD FROM SEPTEMBER 11 TH TO SEPTEMBER 17 Th 2017

DIR RESIDENTS COMPLAIN OF DEFORESTATION

Dawn, September 11th, 2017

TIMERGARA: Residents of Bagh Toormang village have complained that decades-old pine trees were being ruthlessly felled in the forests of Ajdari Bagh here.

Talking to reporters, Malik Zameer Khan and Mukhtiar said that so far more than 300 pine and other trees had been chopped in the forest owned by local communities.

They said some influential persons were behind the illegal act. They said the divisional forest officer and other officials concerned had been informed of the deforestation, but to no avail.

They said on one hand the Khyber Pakhtunkhwa government was spending billions of rupees on clean and green programme but, on the other, the existing forests were being eliminated.

They demanded of PTI chief Imran Khan and chief minister to take notice of the matter.

<https://www.dawn.com/news/1356932/dir-residents-complain-of-deforestation>

NEWS COVERAGE PERIOD FROM SEPTEMBER 8 TH TO SEPTEMBER 10 Th 2017

CYCLONES AND CLIMATE CHANGE: CONNECTING THE DOTS

Business Recorder, September 9, 2017

Marlowe Hood

Scientists freely acknowledge they don't know everything about how global warming affects hurricanes like the one pummeling southeast Texas.

But what they do know is enough to keep them up at night.

The amplifying impact of sea level rise, warming oceans, and hotter air — all incontrovertible consequences of climate change — is basic physics, they say.

Likewise accelerated shifts in intensity, such as the sudden strengthening that turned Harvey from a Category 2 to a Category 4 hurricane — on a scale of 5 — just as it made landfall last Friday.

What's missing is a detailed track record of hurricanes past, the kind of decades-long log of measurements that climate scientists need to discern the fingerprint of human influence.

Starting in the 1970s, satellite data allowed for a better tally, but even that wasn't enough. "It is awfully difficult to see climate change in historical data so far because hurricanes are fairly rare," Kerry Emmanuel, a professor of atmospheric science at MIT in Boston, said.

Experts, in other words, do not disagree on the potential of manmade global warming to magnify the destructive power of the tropical storms known variously around the world as cyclones, hurricanes and typhoons. Rather, they are confounded — for now — by a lack of information.

“Just because the data don’t allow for unambiguous detection yet, doesn’t mean that the changes haven’t been occurring,” noted James Kossin, a scientist at the US National Oceanic and Atmospheric Administration’s Center for Weather and Climate in Madison, Wisconsin.

Kossin figured out that cyclones have drifted poleward in their respective hemispheres over the last three decades, a finding hailed by other hurricane gurus as the most unambiguous evidence so far that global warming has already had a direct impact.

Like a tsunami

When it comes to cyclones and climate change, there are many points of near “universal agreement,” said Emanuel.

One is the consequence of rising seas. “The most lethal aspect of hurricanes — wherever they occur in the world — is storm surge,” he said in an interview.

“It is physically the same phenomenon as a tsunami, except that it is excited by wind rather than a sea floor shaken by an earthquake.”

If Hurricane Sandy — which caused \$50 billion in damage — had happened a century earlier, it probably would not have flooded lower Manhattan because sea level was about 30 centimetres (a foot) lower, he pointed out.

Global warming is likely to add roughly a metre (three feet) to the global watermark by century’s end, according to recently revised estimates.

“The surge from these storms will be more devastating — higher and more penetrating,” said James Elsner, an atmospheric scientist and hurricane expert at Florida State University.

A second point of consensus is that hurricanes will hold more water, raising the threat of lethal and destructive flooding.

“We calculate that one degree Celsius (1.8 degrees Fahrenheit) of warming translates into a seven percent increase in humidity in the atmosphere,” said French scientist Valerie Masson-Delmotte, co-chair of the UN’s Intergovernmental Panel on Climate Change (IPCC). The US National Hurricane Center predicts that Harvey could dump more than 40 inches (100 centimetres) by the time skies clear.

Hurricane Mitch — the second deadliest Atlantic hurricane on record — left some 19,000 dead in Central America, “all from fresh-water flooding,” noted Emanuel.

“The irony is that hurricanes are known for wind, yet wind is third on the list of lethal aspects,” after storm surges and flooding caused by rain.

‘Fewer but stronger’

Earlier this year, Emanuel published a study pointing to yet another worrying climate “signal” emerging from the noise of raw data.

Scientists have made great progress in anticipating the path a storm will follow, extending their predictive powers from a day or two to about a week.

At the same time they have made scant headway in forecasting hurricane strength.

“The thing that keeps forecasters up at night is the prospect that a storm will rapidly gain strength just before it hits land,” Emanuel said, citing Harvey as an example.

In 2015, Hurricane Patricia in the Pacific Ocean intensified more rapidly — “It just went ‘Boom!’” — than any storm on record.

“Global warming can accentuate that sudden acceleration in intensity,” Emanuel said.

A finding oft cited as evidence that the jury is still out on whether climate change will boost cyclones is that scientists don’t know if there will be more or fewer such storms in the future.

But even if there are fewer, which seems likely, that misses the point, the experts interviewed agreed.

Since 1971, tropical cyclones have claimed about 470,000 lives and caused some \$700 billion in damages globally, according to the Centre for Research on the Epidemiology of Disasters. But most of that death and destruction is attributable to a relative handful of storms. Just three, for example, have caused well over half of all storm-related deaths in the US since 1900.

So even if the number of mostly smaller storms diminishes, that’s not what counts.

“The idea of ‘fewer but stronger’ seems to be the fingerprint of climate change on tropical cyclones,” Elsner concluded.—AFP

<http://epaper.brecorder.com/2017/09/09/23-page/669835-news.html>

RAILWAYS INSTALLS 1,000-UNIT SOLAR POWER SYSTEM

The Express Tribune, September 9, 2017

LAHORE: Pakistan Railways has successfully installed a 1,000-unit solar power system at its headquarters to make all its working areas free of load-shedding.

Pakistan Railways Minister Khawaja Saad Rafique inaugurated the system on Friday, and felicitated Railways CEO Javed Anwar, AGM Mechanical M Ansarullah Khan, Chief Electrical Engineer Ambreen Zaman and the administration on the successful generation of 1,000 units from the system.

Speaking on the occasion, he said that all four workshops of the railways, washing line, railway station, headquarters building, divisional office, loco-shed, and Karen Hospital had been made free of load-shedding.

The minister said that the solar system installed at the Karen Hospital and headquarters would not only produce 400,000 to 500,000 units per annum for the railways but these systems would also generate extra power for the Lahore Electric Supply Company (Lesco) on Sundays and other holidays.

Rafique said that installation of two diesel generators of one-megawatt each were also important in freeing the working areas of the railways from load-shedding.

He said that earlier work had to suffer due to power outages, which cost Rs2 million per hour. He revealed that the Pakistan Railways Electrical Department had prepared a proposal for 100 railway stations and all divisional headquarters to be shifted to solar power.

“There was a time when the electricity connections of workshops were being cut, but now all workshops are working day and night.”

Hopper wagons imported from China were now being assembled in the Railways’ workshops and work on overhauling of locomotives besides upgrade of passenger trains was also in progress, the minister added.

Now that power outages were no longer an issue, Railways will be able to increase its performance and play a better role in national prosperity and progress, the minister hoped.

“Now the central control room of the railways will be able to work without any break or difficulty, which will be helpful in better monitoring trains besides reducing accidents.”

<https://tribune.com.pk/story/1501440/railways-installs-1000-unit-solar-power-system/>

NEWS COVERAGE PERIOD FROM SEPTEMBER 1 ST TO SEPTEMBER 7 Th 2017
CLIMATE, THREATS AND OPPORTUNITIES
The Express Tribune, September 1st, 2017.

That Pakistan is at severe risk from multiple aspects of climate change is not at issue. The big issue facing the current and future governments is mitigation. The climate is heating up and extreme weather events becoming more frequent, and despite international efforts to construct a workable strategy to combat climate change, the targets that have been set are not being achieved and America under President Donald Trump has now backed away from the Paris Climate Accords. On the face of it there is little positive on the horizon, but for Pakistan there is as much opportunity as threat.

The Green Climate Fund (GCF) is real money on the table — but accessing it is something of a mountain to climb. The GCF is \$10 billion of which \$2 billion have already been allocated to 43 projects globally to increase climate change resilience for 125 million people — none of them to date Pakistani with the bulk of the money going to Africa and Asia-Pacific states.

As ever the problem with Pakistan is transparency and efficiency, and accrediting agencies that are credible and verifiably so within the protocols of the GCF. Some work has been done on the positive side — the establishment of the Rescue 1122 service and the National Disaster Management Authority (NDMA) both designed to respond to extreme disasters. The Billion Tree Afforestation programme in K-P is another, but the government(s) of now and in future have to do more, particularly improving response beyond emergencies.

The global narrative on climate change is evolving into one of opportunity and this is the bandwagon Pakistan needs to be on, and quickly. We have a role to play in the shaping of how the GCF \$100 billion is spent and pushing forward on the diversification of the energy mix and renewable solutions, as well as developing business models that will increase employment are all elements contributing to mitigating the effects of climate change. Accessing GCF funding is going to be a tough call for governments perennially mired in scandal and corruption, but it is an opportunity we cannot afford to pass up. The solution lies in our own hands.

FEAR AND SWEATING IN PAKISTAN'S HOTTEST CITIES

The Express Tribune, September 4, 2017

SIBI: After hours toiling at construction sites in 50 degree-plus heat, Lakhmir Brahmani finds little relief from the sun other than a donkey-powered fan during the dog days of summer in one of Pakistan's hottest cities.

Scientists have warned that swathes of South Asia may be uninhabitable due to rising temperatures by 2100 — and in the desert community of Sibi in Balochistan, where the mercury hit 52.4 degrees Celsius this summer, it feels like they could be right.

At night donkeys slowly crank giant hand-made fans to cool sleeping families — an indigenous remedy for the region's excruciating weather where electricity is in short supply.

"I have no house or personal land... we have no electricity," explained Brahmani, saying he hopes to relocate his family to cooler climates but lacks the money to do so. "How could I go to Quetta or other areas where the cost of a truck or tractor ride one way is Rs 10,000, which I hardly earn in a whole month?"

The subcontinent — home to one-fifth of the global population — could see humid heat rise to unlivable levels by the century's end if little is done to put the brakes on climate change, according to a study released earlier this month.

Researchers outlined their findings in the journal of Science Advances warning of "summer heat waves with levels of heat and humidity that exceed what humans can survive without protection".

About 30 per cent of the population across the region would be exposed to the scalding temperatures, up from zero percent at present, the report added.

The densely populated, rural farming regions of the subcontinent could be hit the hardest, where workers are exposed to heat with little or no chance to retreat to air-conditioning.

"Deadly heat waves could begin within as little as a few decades to strike regions of India, Pakistan, and Bangladesh, including the fertile Indus and Ganges river basins that produce much of the region's food supply," said the report.

Pakistan continues to be one of the world's most vulnerable countries to the effects of climate change, with its northern glaciers melting and population surging along with fast diminishing water supplies.

“Every year we say the heat is unbearable, but the next year when we face more heat, we forget the previous year’s heat,” says Mir Mohammad Luni, a farmer who lives near Sibi. To escape the sun, Luni says he tries to finish most of his farming duties in the early morning before retreating to a hut made of scrub bushes that he douses with water every half hour or so to keep cool.

At high noon the city’s market is transformed into a virtual ghost town, with shops shuttering and people crowding into any available shade or mud-soaked stream to beat the midday temperatures.

Luckily for the residents of Sibi the relatively dry, desert climate keeps the area on the fringes of livability, according to Mohammad Tahir Khan, the director of the Balochistan Regional Meteorological Centre.

If the air was the slightest bit more humid, Khan admits the city would be an uninhabitable living ‘hell’.

Further east in the swampy port of Karachi, the sprawling megacity of over 20 million also remains at risk of being decimated by rising temperatures. In 2015, a heatwave killed 1,200 people in the city, nearly two-thirds of whom were homeless residents unable to find sanctuary indoors or access to reliable drinking water. During the height of the heatwave temperatures spiked to 45 degrees and hospitals were deluged with nearly 80,000 people treated for the effects of heatstroke and dehydration, according to medical officials.

Two years later residents said the city’s authorities are failing to do enough to combat another scourge.

“The masses must be educated,” says Shahid Habib, adding simple tips about what clothes to wear and how much water to drink during the hot season were vital.

“These things must be done in view of the intense heat. Such preventive measures should be taken that could protect lives.”

Others said the metropolis also lacked the critical green spaces needed to help absorb the blistering summer heat. “We should plant as many trees as possible,” resident Imran Hussaini told AFP.

Back in the abandoned streets of Sibi’s bazaar, tea seller Zafar Ali waits for the sun to retreat, watching over the occasional customer slurping a steaming glass of tea. Ali swears by the hot drink as an effective means to combat the searing temperature.

<https://tribune.com.pk/story/1497718/fear-sweating-pakistans-hottest-cities/>

October 2017

NEWS COVERAGE PERIOD FROM OCTOBER 23rd TO OCTOBER 29th 2017

CLIMATE CHANGE POSES SERIOUS SECURITY THREAT, WARN EXPERTS

Dawn, October 24th, 2017

HYDERABAD: Experts at a programme warned on Monday that climate change was increasingly posing a serious security threat and impacting environment and agrarian economy of the country.

They were speaking at 'Grow Festival' organised by Pakistan Fisherfolk Forum (PFF) in collaboration with Sindh Agriculture University (SAU), Tandojam.

SAU Vice Chancellor Prof Dr Mujeebuddin Memon Sehrai said the festival would provide an opportunity to stakeholders to work together to cope with issues of food security and climate change.

He urged academia and researchers to produce salt- and drought-tolerant varieties and focus on adaptation and mitigation research in agriculture which would be helpful for small growers.

PFF chairperson Syed Mohammad Ali Shah said that food security in Pakistan was mainly driven by poverty. The world was facing food security issues and billions of tonnes of wheat was being destroyed at the cost of the marginalised communities, he said.

It was especially evident in rural areas with lack of agriculture policy, shortage of water in Indus delta, sea intrusion and loss of biodiversity, he said.

SAU Prof Dr Mohammad Ismail Kumbhar said that a large number of the world's poor and malnourished lived in South Asia.

Farm sector was the backbone of most of the countries with nearly 50 per cent of population dependent on agriculture, he said.

He said that climate change in these regions was expected to shrink agriculture productivity by 10-50pc by 2050.

Pakistan, especially Sindh, had witnessed considerable increase in floods, droughts, temperature and water soil and land resource continue to decline, he said.

Progressive farmer and Sindh Agriculture Research Council president Ali Palh said that climate change had impacted agrarian economy.

Climate-smart agriculture and sustainable agriculture practices should be promoted for better productivity and mitigation of climate change.

He suggested that agriculture and water policy should be launched and farmers should be given opportunity to visit climate-affected countries and learn about experiences in adapting to climate change.

Social Change CEO Zulfiqar Halepoto, PFF's Mustafa Mirani, social activists Pushpa Kumari and Zahida Detho, Wajid Shams Memon of Plan International Pakistan and Attar Khanzada of Pakistan Seed Association recommended framing of food security policy to tackle challenges of climate change and sustainable resources, modern irrigation infrastructure, rainwater harvesting, early-warning systems for extreme climate events, import of genetic resources to improve indigenous breeds and varieties to suit climate conditions, soil amelioration and conservation technologies.

They said that microfinance facility should be provided to rural women and crop insurance be ensured, awareness programmes be launched to make rural women aware of impacts of climate change, rural women should be trained to properly maintain livestock so that it could be saved in natural calamities.

<https://www.dawn.com/news/1365796>

CLIMATE CHANGE THREATENS EXISTENCE OF SNOW LEOPARD

Dawn, October 29th, 2017

GILGIT: World Wildlife Fund (WWF) in collaboration with Gilgit-Baltistan wildlife and parks department and a private school celebrated the International Snow Leopard Day in Hoper valley of Nagar district on Saturday with an aim to improve knowledge and understanding about the threats the climate change has posed to the existence of snow leopard.

According to WWF officials, only 200 to 350 snow leopards are estimated to be left alive in Pakistan, 80 per cent of which are found in mountainous areas of GB, while the rest are in Khyber Pakhtunkhwa and AJK.

Speakers at an event held to mark the day said GB snow leopards were endangered due to threats that included poaching and persecution, poisoning of carcasses of their livestock by local herding communities.

The cat lovers across the world celebrate the International Snow Leopard Day on Oct 23.

Local youth, elders, students, teachers and livestock herders, officials of WWF, and GB wildlife and parks department were in attendance.

The purpose of the awareness programme was to impart knowledge about climate change impacts and importance of snow leopard for the health of mountain ecosystems.

On the occasion, Saeed Abbas, GB regional head of WWF-Pakistan, said the snow leopard was the symbol of Asia's high mountains, which played a vital role as the indicator of ecosystem health in the harsh terrain.

He said the leopard was increasingly threatened across its range due to a number of threats, including human-snow leopard conflict, climate change, habitat fragmentation, reduction of prey base. Mr Abbas also emphasised developing and implementing human-wildlife conflict mitigation and climate change adaption plans in the entire habitat of wild cat. He said according to a survey around 10 snow leopards had been killed throughout Gilgit-Baltistan per year between 1980 and 2000. He added between 2005 to 2015 72 leopards were killed in 22 valleys of GB.

Farmers in the areas used to kill snow leopards by poisoning the carcasses of their livestock or shooting to protect their livestock from prey of snow leopards.

GB wildlife and parks department conservator Yaqoob Ali Khan highlighted the importance of climate change impacts and urged mass level plantation measures as mitigation and developing climate change adaptation plans to cope with changing climatic conditions.

<https://www.dawn.com/news/1367029>

NEWS COVERAGE PERIOD FROM OCTOBER 16Th TO OCTOBER 22nd 2017
FINANCING FRAMEWORK FOR DEALING WITH CLIMATE CHANGE UNVEILED
Dawn, October 17th, 2017

Amin Ahmed

ISLAMABAD: Pakistan and the United Nations Development Programme (UNDP) unveiled on Monday a 'Climate Change Financing Framework' (CCFF) structured to respond to climate change and promote rationalising climate finance, starting from the planning stage and creating a robust monitoring system that can gauge the adequacy and effectiveness of financing.

The framework aims to make existing responses to the challenges and opportunities posed by climate change more effectively, and position the country to better engage in negotiations and resource mobilisation at the international level.

It outlined a reform agenda constituting new policies and processes to better align climate finance to existing climate policy objectives in Pakistan. The CCFF was elaborated in partnership with UNDP's Governance of Climate Change Finance Programme, which has been supporting the government since 2012. The framework linked policy and budgeting to increase the transparency of allocations while improving the effectiveness of existing public finance.

In addition to the CCFF, the 'Climate Public Expenditure and Institutional Review (CPEIR) document was also released, which provides an overview of the landscape of current climate policy and budget spending in the country, with a view to improve future climate action.

The CPEIR outlined all climate relevant expenditure federally and in Khyber Pakhtunkhwa, Balochistan, Punjab and Sindh, and showed that the four provinces and federal government are collectively and individually, spending a decent percentage of their total expenditures on activities related to climate change. The report also provides insights on the strengths and weaknesses of the institutional set up at different tiers of government and how this contributes to the management of climate change.

Speaking on the occasion, Minister for Climate Change, Mushahidullah Khan said that the CCFF will be a milestone in bringing climate change to the mainstream planning and finance system.

"There is more need to create awareness on climate change issue since we are living under glaciers and have serious threats. The desertification is increasing in Pakistan whereas our contribution in carbon emission is only 0.08 per cent and among the top ten countries most affected by climate change," he said.

The report says the pressing need for more energy and the mitigation of growing greenhouse gas emissions in Pakistan both require a substantial investment of over 5pc of gross domestic product

(GDP). Ongoing significant national energy shortages have been estimated to require a \$5 billion initial investment and annual variable costs of \$2.9bn based on the use of a traditional energy mix.

There are significant mitigation possibilities on both the supply and demand side with energy conservation measures being most cost efficient. National adaptation requirements have been estimated to be between 1.5 and 3.0pc of GDP and there is presently a substantial global shortfall. Although estimates are difficult, the average costs for annual adaptation to climate change for Pakistan were estimated to range annually from \$6bn to \$14bn to 2050, or an average of \$10.7bn per annum.

The CCFF in Pakistan will build upon the national climate change policy and the medium term budgetary framework, and their links with sectorial policies.

Pakistan ranks among the top ten countries globally affected by climate change, and it has experienced effects dramatically over recent years through devastating floods and catastrophic heat waves. It is only through integrated and coordinated approaches to mitigate and adaptation that these challenges can be adequately met, said UN Resident Coordinator, Neil Buhne while speaking at the launching ceremony.

The overall results found that Pakistan's climate expenditure compares well with other countries.

<https://www.dawn.com/news/1364328>

NEWS COVERAGE PERIOD FROM OCTOBER 9 Th TO OCTOBER 15 Th 2017
SCIENTISTS URGED TO BE INNOVATIVE IN COUNTERING CLIMATE CHANGES
Business Recorder , October, 11th, 2017

Chairman, International Cotton Researchers Association (ICRA), Dr Michell Fok said that scientists need to keep being innovative or think differently to develop new modes of cultivation for agriculture to smartly adapt to ecological environment.

The seasoned foreign agriculture researcher said this while talking to APP after signing MoU on behalf of ICRA, a subsidiary of International Cotton Advisory Committee (ICAC), with Pakistan Central Cotton Committee (PCCC), last Monday at Central Cotton Research Institute (CCRI) Multan. Cotton Commissioner and Vice President PCCC Dr Khalid Abdullah had signed it on behalf of PCCC.

Pakistan will be hosting the ICRA secretariat for next few years after PCCC was selected from among the many research organizations as contenders from around the world.

Dr Fok, who has been working for 34 years at CIRAD, a French research organization dedicated to agriculture developing in tropical and subtropical areas, said, he knew that cotton production in Pakistan was not increasing as much as Pakistanis may want in the face of very big demand from textile industry and Pakistan also facing the challenge of CLCV, more infestations from Mealy Bug and so on.

“It is a challenge for the scientists to keep on being innovative, or may be, think differently, to think about new modes of cultivation so that cotton growing could adapt to or be in face with the whole

ecological environment”, said Dr Fok. “And pests belong to this environment. They are here to grow with their presence under the constraints that their damage remains at acceptable level,” he said. He said, it was the duty of scientists to carry out new ways of dealing with these pests.

When asked about climate change, Dr Fok said it was occurring all over the world as an on-going phenomenon. “Climate has not changed”, he said explaining: “Its change has not finished. It is changing and we do not know how it changes exactly and to which extent it will change. So, it is further more difficult to adapt to something that has not totally finished.

There is a debate in the international arena about making agriculture more climates smart. Smart in adapting to challenge which is occurring and being smart so that through our actions we will not keep on feeding the factors which are influencing the change of climate”, he added. He said the problem has been felt at the international level and events have been organized to share experiences.

Dr Fok disclosed that some principles were being laid down for climate smart agriculture and added: “I think that cotton production could get inspiration from these principles so that Pakistani scientists could contribute in carrying out new cultivation techniques that help farmers adapt to climate more and more in certain and not feeding the factors of climate change.”

He said ICRA initiative should be helpful to Pakistani scientists and they should avail it to have frequent interactions with the researchers from around the world. “I hope there will be contributions from our Pakistani colleagues.” They should launch discussions and discuss ideas and submit them. It will push researchers from other countries to contribute as well, he added. “So what I have in mind, someone, some country has to start and I hope our Pakistani colleagues will start first.”

When asked how many scientists a country should have, he said there was no magic formula to indicate what should be the number. He said, he did talk about researchers in China where there are research institutes even at district level. China is a huge country with a long history of agriculture and it invested a lot in cotton research. He said, he used to visit China every year, and there, he added: “I realized that the social status of scientist is quite good and this is an incentive for people to be effective, more efficient.”

<https://fp.brecorder.com/2017/10/20171011225243/>

NEED FOR HIGHLIGHTING CLIMATE CHANGE ISSUES STRESSED

Dawn, October 15th, 2017

HYDERABAD: Sindh University Vice Chancellor Dr Fateh Mohammad Burfat has urged youth to work towards tackling the issue of climate change, which is gravely affecting all segments of society due to anthropogenic intervention.

He was speaking at a ceremony held to honour SU final year student of media and communication Imtiaz Abbasi, the winner of a short film competition on climate change and poverty held under the auspices of the European Union and World Wide Fund for Nature-Pakistan (WWF-P).

The ceremony was organised by the Centre for Environment and Development (CED) and the Research and Development Fund (RDF). The documentary focused on the climate change and poverty situation in the Kachho area of Dadu district.

Dr Burfat expressed the view that a solution to the climate change issue must come from human beings and the community must keep itself ready to face the threats associated with it. He said that quality education could lead to sustainable development.

Eminent educationist Prof Qalandar Shah called for undertaking anthropological studies in order to determine impacts of climate change. He observed that a number of flora and fauna species of Sindh had vanished.

Nasir Panhwar said that youth of rural areas had immense potential which could be exploited. “Climate change is a matter of life and death,” he said, and added that its possible impacts should be given due publicity so that common man could be sensitised and he could get himself prepared to face it.

He said sea intrusion had affected the Indus delta and policies were needed in order to mitigate its impacts.

Ashfaque Soomro of the RDF said that human security was linked with protection of nature and natural resources. Academia could play a vital role in addressing climate change threats through research, he said, and observed that Dadu, like other parts of Sindh, was prone to climate change impacts.

Imtiaz Abbasi said students from the remote areas of the country should use their knowledge and skills in highlighting the issue and suggesting remedies.

Naz Sahito, Ishaque Mangrio, Noor Ahmed Janjhi, Dr Ismail Kumbhar, Zahida Detho and others also spoke.

<https://www.dawn.com/news/1363801>

November 2017

NEWS COVERAGE PERIOD FROM NOVEMBER 27th TO DECEMBER 3RD 2017

ISLAMABAD ‘CONCERNED OVER CLIMATE-ALTERING EMISSIONS’

The Express Tribune, November 27, 2017

Minister for Climate Change Senator Mushahidullah Khan has said Pakistan “will continue to support global efforts and contribute towards protecting human health and environment by completely phasing out the use of ozone-layer-depleting substances (ODSs) and replacing them with more effective and environmentally-safer alternatives in line with the Montreal Protocol”.

“Pakistan is at the forefront in endeavours to phase out the use of ozone depleting substances,” the minister said while addressing the high-level ministerial segment of the Joint 11th Conference of the Parties to the Vienna Convention and 29th Meeting of the Parties to the Montreal Protocol held in Montreal, Canada

According to a message, the minister said ridding the world of 13 different ozone-depleting substances (ODSs), including hydro-chloro-fluoro-carbons (HCFC) and chloro-fluoro-carbons (CFC) was critical to protecting the ozone layer, which protected all life on earth from adverse fall-outs of the ultraviolet (UV) radiation from the sun and its spill-over effect on environment.

Environment and climate change ministers from around over 197 developing and developed countries attended the ministerial round table discussions on the theme 'Montreal Protocol at 30: Identifying future opportunities and priorities' on November 23-24.

One year after they reached a landmark agreement (the Kigali Amendment) to phase down climate-warming hydrofluorocarbons (HFCs), the 197 developed and developing country parties to the Montreal Protocol on Substances that Deplete the Ozone Layer and the Vienna Convention for the Protection of the Ozone Layer met in Montreal, Canada, to enhance their efforts to protect the ozone layer and to mitigate climate change.

Among the issues the parties will consider the funding level for the replenishment of the multilateral fund for the Implementation of the Montreal Protocol for the 2018 to 2020 triennium to support developing countries in their efforts to continue the phase-out of ozone-depleting hydro chloro fluoro carbons (HCFCs) and to initiate enabling activities for the phase-down of HFCs.

Mushahidullah said as the world marked the 30th anniversary of the Montreal Protocol this year, there was a lot of good news to celebrate.

“It is truly heartening to note that the protocol has led to the phase-out of over 99 per cent of nearly 100 ozone-depleting chemicals and significantly contributed to climate change mitigation. As of today, the ozone layer is showing signs of healing and is set to recover by the middle of the century. And Pakistan is very much part of the efforts that have led to the phase-out.”

The Montreal Protocol, considered to be the most successful global environmental agreement setting out commitments by every country in the world to eliminate production and use of chemicals which damage the ozone layer.

The protocol, he said, had contributed significantly to the mitigation of climate change by averting more than 135 billion tonnes of carbon dioxide equivalent emissions (as some ozone-depleting substances are also powerful greenhouse gases) in the atmosphere from 1990 to 2010.

“Although Pakistan does not manufacture any of the Ozone Depleting Substances, the country has a strict regulatory regime to check imports of these substances, with a system of licencing and quotas for import of HCFCs in place,” he highlighted.

“In addition,” he said, “the country is also in the process of introducing some additional regulations to streamline future use of the substances and equipment in industry,” Khan added.

The climate change minister also highlighted that phasing out HCFCs from major industrial concerns in Pakistan was less complex, but the difficult part lies ahead, which is phasing out HCFCs from smaller enterprises and the servicing sector.

“Because the servicing sector is more informal and unwieldy and would require more concerted efforts than the initial phase, given the fact that options on alternatives are limited and expensive. “

The minister said: “Pakistan is amongst the top 10 most climate-vulnerable countries and is threatened in many ways, inter-alia, through glacier melting, low crop productivity, scorching summer temperatures, prolonged heat spells, drought and extreme precipitation.”

However, he added, “Pakistan is more concerned about the climate-altering emissions at the global level and has been proactively part to help the world get rid of all the global warming gases but would prefer to achieve this without compromising on principles and transparency.”

<https://tribune.com.pk/story/1569263/1-islamabad-concerned-climate-altering-emissions/>

CLIMATE CHANGE NEGOTIATIONS – TIME DOES MATTER

The Express Tribune, November 27th, 2017.

Shakeel Ahmad Ramay

Climate change negotiations started in Bonn with the promise to make progress on the Paris Agreement.

Germany announced 100 million euros to combat climate change before the start of the conference. This announcement conveyed the message of seriousness of Germany in negotiations.

Fiji, President of the conference, insisted on meaningful engagement and progress on the Paris Agreement. It presented the agenda for adoption.

China and India strongly objected to the agenda as it missed the “pre-2020” targets for developed countries. The pre-2020 targets set by the Kyoto Protocol are obligatory for Annex-1 countries, which included all developed countries.

In 1997 at Kyoto, it was decided that it was necessary for the developed states to cut greenhouse gas emissions to control climate change. Developing countries look at these targets as historic responsibility of the developed world.

Although these targets had to be met by 2012, at Doha the deadline was extended to 2020 in response to requests made by the developed countries. Unfortunately, this could not bring positive change in the attitude of developed countries. Many of these countries did not ratify the 2012 Doha commitments.

The omission of the pre-2020 targets led developing countries and the G-77 to formally launch a request for the adoption of Kyoto Protocol at its 20th anniversary.

Fiji tried to solve the issue but got no success. China, India and G-77 countries rejected the proposal by the presidency. It was made clear that no compromise would be made with the European Union on the pre-2020 targets. The lesson learnt was that old tactics were coming back and the developed world was still trying to delay action.

Apart from this, the parties in the conference are trying to develop a rulebook for the implementation of the Paris Agreement. The rulebook will draw the sketch of an implementation plan to achieve the targets of mitigation, adaptation, financing, etc.

The major point of focus in the Paris Agreement is to reach the peak of emissions as soon as possible to ensure that the temperature rises by less than two-degree Celsius. However, words “as soon as” do not convey the urgency and seriousness of global players. Rather, they provide an open ground to the countries to play according to their intentions and will.

Financing to cope with climate change would be the main point of interest for the developing and least developed countries. Right now limited resources are pledged. Although there are multiple actors in the field, the amount of finance is very low. The issue is very important for Pakistan which is ranked at seventh place on the vulnerability index. Although Pakistan’s contribution to the emissions is the minimum – 0.08% on per capita basis, it is feeling the impact.

From 1999 to 2003, Pakistan faced droughts which severely damaged agriculture, livestock and economy. Thousands of animals died due to the drought in Balochistan and other parts of the country. Many people migrated from the province in search of livelihood opportunities.

From 2010 onwards, Pakistan has become a victim of floods. Estimates suggest that by 2015 Pakistan had suffered a loss of about \$18 billion due to the floods. Therefore, it places very high importance to the fight against climate change.

Unfortunately, progress at Bonn did not support expectations. Developed countries tried to avoid pre-2020 targets and financing commitments by using different tactics. The US sent a low-level delegation to Bonn.

There were also other areas of concern for the developing countries. For instance, there was not much progress on controlling loss and damage as most of the countries vulnerable to climate change were from this group.

A recent index developed by Germanwatch, a German organisation working on climate change vulnerabilities, showed that the most vulnerable countries were from the southern Hemisphere.

Prominent examples from the recent past are floods in Pakistan, Bangladesh and India. Pakistan suffered heavily due to the 2010 floods as its economy lost about \$10 billion.

To overcome the loss, these countries need help from the international community. Although two insurance initiatives were adopted on November 14, the utility of these initiatives still need to be analysed in the context of vulnerable countries.

Moreover, commitments under the Paris Agreement are not very ambitious rather they are well below required levels. Analysis shows that the committed emission cuts will allow a four-degree rise in temperature, which is well beyond the limit of two degrees.

Although a facilitating dialogue will start next year to look into the commitments and need to revise them, there is little hope that countries will take the right path.

It is clear that the world has to wait longer to get a meaningful outcome from climate negotiations. But the question is whether it has the luxury to waste time. A simple answer is No.

Climate change impacts are already in place and these are playing havoc with national economies and the social fabric. This year, widespread floods caused devastation all over the world. Although the US emerged as a biggest denier, it had to face the worst impact of climate change. It has faced losses of billions of dollars as hundreds of thousands of people have been displaced.

If the US cannot cope with the challenge, then it would be extremely difficult for the developing and least developed countries like Pakistan to counter the challenges of climate change single-handedly. Therefore, there is a need of global commitment to tackling the climate change.

However, the attitude of world leaders is not very hopeful and each country is focusing on its economic interest by ignoring climate change. Most importantly, we cannot waste time in negotiations and do nothing because timing does matter in the fight against climate change. If we missed the time, then it would be too late.

The writer is the Head of Centre for Future Policy and Head of Research Coordination Unit, Sustainable Development Policy Institute

<https://tribune.com.pk/story/1569294/2-climate-change-negotiations-time-matter/>

‘POWER CAN BE PRODUCED FOR RS4 PER UNIT IF THERMAL PLANTS ARE RUN ON RENEWABLE ENERGY’

Ikram Junaidi

Dawn, November 30, 2017

ISLAMABAD: The federal government and the provinces can produce electricity at prices as low as Rs4 per unit in a year if they start using renewable energy to run thermal power plants across the country, according to Dr Nasim Ahan, founding member of Alternate Energy Development Board (AEDB).

All the power plants across the country are underutilised and are only being used between 30pc to half their capacity, he told participants of the National Level Renewable Energy Dialogue on Wednesday.

“Transmission lines, grid stations and transformers are already installed in the thermal power plants and generating licenses are also issued according to their full capacities. The plants can therefore be run by renewable energy,” he said.

He suggested provinces install wind and solar power plants and run thermal power plants at full capacity and that due to the use of renewable energy, it will become possible to produce electricity for just Rs4 per unit.

He said the provinces do not have experience of handling the administration of the power sector and need to focus on this.

“The provinces have the land for starting renewable energy projects but it is unfortunate that they are not interested in manufacturing renewable energy components. If they start manufacturing components, the cost of plants can be decreased and they can get electricity at even cheaper rates,” he said.

Pakhtunkhwa Energy Development Organisation representative Syed Aziz Ahmed said Khyber Pakhtunkhwa is generating 105MW of electricity.

“We have also started medium term and long term projects to generate electricity. As many as 215MW of electricity will be produced from medium term projects by 2018-19 and 3,631MW from long term projects by 2020-21,” he said.

Mr Aziz said the private sector has shown interest in investing in solar energy projects.

Director Balochistan Energy Department Agha Hassan Raza said satellite pictures show that Balochistan is the darkest area of Pakistan even though it comprises 44pc of the country in terms of area.

“We are currently getting 900MW of electricity of which 100MW is imported from Iran and we still have a shortfall of 800MW. The agriculture sector consumes 75pc of electricity in the province and the province has been giving a subsidy of Rs21 billion to tubewells. Balochistan has been considering replacing the tubewells with those run by solar energy,” he said.

Mr Raza said that though the private sector takes interest in renewable energy projects, lack of coordination between the province and federal government makes it difficult to give sovereign guarantee.

Representative from Punjab, Zahid Mumtaz said the country’s electricity generation capacity in 1947 was less than 100MW and this has increased to 16,000MW today.

“Still, 45pc of the country is facing a shortage of electricity. Punjab has been focusing on renewable energy to decrease the gap between demand and supply,” he said.

The conference was hosted by the think tank Heinrich Boll Stiftung in collaboration with World Wind Energy Association.

<https://www.dawn.com/news/1373705/power-can-be-produced-for-rs4-per-unit-if-thermal-plants-are-run-on-renewable-energy>

CLIMATE CHANGE

Dawn, 1 December 2017

LAHORE: Scientists at an international conference said that the climate change being a global phenomenon can be controlled to some extent by planting more and more trees and conserving the existing biodiversity using latest methods.

This was stated in the concluding session of the first international conference on Conventional and Modern Approaches in Plant Sciences (CMAPS 17) organized by Punjab University Department of Botany at Faisal Auditorium.

Punjab Higher Education Commission Chairman Prof Dr Nizamuddin, PU Vice Chancellor Prof Dr Zafar Moeen Nasir, Prof Dr. Sergio Capareda from Texas A and M University USA, Dr. Danielle Donnelly from McGill University Canada, Dr. Tarlok Singh Sahota from Thunder Bay Agriculture Research Station Canada, Prof. Dr. Miklas Scholz from University of Salford Manchester, UK, Dr. Jaswinder Singh from McGill University Canada, Islamia College University Peshawar's Vice Chancellor Prof.

Dr. Habib Ahmad from Islamia College University, Chairperson Department of Botany Prof Dr Firdaus-e-Bareen, former PU VC Prof Dr Khalid Hamid Sheikh, former Vice Chancellor Women University Multan Prof Dr Shahida Husnain, scientists from other parts of country and a large number of students were present on the occasion. Addressing the ceremony, Prof Dr Nizamuddin urged the scientists to make efforts for saving the environment. He said that institutions of higher learning must focus on creating the knowledge that could avert drastic effects of climate change.

<https://epaper.brecorder.com/2017/12/01/5-page/685271-news.html>

SINDH, ITS COASTAL AREAS SAFE FROM INDIAN OCEAN'S TROPICAL CYCLONE
The Express Tribune, December 2, 2017

KARACHI: Sindh and its coastal areas, including Karachi, are safe from the Indian Ocean's tropical cyclone Ockhi, says the meteorological department. The cyclone is expected to curve around Pakistan's coastal belt in the next two to three days, causing heavy rains in different parts of Sindh, including Badin, Mithi and Tharparkar.

Cyclone Ockhi developed in the Indian Ocean and caused massive destruction in India and Sri Lanka. Commenting on the magnitude of the disaster, Pakistan Meteorological Department Regional Director Shahid Abbas said that Pakistan is out of danger. "Karachi will not be affected by the cyclone," he said. Until Saturday, the cyclone was 1,680 kilometres away from Karachi. In the north-east of Sindh, the cyclone was 1,000 kilometres away from the coast.

The meteorological department has ruled out any possibility of a hazardous impact. Meteorological examination has confirmed that the windstorm will hit coastal areas of Indian Gujrat first, but it will not be as strong as it is right now.

However, Ibrahim Hyderi Fish Harbour incharge Nasir Boneri said that a prohibitory warning has been issued to fishermen by the Fishermen Cooperative Society. To avoid danger, they have been advised to refrain from sailing in areas adjacent to the Indian Ocean, including Kahar, Booj, Garho Bari until December 5.

<https://tribune.com.pk/story/1574688/1-sindh-coastal-areas-safe-indian-oceans-tropical-cyclone/>

EXPERTS CALL FOR PROMOTING VALUE CHAIN IN AGRI SECTOR
Business Recorder, 3 December, 2017

FAISALABAD: Agri Scientists and Experts emphasized the need for further efforts to develop and promote value chain and decent work in agricultural sector that will not only help to alleviate poverty but also fetch heavy foreign exchanges.

They were addressing International Symposium on ‘Global Value Chains Decent Work Deficit in Agriculture: Present Challenges and Future Prospects’ arranged by Institute of Business Management Sciences, University of Agriculture Faisalabad (UAF).

IBA Sukkur Vice Chancellor Dr Nisar Ahmad Siddique said that agricultural is the backbone of our economy that is contributing 20 percent to gross domestic product. He said that illiteracy is one of the major challenges for the country that is root cause of many problems. He added that there is need to promote the latest trend in the agriculture sector. He said that qualified son of a farmer does not want to be a farmer. He called for taking measures to make agriculture a profitable profession. He said that they had initiated talent hunt programme in IBA. The scope of the programme is being widened in the all provinces of the country. He said that without ensign the quality education, we cannot compete with rest of the world.

Centre for Advanced Studies in Agriculture and Food Security Director Dr Iqrar Ahmad Khan said that the country is having the surplus food, thanks to agricultural scientists, farming community and policy makers. He said at the time of inception, the country population was just 35 million which has now risen to 210 million. Before green revolution, per acre wheat production was 8 mounds whereas now, the average farmer is getting 50 mounds wheat per acre. He said that the gender mainstreaming was the vital to make the development and to address the various issues. He said that knowledge has no boundaries. ICDD provides the platform to learn from other nation experiences especially in the field of agriculture. He lauded the initiatives of Punjab Agriculture and Rural Transformation Programme

UAF Vice Chancellor Dr Muhammad Iqbal Zafar, in his message said that in the recent years, global value chains have emerged as important development strategy. The developing countries consider it as an opportunity for export diversification in the global economy. He said that overtimes, borders between economic sectors had become increasingly blurred due to the globalization and fragmentation of production. He added today international production systems have changed the traditional way of looking at investment, production, finance, information systems, and technology. There is a need to bring about the changes in the overall production and marketing system.

The global agricultural productions system are now more about the social and integration of multicultural and economies in the modern era. He lauded the steps being taken on the part of ICDD. Dr Asif Ali said academia-industry strengthened ties were imperative to compete with the rest of the world. He said mechanical picker had been introduced in Multan that will not only increase cotton production but also address the confronting health issues of female pickers.

He said that International Centre for development and decent Work is the consortium of eight countries to work together on agriculture and social issues in which UAF and MNSUA were partnered. He said that as many as 61 students were awarded scholarships in the International Centre for Development and Decent Work.

<https://epaper.brecorder.com/2017/12/03/17-page/685596-news.html>

NEWS COVERAGE PERIOD FROM NOVEMBER 20th TO NOVEMBER 26th 2017
NO BREAKTHROUGH IN TALKS ON CLIMATE FIGHT FUNDING

The Express Tribune, November 20, 2017

Rina Saeed Khan

BONN, GERMANY: Despite working overtime and passing Friday's deadline, negotiators – from over 196 countries – at the COP23 could not make any breakthrough in talks on financing developing countries in their battle against climate change.

Director General of Pakistan's Ministry of Climate Irfan Tariq, when asked about the negotiations, said, "An understanding was reached to move forward."

The DG added that the pre-2020 (commitments by rich countries to cut their emissions before the Paris Agreement becomes operative in 2020) will have a stock-take next year. He also said that there was some understanding developed over Article 6 of the agreement.

The Paris Agreement offers countries the opportunity to cooperate with one another when implementing their voluntary plans to cut emissions, which are also called Nationally Determined Contributions (NDCs). The cooperation mechanism is designed to make it easier for countries to achieve their targets of reducing emissions. Many have also pinned hopes that this will usher in a framework on which a global carbon market can be constructed.

Experts say the current pledges in the NDCs submitted by over 160 countries to the UN will lead to a 3.2-degree projected increase in the average global temperature. However, they have also suggested that further interventions can result in an even lower temperature increase. They have also urged governments to deliver much stronger pledges when they are revised in 2020.

One of the positive buzz at Bonn was that investments in clean energy are growing in the last few years. In 2016, 80 per cent of all the investments in the electricity sector have gone into renewable energy installations and most of these investments have been in developing countries like India and China.

The near bankrupt adaptation fund, which is meant to help poorer countries deal with climate change impacts, has also been kept alive in Bonn and has now been placed under the 2015 Paris Agreement. Pakistan was one of the first countries to get funding of \$7.6 million for its Glacier Lake Outburst Flood project from this fund in 2012.

"Next year an additional session is also planned to finalise the modalities, procedures and guidelines for implementing the Paris agreement", said Tariq. In Bonn, progress was made in developing a "rulebook" that will enable the Paris Agreement to start operating in 2020. This rulebook has to be finalised at COP24 to be held in Poland next year.

Two other issues that were also resolved in Bonn included the gender action plan that will put more focus on the impacts of climate change especially on women, and an indigenous people's platform which would entail the meaningful participation of indigenous communities in global climate decision making.

<https://tribune.com.pk/story/1562996/3-no-breakthrough-climate-fight-funding/>

REGULATIONS FOR SOLAR POWER NET METERING SYSTEM APPROVED

The Express Tribune, November 23rd, 2017.

The Alternative Energy Development Board (AEDB) has accorded approval to certification regulations for introducing the solar power net metering system in the country in an attempt to encourage consumers to produce solar electricity and sell it to the national grid.

The AEDB board of directors gave the go-ahead in the 41st meeting held under the chairmanship of Federal Minister for Power Division Sardar Awais Ahmad Khan Leghari. Power Division secretary and other members of the board were present in the meeting.

The minister praised AEDB Chief Executive Officer Amjad Ali Awan and his team for their hard work to complete all requirements for facilitating the solar power net metering system and its seamless inclusion in the national grid.

“The move is bound to bring green energy and the biggest renewable electricity source of around 5,000 to 7,000 megawatts can be exploited,” he said.

He emphasised that consumers with the desire to install solar panels with net meters up to 25 kilovolts would be facilitated in installing the system within days compared to the current cumbersome licensing process that took months.

“We are actually bringing on the doorstep the profitable business of electricity generation for everyone,” the minister remarked.

The board discussed matters pertaining to renewable energy projects and initiatives of the government and AEDB to promote renewable energy technologies with special emphasis on the net metering system.

It approved the AEDB (Certification) Regulations 2017 for the certification of installers/vendors of off-grid renewable energy installations.

The board noted that net metering-based applications not only lessen the burden on the national grid, but they also supported the increase in overall generation capacity. This will reduce the fuel import bill, check the emission of greenhouse gases and strengthen the national grid by minimising line losses as well as increasing solar applications.

The board gave directives for initiating a well-planned public awareness campaign so that maximum number of people could take benefit of the scheme.

It also approved the initiation of a scheme for converting all electricity-run tube wells in Balochistan to solar power.

At present, more than 30,000 electricity-powered tube wells with a sanctioned load of more than 480 megawatts are running in the province, which the government is subsidising by providing more than Rs21 billion annually.

The board constituted a two-member committee to finalise the PC-I, which had already been prepared by the AEDB, for switching to solar-powered tube wells. The committee will present its report in the next board meeting.

The tube well subsidy constitutes a major part of the circular debt. After switching over to solar power, the burden on the national grid will ease to a certain extent and the subsidy will be phased out, which will significantly reduce the circular debt.

In the first phase, 10,000 solar water pumps will be installed to replace the existing electricity-run tube wells.

The board reaffirmed that it would take proactive steps in consultation with all stakeholders for the promotion and development of alternative and renewable energy technologies in an effort to meet energy requirements and ensure energy security.

<https://tribune.com.pk/story/1565860/2-regulations-solar-power-net-metering-system-approved/>

CLIMATE CHANGE – A VERY REAL PROBLEM SIHAM BASIR

The Express Tribune, November 23, 2017

United States President Donald Trump is known to toss around the term ‘fake news’ in relation to many things, especially climate change. To challenge this, speakers at the Karachi International Water Conference explored, at a rather sensationally titled session ‘Trumping the Devil – Is Climate Change Fake News?’ various aspects of climate change and the impact it will and already has had on Pakistan.

Chairing the session, Rudolph Cleveringa, executive secretary of the Global Water Partnership, spoke about the link between water stress and migration, explaining that there were 184 peer-reviewed research articles proving this. Climate change and water stress lead to migration and many countries want to curb this and the influx of refugees, he said.

Speaking about climate change in the Pakistani context, he said the country has allocated only 8% of its public expenditure for water.

Environmentalist and author Zulfiqar Halepoto was the only speaker to touch upon the topic of the session and discussed the global and US reaction to Trump’s strong stance against the phenomenon of climate change. Illustrating his point with screenshots of tweets and video clips, Halepoto said many citizens and government officials in the US did not support their president’s view that climate change was fake. Since his election, he has refrained from openly disparaging the existence of climate change, according to the environmentalist’s presentation.

“The [effects of] climate may vary but it is very real,” said Dr Zaigham Habib, a consultant hydrologist. She discussed the confusion between natural climate variabilities and climate change,

explaining that droughts and floods are natural occurrences but the frequency with which they have been occurring is alarming.

“Scientists need to separate what’s part of natural climate change and what is not,” she told participants of the session. Dr Habib cautioned that carbon dioxide levels have peaked in the last 60 years, illustrating her point with a graph tracing the carbon dioxide levels in the world for the past 400,000 years.

Pakistan is among 10 countries most vulnerable to climate change, she warned. Dr Habib also cautioned that the formation of large lakes was troubling. All these occurrences are cause to worry, she said. She pinpointed the impacts of climate change such as uncertainty in water availability, decrease in crop yields, loss of biodiversity and increase in health risks.

She linked climate change to the agriculture sector and the recent failed potato crop. “Some climate change impacts, like melting glaciers, cannot be reversed,” she said, urging people to forget Trump and instead accept that Asia has it worse in terms of climate change impacts.

Dr Lubna Ghazal, an assistant professor at Karachi University’s geography department, said the increasing population is leading to an increased demand for water. Pakistan is a country that suffers both floods and droughts.

“By 2025 one-third of the human population will be living in areas lacking fresh water and Pakistan will be among those areas,” she said, adding that water will become the new oil in the not-so-distant future.

According to the United Nations, the demand for water increases by 10% every year, she said. Dr Ghazal added that Pakistan claims to be an agro-based economy but most of its population is highly undernourished. What we need is monitoring, management and financial support, she urged.

Daanika Kamal, from The Asia Foundation, put a human rights spin on climate change, arguing that the issue was about protecting future generations. “Human rights are ‘human’ because humans both suffer and impose the [changes],” she said. “The blame game doesn’t work,” said Kamal, explaining that the situation worsens while countries try to pass the buck. By putting a human rights spin on the issue, she said that countries would be liable to impose limitations on non-state actors, and assist other countries reduce the effects of climate change in their territories. By doing so we would be taking care of all humans, she said, adding that another right to protect is the right to culture and heritage, which will be endangered by climate change-related migration.

<https://tribune.com.pk/story/1565729/1-climate-change-real-problem/>

CLIMATE CHANGE AS A SECURITY THREAT MULTIPLIER

The Express Tribune, November 24th, 2017.

A growing number of think tanks and security analysts now agree that climate change is increasing instability around the world. Pakistan is not immune to such threats either, given our vulnerability to militancy and severe climate change impacts.

Jihadist groups such as Islamic State and Boko Haram are evidently exploiting the scarcity of water, food and land to manipulate populations and boost recruitment. IS was able to make significant inroads in drought-hit areas of Iraq. A prolonged drought and resulting migration flows into the nearby cities of Damascus, Hama and Aleppo helped spark the lingering and bloody civil war in Syria. Of course, climate change is not the only reason for the devastation being experienced, but it certainly became a compounding factor for conflict, alongside socio-political dissatisfaction and lingering sectarian tensions.

While the situation in Pakistan is different, there are also some disturbing similarities. Sectarian strife, regional disgruntlements and militancy are also serious problems for us, as is widespread deprivation. Climate change can make matters worse.

A growing number of analysts are rightly pointing out that climate change is the biggest existential threat for Pakistan, even more serious than the challenge of militancy. However, climate change can also fuel further insecurity. There is already some evidence to suggest a correlation between restiveness, extremist threats and deprivation across many parts of Balochistan and southern Punjab. Such problems will only be compounded by climate change.

Pakistan has recently experienced unprecedented damage caused by recurrent floods and worsening droughts. We are an already highly water-stressed country and this situation could become untenable within the next decade. Yet, we continue wasting water due to a dilapidated irrigation system and unchecked groundwater use that has been depleting our water aquifers. Water is wasted on production of water-intensive cash crops like sugar to serve the interests of elite sugar barons.

A majority of our population still resides in rural areas and though most of them own no land, they primarily rely on agriculture. Continued disruptions to agricultural production due to increasing climate change will worsen the situation for this already destitute population. A few years ago, a USAID policy brief cautioned that the Taliban and other militants may try to build popular support in rural communities across Pakistan, by capitalising on anger over unequal access to land and water. This document had suggested the need for more pro-poor agricultural growth strategies and ensuring greater land access to poor rural households.

However, no significant programmatic interventions have been initiated by our government, or the international donor community to help poor and landless farmers improve their lot. Instead, millions are being pumped in by donor agencies for market-based agricultural support programmes, which primarily encourage medium or larger sized farmers to boost agricultural exports, rather than improve household level food security. While increasing climate change, the poor rural population will become more destitute and desperate. With our political elite locked in self-centred power wrangling, building widespread resilience against climate change is just not getting the attention it deserves.

A bulk of resources within our major cities are also being spent on expensive infrastructure projects, while the most basic needs of disenfranchised urban sprawl remain neglected. Our mega cities are already bursting at the seams, and it will be difficult for them to absorb a greater influx of rural migrants being driven away by ever higher risks and costs of agricultural production, due to climate changes.

Our well-trained army, nor the possession of an impressive nuclear arsenal, will be able to do much to contain the increasing social unrest instigated by worsening deprivation, especially if this discontent is

hijacked by ambitious sectarian and militant outfits to further their own insidious agendas. Our economic experts and other decision-makers must rethink their priorities, and act now.

<https://tribune.com.pk/story/1566678/6-climate-change-security-threat-multiplier/>

NEWS COVERAGE PERIOD FROM NOVEMBER 13Th TO NOVEMBER 19Th 2017
CAN GOVTS KEEP THEIR PEOPLE SAFE AS GLOBAL TEMPERATURES RISE?
Business Recorder, 13 November 2017

BONN: The world is on track for a 3-degree Celsius rise in global temperatures – a level not seen in 4 million years – but most government plans to help people adapt to coming changes still assume much smaller temperature hikes, experts say.

Under the Paris Agreement on climate change, governments have pledged to keep global temperatures to well below 2 degrees Celsius above pre-industrial levels.

And they have drawn up plans to help cities, agriculture and economies cope with worsening floods, droughts, storms and sea level rise based on that.

But “we are not safe, because we are moving towards a 3 degrees world, and our governments are not ready,” said Harjeet Singh, global lead on climate change for ActionAid International, at the UN climate talks in Bonn this week.

“We don’t even have a process by which to assess whether we’re safe or not,” he charged. “And we’re moving towards a very dangerous world where things are going to get more and more scary and complex.”

A temperature rise of 3 degrees Celsius could result in large-scale sea level rise, even more intense and frequent natural disasters, and “dramatic changes” in the availability of water, which would hit food production, predicted Johan Rockstrom, director of the Stockholm Resilience Centre.

Scientists believe temperature rises above 2 degrees Celsius could trigger irreversible melting of the world’s ice sheets, and drive other changes – such as the release of frozen methane in the soil – that could further hike the planet’s temperature, Rockstrom said.

With uncertainty over how much change is ahead, progress on meeting climate “adaptation” goals is difficult to assess, particularly no system to judge that progress is yet in place, according to a UN Environment report published on Wednesday.

“In Paris, countries agreed to adopt (a) global goal on adaptation. If this goal is to be meaningful we need to know if we are making progress in achieving it,” Erik Solheim, the head of UN Environment, told the Thomson Reuters Foundation.

The report aims to help countries try to assess that progress, recognising that the answer “will increase in importance in the coming years”, the UN agency noted.

The costs of adaptation in developing countries could range from \$140 billion to \$300 billion per year by 2030, the agency said, depending on how much is achieved in cutting emissions.

But such costs, over time, would “pale in comparison to the increasing costs of climate impacts, the brunt of which would be borne by developing countries,” the UN agency noted.

John Firth, the CEO of private consultancy firm Acclimatise, said a move by some of the world’s leading banks to assess the risks and opportunities they face in the context of a changing climate could help mobilise cash for developing countries.

“This is a game changer. Once you get the banks, financial services and corporates starting to understand what their risks are, that’s when you mobilise private sector finance,” he said.—Reuters

<https://epaper.brecorder.com/2017/11/13/13-page/681885-news.html>

2PC RISE IN CO2 TERMED GIANT LEAP BACKWARDS FOR HUMANKIND
Dawn, November 14th, 2017

BONN: The carbon dioxide emissions that drive global warming, flat since 2014, are set to rise two per cent this year, dashing hopes they had peaked, scientists reported at UN climate talks on Monday.

“This is very disappointing,” said Corinne Le Quere, director of the Tyndall Centre for Climate Change Research at the University of East Anglia and lead author of a major study detailing the findings.

“With global CO2 emissions from human activities estimated at 41 billion tonnes for 2017, time is running out on our ability to keep warming below two degrees Celsius (3.6 degrees Fahrenheit), let alone 1.5 C.” The 196-nation Paris Agreement, adopted in 2015, calls for capping global warming at 2 C below pre-industrial levels.

With the planet out of kilter after only one degree of warming — enough to amplify deadly heatwaves, droughts, and superstorms — the treaty also vows to explore the feasibility of holding the line at 1.5 C.

Earth is overheating due to the burning of oil, gas and especially coal to power the global economy. Deforestation also plays a critical role. “The news that emissions are rising after a three-year hiatus is a giant leap backward for humankind,” said Amy Luers, a climate policy advisor to Barack Obama and executive director of Future Earth, which co-sponsored the research.

This year’s climate summit is presided by Fiji, one of dozens of small island nations whose very existence is threatened by rising seas engorged by warmer water and melt-off from ice sheets on Greenland and Antarctica.

Thousands of diplomats in Bonn are negotiating the “rulebook” for the Paris pact, which goes into effect in 2020.

<https://www.dawn.com/news/1370318/2pc-rise-in-co2-termed-giant-leap-backwards-for-humankind>

CLIMATE CHANGE IMPERILS ONE IN FOUR UNESCO NATURAL SITES
Business Recorder, 14 November 2017

BONN: Climate change imperils one in four UN-listed natural heritage sites, including coral reefs, glaciers, and wetlands — nearly double the number from just three years ago, a report said Monday. The number of UNESCO natural sites at risk has grown to 62 from 35 in 2014, when one in seven were listed, according to the International Union for Conservation of Nature (IUCN), which released the report at UN climate talks in Bonn, Germany.

Among the ecosystems most threatened by global warming are coral reefs which bleach as oceans heat up, and glaciers which melt.

“Climate change acts fast and is not sparing the finest treasures of our planet,” said IUCN director general Inger Andersen.

“The increase and the speed in which we are seeing this trend shift over just three years has been shocking to us, and the report warns that this number is likely to grow,” she told journalists in Bonn.

The report found that 29 percent of UNESCO natural sites faced “significant” threats, and seven percent — including the Everglades National Park in the United States and Lake Turkana in Kenya — had a “critical” outlook. “The scale and pace at which it (climate change) is damaging our natural heritage underline the need for urgent and ambitious national commitments and actions to implement the Paris Agreement,” said Andersen.

Negotiators are gathered in Bonn to work out a nuts-and-bolts rulebook for executing the pact adopted by nearly 200 countries in the French capital in 2015.

The agreement seeks to limit average global warming caused by greenhouse gases from fossil-fuel burning to under two degrees Celsius (3.6 degrees Fahrenheit) over pre-industrial levels, and to 1.5 C if possible.

The 1 C mark has already been passed, and scientists say that on current country pledges to cut emissions, the world is headed for a 3 C future.

The IUCN monitors more than 200 natural Heritage Sites listed by the UN Educational Scientific and Cultural Organization (UNESCO).

Three World Heritage-listed coral reefs — the Aldabra Atoll in the Indian Ocean, the Belize Barrier Reef in the Atlantic, and Australia’s Great Barrier Reef, the biggest on Earth — have been affected by “devastating” bleaching events over the last three years, said the IUCN report.

Corals “bleach” when they are stressed by environmental changes — due to ocean warming or pollution. The corals expel the colourful algae that live in them, and turn bone white.

“Retreating glaciers, also resulting from rising temperatures, threaten sites such as Kilimanjaro National Park, which boasts Africa’s highest peak, and the Swiss Alps Jungfrau-Aletsch, home to the largest Alpine glacier,” said the union.

Wetlands, low-lying deltas, permafrost and fire-sensitive ecosystems are also affected by changes to Earth’s climate, it added.

Harm to natural sites endangers local economies and livelihoods, the IUCN said.

“In Peru’s Huascarán National Park, for example, melting glaciers affect water supplies and contaminate water and soil due to the release of heavy metals previously trapped under ice.”

Only invasive plant and animal species surpassed climate change as a risk to natural heritage sites, said the union. And climate change boosts their spread.

Sites on the World Heritage list are earmarked for protection for future generations. Countries assume responsibility under the World Heritage Convention to protect listed sites within their borders. The report said the management of heritage sites has declined since 2014, “notably due to insufficient funding.”

The Bonn meeting is the first of UN climate envoys since US President Donald Trump said he would pull America out of the hard-fought Paris Agreement, a move many fear will make the 2 C goal that much harder to reach.—AFP

<https://epaper.brecorder.com/2017/11/14/12-page/682054-news.html>

SPECIAL REPORT | WHY CLIMATE CHANGE THREATS ARE REAL AND COMPLEX: GLOBAL CLIMATE TALKS LINK ACTION TO FINANCE

Dawn, November 15th, 2017

Ali Tauqeer Sheikh

A WEEK into the UN climate change conference — also known as the COP23 — in Bonn, Germany, gruelling discussions on raising climate finance started on Tuesday. Developing countries, Pakistan included, have shown interest in discussions on adaptation measures, capacity-building, and climate finance.

While the global objective is to curb emissions and protect people against climate change, the cost of funding climate action initiatives, such as greener infrastructure and turning to more renewable energy usage, are increasing. In a series of discussions on climate finance, key takeaways included the need to get finance to flow so that the potential to invest in areas such as clean energy and climate-friendly agriculture is realised.

Eric Usher, the head of the finance initiative of the United Nations Environment Programme, said: “At the heart of the climate challenge are two gaps we urgently need to bridge — the ambition and the investment gap.”

On Monday, the Green Climate Fund announced that it had committed \$2.2billion in expenditures whereas it has \$40bn worth of projects marked for execution. Countries susceptible to rising sea levels, droughts and flooding are particularly anxious about climate finance drying up as the US withdraws its financial contributions.

The majority of submitted national climate plans with an adaptation component prioritise water requiring finance to the tune of \$295bn annually to meet targets. A lack of funding for the water

sector would mean compromising on other development goals (energy, food security, education) for countries such as Pakistan.

Meanwhile, US billionaire media mogul, Michael Bloomberg, has pledged \$50 million towards the global effort to scrap coal power even though the Trump administration has officially spurned climate action and favours promoting fossil fuels.

On Sunday (Nov 12), global leaders signed the Bonn-Fiji Commitment for further and faster climate action at the local government level. This is a significant commitment to sustainable development when more than half the world's population lives in cities — expected to reach to two-thirds by 2050.

The target of reducing global warming to below 2°C set by the Paris Agreement has defined the direction of climate action for the coming decades. It has been agreed that countries will undertake voluntary actions and reduce emissions through their Nationally Determined Contributions (NDCs).

According to UNEPs Emissions Gap Report 2017, released concurrent with COP23, current pledges do not cover more than a third of the emissions reduction needed. In other words, even if all countries' NDCs were implemented, the numbers still fall short of global targets. If the emission gap is not bridged by 2030, it is extremely unlikely that the goal of holding global warming at 2°C will be achieved.

There is a growing consensus that national emission levels, particularly for larger economies, need to peak and begin to decline now rather than waiting for 2030. This necessitates immediate action by major emitters and corrective measures by those who are anticipating a faster growth rate, like Pakistan. As nations begin to report on the implementation status from 2020 onwards and periodically revise their NDCs for deeper and more ambitious reductions, equity and transparency will emerge as the central issue. No wonder, then, that the agreement on the Paris 'rulebook' has become one of the moot points at Bonn.

Meaningful engagement during these global negotiations require detailed prior preparation at national and provincial levels, engaging experts, specialised institutions and concerned government departments. Because most of these issues are negotiated concurrently, delegations are stretched and understandably prioritise certain areas at the cost of others.

Between Bonn and COP24 in Warsaw in 2018, federal and provincial governments will need to bring their NDCs to the front burner assuring implementation to reach targets. Pakistan has yet to initiate and agree on the process of clarifying provincial responsibilities to meet specific targets, procuring financing and formulating reporting mechanisms.

Like mitigation, adaptation is another important issue on the agenda of COP23. The fact that COP23 is hosted by Fiji has reflected the priority of developing countries to talk more about adaptation with a twin purpose of building greater resilience to counter the impact of climate change and boost access to climate finance adaptation.

Pakistan has been consistently ranked high in several vulnerability indices, reflecting the need for augmented investments to reduce climate vulnerabilities and enhance resilience through water, food and energy security and enhancing livelihood options. However, currently, given the Fijian presidency

of COP23 as well as the recent wave of hurricanes in the Caribbean, attention has been drawn towards these highly vulnerable island nations — and away from Pakistan.

There is seldom reference to the Sustainable Development Goals in the NDCs, because they were finalised and ratified about a year after the NDCs were submitted. Because climate change has emerged as a development issue, there is an emerging window of opportunity to invest in the SDGs to meet climate targets as set in our NDCs. Both commitments have been voluntarily agreed upon by our government; regarding both, there is growing global expectation for meaningful and verifiable progress.

The SDGs and NDCs have been designed for implementation in an integrated manner and adopt bottom-up practices requiring financial resources from domestic and international sources. In Pakistan's context, the arena of action for both lies in the provinces, after the 18th Amendment, and are anchored firmly in planning and development departments.

The NDC submitted by Pakistan, for example, focuses primarily on energy, agriculture, industrial processes, land use and forestry, and waste. These priorities relate to specific SDG targets. Meeting these commitments will hinge on sustained political will through changes in government, cohesive public and private partnerships, and parliamentary oversight to ensure transparency.

<https://www.dawn.com/news/1370582>

CO2 EMISSIONS WERE FLAT FOR THREE YEARS. NOW THEY'RE RISING AGAIN.

Brad Plumer and Nadja Popovich

International New York Times, November. 13, 2017

BONN, Germany — Industrial emissions of carbon dioxide are projected to rise to record highs in 2017 after a three-year plateau, scientists said Monday. It's a sign that the world is still far from achieving its goals to limit global warming.

Global emissions from fossil fuels and industry are on track to increase roughly 2 percent over last year's levels, driven in part by a rebound in coal use in China, the world's largest emitter. While dozens of nations, including the United States, have been reducing their emissions in recent years, those declines have so far been offset by rising pollution from developing countries.

The new figures, reported by the Global Carbon Project and published in three scientific journals, arrived in the middle of an international conference here in Bonn, Germany, where the countries that signed the 2015 Paris agreement are discussing how to strengthen their efforts to stave off drastic climate change.

Under the Paris deal, the world's nations vowed to hold the rise in global temperatures since the start of the industrial revolution to "well below" 2 degrees Celsius (3.6 degrees Fahrenheit). For that to happen, scientists say, global emissions from power plants, factories, cars and trucks, as well as those from land use change and deforestation, would need to peak in the next few years and then decline swiftly to zero before the end of the century.

“These numbers suggest we still don’t have sufficient policies in place to prevent global emissions from rising, let alone to force them downward,” said Glen Peters, a researcher at the Center for International Climate Research in Norway, who helped compile the data.

For much of the 21st century, global carbon dioxide emissions increased at a rate of more than 2 percent per year, as rapidly industrializing countries like China and India built hundreds of coal plants and put millions of new cars on the road. The link between economic development and emissions growth seemed inextricable.

Then came an unexpected twist: From 2014 to 2016, industrial emissions barely grew at all, even as the global economy continued to expand. Some observers wondered if the sharp cost reductions in renewable energy, combined with the growing push to tackle climate change in the United States, Europe and China, had fundamentally altered the world’s carbon trajectory.

This year’s rebound in emissions suggests that it’s too soon to celebrate.

China, which accounts for more than one-quarter of the world’s industrial greenhouse gases, still wields heavy influence over global trends. In recent years, China’s coal use had begun tapering off as industrial growth slowed and the country began transitioning to a service-oriented economy. Officials in Beijing have vowed to clean up air pollution in cities, cancel plans for new coal plants and invest heavily in cleaner wind, solar and nuclear power.

But, after a brief dip last year, China’s emissions are projected to rise approximately 3.5 percent this year. Local governments invested heavily in infrastructure and construction projects to stimulate growth, while unfavorable rainfall patterns have reduced output from the nation’s hydropower dams, said Lauri Myllyvirta, who analyzes China’s energy trends for Greenpeace.

Under the Paris agreement, China has pledged that its overall emissions will peak by 2030. But the precise timing of that peak remains uncertain. Mr. Peters added that China’s emissions growth appeared to be slowing by the end of 2017, and this year’s spike could prove short-lived.

India, a relatively poor but fast-growing country, also remains a wild card. The country’s carbon dioxide emissions increased just 2 percent this year, in contrast to the 6 percent annual growth seen over the last decade, in part because of economic fluctuations that may prove temporary. One big question going forward is whether India can industrialize without using the same amount of coal that China did in the 2000s.

On the flip side, the Global Carbon Project found, at least 21 countries have managed to cut their emissions significantly while growing their economies over the past decade, including the United States, Britain, France, Germany and Sweden. These countries have steadily transitioned away from energy-intensive industries — or have outsourced manufacturing to countries like China — while increasing investments in efficiency and cleaner energy.

But there are signs that emissions reductions in these wealthier countries have decelerated of late. In the United States, fossil-fuel emissions are projected to fall by approximately 0.4 percent this year, compared to an average decline of 1.2 percent per year over the past decade.

Much of the fall in American emissions has come as increasing supplies of natural gas, wind and solar power have driven hundreds of coal plants into retirement. But emissions from sectors like transportation and buildings remain stubbornly high, and with the Trump administration dismantling domestic climate policies, it is unclear how far the country's emissions will continue to fall in the coming years.

Similarly, the European Union's emissions are expected to fall just 0.2 percent this year, a smaller decrease than the 2.2 percent average annual decline of the previous decade.

In an editorial published in *Environmental Research Letters*, researchers affiliated with the Global Carbon Project warned that global emissions could rise again in 2018 without stronger decarbonization efforts.

"Every year that goes by without an emissions peak," Mr. Peters said, makes the job of cutting greenhouse gases quickly enough to stabilize global warming this century "that much harder."

<https://www.nytimes.com/interactive/2017/11/13/climate/co2-emissions-rising-again.html>

WHY CLIMATE CHANGE THREATS ARE REAL AND COMPLEX: HOW WE BATTLE CLIMATE CHANGE WILL DETERMINE OUR FUTURE

Dawn, November 15th, 2017

Rina Saeed Khan

ALTHOUGH Pakistan does not contribute significantly to global carbon emissions — ranking 135th in per capita emissions — it is amongst the top 10 countries most vulnerable to the impacts of climate change. According to a recent country profile by the Asian Development Bank (ADB), "Climatic changes are expected to have wide-ranging impacts on Pakistan, affecting agricultural productivity, water availability, and increased frequency of extreme climatic events." Addressing these risks will require climate change to be mainstreamed into national strategy and policy, the report notes.

Noticeable changes in Pakistan's weather patterns include an increase in the annual mean temperature by roughly 0.5°C in the last 50 years, according to ADB research, increasing the likelihood of extreme weather events. Annual heatwave days have increased nearly fivefold in the last 30 years — in 2015, Karachi's severe heatwave killed over 1,200 people. Meanwhile, the sea-level along Karachi's coast has risen approximately 10 centimetres in the last century. Sea-levels are projected to rise by one metre by 2100, severely affecting low-lying coastal cities.

Annual precipitation has also increased in the last 50 years. Increasing temperatures will result in a decline in snowpack and permafrost (frozen soil and rock), which might lead to less water in rivers in the future. More than 50 per cent of the flows from the Indus river system come from melting snow and glaciers. There is also the probability of greater flooding. In 2010, floods that were triggered by unprecedented rainfall killed 1,600 people and caused around \$10 billion in damages.

Given that the country is just about self-sufficient in food production, these climatic changes can prove disastrous to its rate of increase, which may be unable to keep pace with surging populations. Qamar-uz-Zaman Chaudhry, former director general of the Pakistan Meteorological Department, explains, "Both are difficult prospects given the negative impacts of climate change affecting water

availability and crop yields.” The government must be cognisant of an impending food shortage as yields of wheat and rice are expected to decline which could drive production northward subject to water availability.

Chief executive of the World Wildlife Fund-Pakistan Hammad Naqi predicts the country’s water crisis will be exacerbated because of how water resources are being used. “Pakistan has gone from being water surplus to water stressed, and soon there will be water scarcity. We have to change the way we grow certain commodities of crops. For example, we cannot afford to grow sugar cane in large areas when we don’t have enough water. Our leadership needs to make tough decisions, and soon.”

Experts say that research into key areas impacted by climate change, including the future of glaciers and water security, are lacking. For its part, the government has revamped the Global Change Impact Studies Centre previously staffed by retired nuclear scientists. The appointment of Harvard-trained economist, Tariq Banuri, as executive director is reason enough, many believe, that mitigation policies may gradually see implementation.

Unfortunately, the country’s policymakers are too distracted by militancy and political instability to focus on pressing environmental challenges. Although Pakistan is one of the world’s few countries to have a dedicated federal climate change ministry, it was only activated in 2015 by the current government. In fact, when the PML-N came to power in 2013, it downgraded the ministry to a division, removing its ability to make high-level decisions. In January 2015, Senator Mushahidullah Khan, a long-time party loyalist with little climate change experience, was appointed minister of the newly reinstated ministry. Khan was replaced in August 2015 by Zahid Hamid, who took additional charge of the ministry and headed to the Paris conference in December 2015.

In Paris, alongside over 190 countries, Pakistan had pledged to limit the global average temperature increase to below 2°C which scientists say is the limit for safety — meaning that global carbon emissions need to peak by 2020 at the latest, and get to net-zero by 2050. The Agreement included mechanisms for pledges to be reviewed, but without setting rules — these will be decided at Bonn this week before being finalised in Warsaw in 2018.

Mr Hamid’s two years at the ministry were productive — he helped ratify the Paris Agreement and submit Pakistan’s voluntary plans to cut emissions, called the Nationally Determined Contributions (NDC) document, to the UN. Pakistan’s plan, however, foresees a fourfold increase in the country’s greenhouse gas emissions by 2030. It says the country will reduce up to 20pc of its 2030 projected greenhouse gas emissions, subject to the availability of international grants to meet the cumulative abatement costs amounting to approximately \$40bn. Annual adaptation needs have been identified as between \$7bn and \$14bn — an amount expected from international climate finance that might not be forthcoming given that the US, a big contributor, is pulling out of the Paris Agreement. The recently operational Green Climate Fund has given Pakistan \$37m for a project to scale up Glacial Lake Outburst Flood risk reduction in northern Pakistan. The GCF was supposed to receive \$100bn annually until 2020 from developed countries, but it has only raised \$10.3bn so far.

Critics say that Pakistan’s NDC is hardly ambitious compared to other developing countries in the region, needing to be reworked to reflect emission cuts from installed and upcoming renewable energy projects like the Quaid-i-Azam solar park (which will go up to 1,000MW) and wind farms in Sindh.

Other projects under Mr Hamid's tenure include introducing the Green Pakistan Programme with the objective to plant 100 million trees, ensuring the National Forest Policy was approved by the Council of Common Interests and passing the Climate Change Act (CCA), 2016. But criticism remains that little has been achieved on the ground. "The fact remains that we have policies for everything, but where is the enforcement?" Mr Naqi asks. The new legislation is, in fact, very similar to the Pakistan Environmental Protection Act (PEPA), 1997. Environmental protection agencies set up under PEPA were widely regarded as ineffective and unable to enforce the law. In an interview, the reinstated minister Senator Khan told Dawn that he is prepared to set up a new authority (envisioned by the CCA), including hiring half a dozen professionals and organising a meeting of a high-level climate change council chaired by the prime minister. Interestingly, the council set up under PEPA was also headed by the prime minister, and it barely met.

According to Mr Chaudhry — also the author of Pakistan's National Climate Change Policy (NCCP), 2012 — steps proposed under CCA should have already been implemented. "In the UNDP's Climate Public Expenditure and Institutional Review, we learned that Pakistan spends 8pc of its total budget on climate relevant activities, which is a good figure. However, there are certain areas, basically mitigation activities and climate adaptation, which should be taken more seriously."

As a guiding document, the NCCP highlighted the objective of achieving climate-resilient development by mainstreaming it into various sectors. It was passed by the then PPP government; later, an implementation framework for the policy was also prepared. After the 18th amendment, however, the onus was placed largely on the provinces to prepare their respective detailed action plans, although even at the time, there were concerns about a lack of capacity and competency at provincial levels.

Tackling climate change is beyond the ability of the provinces, admits Senator Khan. On this, he concurs with the findings of the ADB report that there has been an "erosion of climate change policy ownership by the provinces, due to potentially conflicting or overlapping objectives ... between provinces and federal agencies." Working towards a solution, he says that his ministry has now helped coordinate and prepare drafts of policies and action plans in Azad Kashmir, Khyber Pakhtunkhwa, Gilgit-Baltistan and Punjab. Given the communication gap between federal and provincial departments, he says he will "ensure that a member of parliament and a senator from each province are nominated to coordinate and oversee implementation in their respective province".

Reacting to the lack of implementation on the NCCP, a farmer from Lahore recently petitioned the Lahore High Court. Justice Mansoor Ali Shah set up a 21-member climate change commission to investigate the implementation of the NCCP's short-term and medium-term measures by relevant government departments. Mr Naqi, who serves on the commission, says, "The problem is that government departments relate everything to adaptation. The agricultural department says we are helping farmers level the land and that is adaptation or the forest department says we are planting trees so that is adaptation. That is all true, but we have to do so much more."

<https://www.dawn.com/news/1370602/why-climate-change-threats-are-real-and-complex-how-we-battle-climate-change-will-determine-our-future>

THE CLIMATE THREAT

Dawn, November 17th, 2017

THE success of Pakistan's visit to Bonn for the 23rd United Nations Climate Change Conference, also known as COP23, should be judged not by what the delegates bring to the conference, but by what they bring back from it.

In COP 22 last year, Pakistan submitted its Intended Nationally Determined Contribution document which contained the country's vision for meeting the goals of greenhouse gas emissions reduction that were decided in Paris.

That document dwelt at length on the infrastructure needs of the country, particularly water and energy, on the growth rates being targeted, and the financial requirements for taking steps to mitigate the impact of climate change and extreme weather events.

The document revealed a greater concern for financial resources and infrastructure requirements than for any climate-related vulnerabilities the country may be facing.

Given how much emphasis the government has put on calculating the finances required for the INDC, there is now the risk that climate policy could become yet another vehicle for attracting foreign inflows rather than engaging in any real capacity building.

The government claims that it needs \$40bn by 2030 to reduce its greenhouse gas emissions by 20pc, and another \$14bn every year to adapt to climate impacts.

The amounts are impressive, but they should not become the end goal of the exercise. If the government starts to see climate action as just another way of attracting foreign exchange inflows, it would be disastrous.

The minister of climate change has already mentioned that one of the purposes of his ministry is to "secure global funding". This is a dangerous mindset, which sees only the resources and not the responsibilities.

As a special report in this paper pointed out on Wednesday, the real arena for action on climate change is now the provincial governments.

COP23 is also trying to bring in local governments into the effort, because those centres of government that are closest to the ground are considered by the international community to be best situated to deliver the results needed to build resilience.

But thus far, besides the passage of the Climate Change Act in March, there are few indications that any centre within the government is taking climate change very seriously.

The law created three bodies to deal with climate: a council, an authority and a fund. What output can any of these entities show? How many times have they even met? How well has the government resourced them?

The fact that climate change remains far from the centre of the national conversation is one indication that the newly created entities are not yet effective.

The way things are, Pakistan has a long way to travel before it even realises the challenge. Unfortunately, the consequences of climate change have a far shorter distance to cover before landing on Pakistani shores.

<https://www.dawn.com/news/1371064>

NATIONS KEEP GLOBAL CLIMATE DEAL ON TRACK DESPITE US PULLOUT

Business Recorder, 18 November 2017

BONN: Nearly 200 nations made progress towards keeping a landmark 2015 global deal to tackle climate change on track at United Nations talks ending on Friday despite a U.S. President Donald Trump's decision to withdraw.

Governments made advances on drafting a detailed rule book for implementing the Paris accord at the two-week meeting in Bonn, Germany, delegates said. The rules have to be finalised by December next year.

“To meet the objectives set out in the Paris Agreement, we will need to hit the ground running in 2020” when it formally starts up, said Jose Sarney Filho, Brazil's minister for the environment.

“Right now we're moving at a brisk walk, so all countries will need to really pick up the pace from here.”

Countries also agreed to launch a process to find ways to toughen countries' current pledges to curb greenhouse gas emissions to reach the pact's goal of limiting global average temperature rise to “well below” two degrees Celsius (3.6 degrees Fahrenheit).

Scientists say current pledges put the world on track for a temperature rise of about three degrees by 2100.

The Bonn meeting has been conducted under the shadow of Trump's decision to withdraw from the Paris accord, which stoked fears other countries would follow suit.

None have done so. Nicaragua and Syria, the only ones which had not signed up for the Paris Agreement, ratified this month. Even nations whose economies depend on fossil fuels have rallied around.

“Everyone got together and said ‘we have to protect the world. We have to protect the Paris Agreement’. Countries are moving forward,” United Arab Emirates climate minister Thani Ahmed Al Zeyoudi told Reuters.

Trump, who doubts that man-made greenhouse gas emissions are the main driver of rising temperatures, said in June that he plans to pull out of the accord and instead promote jobs in the fossil fuel industry.

But Washington retains its place in the talks for now because the Paris pact stipulates that no country can formally pull out before November 2020.

“We’ve good reason to be happy about where we are today compared to a year ago,” Norwegian Environment Minister Vidar Helgesen said. A year ago, he noted that Trump’s election cast gloom over the last talks in Morocco.

However, the fossil fuel industry was very much under the spotlight during the talks. The U.S. administration’s only event in Bonn was to promote coal, which jarred with many other nations who wanted talks to focus on renewable energies.

In seeming defiance, 20 countries and two U.S. states joined an international alliance to phase out coal from power generation before 2030.—Reuters

<https://epaper.brecorder.com/2017/11/18/1-page/682736-news.html>

KEEPING IT REAL: UN CLIMATE TALKS STRUGGLE TO STAY RELEVANT

Dawn, November 19th, 2017

BONN: There was a telling moment at the 23rd edition of UN climate talks that underscored both the life-and-death stakes in the fight against global warming, and how hard it is for this belaboured forum to rise to the challenge.

Twelve-year-old Timoci Naulusala from Fiji, a nation disappearing under rising seas, was delivering a testimonial to ministers and heads of state with crisp English and irresistible charm.

Suddenly, describing the devastation wrought by Cyclone Winston last year, his words became measured, his voice hushed.

“My home, my school — my source of food, water, money — was totally destroyed,” he said. “My life was in chaos. I asked myself: why is this happening? What am I going to do?”

The answer to Timoci’s first question has become frightening clear: climate change.

With only a single degree Celsius of global warming so far, the planet has already seen a crescendo of deadly droughts, heatwaves, and superstorms engorged by rising seas.

“Climate change is here. It is dangerous. And it is about to get much worse,” said Johan Rockstroem, executive director of the Stockholm Resilience Centre, a climate change research centre.

The 196-nation Paris Agreement, adopted in 2015, enjoins the world to cap the rise in temperature at “well below” 2°C, a goal barely within reach that still may not save Fiji and dozens of small island states.

Bangladesh and other countries with highly-populated delta regions are also at high risk.

But Timoci’s second question remains open: What is he, and by extension the world, going to do?

At first, the answer — laid out in the 1992 UN Convention on Climate Change — seemed straightforward: humans must stop loading the atmosphere with the greenhouse gases that drive global warming.

The successful repair of the ozone hole suggested a way forward: an international treaty.

But it took a quarter of a century to get one, in 2015, and even then it is woefully inadequate: voluntary national pledges to curb carbon pollution would still allow the global thermometer to go up 3°C, a recipe for human misery on a vast scale.

Since Paris, the UN climate talks — known to participants as “COPs”, or Conferences of the Parties — have focused on working out an operational handbook for the treaty, which goes into effect in 2020.

But as the years tick by, the byzantine bureaucracy — where hundreds of diplomats can argue for days over whether a text will say “should” or “shall” — has struggled to keep pace with both the problem, and what some negotiators call “the real world”.

“What is at stake here is the relevance of the COP process,” said Nicaragua’s chief negotiator Paul Oquist, lamenting a point of blockage and the generally slow pace. “We cannot risk becoming more and more irrelevant with each meeting.”

The UN climate process risks falling out of step in two key ways, experts suggest.

One is in relation to the unforgiving conclusions of science, which show that the window of opportunity for avoiding climate cataclysm is rapidly narrowing to a slit.

This year’s climate talks kicked off with negotiators learning that CO₂ emissions — after remaining stable for three years, raising hopes that they had peaked — will rise by two percent in 2017, a development one scientist called “a giant step backwards for humankind”.

Negotiations were also reeling from US President Donald Trump’s decision to pull out from the Paris Agreement. America sent envoys to the meetings but White House officials and energy company executives hosted a pro-fossil fuel event on the conference margins.

Meanwhile, scientists warned of invisible temperature thresholds — “tipping points” — beyond which ice sheets would irretrievably shed enough water to raise global oceans by metres.

“The only question is how fast,” James Hansen, head of Nasa’s Goddard Institute for Space Studies until 2013, told AFP.

The UN’s 12-day negotiations came to an end on Saturday with an agreement to hold a stock-take in 2018 of national efforts to cut fossil fuel emissions.

But the talks are falling behind the response of cities, sub-national regions and especially businesses, which have leaped headlong into the transition from a dirty to a clean global economy.

“For the first time in the history of the COPs, the heart of the action was not in the negotiating arena but in the ‘green’ zone” showcasing innovations in sustainable development, said David Levai, head of the climate programme at the Institute for Sustainable Development and International Relations in Paris.

Some 7,500 cities and local governments have set carbon cutting targets, and hundreds of global companies are retooling for a low-carbon world.

A veteran EU climate diplomat, meanwhile, bemoaned the lack of dynamism in the negotiating arena. “I’ve never seen a COP with so little adrenaline,” he said.

Mads Randboll Wolff, a Danish expert in bioeconomics — a field that didn’t even exist a decade ago — recalled the bitter disappointment of the failed Copenhagen climate summit in 2009.

“The entire world was looking up to the podium, waiting for world leaders to strike the deal that would save us,” he said.

“One of the lessons from Copenhagen is that the negotiations are not enough,” he added. “We need them. But we also need civil society — people, citizens — to take action.”

<https://www.dawn.com/news/1371373>

NEWS COVERAGE PERIOD FROM NOVEMBER 6 Th TO NOVEMBER 12 Th 2017

CHINA MAY GRASP CLIMATE LEADERSHIP AT UN TALKS WITH TRUMP PULLING OUT
Business Recorder, 6 November 2017

BONN: China has a chance to assert leadership of a global plan to combat global warming this week at the first UN climate talks since US President Donald Trump decided to quit the 195-nation Paris Agreement, delegates say.

Government experts are to work on a “rule book” for the 2015 climate pact at the Nov. 6-17 annual meeting in Bonn, Germany. The accord seeks to end the fossil fuel era this century with a shift to wind, solar and other clean energies.

Trump once dismissed climate change as a Chinese hoax to harm the US economy and said in June that he would pull out of the agreement and instead promote US coal and oil. A formal US withdrawal will take until 2020.

No other nation has followed his lead. US influence is likely to wane compared to other big greenhouse emitters led by China, the European Union and India even though Washington will still have a place at the table in Bonn.

“The rest of the world, including all major emerging economies, has made it clear that it is committed to the Paris Agreement,” Maldives Environment Minister Thor Abraham, chair of the Alliance of Small Island States (OASIS), told Reuters.

China, on track to beat its goal of a peak in carbon emissions in 2030, seems best placed to step up leadership of an agreement largely designed by Washington under former president Barack Obama, many delegates say.

The meeting “will be a great free advertisement for China,” one European environment minister said. And Beijing plans to launch a nationwide carbon market this year, albeit delayed from the first half.

“The results (in Bonn) will prove that this (Paris) process has certainly not stopped,” China’s top climate official, Xi Zhenhua, told a news conference last week. He expressed hopes that Washington will end up staying in the Paris pact.

Adding urgency, 2017 is set to be the second warmest on record, behind 2016, according to NASA. And 2017 has had weather extremes of hurricanes, floods and drought-fuelled wildfires.

Fiji will preside at the Bonn talks, the first small island nation to do so in more than two decades of UN climate negotiations. That may give OASIS, at risk from rising seas, unprecedented influence.

The Paris rule book, including details of how to measure and report emissions, is due to be in place by the end of 2018.

Alden Meyer, of the Union of Concerned Scientists, said governments will face a tougher test in coming years when they have to ratchet up national ambitions to meet the goals of the Paris Agreement.

The United Nations says average temperatures will rise about three degrees Celsius (5.4 Fahrenheit) above pre-industrial times by 2100 with existing policies, against a Paris goal of keeping them “well below” two degrees (3.6F), ideally 1.5 (2.7F).

And on Friday, US scientists released a report saying it was “extremely likely” that human activities are the main source of warming, contradicting Trump’s views.

“The US has painted itself into a corner,” isolated both from other nations and from mainstream science, Christiana Figueres, who was the UN climate chief in Paris, told Reuters.—Reuters

<https://epaper.brecorder.com/2017/11/06/15-page/680598-news.html>

2017 AMONG THREE HOTTEST ON RECORD: UN
Dawn, November 7th, 2017

BONN: This year will be among the three hottest on record in a new sign of man-made climate change that is aggravating “extraordinary weather” such as hurricanes, droughts and floods, the United Nations said on Monday.

The UN report is meant to guide almost 200 nations meeting from Nov 6-17 here in Germany, to try to bolster the 2015 Paris climate pact despite a planned US pullout.

“2017 is set to be in top three hottest years,” the UN’s World Meteorological Organisation (WMO) said, projecting average surface temperatures would be slightly less sweltering than a record 2016 and roughly level with 2015, the previous warmest.

And 2017 would be the hottest on record without a natural El Nino event that releases heat from the Pacific Ocean about once every five years, it said. El Nino boosted global temperatures in both 2015 and 2016.

“We have witnessed extraordinary weather,” WMO Secretary-General Petteri Taalas said in a statement of 2017, pointing to severe hurricanes in the Atlantic and Caribbean, temperatures above 50 degrees Celsius in Pakistan, Iran and Oman, monsoon floods in Asia and drought in East Africa.

“Many of these events and detailed scientific studies will determine exactly how many bear the tell-tale sign of climate change caused by increased greenhouse gas concentrations from human activities,” he said.

The Bonn meeting is due to work on a “rule book” for the Paris Agreement, which seeks to end the fossil fuel era in the second half of the century by shifting the world economy to cleaner energies such as wind and solar power.

“These findings underline the rising risks to people, economies and the very fabric of life on Earth if we fail to get on track with the aims and ambitions of the Paris Agreement,” said Patricia Espinosa, head of the UN climate change secretariat which hosts the Bonn talks.

US President Donald Trump, who once dismissed global warming as a Chinese plot to undermine the US economy, plans to withdraw from the Paris pact and focus instead on bolstering the US fossil fuel industry. China and the United States are the top emitters.

The WMO said average surface temperatures in 2017 were about 1.1C above the pre-industrial era in data from January to September, nearing the most ambitious limit of 1.5C set by the Paris Agreement.

Many scientists say the 1.5C limit is already slipping out of reach because of insufficient action by governments to cut emissions so far.

<https://www.dawn.com/news/1368809>

TRUMP ‘NOT INVITED’ TO PARIS CLIMATE SUMMIT

Business Recorder, 8 November, 2017

PARIS: US President Donald Trump is not among the around 100 heads of state and government invited to next month’s climate summit in Paris, a French presidential aide said Tuesday.

“For now, President Donald Trump is not invited,” he said, while noting that representatives of the US government would attend.

Trump announced his decision to withdraw the United States from the historic 2015 Paris Agreement on limiting carbon emissions in June.

The pact calls for capping global warming at “well under” two degrees Celsius (3.6 degrees Fahrenheit) above pre-industrial levels, and 1.5 C if possible.

Around 800 organisations and public stakeholders will be on hand for the December 12 event to be held on Ile Seguin, an island in the Seine River southwest of Paris.

The meeting will follow the 23rd UN climate conference (COP23) that opened in Bonn, Germany, on Monday.

The Bonn meeting is dealing with mainly technical issues such as ensuring transparency and compliance, the reporting of emissions, and procedures for allocating climate funds. The aide to French President Emmanuel Macron said the upcoming summit would aim to “build coalitions” involving cities, investment funds and development banks to further the goals of the accord.—AFP

<https://epaper.brecorder.com/2017/11/08/24-page/680984-news.html>

TIME TO CONFRONT CLIMATE CHANGE

Business Recorder, 9 November, 2017

Saida Fazal

The 2017 is set to be in the top three hottest years – all in a row – on record, says the World Meteorological Organisation (WMO) report. Although slightly less sweltering from the previous two because El Nino — an event that occurs every five years discharging heat from the Pacific Ocean – boosted global temperatures in 2015 and '16, the current year saw extraordinary weather events. Hurricanes hit vast swathes of North America and the Caribbean, while closer home in Pakistan, Iran and Oman temperatures crossed 50 degrees Celsius and monsoons caused floods in Asia and drought in East Africa. These episodes are clear pointers of climate change (there are still some denier like the US president Donald Trump) caused by greenhouse gas emissions and the risks it carries for the people and economies of countries like ours.

In fact, the Global Climate Risk Index lists Pakistan among the top ten countries most affected by global warming. That though is not because of something this country is doing — it is not completely without blame – but because of rapid industrialization in the neighbouring India and China. Nature of course does not recognize international borders. We have already been experiencing recurring floods, droughts and shifting weather patterns.

This winter has been unusually dry. The Indus River System Authority (IRSA), facing a 30 percent shortage in water, has declared a water emergency as the river flows have decreased and 60 percent of the water stored in reservoirs during monsoon season has already been utilized. It portends changes scientists have been predicting for quite some time.

As temperatures rise, the Himalayan glaciers, they warn, could drastically reduce in volume. That holds devastating consequences for this country's agrarian economy and the way of life of its people. As scary as this scenario in not too distant future, the time to act is now.

The Paris Agreement on Climate Change commits nations to the goal of keeping the increase in global average temperatures to well below 2 degrees C above pre-industrial level by limiting the increase to 1.5 C. It is an ambitious but uncompromisable assignment, though it seems a bit frustrating given that the leader of one of the biggest world polluters, US President Trump, has decided to pull

out of the agreement, calling global warming a “hoax” and a “concept... created by and for the Chinese in order to make U.S. manufacturing non-competitive.”

The exit process outlined in the deal, nonetheless, offers some comfort in that Trump cannot just announce he is leaving and walk out on an agreement negotiated and signed by his predecessor Barack Obama; his country has to stay in for another three- and- a half years, which means till the end of his first term. Considering the present atmosphere, he is unlikely to win a second term. Irrespective of whatever lies ahead for him, there is a growing recognition in the US that climate change is a clear and present threat that needs to be fought. A number of big city mayors and state governors have vowed to follow the guidelines of the Paris treaty for the sake of a better future for their people and the economy by opting for clean energy policies, without the federal government’s support.

Having ratified the Paris agreement last November Pakistan with its very small carbon footprint may not have to worry much on that score, but as one of the countries most vulnerable to effects of climate change it has a lot to worry about. Unfortunately, planning for the long term is something alien to our policymakers. In this case there is little room for complacency, yet there is no indication the governments, both at the centre and in the provinces, realize the gravity of the challenge.

More than a year ago, i.e., in February 2016, assisted by the UN Environmental Programme the Federal Ministry of Climate Change produced a Technical Needs Assessment (TNA) Report that identified a number of technologies aimed at mitigation and climate adaptation strategies in the energy, agriculture and transport sectors for low vulnerability pathways. Despite the ministry’s stated resolve to streamline the policies in the light of expert opinion, the TNA report proposals remain unimplemented on the pretext of financial constraints.

Meanwhile, the government has gone ahead to set up coal-fired power plants. Notably, regardless of President Trump wanting to buck the requirement as part of his country’s obligations under the Paris treaty, putting in new such plants is a big no, no in the US for being a major culprit in greenhouse gas emissions.

The problem in our situation is that those in policymaking positions have their own priorities. They are interested more in projects that produce quick results, can attract public attention and fetch votes than the ones that are needed to protect and promote the nation’s food and water security.

That, they think, is something to be done in a distant future. But floods, droughts and dropping river flows are already warning that non-intervention is not an option. It is imperative not only to mitigate existing environmental problems but to make a new start. An opportunity for that has come up in the form of CPEC projects in the fields of energy, agriculture and industries.

Some disturbing reports suggest these energy projects include coal-fired power plants. That should be impermissible. China has emerged as a leader in solar technology and is also making significant progress in harnessing other renewable sources of energy. That is where we need and must seek its help. Pakistan has to fulfill its obligations towards the UN framework Convention on Climate Change as well as the Paris climate accord in the interest of the wellbeing of its own people.

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<https://epaper.brecorder.com/2017/11/09/22-page/681176-news.html>

PAKISTAN AMONG 10 COUNTRIES WORST HIT BY CLIMATE CHANGE: REPORT

Dawn, November 10th, 2017

Amin Ahmed

ISLAMABAD: Pakistan is among 10 countries that have been affected the most by climate change in the 20-year period from 1997 to 2016 and occupies the seventh place on the list, according to the Global Climate Risk Index 2018 published on Thursday.

For 2016 Pakistan had a Climate Risk Index (CRI) score of 50.83, as 566 fatalities were recorded in the year and climate change caused a financial loss of \$47.31 million. In CRI rankings, Pakistan was ranked fourth when it came to fatalities and 69th in terms of financial losses.

The Global Climate Risk Index 2018 published by Germanwatch, an independent development and environmental organisation, has analysed the extent to which countries have been adversely affected by weather-related events. The data for 2016 and those for the 1997-2016 period were taken into consideration while formulating the report.

According to the report, a new category of countries has been gaining relevance over recent years: countries like Haiti, the Philippines and Pakistan that are frequently affected by calamities.

Such countries have been ranked among the most affected ones both in the long-term index and in the index for respective years.

<https://www.dawn.com/news/1369582>

NEWS COVERAGE PERIOD FROM OCTOBER 30TH TO NOVEMBER 5 Th 2017

MINISTER ASKS GLOBAL COMMUNITY TO AGREE ON PLAN TO ADDRESS CLIMATE CHANGE

Dawn, October 30th, 2017

ISLAMABAD: Minister for Climate Change Senator Mushahidullah Khan on Sunday urged global leaders who are meeting next month in Bonn, Germany for the annual UN climate change conference, to agree on a sustainable plan for the mobilisation of financial, information and technological resources to protect the world, especially developing countries from the effects of climate change.

“We have no other option but to join hands in order to increase the world’s resilience against the adverse effects of climate change particularly floods, heat waves, sea level rise, cyclones and hurricanes,” the minister told media persons.

He urged global political leaders to make the world climate safe, sustainable and inhabitable with adequate resources available for the present and future generations to live healthy lives without draining natural resources callously.

“The time has come to take action to mitigate the climate risk to the world by bringing together businesses, governments and public bodies to accelerate sustainable development, advance the green economy and promote the use of natural resources carefully,” he said.

Following a year of increasingly visible climate change impacts, some 20,000 government and non-government delegates from over 196 countries will meet in Germany between Nov 6 and Nov 17 for the 23rd annual UN climate change conference, also called the Conference of Parties or COP23.

Pakistan's official delegation will join global negotiators to attempt to work out a set of implementable guidelines for the Paris climate change agreement, a long-term global strategy to address climate change, ahead of the 2018 deadline.

The Paris agreement set a goal to limit global average temperature to rise to 2°C above the pre-industrial level of the year 1850 though scientists have said it is likely the average global temperature will pass this threshold by the end of the century.

Talking to the media on Sunday, the climate change minister said the 2°C mark is considered by most scientists as the tipping point beyond which the consequences of climate change will become catastrophic.

Referring to finds of the US-based think-tank World Resource Institute, Mr Khan said the global carbon dioxide emissions were 150 times higher in 2011 than they were in 1850.

The climate change minister recalled that the goal of the Paris agreement, which was agreed to by 196 countries in 2015, set global emission standards which would keep the world from hitting that point and to ideally less than a 1.5°C increase. However, experts have noticed that global reductions would have to be even more aggressive to accomplish that aim, the senator said.

Quoting UN Environment Program reports, the minister said the carbon gasses that the world has released into the atmosphere by burning fossil fuels from energy, transport and industrial systems so far already guarantee that the world will continue to get warmer.

“Failing to achieve a less than 2°C rise in global temperature by the end of the present century under the Paris agreement will mean many will be living in places where there will be intense heat waves. If we hit that point, the sea level will continue to rise and will drown most of the world's cities,” he said.

Mr Khan said the daunting challenge facing governments, particularly those of developed countries including US, Canada, Germany, France, UK, Japan and Russia, was to accelerate action before the narrow window of opportunity closes in order to save the world from the annihilating effects of global warming.

<https://www.dawn.com/news/1367193/minister-asks-global-community-to-agree-on-plan-to-address-climate-change>

CLIMATE CHANGE STRIKES OLIVE OIL

The New York Times International 30 Oct 2017

SOMINI SENGUPTA

It was in June, the time of year when the first olives normally burst from their blossoms in the mild warmth of early summer, when Irene Guidobaldi walked through her groves in blistering heat and

watched in horror as the flowers on her trees began to wither and fall. The only way to save her family's precious orchard in the hills of Umbria was to buy the most precious thing of all in this summer of drought: water. Lots and lots of water. And so, Ms. Guidobaldi, an eighth-generation olive grower, bought water by the truckload, nearly every day, for most of the summer.

The heat wave that swept across southern Europe in the past summer, which scientists say bore the fingerprints of human-induced climate change, is only the latest bout of strange weather to befall the makers of olive oil. Some years, like this one, the heat comes early and stays. Other years, it rains so much — as it did in 2014 — that the olive fly breeds like crazy, leaving worms inside the olives.

Or there's an untimely frost when the fruits first form, which is what happened in Beatrice Contini Bonacossi's groves in Tuscany. Or, an early hot spell is followed by a week of fog and rain, which is what happened on Sebastiano Salafia's farm in Sicily a few years ago, leaving the trees confused, as he put it, about when to bear fruit.

"Every year, there's something," Mr. Salafia said. Gone are the days when you could count on the mild "mezze stagioni," or half-seasons, that olives rely on before and after the heat. Gone, too, is the cycle you could count on: one year good, next year not good. Now, said Ms. Guidobaldi, stretching wide her long twiggy arms, "It's like playing the lottery." Olive trees are hardy survivors. In the Bible, a dove brings an olive leaf to Noah on the ark, a sign that the world is not entirely destroyed.

Olive oil is central to food and folklore across the Mediterranean. And its health benefits have been so extolled that global demand for extra virgin olive oil has surged. Now, a changing climate is turning olive oil into an increasingly risky business — at least in the Mediterranean, the land of its birth.

Harvests have been bad three of the past five years, subject to what Vito Martielli, an analyst with Rabobank, based in Utrecht, the Netherlands, called weather-related "shocks." And with growing demand, wholesale prices have gone up. No one will go hungry if there's not enough olive oil on the market.

But the impact of climate change on such a hardy and high-end product is a measure of how global warming is beginning to challenge how we grow food. The forecast for olive oil production this year is mixed. In Italy it is expected to be 20 percent below the 2000-2010 average, though better than last year, according to the International Olive Council, with some growers expecting a smaller but very tasty yield. Spain, the world's largest producer, expects a dip of at least 10 percent from last year, according to the council; the Spanish growers association forecasts a much bigger drop.

Greece is expected to have a robust harvest. So, too, Tunisia. As the supply from the Mediterranean becomes more unpredictable, some bottlers are looking elsewhere as future sources of oil. Even some champions of Mediterranean oil, like Nancy Harmon Jenkins, author of "Virgin Territory: Exploring the World of Olive Oil," recommend venturing further afield. "I hesitate to say this because I love the Mediterranean and I want people to have Mediterranean olive oil," she said, "but I think California is going to be more and more important in the years ahead and places like Australia and New Zealand." Between June and August this year, it was exceptionally hot and dry across southern Europe. In Spain, temperatures soared above 105 degrees Fahrenheit (40 degrees Celsius) in July.

In Italy, rainfall was 30 percent below normal levels — and in parts of the country, much lower still. Scientists with the World Weather Attribution program, a group dedicated to the study of extreme

weather, concluded last month that the “the chances of seeing a summer as hot as 2017” had increased tenfold since the early 1900s, and the chances of a heat wave like the one that hit the region for three days in August, nicknamed Lucifer, had risen by four times.

“We found a very clear global warming fossil fuel fingerprint,” said Heidi Cullen, a climatologist who heads the program. Ask Italian olive growers about the weather this year and you hear a wide range of answers.

It rained on one hill. It didn’t rain on the neighboring one. One olive variety made it through the heat; another didn’t. Even in one orchard, one tree hung heavy with fruit; another barely had any. Many said they would have to invest in irrigation. The one upside of the heat, they all said, was that the olive fly withered, too. On an unseasonably warm Monday in October, Ms. Contini Bonacossi and her brother,

Filippo, took me through their family estate, known as Capezzana, in the hills northwest of Florence. Here and there, tiny, dried-up olives lay on the ground. A few trees were bare. But many were drooping with fruit: fat, purple-green olives, the sight of which made Filippo exceedingly happy. “He is very excited,” Ms. Contini Bonacossi said of her brother. She was less so. Capezzana would produce 20 percent less oil this year; as Capezzana’s sales chief, she would have to ration it out to her loyal customers.

Ms. Guidobaldi, for her part, was taking no chances. She started harvesting in late September, the earliest ever on the estate. It was still scorching hot. What if a freakish storm came and knocked the olives down? “Bellissimo,” she said, caressing the olives she had saved. “I don’t have children. These are my children. You can’t just ignore them one year and then come back the next year and everything is O.K.” On the southern edge of Tuscany, in a valley of scraggly oak, Riccardo Micheli didn’t have the luxury of saving his trees with water trucks. Unlike Ms. Guidobaldi’s conventional farm, Mr. Micheli’s, the Agricola Nuova Casenovole, is run on biodynamic principles: He uses no pesticides and leaves much of his land to wilderness.

This year, nature did not return the favor. By June it was burning hot. The hills around his groves turned red, then brown, as though the seasons had forgotten themselves and June had turned into November. His early-blooming Moraiolo olives, one of three varieties that go into his oil, held on to their branches. But the lateblooming leccio del corno, the variety that gives his oil a spicy, dark kick, burned on the branches and dropped. Soon his entire field of leccio del corno was carpeted with fallen flowers, like summer snow.

To water them, Mr. Micheli feared, could moisten the soil enough to invite the dreaded fly and then ruin everything. This year, he expects to produce 60 percent less oil than normal. And because his oil won’t contain leccio del corno olives, it will be lighter than usual, less spicy and lower in the polyphenols that make olive oil healthier than other oils. The dry heat, in other words, would alter how much oil he makes, but also its quality. “For the future we don’t know what to do,” Mr. Micheli said. “One year, it’s too much rain. Other year, it’s too much heat. Next year, who knows?”

<http://iht.newspaperdirect.com/epaper/viewer.aspx>

BALUCHISTAN TO INSTALL 30,000 SOLAR-RUN TUBE WELLS

The Express Tribune, November 3, 2017

ISLAMABAD: The federal and Baluchistan governments have agreed to undertake feasibility studies in the next one month in a bid to clear the path for installation of 30,000 solar tube wells in the province by replacing the existing conventional tube wells.

The reliance on solar-powered tube wells in Baluchistan will lead to annual savings of Rs23 billion as the federal government will not need to release billions of rupees in electricity subsidy.

The decision was taken in a meeting on Thursday chaired by Federal Minister for Power Division Sardar Awais Ahmed Khan Leghari. It was attended by representatives of the Government of Baluchistan, Ministry of Finance, Ministry of Planning and Power Division.

Meeting participants agreed that the Quetta Electric Supply Company (Qesco) would frame technical proposals for a smooth transition to solar power.

Qesco and the Baluchistan government will jointly prepare workable documents covering technical modalities as well as financial proposals for installing the solar tube wells within the set time frame.

The Power Division minister, while expressing his views, said the federal government was paying Rs23 billion per year in subsidy on 30,000 tube wells in Baluchistan and their shift to solar power would ease the burden on the national exchequer. The switch to clean and renewable energy would also ensure power supply at affordable prices to agriculturists and would help increase crop productivity, he said.

Leghari voiced hope that the move would help conserve electricity as all illegal connections associated with the tube wells would be exposed with the connection to solar panels and proper action would be taken against stealing. "Electricity theft from these tube wells will come to a halt."

The meeting participants were informed that the federal government was ready to pour capital into the solar tube well project and would extend all-out support. "This step will bring an off-grid solution to far flung areas of Baluchistan in the near future," the meeting was told.

A senior government official pointed out that farmers were not paying bills to the public power utility in Baluchistan and the absence of payments was adding to the country's growing inter-corporate debt.

He estimated that Baluchistan farmers had to pay Rs150 billion in electricity bills, but aired hope that the replacement of existing tube wells with solar-powered ones would resolve the issue of unpaid bills.

<https://tribune.com.pk/story/1548340/2-baluchistan-install-30000-solar-run-tube-wells/>

December 2017

NEWS COVERAGE PERIOD FROM DECEMBER 25th TO DECEMBER 31st 2017

CLIMATE CHANGE DRIVING RECORD SNOWS IN ALASKAN MOUNTAINS: STUDY

Business Recorder, 25 December, 2017

BOSTON: Snowfalls atop an Alaskan mountain range have doubled since the start of the industrial age, evidence that climate change can trigger major increases in regional precipitation, according to research published in the journal *Scientific Reports* on Tuesday.

The study by researchers from Dartmouth College, the University of Maine and the University of New Hampshire, shows modern snowfall levels in the Alaska Range at the highest in at least 1,200 years, averaging some 18 feet per year from around 8 feet per year from 1600-1840.

“We were shocked when we first saw how much snowfall has increased,” said Erich Osterberg, an assistant professor of earth sciences at Dartmouth College and principal investigator for the research. “We had to check and double-check our results to make sure of the findings.”

The research was based on an analysis of two ice core samples collected at 13,000 feet from Mount Hunter in Alaska’s Denali National Park. The study suggests that warming tropical oceans have driven the increased snowfall by strengthening the northward flow of warm, moist air.

The research builds on a previous study using the same ice cores that showed an intensification of winter storm activity in Alaska and Northwestern Canada, driven by the same strengthening “Aleutian Low” system.

“Everywhere we look in the North Pacific, we’re seeing this same fingerprint from warming tropical oceans,” said Dominic Winski, a research assistant at Dartmouth and lead author of the report. “Wintertime climate in the North Pacific is very different than it was 200 years ago.”

Scientists have long concluded that carbon dioxide and other emissions from industry are driving planetary warming, leading to floods, droughts, and more frequent powerful storms.

But researchers have only more recently begun detailing how climate change can boost regional precipitation patterns, in some cases with devastating consequences.—Reuters

<https://epaper.brecorder.com/2017/12/25/16-page/689916-news.html>

NEWS COVERAGE PERIOD FROM DECEMBER 18TH TO DECEMBER 24TH 2017

NEED FOR STATE POLICY ON CLIMATE CHANGE STRESSED

Business Recorder, 20 December, 2017

HYDERABAD: One day seminar on Climate Change and Coastal Issues in Sindh was jointly organized by Centre for Coastal and Deltaic Studies, University of Sindh Campus Thatta and Federation Handicap International.

Prof Dr Mukhtiar Ahmed Mahar, Director Centre for Coastal and Deltaic Studies, chaired the event on the behalf of Prof Dr Sarfraz Hussain Solangi, Pro Vice Chancellor University of Sindh Campus Thatta, he said that Climate Change is a natural phenomenon which may bring gradual changes to coastal areas, therefore government departments, academia and NGOs and civil society should work together to combat the future challenges of coastal issues and developments and implementation of policies and frameworks for adaptation.

Speaking on the occasion, Muhammad Maozam Khan, Technical Advisor WWF-Pakistan and Ex-DG Marine Fisheries Department said climate change should not be used a tool for getting funds and project rather it should be understood as an important issue.

While Muhammad Memon, Project Manager Federation Handicap International, expressed his views that climate change is a global fact and its impacts are inevitable for the world including Pakistan. There is dire need for the state and its department to get all climate change related policies and actions plans implemented. There is need for action research on the subject when it comes to coastal issues including those directly linked with the climate change.

Abdul Qayoom Bhutto Director Tropical Cyclone Centre Meteorological Department speaking on the occasion said, 'Climate change impacts on coastal areas of Sindh are not as huge as the rest of the world in terms of vulnerabilities. "Yet we are exposed to immediate and long-term effects but the most dangerous is sea and seawater intrusion."

Dr Abdul Qayoom Bhutto, Director Tropical Cyclone Centre Karachi spoke at large on the role of meteorological department Pakistan and tropical cyclone centre Karachi in forecast and early warning.

Akhtar Hussain Samoo, Deputy Director SEPA said, 'SEPA has prepared Sindh Climate Change Policy that will be launched in 2018. Sindh has notified provincial implementation committee for national climate change policy and action plans that is reviewing the progress for further planning and implementation.

Munir Hussain Abbasi, Deputy Director SEPA, discussed causes and impacts of climate change and related issues in detail.

Ajay Kumar Sewani representing the PDMA Rehabilitation Department sharing his views said that PDMA Sindh is planning to conduct multi-hazard risk assessment in 29 districts of Sindh including the coastal districts. PDMA is well prepared and is endeavouring to be more prepared through DDMA to cope with disasters. PDMA is playing proactive role for inclusive early warning at the grassroots level.

It has launched Sindh Resilience Project across the province that focuses DRM including effects of climate change. Rescue 1122 has been launched in Karachi and will be replicated across the province. In 2018, PDMA Sindh will revise and launch Sindh Disaster Risk Management Plan to cover climate change and its related aspects and launch disaster management information system.

Provincial institute of disaster management (PIDM) is being established. In the end of seminar an open discussion between experts and audience was formed strong recommendations for good governess of policies and implementation perspective.

<https://epaper.brecorder.com/2017/12/20/8-page/688732-news.html>

CLIMATE CHANGE: POLICIES YEARNING IMPLEMENTATION

Business Recorder, December 21 2017

Pakistan has had its fair share of climate change in the recent past. The recent smog in Punjab was just a reminder for the analysts and the policymakers to buckle up. The country's vulnerability to climate change is well acknowledged having faced floods, earthquakes, heat waves, and droughts that have adversely affected the life, property as well as economic growth.

The role of government and institutions is paramount to keeping the issue alive and ultimately transform the system into a resilient one. However, countries like Pakistan have suffered from lack of governance, and weak institutions, in turn failing to address the issues at hand. This column will look at the policies and actions taken by the government – and their effectiveness – over the years for climate change, summarised by the Asian Development Bank in its report called 'Climate Change Profile of Pakistan'.

Surprisingly, institutionalization of climate change in Pakistan dates back to the 70's where it took first environmental steps. In 30 years from 1971-2001, the country signed and approved 14 international environmental commitments that included Kyoto Protocol, and UN Framework Convention for Climate Change amongst others. However, these efforts didn't yield much due to the country's infamous coordination between departments and lack of political will and resources.

Later in 2010, the Ministry of Environment was devolved to the provinces under the 18th Amendment to the Constitution. Subsequently in 2011, a new Ministry of Disaster Management was set up, which was later renamed to become Ministry of Climate Change in 2012. This ministry saw demotion to a division with budget slashed, and then up-gradation again in subsequent years. Today, environment is under provincial governments, while climate change remains a federal subject.

Unfortunately, actions and implementations by the government institutions were not as swift as the changes in status had been. Lack of political will or eagerness and fickle policy focus inflicted the progress. Though climate change and environment has been institutionalized, the evolution of acceptance of the issue has taken too long. Like many other departments, the government's approach has been patchy, resting mostly on ad hoc reaction. In short, there has been little long term strategizing.

At present, climate change is largely represented by the government's disaster risk management arrangements. National Disaster Management Authority (NDMA) deals with environment and climate related issues whereas Provincial Disaster Management Authority (PDMA) and District Disaster Management Authority (DDMA) are the provincial and district level bodies with interrelated objectives. Even though NDMA has had a strong political support, it too suffers from lack of funds, capacity and research.

As for the policies, National Climate Change Policy (2012) is the main policy framework for climate change in Pakistan, which was eventually launched in 2013. This is the first comprehensive policy that addressed the challenges the country faces now and in future due to climate change. The focus of the policy is on both adaptive and mitigation strategies to combat the adverse effects of climate change but prioritize adaptation measures.

The biggest challenge the policy faces is the implementation. Though the policy sets forth an action plan, ADB highlights in its report, “NCCP has made policy implementation contingent upon devising an “action plan” at the federal, provincial, and local government levels. With much confusion and limited understanding of the administrative and legal powers of the regulations, policies, and programs transferred to the provinces, there seems to be less interest in adopting a policy with less clear directives.”

It further adds that the government is busy in prioritizing some other more immediate threats like terrorism and energy shortfall. Other challenges of NCCP, it points out, include the conflicting or overlapping objectives, responsibilities, and priorities between provinces and federal agencies.

The country does have a detailed policy on paper; it is the implementation and execution of the policy – something common in many departments – that remain a bottleneck. Vertical and horizontal coordination efforts between federal, provincial, and local governments with involvement of all stakeholders are described as the most crucial for the actual implementation of the policy. Moreover, there is a need to improve data on climate change in Pakistan. Lack and access to information is another challenge that the policy faces.

<https://epaper.brecorder.com/2017/12/21/2-page/688888-news.html>

INT’L SCIENCE-POLICY MOOT: CLIMATE CHANGE POSES THREAT TO HEALTH, FOOD SECURITY

Dawn, 21 December 2017

Tahir Amin

ISLAMABAD: Climate change affects the volume and variability of inflows which poses threats to food security, safety of infrastructure, civic services, human health and hygiene, and energy security.

This was the crux of a panel discussion held on the sideline of International Science-Policy Conference on Climate Change. The participants were eminent international scientists as well as Pakistani researchers both from within the country and working abroad and they included Steve Burian, Tom Downing, Youba Sokona, Paul Deshankar, Jeff Ulemon, Adil Najam, Saleem Ali, Asim Zia, and Abrar Chaudhary.

The researchers stated that the number of climate-water related challenges facing Pakistan is increasing, including rising temperatures, unpredictable precipitation patterns, glacier melting, increased frequency and intensity of extreme weather events.

Further low storage capacity, poor irrigation infrastructure, recurring droughts and floods, rising sea levels, environmental degradation, and governance issues associated with these stresses.

The presenters recommended increasing storage capacity, improving water-use efficiency, institutional capacity building and investing in water saving projects.

The closing session of the Science Policy Conference on Climate Change was held here on Wednesday.

The speakers said that climate change is a reality. Pakistan is a witness to its adverse impacts. In the past 20 years, the country has been hit by recurrent and devastating floods, recurrent heat waves, a prolonged drought, erratic weather patterns leading to lowered agricultural productivity, emergence of new diseases, and the looming threat of desertification due to the recession of the Himalayan glaciers.

In the backdrop of these critical circumstances, the conference was organized to; (1) enhance scientific understanding of the changing climate and associated impacts on socio-economic sectors, (2) develop policy recommendations to address the challenges affecting Pakistan's development, (3) promote coordination among researchers and institutions working on different aspects of climate change in Pakistan and facilitating their collaboration with international scientists and experts engaged in similar research activities, (4) and share knowledge and best practices on adaptation strategies, including capacity building of national institutions and experts.

The conference was organized by GCISC with the support of several important partners, including the HEC, SDPI, COMSATS, NDMA, PMD, PARC, PCRET, HBS, NRSP, the University of Utah, and the US-Pakistan Centre for Advanced Studies in Water, and attended by more than 700 delegates representing international and national research organizations, academia, government, media, law, parliamentarians and civil society.

Thirty-one national organizations contributed to the activities of this conference in one way or the other.

The conference comprised 5 parallel research workshops. The themes are a) climate science, b) climate and water, c) agriculture and food security, d) impacts and adaptation and e) mitigation and policy. The purpose of these workshops was to allow researchers to present the latest research on these areas. Each research workshop was distributed into 9 sessions and in each session 3 papers were presented. Overall 140 papers were presented.

In the first stream in climate science, papers reported that mean and extreme temperatures in future are likely to increase in all parts of the country. Temperature extremes in the form of heat waves are going to increase in future over most parts of the country. The need for effective contingency plan and regular updating of glaciers and glacial lakes was also stressed.

In the climate and water research workshops, the researchers reported that the number of climate-water related challenges facing Pakistan is increasing. They include rising temperatures, unpredictable precipitation patterns, glacier melting, increased frequency and intensity of extreme weather events, low storage capacity, poor irrigation infrastructure, recurring droughts and floods, rising sea levels, environmental degradation, and governance issues associated with these stresses. Climate change affects the volume and variability of inflows which poses threats to food security, the safety of infrastructure, civic services, human health and hygiene and energy security. The presenters recommended increasing storage capacity, improving water-use efficiency, institutional capacity building and investing in water saving projects.

The speakers in the session on agriculture and food security recommended precision farming, practicing water use efficiency and adopting to various agronomic and breeding techniques.

A total of 29 papers were presented in the mitigation and policy workshop. Besides mapping the currently ongoing research the thematic roundtables were also organized. The roundtable on climate and finance recommended need for hardcore projects to attract more financing under GCF.

The conference provided an opportunity to various organizations to display their work in the exhibit area. There were 12 stall contributions and the organizations involved were NDMA, LEAD, PIDE, JS Bank, PCRET, MUET, Bahria University, NHMP, GCISC, SDPI, Roshan Auditory, PARC and PCRWR.

<https://epaper.brecorder.com/2017/12/21/5-page/688909-news.html>

PAKISTAN, CHINA TO SOLIDIFY EFFORTS IN OCEANOGRAPHY

The Express Tribune, December 22, 2017

Sehrish Wasif

Pakistan and China are working to deepen their cooperation in the field of oceanography. The objective behind the joint effort is to protect the oceans from the negative impact of climatic change and minimize the threats to marine life.

The seventh Board of Governors meeting of the National Institute of Oceanography, chaired by Federal Minister for Science and Technology and Defense Production, Rana Tanveer Hussain at the federal capital on Thursday reviewed various research projects and proposals underway between the two countries.

Ministry of Science and Technology informed The Express Tribune that research proposals include establishment of China-Pakistan Joint Marine Scientific Centre, organizing workshop on South China Institute of Oceanography and monitoring rise in sea levels among others.

Federal Minister said that the ongoing projects are of utmost importance because climate change on oceans – known as the heritage of the earth – is having a deep impact with every passing day. Dr. Asif Inam, Director General, National Institute of Oceanography briefed the board about the overall scientific progress on the various ongoing programmes.

The federal minister directed the DG NIO to take measureable steps to handle the issue of plastic waste and debris dumping in the coastal areas. It was unanimously agreed that preserving the oceanic environment including coasts, sea and marine life is the need of the hour.

Relations between Pakistan and China have seen unprecedented growth ever since Beijing announced its ‘belt and road initiative.’ CPEC, a flagship program of belt and road plan envisages linking economies of over 65 countries.

<https://tribune.com.pk/story/1590039/1-pakistan-china-solidify-efforts-oceanography/>

CLIMATE CHANGE IS DRIVING PEOPLE FROM HOME. SO WHY DON'T THEY COUNT AS REFUGEES?

Somini Sengupta

Dec. 21, 2017

UNITED NATIONS — More than 65 million people are displaced from their homes, the largest number since the Second World War, and nearly 25 million of them are refugees and asylum seekers living outside their own country.

But that number doesn't include people displaced by climate change.

Under international law, only those who have fled their countries because of war or persecution are entitled to refugee status. People forced to leave home because of climate change, or who leave because climate change has made it harder for them to make a living, don't qualify.

The law doesn't offer them much protection at all unless they can show they are fleeing a war zone or face a fear of persecution if they are returned home.

That's not surprising, perhaps: The treaty that defines the status of refugees was written at the end of World War II. A research paper, published Thursday in *Science* magazine, suggests that weather shocks are spurring people to seek asylum in the European Union. The researchers found that over a 15-year period, asylum applications in Europe increased along with "hotter-than-normal temperatures" in the countries where the asylum seekers had come from.

They predict that many more people will seek asylum in Europe as temperatures in their home countries are projected to rise.

The paper, by Anouch Missirian and Wolfram Schlenker, looks at weather patterns in the countries of origin for asylum applicants between 2000 and 2014. It found that "weather shocks on agricultural regions in 103 countries around the globe directly influence emigration" to Europe.

"Part of the flow," said Dr. Schlenker, a professor at the School of International and Public Affairs at Columbia University and a co-author of the study, "we can explain by what happens to the weather in the source country."

For starters, refugee advocates fear that if the 1951 refugee treaty were opened for renegotiation, politicians in various countries would try to weaken the protections that exist now. That includes the Trump administration, which has barred people from eight countries — including refugees from war-torn Syria and Yemen — from coming into the country altogether.

A group of academics and advocates has spent the last two years proposing an entirely new treaty, with new categories to cover those who are forcibly displaced, including by the ravages of climate change. Michael W. Doyle, a Columbia professor leading the effort to draft a new treaty, said he didn't expect a new treaty to be embraced anytime soon, but insisted that those conversations should start as record numbers of people leave their home countries and end up displaced in others, often without legal status.

"In the modern world," Dr. Doyle said, "people are fleeing for their lives for a variety of reasons."

A New Zealand lawmaker recently proposed a special visa category for people displaced by climate change. “One of the options is a special humanitarian visa to allow people who are forced to migrate because of climate change,” the minister, James Shaw, said in an interview from a global climate summit in Bonn, Germany, in November.

Mr. Shaw has said nothing since then about when legislation might be proposed, and it’s far from clear whether it would pass.

Several countries have offered humanitarian visas in the aftermath of calamitous natural disasters, including the United States after hurricanes and earthquakes, including in Haiti in 2010. (The Trump administration ended that so-called protected status for Haitians in November.)

As Elizabeth Ferris, a professor at Georgetown University, points out, most people whose lands and livelihoods are ravaged by either natural disaster or the slow burn of climate change aren’t likely to leave their countries. Many more will move somewhere else within their own country — from the countryside to cities, for instance, or from low-lying areas prone to flooding to higher elevation.

Indeed, natural disasters forced an estimated 24 million people to be displaced within the borders of their own country in 2016, according to the latest report by the Internal Displacement Monitoring Center.

<https://mobile.nytimes.com/2017/12/21/climate/climate-refugees.html>

JAKARTA IS SINKING SO FAST, IT COULD END UP UNDERWATER

MICHAEL KIMMELMAN,

International New York Times, December. 21, 2017

JAKARTA — Rasdiono remembers when the sea was a good distance from his doorstep, down a hill. Back then he opened the cramped, gaily painted bayside shack he named the Blessed Bodega, where he and his family sell catfish heads, spiced eggs and fried chicken.

It was strange, Rasdiono said. Year by year, the water crept closer. The hill gradually disappeared. Now the sea loomed high over the shop, just steps away, held back only by a leaky wall.

With climate change, the Java Sea is rising and weather here is becoming more extreme. Earlier this month another freakish storm briefly turned Jakarta’s streets into rivers and brought this vast area of nearly 30 million residents to a virtual halt.

One local climate researcher, Irvan Pulungan, an adviser to the city’s governor, fears that temperatures may rise several degrees Fahrenheit, and the sea level as much as three feet in the region, over the coming century.

That, alone, spells potential disaster for this teeming metropolis.

But global warming turned out not to be the only culprit behind the historic floods that overran Rasdiono's bodega and much of the rest of Jakarta in 2007. The problem, it turned out, was that the city itself is sinking.

In fact, Jakarta is sinking faster than any other big city on the planet, faster, even, than climate change is causing the sea to rise — so surreally fast that rivers sometimes flow upstream, ordinary rains regularly swamp neighborhoods and buildings slowly disappear underground, swallowed by the earth. The main cause: Jakartans are digging illegal wells, drip by drip draining the underground aquifers on which the city rests — like deflating a giant cushion underneath it. About 40 percent of Jakarta now lies below sea level.

Coastal districts, like Muara Baru, near the Blessed Bodega, have sunk as much as 14 feet in recent years. Not long ago I drove around northern Jakarta and saw teenagers fishing in the abandoned shell of a half-submerged factory. The banks of a murky canal lapped at the trestle of a railway bridge, which, until recently, had arched high over it.

Climate change acts here as it does elsewhere, exacerbating scores of other ills. And in Jakarta's case, a tsunami of human-made troubles — runaway development, a near-total lack of planning, next to no sewers and only a limited network of reliable, piped-in drinking water — poses an imminent threat to the city's survival.

Sinking buildings, sprawl, polluted air and some of the worst traffic jams in the world are symptoms of other deeply rooted troubles. Distrust of government is a national condition. Conflicts between Islamic extremists and secular Indonesians, Muslims and ethnic Chinese have blocked progress, helped bring down reform-minded leaders and complicated everything that happens here, or doesn't happen, to stop the city from sinking.

“Nobody here believes in the greater good, because there is so much corruption, so much posturing about serving the public when what gets done only serves private interests,” as Sidney Jones, the director of the local Institute for Policy Analysis of Conflict, put it. “There is no trust.”

Hydrologists say the city has only a decade to halt its sinking. If it can't, northern Jakarta, with its millions of residents, will end up underwater, along with much of the nation's economy. Eventually, barring wholesale change and an infrastructural revolution, Jakarta won't be able to build walls high enough to hold back the rivers, canals and the rising Java Sea.

And even then, of course, if it does manage to heal its self-inflicted wounds, it still has to cope with all the mounting threats from climate change.

As far the eye can see, 21st-century Jakarta is a smoggy tangle of freeways and skyscrapers. Spread along the northwestern coast of Java, this capital of the nation with the world's largest Muslim population used to be a soggy, bug-infested trading port for the Hindu kingdom of Sunda before local sultans took it over in 1527.

They named it Jayakarta, Javanese for victorious city.

Dutch colonists arrived a century later, establishing a base for the East India territories. Imagining a tropical Amsterdam, they laid out streets and canals to try to cope with water pouring in from the

south, out of the forests and mountains, where rain falls nearly 300 days out of the year. Thirteen rivers feed into the city.

After independence in 1945, the city began to sprawl. Today, it is virtually impossible to walk around. Parks are rarer than Javan rhinos. A trip to the nearest botanical garden requires the better part of a day in bumper-to-bumper traffic.

“Living here, we don’t have other places to go,” said Yudi and Titi, a young professional couple who one recent Sunday had made the roughly hour’s round trip from western Jakarta to the center of the city just to spend a few minutes walking up and down a chaotic, multilane freeway briefly closed to traffic. “Without cars, at least you can breathe for a few minutes,” Titi said.

The most urgent problems are in North Jakarta, a coastal mash-up of ports, nautically themed high-rises, aged fish markets, abject slums, power plants, giant air-conditioned malls and the congested remnants of the colonial Dutch settlement, with its decrepit squares and streets of crumbling warehouses and dusty museums.

Some of the world’s most polluted canals and rivers weave a spider’s web through the area.

It is where the city is sinking fastest.

That’s because, after decades of reckless growth and negligent leadership, crises have lined up here like dominoes.

Jakartan developers and others illegally dig untold numbers of wells because water is piped to less than half the population at what published reports say are extortionate costs by private companies awarded government concessions.

The aquifers aren’t being replenished, despite heavy rains and the abundance of rivers, because more than 97 percent of Jakarta is now smothered by concrete and asphalt. Open fields that once absorbed rain have been paved over. Shores of mangroves that used to help relieve swollen rivers and canals during monsoons have been overtaken by shantytowns and apartment towers.

There is always tension between immediate needs and long-term plans. It’s a similar story in other sinking giants like Mexico City. Here, all of the construction, combined with the draining of the aquifers, is causing the rock and sediment on which Jakarta rests to pancake.

Construction has skyrocketed as businesses and foreigners have arrived, and also because rural Indonesians have been fleeing the lowlands of Sumatra and Kalimantan, the Indonesian part of Borneo. They have been driven out by coal mines and tobacco farms. The effect on the countryside has been disastrous, with the burning of rain forests to make way for palm oil producers and textile factories causing fires so smoky they have caused air pollution to spike as far away as Malaysia, contributing to climate change.

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These factories also dump tons of waste and chemicals into waterways, contaminating the city's drinking water supply.

And many of the rural poor have settled in Jakarta in informal developments, or kampungs, that cluster along canals, their houses teetering above the water on stilts, the waterways underneath becoming default sewers.

All of these homes, all of this sewage and garbage now jam pumping stations that the city has had to build because gravity no longer drains the rivers and canals naturally.

To halt the sinking, the city needs to stop the digging of wells, which means Jakarta must provide residents with reliable, clean, piped-in water and, to clear the waterways, somehow — at a cost of untold billions — retrofit one of the world's biggest cities with a sewer system, or something approaching it.

Cleaning the canals and rivers will also require policing the factories that dump chemicals, which means grappling with corruption — and resettling many of the informal communities. But resettlement depends on finding land and then building thousands of new homes for displaced residents, most of whom don't want to move in the first place.

One afternoon I met a man named Topaz in the ruins of an evicted waterfront kampung named Aquarium. A soft-spoken 31-year-old events organizer, Topaz described himself as a third-generation resident of what used to be a thriving informal neighborhood with four-story buildings and bustling streets filled with shops.

That was before the bulldozers arrived. The Aquarium I found had been reduced to mounds of broken masonry and concrete.

“The government said the eviction was about cleaning the river, but I believe it was about politics and development,” Topaz told me, reflecting a belief widely held among residents. He showed me around the tattered, windswept tent he shares with a dozen other squatters not far from where his family home used to be. Over his shoulder, several luxury waterfront apartment towers were under construction. “I saw promotions for those towers that showed Aquarium turned into a park,” Topaz said.

Jakarta's former governor, Basuki Tjahaja Purnama, known as Ahok, ordered the eviction. He is ethnic Chinese, a geological engineer by training. As governor, he tackled several of Jakarta's big problems, or tried to. He tried, but failed, to wrest control of the water supply from the private companies. He assembled a sanitation crew, called the Orange Army, to remove sediment and garbage from rivers and canals.

And he cleared out some of the kampungs that obstructed waterways. The efforts began to make a difference. Rains that once caused days of floods drained within hours.

But many people forced out, like Topaz, resisted the moves, convinced that the evictions were really intended to enrich developers, not improve drainage. Aquarium became a hotbed of protest against the governor.

Capitalizing on residents' resistance and the piety of the urban poor, the hard-line Islamic Defenders Front teamed with some of the governor's political rivals and religious conservatives to tap into a vein of anti-Chinese populism. Ahok's enemies escalated what had been a conflict over the displacement of a fishing community into an argument about whether a non-Muslim should lead a Muslim-majority city.

The governor found himself regularly attacked at Friday prayers. He lost his re-election bid, and the Islamists, who exploited anger against him, had him brought up on charges of blasphemy. He is serving two years in prison.

The new governor of Jakarta, Anies Baswedan, who ran a campaign that drew support from Aquarium's angry residents, announced in November as one of his first acts that he planned to rebuild some of the shelters at the kampung.

At another evicted settlement called Bukit Duri, I met Agus Fadilah, 34, a motorbike-taxi driver, gazing at the rubble of what used to be his house on the banks of the Ciliwung, one of the city's main rivers. Bulldozers were still moving piles of debris, and a few women were scavenging for family belongings.

Upstream, several other kampungs had already been cleared, the river widened, its banks lined with concrete and surrounded by high concrete walls, now tagged with graffiti. The river there looks imprisoned, but water flows more easily.

"I was raised here, my job was here," Mr. Agus said, noting that he, his wife and two young children had been relocated to a new apartment building hours away. They make long daily commutes because they want to keep the children in their old schools.

"I know why they did this," he told me. "It had to do with the river. I know this was not legally our land. But it was my home."

Residents of Bukit Duri filed a class-action lawsuit against the government to protest the evictions. Recently, a district court judge ruled in their favor.

"It's not that nobody should move," argues Elisa Sutanudjaja, a kampung advocate and the executive director at the Rujak Center for Urban Studies. "These poor communities don't all want to stay in place, but they do want to stay together and near their jobs, and they want legal status.

"Mostly, they want to be consulted," she said.

They also want to show, where possible, that moving isn't the only solution. In a leafy kampung called Tongkol, residents during the last couple of years have installed their own septic tanks and kept their stretch of the Ciliwung clean. A young architect named Kamil Muhammad, from Architecture Sans Frontieres-Indonesia, designed a low-cost home made of concrete, bamboo and reused brick. It stacks seven tiny apartments under a covered communal roof deck.

The project is a template for cheap, do-it-yourself housing that can free up space along Jakarta's waterways critical for flood control.

“We want to demonstrate to the government that kampungs can actually be beneficial to the river,” Kamil told me as we looked over the river from the roof deck. Below, banana and star fruit trees shaded a riverside promenade of colorful facades and vegetable gardens.

JanJaap Brinkman, a hydrologist who for decades has been studying Jakarta for the Dutch water research institute Deltares, sympathizes with residents of communities like Akuarium and Tongkol. Eviction isn’t a cure-all, or even possible, he said, considering how many countless thousands of Jakartans now live atop the canals and rivers in informal developments. At the same time, Mr. Brinkman stressed, moving people is necessary, and bungled evictions squander a meager reservoir of good will and precious time.

“We need big steps now,” he said. “If all the discussions get tied up with fishermen and development, there will eventually be a massive calamity and deaths and no choice but to give up on whole parts of Jakarta.”

Fortifying a North Jakarta sea wall. A giant Coastal Wall protects the city, but may itself be underwater by 2030.

There is occasional talk here about the Indonesian government moving its capital elsewhere, to shrink the city. Politicians issue decrees prohibiting developers from digging wells and imploring residents to store rainwater. Enforcement is negligible.

Mr. Brinkman drove me one morning to the city’s new 16-mile Eastern Flood Channel, its banks lined with parkland. The channel has helped relieve flooding. From there we toured a century-old water gate, also recently repaired. “A few years ago this was solid waste,” Mr. Brinkman said, gesturing across the wide, murky water. On the opposite bank, sanitation crews in bright orange outfits gathered around garbage trucks. They belonged to Ahok’s Orange Army.

“This gate is nothing like it used to be,” Mr. Brinkman said. “You used to be able to walk across the water, it was so clogged with garbage and sediment.”

As he spoke, one of the orange-clad sanitation workers leaned his head back, polished off a bottle of water and tossed the empty plastic container over one shoulder into the river.

Real progress is often thwarted here. The most ambitious move by the city is the construction of what’s called the Coastal Wall, now rising like a black cliff from Jakarta Bay. It’s a quasi-temporary barrier to hold back the rising sea and compensate for subsidence — built extra high because, like the rest of North Jakarta, it is expected to sink, too. With subsidence at the current rate, the Coastal Wall itself may be underwater by 2030.

Even more alarming, Mr. Brinkman showed me one spot along the waterfront where the wall ends and all that holds back the sea is a low, crumbling concrete rampart. The water was only a couple of feet below the top when we peered over the embankment.

“If this wall breaks, there’s simply no holding back the Java Sea,” said Mr. Brinkman, gesturing from the rampart toward the city. “Jakarta will flood all the way to the center of town, six kilometers from here. I could take you to 20 other places just like this.”

A bridge across the Ciliwung. The waterways under Jakarta's kampungs have become default sewers.

The Coastal Wall belongs to a larger project that Indonesian officials undertook three years ago in collaboration with the Dutch government. Called the National Capital Integrated Coastal Development program, it imagines supplementing the Coastal Wall with a second barrier, a Giant Sea Wall, or massive dike, miles out to sea, in effect closing off Jakarta Bay entirely.

The dike would not just block rising waters. According to the original plan, it would also become the spine for an immense new megadistrict and ring road, a \$40 billion development — and a windfall for real estate moguls and Dutch consultants — designed in the shape of a garuda, the national bird.

The government has now backtracked on the megadistrict idea, while still envisioning the dike itself — the very notion of which has provoked understandable skepticism. As environmentalists have pointed out, if the city doesn't first clean up its rivers and canals, a dike will turn an enclosed Jakarta Bay into the world's largest cesspool.

The development scheme was also linked to discredited plans for reclaimed islands inside the bay. Delayed for years by recession and legal wrangling, the islands started to get built in 2013, marketed as posh oases of condominiums, yacht marinas and golf courses primarily to customers in places like Malaysia and Singapore.

Enraged fishermen sued, claiming that the islands destroyed their traditional fishing grounds. When one developer was exposed for bribing local officials, a scandal erupted and construction was halted.

At the same time, the islands had become tied up with the Great Garuda. Officials, including Ahok, realized that a tax on the islands' developers could help Indonesia pay for the giant dike, along with other costly initiatives to clear waterways and stop the sinking.

In essence, a plan that environmentalists and many poor fishermen agreed would wreak environmental havoc on the bay and North Jakarta was being touted by Jakartan leadership as a means to save the city itself — and from climate change.

Ardhasena Sopalheluwakan is among the climate scientists here who think the best approach was never to construct a giant dike but “to give back part of North Jakarta to nature,” as he put it to me one recent morning. The idea would be to “reintroduce mangroves and rejuvenate some of the dozens of reservoirs that were actually part of old Jakarta.”

From Mr. Brinkman's perspective, just “counteracting subsidence will account for 90 percent of what this city needs to do to deal with climate change.”

Tokyo was in a similar predicament after World War II, he likes to point out. It had sunk about 12 feet since 1900. But the city poured resources into new infrastructure and established stricter rules about development, and within a decade or two made itself a global model of urban innovation, better able to cope with the effects of climate change.

“Jakarta could become a 21st-century version of Tokyo in the 20th century, an example for urban redevelopment,” Irvan Pulungan, the climate change adviser to the city's new governor, imagined.

But “a city that can’t deliver basic services is a failed city,” he added. “On top of conventional issues like flooding and urbanization we now have climate change, tipping the scale. And at this rate, people will be fighting in the streets for increasingly limited resources like clean water and safe living spaces.”

Like Tokyo half a century ago, Jakarta is at a turning point, he said: “Nature will no longer wait.”

https://www.nytimes.com/interactive/2017/12/21/world/asia/jakarta-sinking-climate.html?rref=collection%2Fbyline%2Fmichael-kimmelman&action=click&contentCollection=undefined®ion=stream&module=stream_unit&version=latest&contentPlacement=1&pgtype=collection

NEWS COVERAGE PERIOD FROM DECEMBER 11th TO DECEMBER 17th 2017
LEGAL, INSTITUTIONAL, POLICY FRAMEWORKS: PAKISTAN SHOULD GET READY
USING BOTTOM UP APPROACH ABOUT CLIMATE CHANGE: MINISTER
Business Recorder, 14 December 2017

ZAHID BAIG

LAHORE: Punjab Minister for Environment, Begum Zakia Shahnawaz said on Wednesday that it is the high time for Pakistan to get fully prepared on the legal, institutional and policy frameworks regarding climate change using a bottom-up approach at district and provincial levels.

She was speaking at “Grow Festival” organised by the Oxfam in Pakistan and Indus Consortium to launch the Climate Public Expenditure Review (CPER) in Lahore.

The vibrant event was full of cultural festivity, colours and a variety of cultural food stalls by community women from different districts of Punjab.

Food Minister Punjab, Bilal Yaseen inaugurated the event at the College of Earth and Environment Sciences at CEES, University of Punjab, where over 4000 guests participated, including parliamentarians, environmentalists, academia, civil society experts, government officials and development organizations.

Begum Zakia Shahnawaz further said climate change is a big challenge to the world and especially affects developing countries like Pakistan.

The proper way to tackle the issue at the government level is to consider climate change an emergency and develop its policy, legal and institutional frameworks to mitigate the impacts on the vulnerable segments of the society.

Referring to Oxfam’s research paper on climate change, Oxfam in Pakistan’s Country Director, Mohammed Qazilbash said, “An Oxfam analysis of policies and public investments in six countries including Pakistan shows that women farmers are not getting the resources they need to feed their families and communities and adapt to climate change.

While climate change affects us all, the risks of displacement are significantly higher in lower-income countries and among people living in poverty. The first priority must be rapid reductions in global

climate pollution. At the same time, communities must be supported to build resilience to the impacts of climate change that can no longer be avoided.”

Food Minister Punjab, Bilal Yaseen stressed upon the need to fight against food insecurity in the country.

He said, “Food security is a high priority for the government and we have initiated a number of mega projects and programmes to overcome food insecurity issues with a special focus on women and children in the province.”

He added that his ministry will take the recommendations of the climate change study launched on Wednesday, to incorporate these in the policy and planning of Punjab and ensure the food security of targeted communities.

Climate change is amplifying the risk of extreme weather disasters by increasing the destructive power of storms and floods. At the same time, rising seas, shifting rainfall patterns, drought and other slow-onset changes are eroding people’s land, natural resources and security, and magnifying existing vulnerabilities.

The impacts of sea-level rise and other slower-onset changes such as desertification are felt incrementally over time, with assets and security being steadily eroded, and communities faced with a long and difficult decision making period.

Discussing the role that academic institutions can play in the fight against climate change, Dr Sarwat Naz Mirza, Vice Chancellor Arid University Rawalpindi said, “Academic institutions can enhance their role and produce results with the collaboration of civil society members and communities. To get results with long lasting impacts, research on climate change should be aligned with local issues and solutions which is somehow a missing factor.”

Dr Zaffar Mueen Nasar, Vice Chancellor University of the Punjab added to these views, “Research on climate change has sensitized us to take up the issue with more seriousness. The joint efforts of relevant stakeholders will give us the results and localized and practical solutions.”

While it is essential to recognize the disproportionate impacts of climate change, it is equally important to recognize the crucial role of those most affected in driving solutions to climate change. Many countries that are acutely vulnerable to climate change are showing determined leadership and building partnerships in response to the climate crisis. This includes implementing ambitious renewable energy strategies and climate change adaptation plans.

Jamshaid Fareed, Chairman Indus Consortium said, “Partnerships with the government, INGOs, academia, private sector and local communities is the dire need of the time. Joint deliberations can fill the gap of unavailability of inclusive planning and execution of the programmes and schemes initiated at all levels.”

The growing threat of climate change requires an integrated global agenda and jointly organized development initiatives of academia, the government and private sector. Young university researchers should take the challenge of quality research and develop a vital link with rural communities and come with new climate resilient solutions.

Sharing the findings of a recent study Anila Bibi said, “Since Punjab is responsible to contribute more than 50pc annual food grain, only 10pc increase in the agriculture sector for climate change related activities and the massive decline in livestock and food sectors is alarming.”

In FY 2015-16, only ten million out of fifty million allocation was devoted for climate change. Persistent advocacy enhanced the climate change related allocation in the last FY 2016-17 the total 185 million budget is allocated to environment sector out of which 99 million is related to climate change.

In the current year, Punjab’s government has increased the overall allocation on to this sub-sector to 540 million out of which, 331 million is climate change related, this lead to an overall increase of 234 percent from 2016-17 to 2017-18 reflecting the high concerns for climate change in the province

<https://epaper.brecorder.com/2017/12/14/13-page/687644-news.html>

CLIMATE VICTIMS SEEK JUSTICE, ON THE STREET AND IN THE COURTROOM

Business Recorder, 16 December 2017

Marlowe HOOD, Amélie BOTTOLLIER-DEPOIS

People around the world beset by the impacts of global warming like droughts, heat waves and storm surges are calling for “climate justice,” and many are pleading their cases in court.

Globally, there are at least 1,000 active legal cases related to climate change, more than two-thirds of them in the United States, according to a recent tally from the Grantham Research Institute on Climate Change and the Environment, in London.

A summit Tuesday in Paris — with more than 50 heads of state attending — on how to finance the transition to a low-carbon economy will be followed the next day by a climate justice forum.

The climate justice movement highlights the fact that rich nations are overwhelmingly to blame for causing climate change, but that poor ones have been the first to cope with its impacts.

The 1992 UN Framework Convention on Climate Change (UNFCCC) recognised that inequality, declaring that developed countries bear a larger responsibility for fixing the problem.

After a climate justice “summit” in The Hague in 2000, a coalition of global non-governmental organisations (NGOs) — which play a crucial role in chaneling grassroots activism — adopted 27 principles.

These included the right to not suffer climate change impacts, a moratorium on new fossil fuel exploration, access to affordable and sustainable energy, the notion that rich nations and industry owe humanity an “ecological debt”.

“Climate justice affirms the rights of unborn generations to natural resources, a stable climate and a healthy planet,” they declared.

These ideas slowly gravitated from the fringes toward the centre of formal UN negotiations — and finally into the preamble of the 2015 Paris Agreement, the 196-nation treaty that enjoins the world to cap global warming at “well under” two degrees Celsius (3.6 degrees Fahrenheit).

In parallel to the diplomatic arena, citizens and civic groups also tested the concept’s power within a legal framework.

Some plaintiffs have targeted governments, while others have taken on individual companies. A few have made headlines:

– In 2015, a landmark court ruling in the Netherlands ordered the government to slash greenhouse gases a quarter by 2020. The case was brought by 900 Dutch citizens. The government is appealing.

– Last month, a German court agreed to hear a Peruvian farmer’s case against energy giant RWE over climate change damage in the Andes, a decision hailed by campaigners as a “historic breakthrough”.

Farmer Saul Luciano Lliuya says that RWE — one of the world’s top emitters of climate-altering carbon dioxide — must share in the cost of protecting his hometown Huaraz from a glacier lake overflowing from melted snow and ice.

– Also in 2015, 21 young people sued the US federal government for allegedly violating their constitutional rights by failing to ensure a livable future. First under former president Barack Obama, and then under Donald Trump, the government has tried — and failed — to get the case thrown out. If it goes to trial, as seems likely, “the judge will decide two things,” said Daniel Galpern, one of the attorneys for the plaintiffs.

“Has the United States in fact violated these fundamental constitutional rights? And, if so, whether to compel the government to come up with a plan to move us from disaster to security,” he added. The case could well go to the Supreme Court, he said.

The Paris Agreement “recognises the importance... of addressing loss and damage” caused by climate change, and has set up a mechanism to do so.

At the same time, however, this provision “does not involve or provide a basis for any liability or compensation,” according to a “decision” annexed to the treaty.

This does not mean that rich nations are off the hook, analysts say. As some island nations literally sink beneath rising seas, pressure is mounting for a clear commitment for the rescue of climate-damaged economies and societies.

On the legal front, plaintiffs are pointing to scientific evidence that extreme weather events — mega-storms, heat waves, droughts, flooding — can be directly linked to climate change.

Other research apports historic responsibility for greenhouse gas emissions, whether to countries or companies. A 2014 study in *Climatic Change*, for example, calculated that accumulated CO₂ and methane pollution stemming from oil, gas and coal produced by 90 major energy companies accounts for nearly two-thirds of all greenhouse gas emissions since 1850.

RWE — the firm being sued by the Peruvian farmer — was found to have emitted 0.47 percent of the total.

“The possibility of assigning contributions of individual regions to damage could have the potential to reshape environmental litigation,” a quartet of scientists wrote in the journal *Nature Climate Change* last month.

“This raises questions regarding damage and responsibility in national jurisdictions, and thus climate justice.”—AFP

<https://epaper.brecorder.com/2017/12/16/21-page/688117-news.html>

NEWS COVERAGE PERIOD FROM DECEMBER 4th TO DECEMBER 10th 2017 PUNJAB GOVT TO SET UP CLIMATE CHANGE CELL TO COPE WITH WEATHER VAGARIES

Dawn, December 4th, 2017

ISLAMABAD: The Punjab government will establish a climate change extension cell in the Department of Agriculture by June 2018, informed sources said.

The provincial government will increase public investment in climate smart agriculture and allocate additional funds to promote adaptation to climate change in agriculture.

The Punjab Agricultural Research Board has submitted a list of climate change projects to the government and it is hoped that the PARB will work on these projects across the province.

At the same time, the agricultural department has prepared sustainable and climate change resilience projects focusing on the development of climate-resilient varieties of crop and crop improvement through better practices and agronomic interventions.

In addition, the provincial government is making efforts through extension advisory services to provide area- and crop-specific weather conditions that will lessen adverse affects of sudden change in weather on crops.

A Climate Change Research Centre is already working in Ayub Agriculture Research Institute, Faisalabad.

Poor peasants are more vulnerable to climate change impacts and according to official data 13.3 million people in Punjab have been classified as vulnerable to falling in and out of poverty because of a small income shock. Creating climate change resilience for this segment of the population is, therefore, essential, the World Bank says in a report.

The environmental problems faced by the agriculture sector in Punjab include water-logging and salinity, soil degradation, insufficient drainage and degraded rangelands. The World Bank says that Punjab's natural resources and agriculture are under stress for many reasons.

Most of its environmental problems arise from poor agricultural practices like imbalanced use of fertiliser, overuse of pesticides, wasteful use of irrigation water, use of untreated wastewater for irrigation, burning of crop residues; poor management of water, including prices, poor management and maintenance of irrigation infrastructure; weak law enforcement; a large stock of low-yield livestock; and lack of appropriate technology application.

Moreover, climate change has brought new challenges associated with changes in rainfall and temperature as well as extreme and unexpected events.

There are an estimated 5.25 million farms in Punjab, of which 82 per cent are cultivated by owners while the rest are farmed either by owners along with tenants (8.5 per cent), or by tenants alone (9 per cent).

Of the total farms, an overwhelming 92 per cent are classified as small farms of less than two hectares, while medium farms (2 to 10 hectares) account for 6 per cent of all farms and the rest consist of large farms.

In terms of area, small farms (less than 2 hectares) account for only 58 per cent of the total farmland, while large farms (more than 10 hectares) cover almost a quarter of the total available farmland. In effect, land distribution in the province is heavily skewed, with an estimated 2.4 per cent of farmers owning almost a quarter of the total farmland, the World Bank report says.

<https://www.dawn.com/news/1374422>

CLIMATE CHANGE RESPECTS NO BOUNDARIES'

Business Recorder, 10 December 2017

HYDERABAD: Centre for Coastal and Deltaic Studies, University of Sindh Campus Thatta organized one-day seminar lecture program on "Climate Change and Coastal Issues in Sindh: Civil Society, Media Perspective and Inclusion", in collaboration with Federation Handicap International (FHI) Pakistan, held at University of Sindh Campus Thatta. The seminar was attended by experts and representatives from civil society, media, Thatta/Sujawal DRR forum, I/NGOs, DPOs and coastal communities.

Muhammad Memon, Project Manager FHI, presented brief introduction of Federation Handicap International and its international mandate. Memon added the main objective of organizing a series of seminars is to highlight the issues faced by coastal communities and to devise strategies in form of recommendations from a pool of experts representing different sectors. He talked in detail about the causes and risks of climate change and its short-term and long-term impacts on coastal zone of Sindh.

He said climate change respects no boundaries and does not differentiate between who you are, therefore it is a global issue and requires global understanding and commitment to prevent it and mitigate its effects and that Handicap International is working towards this end across the world.

Memon shared that coastal communities are facing many issues including lack of opportunities, reduced nutrition values, poor diet, poor health, seasonal migration for labor work, unplanned and poor condition of infrastructure and reduced productivity of fish. He further shared that mangroves have reduced by 70 percent due to development and use as firewood by local communities.

He stressed on the dire need of planning at all tiers and that there is a need to reduce emission of Green House Gases at global level as governments are supporting Thermal Plants which will ultimately result in increased CO2 emission. Further there is a need to devise policies for industries to control their emission and polluting water sources.

Dr Sarfraz Hussain Solangi, Pro Vice Chancellor, University of Sindh Campus Thatta in keynote presentation highlighted the consequences of climate change in this region are far-reaching. With the help of satellite maps, he shared that how increase in temperature and rising sea level has resulted in changed creeks pattern and tidal boundaries in this region.

He further pointed out the role of civil society and media in sensitizing coastal communities on climate change adaptation. In concluding remarks Dr Sarfraz Hussain Solangi presented findings regarding extreme level of threat to Indus delta and coastal areas of Sindh in context to climate change scenario.

He said that the awareness level can be further raised through debates taking civil society and media on board. He emphasized the need for better governance and coordination through cross disciplinary collaboration amongst the Government, Academia, Civil society, Media, and Non Governmental organizations for addressing the specific issues of vulnerable coastal communities.

Prof Mukhtiar Ahmed Mahar, Director Centre for Coastal and Deltaic Studies, University of Sindh Campus Thatta formally started the seminar with a welcome address to all participants on behalf of University of Sindh and briefed about the current scenario of coastal issues, protection of natural resources, livelihood of communities, drinking water scarcity, infrastructure, health, education and socio-economic problems and emphasized the need of urgent priority based adaptation solutions for resilience and mitigation. The seminar was attended by large number of social activists, media and district press representatives and shared valuable ideas for resilience.

<https://epaper.brecorder.com/2017/12/10/3-page/686811-news.html>