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GLOBAL SOIL MOISTURE

Worst effects of climate change on food, energy, water security Good news: Despite facing multiple threats, Indus dolphin population grows

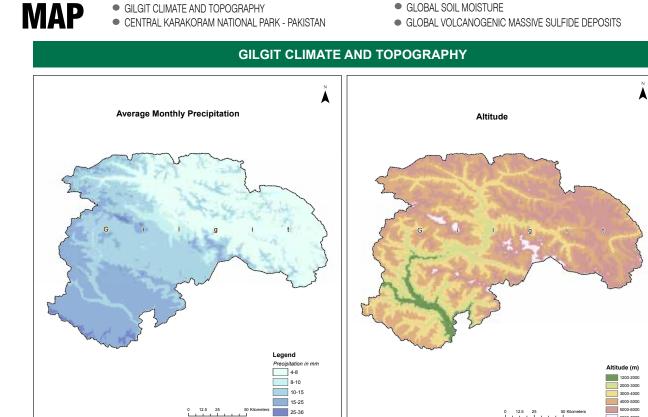
Monitoring system established to check quality of water

Summer 2014 to be hottest on record PTI unveils overambitious green growth plan World warmed by about  $0.75 c^{\circ}$  in 100 years

Sea erosion potential threat to coastal areas'

Study predicts Antarctic ice melting will endure Natural calamity: Avalanche flattens school

Declaration of NWA as 'conflict zone' will put PDMA into action Despite a high rate of environmental wrongs, Sindh lacks a green court



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# CLIMATE **CLIMATE BULLETIN**

### **NEWS HEADLINES**

Climate change linked to Indus civilization's decline Statesman. Feburary 28.2014

### Country may face water disaster in 10 years if policy not made: Ahsan

Frontier Post, Feburary 28, 2014

# Polar bears join natural wonders at Google Maps

The News (Web-edition) Feburary 28, 2014

### DETAILS

**ISLAMABAD:** A new study has suggested that climate change may have contributed to the decline of a city-dwelling civilization in Pakistan and India 4,100 years ago. Scientists from the University of Cambridge have demonstrated that an abrupt weakening of the summer monsoon affected northwest India 4,100 years ago, Science Daily reported.

The resulting drought coincided with the beginning of the decline of the metropolis-building Indus Civilization, which spanned present-day Pakistan and India, suggesting that climate change could be why many of the major cities of the civilization were abandoned. The research involved the collection of snail shells preserved in the sediments of an ancient lake bed. By analysing the oxygen isotopes in the shells, the scientists were able to tell how much rain fell in the lake where the snails lived thousands of years ago. The results shed light on a mystery surrounding why the major cities of the Indus Civilization (also known as the Harappan Civilization, after Harappa, one of the five cities) were abandoned. Moreover, the finding now links the decline of the Indus cities to a documented global scale climate event and its impact on the Old Kingdom in Egypt, the Early Bronze Age civilizations of Greece and Crete, and the Akkadian Empire in Mesopotamia, whose decline has previously been linked to abrupt climate change. "Taken together with other evidence from Meghalaya in northeast India, Oman and the Arabian Sea, our results provide strong evidence for a widespread weakening of the Indian summer monsoon across large parts of India 4,100 years ago," Professor David Hodell, from Cambridge's Department of Earth Sciences, said. The new data show a decreased summer monsoon rainfall at the same time that archaeological records and radiocarbon dates suggest the beginning of the Indus de-urbanisation.

From 6,500 to 5,800 years ago, a deep fresh-water lake existed at Kotla Dahar. The deep lake transformed to a shallow lake after 5,800 years ago, indicating a weakening of the Indian summer monsoon. But an abrupt monsoon weakening occurred 4,100 years ago for 200 years and the lake became ephemeral after this time. The study was published in the journal Geology.

**ISLAMABAD:** Federal Minister for Planning, Development and Reforms, Ahsan Iqbal has said that to save Pakistan from impending water disaster, five year Plan and Vision 2025 adopts proactive approach based towards management of water resources. He expressed these views while delivering his inaugural Address at the Conference 'National Consultations on Water in Post-2015 Development Agenda', said "Pakistan, which has turned from a water surplus country into a water deficit country, is in danger to face water disaster in next ten years due to lack of policy and shying off from tackling the issue." Ahsan said that the need is to adopt a proactive approach and try to understand the future problems and develop capacities to face challenges and convert them into opportunities adding that use of scientific technology is the key. He said that issue of water scarcity and the conservation of this precious resource is a key element of our five year plan and Vision 2025. "We all know that our water resources are diminishing due to silting in Dams, Climate change, decreasing water supply, and diminishing underground water, we all know the solution but what we lack is implementation" Ahsan said adding "so we should move from knowing to doing. Status quo is a recipe for sure death and as a progressive society we should sensitize general public through media towards gravity of crisis and conserve available water".

The Conference was conducted by Ministry of Planning, Reforms and Development considering the urgency of the subject. Secretary Planning and Development Hassan Nawaz Tarrar, said that we need to work on shaping the behaviors and attitudes of people that how we should use water as water is associated with energy, food and many more essentialities. Raja Hassan Abbas, Additional Secretary, Climate Change Division, said that Pakistan is among the top 10 countries that may be adversely affected by the climate change according to international studies while it is the least contributor to the phenomenon of Climate Change. Foreign Secretary, Chairman HEC, Mr. Shamsul Mulk, Ex-Chairman WAPDA, Mr. Khalid Mohtadullah, Syed Ayub Qutub, Hasnain Afzal, Sardar Muhamad Tariq and many more contributed in the discussion. The house was adorned with the vote of thanks by the participants.

**SAN FRANCISCO**: Google on Thursday added polar bears to the natural splendor people can glimpse from the comfort of their homes at the Internet giant's free online mapping service.

Members of the Google Maps team joined forces with non-profit group Polar Bears International to venture into tundra in a remote part of Canada's Churchill, Manitoba, late last year for images of the majestic animals waiting for sea ice to freeze. Polar bears range the tundra in quests for food and mates. However, even here the Google Maps images only captured a few sightings of the polar bears, whose population is being threatened by warming global temperatures dramatically altering the frigid environment on which they depend. "There's more to this effort than images of cuddly bears," Polar Bears International executive director Krista Wright said in a message posted at Google's official blog. "Understanding global warming, and its impact on polar bear populations, requires both global and regional benchmarks." Along with allowing users of Google Maps to be armchair explorers getting close looks at polar bears in their natural environment, images and data collected will serve as baseline measures of the effects climate change is having on the creatures of streets

Clean and Green campaign ends today

Frontier Post, Feburary 27, 2014

#### Avalanche in Skardu kills 1 soldier, leaves 2 others missing

Express tribune, Feburary 27, 2014

#### Declaration of NWA as 'conflict zone' will put PDMA into action

Dawn, Feburary 26, 2014

# for Google online maps -- were mounted on a "tundra buggy" by outfitters at Frontiers North to travel the tough landscape and stay safe from hungry carnivores. Google's mission to add natural wonders to "Street View" imagery in online maps has included venturing to the Brazilian rain forest and the Galapagos Islands, as well as scaling mountains and diving under the sea.

CLIMATE 💒 BULLETIN

**ISLAMABAD (ONLINE):** The concluding ceremony of first phase of \"Clean and Green Islamabad\" campaign will be organized by Capital Development Authority on Thursday (today) at Jinnah Super Market, F-7 in front of Hill View Hotel. Chairman CDA Mr. Maroof Afzal will be Chief Guest at the ceremony. CDA Board Members, senior officials of different formations of CDA including Environment Wing and Engineering Wing, representatives of traders, civil society, Students and people from different walks of life will also attend the ceremony. The focus of this campaign is cleanliness, repair and maintenance work for sector F-7 as well. Member Engineering and Environment Mr. Sanaullah Aman has said that the Capital Development Authority launched the first phase of \"Clean and Green Islamabad\" campaign on February 12th 2014 with the objective to refine cleanliness and greenery in six sectors of the Capital City including I-10, I-9, G-10, G-9, F-6 and F-7. Up-gradation and sustenance of the infrastructure was also major objective to make this campaign. Capital Development Authority used all methods and means in its capacity to make this campaign furtiful and with lasting results for the citizens of the Capital City but this campaign was a learning experience for the Authority as well.

In next phase of \"Clean and Green Islamabad\" campaign Capital Development Authority will perform even better capitalizing on the experiences and lessons of the first phase of the campaign. \"Clean and Green Islamabad\" campaign will not remain confined to sectoral areas exclusively but will be expanded to model villages also. The first phase of \"Clean and Green Islamabad\" campaign witnessed enthusiastic performance by all concerned formations of the Capital Development Authority which established even camps to remain in proximity to the citizens to be easily accessible to the residents during the campaign. The participation of people from different walks of life including representatives of traders, civil society and students was commendable during \"Clean and Green Islamabad\" campaign and the Authority expects the same in future as well.

**ISLAMABAD:** An avalanche in Skardu killed a soldier and left two others missing on Thursday, Express News reported. According to military officials, a rescue operation is underway to find the missing officers. The incident took place in the morning today.

**PESHAWAR**: As gradual displacement of people is under way from North Waziristan Agency amid sporadic air strikes, the government is yet to declare the area as a 'conflict zone', thus putting relief and disaster management agencies in a quandary.

Officials dealing with the matter said that around 36,000 people had been displaced from different areas of North Waziristan since the air force launched the "softening up" of suspected targets in Mirali, Shawal, Datakhel and other sub divisions. Displaced people had sought shelter with their relatives or rented houses in Bannu city. "So far, 35,800 people have moved out from North Waziristan to Bannu," said an official source, adding that the agencies concerned were monitoring their movement and maintaining record of displaced tribal people. Approximately 6,000 had returned back to their homes, he said. "It is happening both ways. People are coming out from, and going back to North Waziristan Agency," he said. A police official in Bannu also confirmed the movement of families out of Waziristan. North Waziristan, being adjacent to Afghanistan, is virtually sealed from two sides and internally-displaced people (IDPs) would use the Miramshah-Bannu road for evacuation, officials said. "The displaced people can neither go to South Waziristan nor to Kurram Agency, which are virtually sealed. So, they will automatically proceed to Bannu," said an official. The sources said that air strikes and a deadlock in talks with militants had created uncertainty among local people and relief agencies. Miramshah's residents said a large number of families had either fled to Bannu from Mirali, Datakhel, Miramshah, Shawal and other areas or were preparing to leave. "Disaster management authorities and international relief agencies can't start registration of displaced families until the federal government notifies the area as a conflict zone," said a provincial government functionary. "Relief agencies will mobilise resources to assist displaced people only if the government announces a military action. The Provincial Disaster Management Authority (PDMA) will then launch an appeal for assistance," he added. The PDMA had prepared a contingency plan expecting displacement of some 600,000 tribal people if Army started an operation against the banned outfits. Around 100,000 IDPs will seek shelter in Peshawar, Dera Ismail Khan, Hangu and other parts of the country. Approximately 20,000 tents will be required for around 500,000 people to be accommodated in Bannu division. However, 10,000 tents and basic non-food items are in the PDMA's warehouses, while the Bannu administration had been asked to release funds for a relief operation, said officials. The PDMA had identified two sites in Bannu and Lakki Marwat for camps, while it will need Rs22 million per day to feed 500,000 IDPs. There is a requirement of 500,000 blankets and mattresses/sleeping bags, and 100,000 tents, buckets, kitchen sets, stoves and water coolers, they said. Besides, Rs150m will be needed for vehicles, transport charges and volunteers. The expected exodus has triggered an alarm for the Khyber Pakhtunkhwa government as it was already burdened with 1.5m tribal IDPs and 2m Afghan nationals. Officials fear infiltration of terrorists in the guise of uprooted people which will

### CLIMATE 💒 BULLETIN

#### Wildlife department trains 200 teachers in management of school nature clubs

Statesman, Feburary 26, 2014

Mushahid calls for restoration of ministry of climate change

The News, Feburary 25, 2014

Permanent, modern landfill site: A dream for garrison city

Statesman, Feburary 24, 2014

further compromise the security situation. Hence, the contingency plan proposed additional police and Frontier Constabulary personnel for the security of the camps.

**PESHAWAR:** The Wildlife department of Khyber Pakhtunkhwa conducted teachers' trainings throughout the province to enhance sensitization of teachers for effective management of the school nature clubs established by the department.

"The Wildlife Department Khyber Pakhtunkhwa has established 200 school nature clubs in the province to create awareness and educate children about wildlife conservation under the Conservation Education and Awareness Campaign in Khyber Pakhtunkhwa," said Niaz Ahmad, DFO Wildlife Extension. Talking to APP, Niaz said 15 teachers trainings were organized by the field formations of the wildlife department throughout the province including Chitral, Dir, Malakand, Swat, Kohistan, Mansehra, Abbottabad, Battagram, Buner, Mardan, Peshawar, Kohat, Bannu, D.I. Khan. As a result of these training courses, more than 200 teachers were trained throughout the province in management of school nature clubs.

During the capacity building programs undertaken by the department main focus remained in imparting basic teaching techniques and skills to the teachers in their respective districts about management of the school nature clubs efficiently. The trainings were conducted with an objective to not only strengthen the coordination of the school administration and the wildlife department but a course of action is also focused to effectively educate the students who are the future custodians of the natural resources. The teachers found the capacity program of the wildlife department a must activity so that the teachers know their role in wildlife conservation at the grass rootlevel.

During the training, teachers were also taken to various potential wildlife areas such as national parks, wildlife parks, pheasantries, aviaries in the province to broaden their outlook through field knowledge, observation, and orientation.

**ISLAMABAD:** Senate Human Rights Sub-Committee on Environment Convener Senator Mushahid Hussain Sayed called for the restoration of the Ministry of Climate Change during first-ever public hearing on environment at the Parliament House here on Monday. The public hearing was also attended by Senator Farhatullah Babar and Senator Saeeda Iqbal.

Mushahid pointed out that environment and climate change issue was one of the most important issues being faced by Pakistan and other countries, which would impact the survivability of our populations. Senator Mushahid appreciated the CDA's 'Green and Clean Islamabad' campaign and assured full support and participation of parliamentarians in a ceremony in this connection scheduled for Thursday. To create further awareness about environmental challenges of Pakistan, Senator Mushahid Hussain Sayed decided to conduct a media workshop for journalists to inform them about emerging environmental issues on March 10 at the Pakistan Institute of Parliamentary Services (PIPS). He directed the Climate Change Division and the Inspector General of Forests to prepare a brochure, specifically for journalists, in both English and Urdu, for the occasion. He regretted that five stone-crushers are still illegally operating in the Margalla Hills. He remarked, "The Supreme Court order of October 25, 2013, must be implemented in totality and thus all stone-crushers are operating in contempt of court and in violation of the law." The committee ordered a written explanation from the ICT administration on the action taken to shut down these stone-crushers. The administration was required to brief the committee in its next session as the CDA informed the committee it had withdrawn the NOC for operation of these stone-crushers. The CDA informed the convener that a joint operation has been launched, in collaboration with the ICT administration and Punjab government, which will cut off electricity to these stone-crushers as a first step while legal cases are being pursued against these illegally operators in the high The CDA informed the committee that 115 complaints were received on its courts. environmental hotline '1334' in the last two weeks, which was established under the directions of the committee, out of which 113 were duly attended. Responding to the complaints of the concerned citizens, the CDA promised to install the missing garbage cans at bus stops and other places. The convener also took a report from the Islamabad Traffic Police on vehicle smoke emissions and was informed that drivers of 4,393 vehicles were issued challans on noise pollution and emissions, and owners of 927 vehicles were fined so far in 2014. He was also informed that motor vehicle detection support from the Climate Change Division had been withdrawn due to fund constraints in 2013 to which the convener stated that it must be included in the 2014 budget.

**ISLAMABAD:** Despite tall claims by the city managers to follow prudent policies in collecting and dumping tonnes of solid waste at different temporary and rented landfill sites effectively, the situation on ground is opposite. Three civic bodies of City District Government, Rawalpindi Cantonment Board (RCB) and Chaklala Cantonment (CCB) responsible for ensuring sanitation and removing garbage from their respective areas seem ineffective as the population is multiplying rapidly, not matching to the available services being provided by the concerned. Around more than 1500 tonnes waste is being collected daily through a fleet of 370 vehicles from over 1700 designated dumping points across the city with a workforce of 3000 working in the civic agencies. Although, the sanitation departments claim to lift all waste generated in a proper manner, but the ground situation speaks otherwise as mismanaged and overflowing trash-trolleys, nauseating smell coming from these sites is a routine, Raja Banaras, a resident of Adiala road, told APP. He said it is shocking to know that the garrison city having around population of four million has no effective, permanent and modern solid waste management system in this modern era. Yasir Butt, a resident of Cantonment area,



Senate Sub-Committee on Environmental Degradation

Frontier Post, Feburary 23, 2014

### Natural calamity: Avalanche flattens school

Express tribune, Feburary 22, 2014

### Sea erosion potential threat to coastal areas'

Dawn, Feburary 21, 2014

# Study predicts Antarctic ice melting will endure

Frontier post , Feburary21, 2014

complained that it is common to see brimming concrete and moveable garbage-trolleys even in downtown Saddar, which is enough to show how much concerned the civic bodies are about cleanliness. However, he said, the sanitation staff sweep the Mall road twice a day classifying it as VIP area, while other localities in cantonment need more attention as a vast majority lives there. Muhammad Atif, a resident of Arya Mohallah, said most of nullahs passing through the city are filled with garbage, which causes blockage in flow of water inviting flashfloods during the monsoon season. He blamed that all garbage, which is generated daily, is not properly lifted and disposed of due to incapacity of Sanitation Department and lack of required resources. "Fifty per cent solid waste is thrown into nullahs for the reason given," he added.

**ISLAMABAD**: A meeting of the Sub-Committee of the Functional Committee on Human Rights, headed by its convener Senator Mushahid Hussain Sayed, will be held on February 24, 2014 at 11:00 a.m, in the Committee Room No.1, Parliament House, Islamabad. The agenda before the Sub-Committee on Environmental Degradation would be as under:-

A. Climate Change: Action Plan for Pakistan (Ministry of Climate Change);

B. \'Clean & Green\' Islamabad campaign (update of the steps taken & progress made), particularly the issue of plastic bags, Compliance report by the CDA regarding removal of stone crushers from Margalla Hills \' with in 15 days\', as per order of the Supreme Court & directive of the Senate Sub-Committee on Environment, Review of working of Environment Hotline 1334 complaints received & actions taken, Future progress on commitment made regarding Waste Disposal Management Site, given CDA deadline given for June 30, 2014.

C. Briefing regarding Reducing Emission from Deforestation & Forest Degradation (REDO), UN-supported projects to curb deforestation in Pakistan and Action Plan of the Islamabad Traffic Police to stop/curb the smoke emission vehicle in the Capital.

**SHANGLA:** An avalanche on Friday damaged Government Primary School in Losar village, located on the outskirts of Besham, putting the future of more than 100 students at risk. A resident of the area, Sharif Khan said no one was injured as the avalanche struck around 2:30am, but it damaged the two-room building, which caters to more than a hundred students who come to study there from Jabagai, Upper Losar, Khandar, Lower Losar, Tangai and Khait villages. Latif, a student of grade five, said Losar is the only primary government school in the area. Another student, Naveed Ahmad said they will now be afraid of going to schools due to such natural calamities. When contacted, Shangla Executive District Officer Saeed Khan was surprised upon hearing the news of an avalanche in the village. He said he was not informed and will take action against the person concerned for not telling him. "We will provide tents or arrange a private building so that students of the school continue with their education without a break."

**THATTA:** The district administration has asked the Coastal Development Authority (CDA) to initiate construction and rehabilitation of protective dykes on a priority basis to save the life, lands and livelihood of near 26,000 people living in the coastal areas. In a communication addressed to the CDA director-general, Thatta Deputy Commissioner Aga Shah Nawaz Babar said that sea erosion posed a potential threat to many villages and immediate measures were needed to be taken to save the coastal areas, agricultural lands and population from further devastation.

Former PPP MPA Humaira Alwani, when contacted for her comment on Thursday, said that sea erosion had already put the lives and livelihood of 25,983 villagers residing in 78 villages of Keti Bunder, Ghorabari and Mirpur Sakro talukas at stake. She said construction and rehabilitation of protective bunds on an emergency basis was needed because as many as 16 Dehs around Keti Bunder, Ghorabari and Kharochaan talukas had been getting submerged off and on and, according to a recent survey, the oceanic water was now posing a serious threat to the coastal towns of Garho and Buhara. "If appropriate measures, including raising of ring bunds, are not taken now, these towns will vanish till within the next two years," she apprehended. She said the authorities concern must realise the threat as over the past two decades, more than 1.7 million acres along the Thatta-Badin coastline had vanished due to sea intrusion.

**WASHINGTON:** The melting of ice in the Antarctic is considered a top threat to global sea level rise, and scientists said Thursday the trend could continue for decades or even centuries to come. Researchers focused on the Pine Island Glacier in Antarctica, which has been thinning at an increasingly rapid pace for about the past 20 years, as the waters beneath get warmer along with the rest of the ocean. Based on new geological surveys and advanced dating techniques on rocks that have been exposed by the retreating ice, experts said in the journal Science that a similar phenomenon occurred thousands of years ago. Some 8,000 years ago, the glacier thinned as fast as it has in recent decades, suggesting it may follow a similar pattern in the future, they reported. "This thinning was sustained for decades to centuries at an average rate of more than 100 centimeters per year, comparable to contemporary thinning rates," said the article in Science. "Our findings reveal that Pine Island Glacier has experienced rapid thinning at least once in the past, and that, once set in motion, rapid ice sheet changes in this region can persist for centuries. "The research team came from Britain, Germany and the United States.Last month, scientists reported in the journal Nature Climate Change that the glacier was melting irreversibly and could add as much as a centimeter (0.4 inches) to ocean levels in 20 years. A massive river of ice, the

## CLIMATE **& BULLETIN**

### Hot weather phenomenon may threaten earth: Scientists

Statesman, Feburary 20, 2014

### 8m saplings to be planted in KP during tree plantation campaign

Statesman, Feburary 18,2014

### Saving the planet: Pakistan to take part in Earth Hour

Express tribune, Feburary 17, 2014

### Call to adopt mechanism to face climate change

Dawn, Feburary 17, 2014

glacier by itself is responsible for 20 percent of total ice loss from the West Antarctic Ice Sheet today. On average, it shed 20 billion tonnes of ice annually from 1992-2011, a loss that is likely to increase up to and above 100 billion tonnes each year, said the Nature study.

**PESHAWAR:** Scientists warns that a dry and hot weather phenomenon known as `El Nino' is likely to hit most parts of the earth in the second half of this year. Researchers in Germany announced that the phenomenon could spew out huge amounts of heat this year, on summer 2014. While the menacing El Nino weather pattern appears to be ready to blow massive amounts of heat into the atmosphere, there is a 75 per cent chance that 2014 will be the hottest on record, they explains, Press Tv reported. They claimed that their method grants them to forecast disruptive El Nino events a year in advance as it correctly predicted the absence of El Nino events over the past two years, according to a study published in Proceedings of the National Academy of Sciences (PNAS).

The new method was followed by a team of Justus Liebig University in Giessen, Germany including Armin Bunde and his colleagues. The team observed the atmospheric temperatures in all areas of the Pacific Ocean instead of analysing the water temperature in a specific area of the ocean. "We hope the forecast could allow countries to make develop better strategies that can counter the devastating effects such as wild fires," researchers stated. "The risk of an El Nino event in the second half of 2014 has increased, but it's certainly not guaranteed at this point in time," said Andrew Watkins, Supervisor, Climate Prediction at Australia's Bureau of Meteorology. An El Nino occurs when equatorial Pacific waters are unusually warm.

**PESHAWAR:** Provincial Minister for Local Government Sardar Inayatullah Khan Monday said that as many as 8 million sapling would be planted in Khyber Pakthunkhwa province during the upcoming tree plantation campaign starting from May 17. Inaugurating the campaign by planting a sapling here at the provincial capital, he urged scholars, students, teachers and people from all walks of life to actively participate in the campaign and help the provincial government to make the province clean and green. To a question, he said that local government elections were earlier scheduled for February 28 but since the provincial government was not ready to hold these elections due to various reasons so the poll would possible be held in April. He further added that the matter of local government elections would be announced.

**KARACHI:** The World Wide Fund for Nature (WWF) – Pakistan officially inaugurated Earth Hour 2014 – the world's largest grassroots environmental event. The event's ambassadors include actress Humaima Malik, director Faryal Ali Gauhar, actor and host Ahsan Khan, actor Sarmad Khosat and singer Zoe Viccaji. Last year's event ambassador, Adnan Siddiqui, handed over a candle to the new ambassadors as a symbol of passing over the responsibilities to them. WWF-Pakistan senior director Anwar Naseem, stated that WWF works with all age groups, linking human practices and ecology to reduce our carbon footprint and prevent wasteful consumption. WWF-P corporate relations manager Sania Khan said that Earth Hour will be implemented across 16 cities in Pakistan. Khan appealed to the people to observe the event by switching off their lights on Saturday, March 29 from 8:30pm to 9:30pm. In 2013, Earth Hour reached over 2 billion people, with more than 7,000 cities and towns taking part in 154 different countries.

**ISLAMABAD:** The recent disasters were a warning from nature that there is an urgent need to adopt a mechanism to face the unpredictability of climate change. This was were general view of speakers at the launching ceremony of a book 'Malevolent Floods of Pakistan 2010-2012' organised by Sindh Graduate Association (SGA) on Sunday.

The book's author, Naseer Memon, said floods had been beneficial to mankind for centuries because irrigation and soil fertility depended on them. "Every flood shows failure of the government because it has failed to device a policy to avoid damages caused by floods," he said. Human rights activist Tahira Abdullah said although the subject of floods was very important for Pakistan and its citizens, it had become a political issue which was why people avoided talking about it. "We have to express our concerns towards floods and device a strategy to control the affects of it. Mr Memon has showed the courage by writing on such a difficult issue," Ms Abdullah said. Former member Planning Commission Fazallah Qureshi said the book was a good effort and gave reasons and recommendations for future planning. Representative of National Disaster Management Authority (NDMA) Idrees Mansoor said it was good to have a valuable document on disaster. "Mr Memon in his book has discussed the mapping of early warning systems and the role of institutions. It will also help us to plan in a way to avoid such disasters in future," Mr Mansoor said. Naseer Memon, who has been working on environment, told Dawn that he was not in favour of building new dams and believed that floods caused disasters because of our own mistakes. "Most of the people say that if we had dams in 2010, damage because of flood could have been controlled but I believe that the magnitude of the flood was so high that even dams could not have reduce the affect," he said. "According to my findings, because of encroachments all over the country natural ways of water have been blocked. We have to remove encroachments and open a way to water," Mr Memon said. "Moreover there are issues of human resource in the institutions working to control floods. They do not have the capacity, equipment and advanced warning system to minimise the damages," he said. Mr Memon was of the view that disaster management system was also weak and to improve its quality trained and

Kerry warns of bleak future in call to arms on climate change

Statesman, Feburary 17,2014

### Despite plantation drives, more city land becoming barren

Dawn, Feburary 16,2014

Govt. urged to implement climate change policy in true spirit

Statesman , Feburary 15, 2014

qualified persons should be appointed.

**JAKARTA:** US Secretary of State John Kerry on Sunday issued a clarion call for nations to do to more to combat climate change, calling it "the world's largest weapon of mass destruction". In a keynote speech, one of a series planned in different countries throughout the year, Kerry sought to make both a moral and economic argument for greater urgency in cutting greenhouse gases. He warned that low-lying Asian nations and their rich ecosystems were particularly at peril from rising sea levels.

CLIMATE 💑 BULLETIN

Talking to a crowd of Indonesian agriculture, energy and marine students, he said the country and Southeast Asia were "on the frontlines of climate change". "It's not an exaggeration to say to you that the entire way of life that you live and love is at risk," Kerry said at a US-run cultural centre in Jakarta, in a speech also fed live to hubs on the islands of Borneo and Sumatra. He compared global warming to other threats such as terrorism or nuclear proliferation, in which countries must work together to make things safer, with the key being an informed energy policy. "We all have to approach this challenge together," he insisted, adding that "in a sense climate change can now be considered another weapon of mass destruction, perhaps even the world's most fearsome weapon". The secretary of state, long a passionate advocate of the need to protect the environment, arrived in Indonesia late Saturday for bilateral meetings as part of an Asian tour, which has also taken him to South Korea and China. But State Department officials revealed Sunday that a planned meeting with Indonesian President Susilo Bambang Yudhoyono had been cancelled because the president was occupied coordinating efforts after the eruption of the volcano, Mount Kelud, which has left four dead.

**ISLAMABAD:** A large number of trees were cut down in Islamabad due to the development works during the previous decade and the city has not recovered from that loss, says Rehana Shahid. A resident of sector I-8, Ms Shahid said the numbers of trees were high in areas where families had been living for decades. "We used to have at least one fruit tree in every house but now the number has reduced significantly. The same is the case with the CDA which is not planting fruit trees nowadays," she added. Not only many residents do agree with Ms Shahid but also officials in the Capital Development Authority (CDA) are now reconsidering planting fruit trees after over 20 years. The reason behind not planting fruit trees might be the fact that these created garbage. Secondly, many people settled in the city after returning from the Gulf countries where there is no trend of tree plantation. However, the CDA has decided to plant 10 per cent fruit trees in the upcoming plantation drive scheduled to be launched on March 5. The civic agency has set an ambitious target of planting 600,000 saplings in the spring plantation drive, half of it to be done by various NGOs, corporate and government offices.

"The CDA will plant around 300,000 saplings this year and 10 per cent of it would be fruit trees, including jamun, guava, lokat and some citrus varieties," said member environment and engineering Sanaullah Aman. The CDA has been planting over half a million trees per year in the spring and monsoon plantation drives but many parts of the city still wear a barren look."Not all the trees are planted in the city area, the majority of saplings are planted in Margalla Hills and the catchments of the Simly dam," said Malik Auliya, the deputy director general environment. He added that the success rate of the saplings in the forests was around 30-40 per cent and in the urban areas it was up to 80 per cent. "But why people think that there is no visible sign of plantation in city. The saplings take time to grow and we are not planting the fast-growing varieties anymore because they are not suitable in the long run," he added. The average time for the trees to reach the height of around five feet is five years but it is much longer for some varieties like the pine that takes up to 40-50 years to mature. Kachnar can take three to four years to reach the flowing age. The standard plan is to plant trees at a distance of 20 feet from each other in the urban areas and five feet in the forest. "So when the trees are small the area looks flat and barren," Mr Auliya added. Besides uprooting faced by the old trees, the other major cause of damage to the woodlands is cutting of trees amid the energy crises and growth in the number of katchi abadis. "Traditionally, we used to ignore chopping of twigs by villagers as it is also good for the forest and the trees but there are reports that people are selling firewood in the markets," said member environment Sanaullah Aman. "Now special teams have been formed to countercheck even the forest guards." Though planting around one million saplings as envisaged for 2014 seems to be a gigantic task, the civic body will not be spending much on the operation as its vast nursery spreading over 46 acres has the capacity to produce around 800,000 saplings annually. And much of the plantation is done by the staff of the CDA.

**KARACHI:** Sindh and federal governments should implement climate change policy in true spirit and raise mangroves forests along the Karachi coast and also release required sweet water in sea through Indus River. The release of water will stop sea erosion while planting of mangroves forests along beaches will protect the city from any possible cyclone, says Waheed Jamali, Executive Director, Society for Environmental Actions, Re-Construction and Humanitarian (SEARCH) response while talking to PPI. Karachi coastal areas are vulnerable to climate change impacts that could bring cyclone and cause heavy devastation of life and property.

SEARCH executive director said mangroves are a bridge between terrestrial and marine environments. They are also extremely productive ecosystems. The forests transfer organic matter and energy from the land to the sea, forming the base of many marine food webs.

# CLIMATE **& BULLETIN**

Countries agree to tackle illegal wildlife trade The Nation, Feburary 15, 2014

They are also home to a wide variety of marine and terrestrial life, and serve as nurseries for many coral reef and commercially important fish species. In addition, mangrove forests play a vital role in trapping sediments, thereby stabilizing coastlines and protecting coral reefs and sea grass meadows. He said although the global frequency of tropical cyclones is expected to decrease or remain essentially unchanged, they may become more intense, with stronger winds and heavier rainfall, targeting Karachi at any time. He said: All the successive governments have failed to provide incentives to the people of Pakistan, particularly coastal communities and they had left these people to face threats of cyclones, rainstorms and other calamities caused by climate change. He said coastal and ocean activities, such as marine transportation of goods, offshore energy drilling, resource extraction, fish cultivation, recreation, and tourism are integral to the nation's economy. Coastal areas are also home to species and habitats that provide many benefits to society and natural ecosystems. Climate change could affect coastal areas in a variety of ways. Coasts are sensitive to sea level rise, changes in the frequency and intensity of storms, increases in precipitation, and warmer ocean temperatures. In addition, rising atmospheric concentrations of carbon dioxide (CO2) are causing the oceans to absorb more of the gas and become more acidic. This rising acidity could have significant impacts on coastal and marine ecosystems, he said. Jamali said: The impacts of climate change are likely to worsen many problems that coastal areas already face. Shoreline erosion, coastal flooding, and water pollution affect man-made infrastructure and coastal ecosystems. Confronting existing challenges is already a concern. Addressing the additional stress of climate change may require new approaches to managing land, water, waste, and ecosystems. He said coastal regions may face massive increases in damages from storm surge flooding over the course of the 21st century. Global average storm surge damages could increase from about \$10-\$40 billion per year today to up to \$100,000 billion per year by the end of century, if no adaptation action is taken. Jamali said low-income countries will remain on the frontline of human-induced climate change over the next century, experiencing gradual sea-level rises, stronger cyclones, warmer days and nights, more unpredictable rains, and larger and longer heat-waves, according to the most thorough assessment of the issue yet. The last major UN assessment, in 2007, predicted runaway temperature rises of 6C or more by the end of the century. That is now thought unlikely by scientists, but average land and sea temperatures are expected to continue rising throughout this century, possibly reaching 4C above present levels enough to devastate crops and make life in many cities unbearably hot, Jamali said. As temperatures climb and oceans warm, tropical and subtropical regions will face sharp changes in annual rainfall, Jamali concluded

**LAHORE :** Heads of state, ministers and representatives of 46 countries, including those most heavily impacted by poaching and illegal trade of wildlife, committed to taking "decisive and urgent action" to tackle the global illegal wildlife trade.

The declaration was issued following two days of closed-door negotiations hosted in London by the UK. Prince Charles, William and Harry also participated in the event. African countries whose elephant populations are under threat were present at the occasion. Other countries that represent major transit points for ivory shipped from Africa to Asia were also in attendance, including Togo, the Philippines and Malaysia, and significantly, China, the major market for illegal ivory. WWF-Pakistan strongly supports the declaration as Pakistan faces many threats to wildlife species and illegal wildlife trade exists in this region as well. Illegal trade of shahtoosh and carcasses of endangered turtle species is a concern, whereas snow leopard and common leopard pelts are also reportedly traded.

Similarly, countries at the centre of the rhino horn trade chain were represented, including South Africa, Mozambique and Vietnam, as well as some of those impacted by the illegal trade in tiger parts: Indonesia, Myanmar, Russia and China. Measures agreed by countries signing the declaration include action to eradicate the market from illegal wildlife products; agreement to strengthen law enforcement efforts and ensure that effective legal frameworks and deterrents are in place; and moves to promote sustainable livelihoods through positive engagement with local communities. WWF and TRAFFIC welcome the post-conference "London Declaration" for recognising the significant scale and detrimental economic, social and environmental consequences of illegal wildlife trade, including how poaching and trafficking are increasingly controlled by organised criminal networks that undermine the rule of law and good governance and encourage corruption.

Heather Sohl, Chief Species Advisor at WWF-UK, said: "Governments signing the London Declaration today sent a strong message: Wildlife crime is a serious crime and it must be stopped. This trafficking devastates species populations, but also takes the lives of rangers, impedes countries' economic development and destabilises society by driving corruption. This is a crisis, not just at a national or regional scale, but one that demands urgent global attention, and so warrants high-level political support through the appointment of a dedicated United Nations Special Representative." Meanwhile, World Wide Fund for Nature-Pakistan (WWF-Pakistan) organised a field visit for journalists to its ex-situ conservation project facility at Changa Manga where they were briefed about the Gyps Vulture Restoration Project and ongoing activities. The Gyps vulture species; white - backed vulture (Gyps bengalensis) and long - billed vulture (Gyps indicus) have declined by more than 90% in Pakistan, India and Nepal since the early 1990s, and are now classified as Critically Endangered by IUCN (Bird Life International 2004). Journalists from 'The Nation' surveyed part of the forest via tram and later were taken to the Gyps Vulture Restoration Facility where they observed the feeding of vultures and their behaviour in captivity. They were also briefed by Faisal Farid, Primary



Vulture Supervisor, WWF-Pakistan who highlighted the ecological importance of vultures and the reason for their rapid decline. He noted that captive breeding is one of the key conservation measures to save the species along with the lobbying of a Diclofenac free environment. Diclofenac Sodium, a non-steroidal anti-inflammatory drug (NSAID), used in livestock, is the main cause of mortality in the species that results in kidney failure in vultures. Vultures are ecologically important, being responsible for consuming dead animals and cleaning the environment. In 2005, WWF-Pakistan launched a captive breeding programme at Changa Manga forest, 80km south west of Lahore, aiming to secure a viable population of the white-backed vulture (Gyps bengalensis), a regional priority species for the Global Programme Framework of the WWF Network. Currently there are 15 white-backed vultures in the facility at Changa Manga forest facility. One of the project's biggest achievements has been lobbying with the government to successfully implement a ban on the sale and manufacture of Diclofenac Sodium in September 2006. The Gyps Vulture Restoration Facility is the only ex-situ project in Pakistan dedicated to fight the threats faced by white-backed vultures. Ex-situ conservation means protecting an endangered species outside its natural habitat where it exists. WWF-Pakistan is also a member of the Vulture Specialist Group of IUCN's Species Survival Commission.

**PESHAWAR**: Water quality monitoring system has been established in different cities including Islamabad, Karachi, Peshawar, Lahore and Quetta, comprising mobile laboratories and updating of analytical laboratories to ensure safe drinking water for people. Rapid urbanization, increased industrial activity and dependence of the agricultural sector on chemicals and fertilizers have led to water pollution. Deterioration in water quality and contamination of lakes, rivers and groundwater aquifers has, therefore, resulted in increased water borne diseases and negative impacts on human health. It is estimated that around 40% of all reported diseases in Pakistan are attributed to poor water quality. To address this issue, Pakistan Council of Research in Water Resources (PCRWR) has implemented several National Water Quality Monitoring and Surveillance activities,official source told APP here.

As one indicator of the magnitude of the problem, it is estimated, he said, 250,000 children in Pakistan die every year due to diarrhoeal diseases alone. "Pakistan's ranking in maintaining water quality standards is 80th out of 122 nations". He said water pressure is low in Pakistan supply systems and together with leaky pipes, this has led to infiltration of contaminated water. "As a result of sewage and industrial waste, which leaked into drinking water through damaged pipes, major outbreaks of waterborne disease epidemics has swept many cities". He said water, extracted by hand pumps, the major water pumping tool in rural areas, is often brackish and generally inadequate to meet all domestic requirements. In such scenario, water quality monitoring is the need of the current time, as the citizens may unknowingly drink contaminated water containing viruses and bacteria linked to potentially fatal diseases, such as cholera, typhoid fever, dysentery and infectious hepatitis. He said it is important to take milestone initiatives to ensure that drinking water is as free of such impurities as is possible and this can be accomplished by timely monitoring and treatment of drinking water quality. "Water quality monitoring and surveillance is a basic and primary tool to assess the pollutants present in water", he added.

PESHAWAR: Perhaps hard to believe during the wettest winter in a hundred years, but scientists are 75 per cent certain that 2014 will be the hottest summer on record. The weather is being linked to the El Nino pattern, which occurs when waters on the Pacific equator are unusually warm, which can lead to disruptive changes in ocean and wind currents across the world, LiveScience reported. In a study published by the 'PNAS' journal, scientists in Germany claim they are able to forecast El Ni's trends a year in advance, up from the six months currently forecast. The scientists at Armin Bunde of Justus Liebig University in Giessen, made their prediction by mapping links between temperatures in the El Ni's basin and the rest of the Pacific. This is instead of mapping water temperatures in the eastern Pacific, which only achieves six month forecasts because the method is affected by winds blowing across the equator. Scientist claimed that by using the new method, they correctly predicted no El Ni's events over the past two years, but say there will be one in late 2014. The researchers hope that the longer forecasts could be used to help countries prepare more effectively for the potentially turbulent weather changes El Ni's can bring. However, Climatologist Tim Barnett at the Scripps Institution of Oceanography in La Jolla, told LiveScience that the methods the researchers used were outdated. "The techniques the researchers used made me feel like I was back in the 1980s and 1990s," Barnett said in an interview. Other experts argue that this approach only analyses statistical patterns in temperature, rather than the physics of the seas or atmosphere, which they claim can always be found if you look hard enough.

**ISLAMABAD:** The Capital Development Authority (CDA) launched 'Clean and Green Islamabad' Campaign from Markaz I-10 Wednesday.

Speaking at the launch of the campaign, CDA Chairman Maroof Afzal said the authority would apply all available resources to further strengthen the status of Islamabad as one of the most green cities in the world. The campaign will focus on six sectors – sectors I-9, I-10, G-9, G-10, F-6 and F-7, and will conclude on February 25. In the second phase, the CDA will start the campaign in the remaining sectors in March. Islamabad Chambers of Small Traders and Small Industries said its members would participate in the cleanliness and tree plantation drive with the CDA staff.

### Monitoring system established to check quality of water

Statesman, Feburary 14,2014

## Summer 2014 to be hottest on record

Statesman, Feburary 13,2014

### 'Clean and Green' campaign launched

Daily Dawn, Feburary 13,2014

## CLIMATE **CLIMATE BULLETIN**

Despite a high rate of environmental wrongs, Sindh lacks a green court Express tribune, Feburary 13, 2014

KARACHI: While courts continue do an admirable job in prosecuting violent criminals, there seems to be a glaring lack of 'green courts' in the province as environmental rights offenders go unpunished. In April 2012, Mushir Alam, who was the provincial chief justice at the time, announced that special green benches will be established in the high court along with several district courts across the province. The high court registrar, Faheem Siddigui, confirmed that former SHC chief justice Mushir Alam also gave orders to set up green courts but the orders have yet to be implemented. Justice Alam had stated that the idea of constituting green benches or courts was to ensure that those found guilty of violating environmental standards do not go unpunished. The decision to establish green courts and tribunals was decided in the Bhurban Declaration, which was adopted by judiciaries of various countries in April 2012. The idea was agreed upon after representatives of Pakistan, Bhutan, India, Maldives, Brazil and Malaysia discussed the deteriorating environmental conditions and sought solutions. "In accordance with the Bhurban Declaration, special green benches have been established in the Supreme Court of Pakistan as well as the high courts of Lahore, Peshawar, Islamabad and Quetta," environmental lawyer Qazi Ali Athar told The Express Tribune. However, no such bench has been established in Sindh.

Windy storms have become the norm in some areas of Sindh as the timber mafia cuts down forests at an alarming rate, Athar revealed. "Despite a notification from the provincial chief justice regarding the constitution of 'green benches' in the province, no action has been taken to implement it," he pointed out. "The number of anti-terrorism courts in Karachi has increased from three to 25 but a green court has yet to be established." However, the environmental lawyer informed The Express Tribune that the Sindh government is working on establishing these courts, revealing that a draft is being prepared. He remains optimistic about their positive impact on the environment. "Once the proposed law is passed by the provincial parliament, it will pave the way for a pollution-free environment." Pakistan Muslim League-Q provincial president Haleem Adil Shaikh believes that the lack of specialised environmental benches shows that the judiciary needs to focus more on environmental issues. "It is very unfortunate that environmental cases usually attract the least amount of interest in the courts," he stated.

#### **Petitions filed**

A total of three petitions have been filed against the high level of contamination and pollution in Manchhar Lake, which is believed to be the one of the largest fresh-water reservoirs in Asia, and Keenjhar Lake, which is the main source of Karachi's water supply. Other environmental petitions have also been filed including petitions against the illegal cutting of forests in interior Sindh and mangroves deforestation along Karachi's coastal belt. Due to the lack of a specialised green court, these cases are being heard in different courts across the province.

**PESHAWAR:** There is a dire need to take appropriate steps to check the current phenomena of climate change in the country which would have worst affect on food, energy and water security. Giving briefing to the Sub-Committee of the functional committee on Human Rights, held under the convenership of Senator Mushahid Hussain Syed, Secretary Ministry of Climate Change said co-operation of stakeholders is imperative to counter the challenges and safeguard environment from internal and external factors. He asked private sector to extend its assistance to introduce green technology and green business in the country, media to create awareness among masses regarding environment issues and civil society not only to pin point loop holes but also contribute through valuable suggestions for ensuring a secure environment.

Earlier, Director General Environment Protection Agency informed the meeting members that the country has faced losses of \$15 billion in three years due to changes in climate patterns in form of flash floods, droughts and severe weather conditions which directly affected crops and irrigation system. Sharing his remarks on the occasion, Senator Farhat Ullah Baber said without adequate financial resources and concrete legislation the challenge of environment affect could not be addressed. Senator Osman Saif Ullah Khan commented that there is a lack of co-ordination between Capital Administration and Development Division, Islamabad Capital Territory and Capital Development Authority which result in handling problems of environment changes.

Member National Assembly Marium Aurangzeb who attended the meeting on special request, opined that there is a dire need of Clean Development Mechanism and if it worked properly not a single penny would be sought from donors or international community in environment sector. A representative of Capital Development Authority informed the meeting that the requirement of clean drinking water in capital is 20 million gallon a day but the current supply is only 70 to 80 million daily so they are focussing to cover this gap on priority. He also informed that currently 17 crushers machines are operating in the Margalla hills which would be demolished with in 15 days. Reply to a query raised by Senator Hidayat Ullah regarding cutting of paper mulberry trees, he said 20,000 trees were removed by the authority and the rest would be cleared gradually within next three years. He also informed the Senate body that 1334 is the hot line of Capital Development Authority for registration of any complain on which action would be taken within 24 hours. The official also said the authority would install mechanical sweepers for cleaning of main roads of the metropolitan while the link roads would be cleaned manually. The meeting was attended by Senator Mushahid Hussain Syed, Senator Farhat Ullah Baber, Senator Hadiayat Ullah, Senator Saeeda Iqbal, Senator Osman Saif Ullah, Member National Assembly Marium Aurangzeb, civil society representatives

Worst effects of climate change on food, energy, water security

Statesman, Feburary12, 2014

CLIMATE 💒 BULLETIN

Christina Afridi, Dr. Anoshka and Waqar Un Nisa Hashmi, Director General Environment Protection Agency, Representatives of Ministry of Climate Change, Officials of Capital Development Authority and media persons.

**SUKKUR:** The blind Indus dolphin – an endangered species indigenous to the river – has been on the brink of extinction due to pollution, climate change, excessive fishing, poisonous chemicals and water shortage in the river. However, their numbers are slowly growing again. According to a survey conducted by the World Wide Fund for Nature (WWF) in 2011, only 1,452 blind Indus dolphins remain in the river. Out of these, 96 dolphins were found between Chashma and Taunsa barrages, 465 were found between Taunsa and Guddu barrages, 857 between Guddu and Sukkur barrages and 34 were found between Sukkur and Kotri barrages. According to the WWF, the surveys are conducted every five years. The pollution in the River Indus is affecting the dolphins along with the fishes and even human beings who eat these fish. The fishermen add poisonous chemicals into the water in order to catch more fish with ease.

Talking to The Express Tribune, Sukkur wildlife department deputy conservator Ghulam Muhammad Gadani said that only three dolphins were killed in 2013, while 30 were killed in 2012 – a majority of which were due to excessive fishing and dumping of poisonous chemicals. "This shows that our campaign to raise awareness is working," he said. "In the past, fishermen also used to dump poisonous chemicals into ponds that ended up in the Indus river. However, this year we have not had that problem." Gadani added that the use of pesticide is also contributing to water pollution while lamenting that it is now considered commonplace to dump waste into the river. "Nobody observes environment protection laws anymore," he felt. "There needs to be strict implementation of these laws if we want to save endangered species from extinction. Dumping industrial and residential waste into the river has become habitual." owever, Gadani felt that rather than blaming the general population, the focus should be on educating them about the wildlife. "Our people kill animals like crocodiles, leopards and water otters. They need to be made aware about the fact that these animals are endangered and should therefore not be harmed."

Sukkur Dolphin Centre incharge Mir Akhtar Talpur told The Express Tribune that the natual habitat of the Indus dolphin is between the Jinnah Barrage near Kalabagh and the Kotri Barrage. "Excess fishing is posing a threat to all animals in the Indus River, including the Indus dolphin," he added. "The Indus dolphin is similar to another species that is found in South America, China and India. However, the Indus dolphin is set apart from them due to its blindness. The blind dolphin is found only in the River Indus." Talpur then revealed that the dolphin breastfeeds its kids for three months before they are able to start hunting on their own. "The total population of the dolphin in River Indus is increasing but the growth is very slow," he revealed. "The average age of a healthy Indus dolphin ranges from between 25 to 30 years. They are fragile mammals and often die of heart attacks."

While talking about how the dolphin copes with being completely blind, Talpur said that it is blessed with a radar-like sonar system which it uses to hunt and navigate. "The Indus dolphin is a very friendly and harmless creature but it cannot be trained like other marine dolphins since it cannot see and therefore cannot follow the gestured instructions of dolphin trainers."

PESHAWAR: Pakistan Tehreek-i-Insaf has promised to end power outages in Khyber Pakhtunkhwa in five years under the provincial government's Green Growth Initiative (GGI) that was launched by PTI chief Imran Khan here on Sunday. "We will install micro hydel power stations and produce our own electricity after which we will not need to beg from the centre," Imran Khan said, charming an emotionally charged crowed made up of Insaf Student Federation members gathered in good number at Pakistan Forest Institute (PFI), where the project launching ceremony was arranged. He said that micro hydel units would be installed across the province with which the problem of loadshedding would be resolved. He said that PTI would fulfil its promise to bring about change. However, it was a rare occasion as Mr Khan acknowledged that the progress to make the change happen was slow. "The rate at which the change should have happened is not happening, the speed, perhaps, is slow, but the promised change will come," said the PTI chief. He said that GGI was an important initiative of the provincial government. The objectives of the programme, he added, would be difficult to achieve without the involvement of youth. Public support to the programme's success, he said, was vital as it had been seen that the country's policy to side with USA in the war against terrorism lacked the nation's support. "Had the government followed the people's aspirations, the war would have ended much earlier," said Mr Khan, adding that time would prove that they (decision makers) sold out Pakhtuns' blood for the American dollars. Calling upon the youth, present on the occasion, he said that their future was dependent on the success of the green growth programme. He cautioned them that a horrific devastation was about to come if deforestation continued at the existing alarming rate, city parks continued to fall prey to land grabbers and climate change went unnoticed. Substantiating his argument in support of GGI's success, Mr Khan said that rains had already depleted, cities lacked proper waste management system and 250,000 children lost their lives every year because of waterborne diseases. "Ninety per cent of Pakistan is without effective sewerage system and unhygienic conditions have reached to the maximum," the PTI chief said, making a case for the public participation in the new initiative. The programme envisages activities in six broad areas during the next five years, aiming to grow forest cover and area, introduce the use of clean energy, waste management, water and sanitation, protected areas parks and eco-tourism, and climate change and resilience.

Good news: Despite facing multiple threats, Indus dolphin population grows

Express tribune, Feburary 11, 2014

# PTI unveils overambitious green growth plan

Daily Dawn, Feburary 10, 2014

# CLIMATE **WE BULLETIN**

### World warmed by about 0.75 c° in 100 years

Statesman, Feburary 09, 2014

# Govt. to launch KP green growth initiative on Sunday

Statesman, Feburary 08,2014

### Guddu barrage develops major safety problems: study

Daily Dawn, Feburary 08, 2014

Malik Amin Aslam, a central PTI leader, explained salient features of the programme, terming it in fulfillment of the party's promise to improve the environment if voted to power. Announcing the provincial government's agenda for the next five years, Mr Aslam said that the forest cover in Khyber Pakhtunkhwa would be increased from the existing 20 per cent to 22 per cent in 2015. The forest density, he added, would be increased from the current 20 per cent to 30 per cent on way to achieve the ultimate target of 40 per cent. Similarly, the Reducing Emissions from Deforestation and Forest Degradation (REDD) initiative, a global initiative, would be made operational this June. He said that the province had potential to earn \$800 million annually through carbon sales. The provincial government, Mr Aslam added, would launch this spring its 'Billion Tree Tsunami' campaign under which two billions saplings would be planted across the province during the next five years. Besides, an initiative of 'Youth Nurseries' would also be pursued, which would create employment opportunities for youth in the province. There would be a complete ban on tree cutting in the reserved forests for the next five years. Similarly, according to Mr Aslam, urban forestry would be strengthened by reviving the urban areas' parks. Public parks, he added, would be reclaimed from the land grabbers wherever the mafia had usurped them in Khyber Pakhtunkhwa. He said that two types of people were afraid of the PTI's initiative: people like those who had grabbed Shahi Bagh and the timber mafia that was making billions of rupees. Mr Aslam, said that PTI lawmakers would introduce a bill in National Assembly to claim compensation for Khyber Pakhtunkhwa under the next National Finance Commission award for the province's efforts to protect forest resources and utilise natural resources. He said that protected areas ratio would be increased from the existing 11 per cent to 15 per cent by 2015. In this respect, safari parks would be established in all the 26 districts of the province for which the provincial government would set up an independent authority and a force would also be set up to take care of the national parks.

**PESHAWAR:** In the last 100 years, the world has warmed by approximately 0.75°C. Over the last 25 years, the rate of global warming has accelerated at over 0.18oC per decade. Sea levels are rising, glaciers are melting and precipitation patterns are changing. Extreme weather events are becoming more intense and frequent, says a WHO report. It said although global warming may bring some localized benefits, such as fewer winter deaths in temperate climates and increased food production in certain areas, the overall health effects of a changing climate are likely to be overwhelmingly negative. Climate change affects social and environmental determinants of health clean air, safe drinking water, sufficient food and secure shelter. Extreme high air temperatures contribute directly to deaths from cardiovascular and respiratory disease, particularly among elderly people. High temperatures also raise the levels of ozone and other pollutants in the air that exacerbate cardiovascular and respiratory disease. Pollen and other aeroallergen levels are also higher in extreme heat. These can trigger asthma, which affects around 300 million people. Ongoing temperature increases are expected to increase this burden. Globally, the number of reported weather-related natural disasters has more than tripled since the 1960s.

PESHAWAR: The Provincial Government has decided to formally launch the Khyber Pakhtunkhwa Green Growth Initiative (GGI) on Sunday to bring maximum areas under plantation to offsets the challenges of global warming and climactic change. Imran Khan, Chairman Pakistan Tehrik-e- Insaf is likely to inaugurate the project during a function at Pakistan Forest Institute, University of Peshawar on Sunday, officials sources in Environment Department in KP told APP on Friday. Under this mega project, two billion saplings would be planted in the province over next five years with help of forest department, students, civil society organizations, educational institutes and other stakeholders to make the province lush green. As per the plan, four important sectors, including increasing forest-covered area, protected green areas, parks, promotion of environmental tourism, increasing resources of energy and climactic changes and resilience would also be paid special attention. The mega project would be completed phase-wise in the next five years. The project besides bringing betterment in the environment, health and tourism sectors would also generate maximum employment opportunities in the province. The programme included plantation of two billion saplings through the youth, students, community and representatives of other walks of life during next five years, afforestation on additional 30,000 acre barren land, streamlining spring and monsoon tree plantation drives, prevention of cutting and smuggling of forests under forest conservation, provision of mark-up free loans to youth under green credit scheme, doubling of the number of prevailing national parks, establishment of national and safari parks at district level and increasing the number and species of the wildlife.

**ISLAMABAD:** Guddu barrage has developed major safety issues and it is feared that its gates will fail during normal operations within five years. A recent feasibility study by an international engineering firm commissioned by the Sindh government indicates that there are "serious operational difficulties and safety issues" facing the barrage. The barrage provides irrigation water to over 1m hectares of agricultural land in four districts of Sindh and Balochistan. The report warns that up to 60pc of the steel of the 65 gates on the main barrage has been badly corroded; the lifting mechanisms have been badly corroded with a strong possibility of failure; the switch panels and power distribution network are in extremely poor condition and there is no back-up electricity supply system in case of power failure. The barrage was commissioned in 1962 and has now seen over 50 years of active service and its rehabilitation and modernisation is urgently required, it recommends. The study has been presented by the government to the World Bank with a request to provide a loan of \$160 million for rehabilitation of the barrage. The World Bank has shown willingness to grant the



loan and it is currently evaluating the project. It is likely that the International Development Association (IDA) of the World Bank group will approve the loan by December, documents indicate Currently, stress levels on the gates are in excess of the allowable design stresses during normal operation. Since the rate of corrosion cannot be slowed down, the report has expressed the fear that the gates may collapse in case of a flood which requires their opening and closing. Such a failure would be catastrophic and affect water supply to the areas fed the barrage. Due to recent floods the upstream embankments were already breached, therefore, embankments around the barrage require upgrading to meet the new criteria, stresses the study. Due its complex geography, Pakistan is included in the list of most climate-vulnerable countries. Climate change is expected to increase the occurrence of extreme climatic events such as floods, and the spatial availability of water. The expected changes in river discharge rate will alter the physical forces exerted on the Guddu barrage and pose risks to its operation and safety and structural integrity. With the possibility of higher river flows in future due to climate change and increased retrogression, project interventions are even more vital to ensure the safety of the barrage, the study warns. The primary function of the barrage is to provide irrigation water to over 1m hectares of agricultural lands in the Jacobabad, Larkana and Sukkur districts of Sindh and Naseerabad district of Balochistan, by feeding the Ghotki Feeder and Rainee canals on the left east side and the Begari Sindh Feeder and Desert Pat Feeder canals on the right west side. The barrage is also used for river control and flood management. It has been designed to pass super-flood discharge of up to 33,980 cubic metres per second. The barrage is an important transport link across the River Indus and provides cooling water for the thermal power station at Guddu. Two major gas pipelines cross the barrage.

**BAHAWALPUR:** The drought-like conditions in the absence of rains prevail across Cholistan, the 6.6 million acre desert home to about 200,000 people and 2 million livestock.

A media team visited Cholistan on Thursday and found the area in the grip of a prolonged spell of dry weather. The situation has resulted in the displacement of inhabitants and their cattle from the desert to green belt areas to meet the shortage of drinking water and fodder as the rainwater accumulating open ponds have dried up. The living places around these ponds were found deserted. The media team noticed the presence of human and cattle population around the dried-up ponds of Tharoola and Qasaiwala. The only things found in huts were some empty clay pitchers, a few pairs of shoes and heaps of wood. The team also found a skeleton of an animal, an indication of the severe unavailability of drinking water. Dawn learnt that there were 1,200 water ponds across the desert, supplying water to humans and animals. Of the 1,200 ponds, Kataniwali, Khokhranwali, Barsati, Drindowali, Bahala, Akmalwala, Bhochran, Takkiwali, Kamalwali and Kharani were the places, where the ponds had completely dried.

A non-government organisation (NGO) official, Riaz Baloch, involved with the Cholistan Development Authority (CDA) to provide water to the Cholistanis, alleged the serious situation arose due to the negligence of the CDA. He said the authority had failed to clear sedimentation from the ponds. The NGO official observed that if the ponds had been cleared of the silt under a phased-programme by the CDA with its budgetary allocation, the rainwater accumulated in ponds would serve the Cholistanis and their animal for a long period. The team also saw the Tharoowala pond, which was built to store 400,000 gallons of water. The pond in question was in a need of desiltation. It is learnt that native Cholistanis live around these ponds as long as the drinking water is available to their herds. As this basic facility diminishes in a pond, they move to the next nearest pond. Every herd owner is to pay tax for the grazing of their animal. This tax is called 'Tirini' which is levied at the rate of Rs5, 10 and 18 per sheep, cow and camel and is collected by the officials of the Forest Department from the owners. A number of Cholistanis living near the crumbling Derwar Fort also protested at the non-availability of drinking water to them and their cattle and demanded the clearance of water ponds from sediments. They also demanded the brick lining of the ponds to minimise the seepage. They said CDA's water supply system through pipelines were inefficient and limited to few areas.

CDA Managing Director Mian Aftab Peerzada was reportedly away from his office in connection with the visit of Prime Minister Nawaz Sharif to Khutri. A CDA official, however, claimed that the cleanliness of the ponds was carried out. He added that it was a phased activity being carried out annually.

**PESHAWAR:** Due to irregular rain patterns, and lack of fresh drinking water, there has been increase in diseases among children from across the country. This was pointed out by by Pakistan Paediatric Association President Prof Iqbal Memon while talking to APP.

Prof Iqbal Memon said, use of contaminated water causes outbreaks of water-borne diseases, especially in the rural areas of the country. He said a few decades back, freshwater was abundantly available to riverside communities during all seasons. "Now there is no water in the rivers, while ponds in Punjab and Sindh have become dried or contaminated, but people along the rivers have no other option but to use that water for drinking and cooking," Dr Iqbal added. He further informed that there has been high number of cases among children with vector-borne diseases across the country, particularly in Sindh during the last couple of months.

Federal Government Polyclinic Hospital Paediatrics head Dr Munir Shahzad said, "the rise in vector-borne diseases, including diarrhoea, cholera, gastroenteritis, typhoid, and hepatitis, is

### Cholistan in the grip of drought

Dawn , February 08, 2014

Rain pattern, lack of fresh water causing children diseases

Statesman , Feburary 07, 2014

### CLIMATE **& BULLETIN**

### Troubled waters: Court inquires if deep sea port project is eco-friendly

Express tribune, Faburary 06, 2014

2013 sixth hottest year, confirms long-term warming Statesman, Feburary 06, 2014

No feasibility, EIA report

due to environmental factors and the effects of climate change."

Environmentalist and the government's adviser on climate change Qamaruz Zaman Chaudhry said, "The environmental factors in the country were causing a rise in diseases." "I totally agree with health experts that the surge in seasonal vector-borne diseases is linked to environmental factors", he added. He said "We had already warned about the issue in the National Climate Change Policy". He said, "environmentalists had feared that the frequency of diseases, including cold, influenza, gastroenteritis, diarrhoea and fever among children will increase due to global warming in the current year." He said the Pakistan Muslim League-Nawaz had incorporated a strategy to tackle climate change in its manifesto on the recommendation of experts. – APP

**KARACHI:** The Sindh High Court (SHC) has directed the Karachi Port Trust's (KPT) authorities to file detailed comments, explaining whether the under-construction deep sea container port would have any repercussions on the ecology and environment or not. On the request of the deputy attorney general, the bench headed by SHC Chief Justice Maqbool Baqar granted time to file the federal authorities' comments to a beachgoer's plea against the megaproject.

Abdul Jabbar Khan, who lives in an apartment complex at the beachfront, claimed that the fundamental rights of the public, particularly the Karachi'ites, will be violated due to encroachment of the Clifton beach. He maintained that it was the only beach accessible to the public in the port city, offering recreational and entertainment opportunities. Located about a kilometre off the seashore in front of Block 1 and 2 of Clifton, the beautiful rocks are a "natural gift for the safety of humans as well as wildlife," said Khan. "The rocks play an important role against earthquakes. The lives of millions of people in Karachi may be at risk in case a natural disaster strikes because the rocks were being dismantled by heavy dredgers to pave the way for the terminal's construction." To substantiate his concerns, the petitioner referred to a survey conducted by Japanese experts for the deep sea terminal, saying that the study had clearly suggested establishing such terminal at the western waters. The Karachi Port Trust (KPT) decided, however, to establish the terminal on the eastern front for reasons best known to the authorities, he said.

Around 15 square kilometres, including the Clifton beach, have been "encroached" to build the port, depriving people of recreational opportunities, the petitioner alleged, appealing to the court to declare the construction of the deep sea container terminal illegal and permanently restrain the authorities from building the port. "Rather, they should be ordered to restore the beach." The ministries of ports and shipping, environment and tourism, the KPT, Karachi commissioner and the South district deputy commissioner have been cited as respondents. Taking up the matter of public interest in January last year, the bench had issued notices to the federal, provincial and local government authorities to file their replies. On Tuesday, the Karachi Port Trust filed a counter-affidavit through its lawyer, Mehmood Alam Rizvi. The two judges, however, found that the comments lacked details and important information.

Qazi Ali Athar, an environmentalist attorney who is assisting the court as Amicus Curiae, also opposed the project, suggesting to the court to call a report of the study which has been conducted on the directives of the director-general of Naval Operations. Citing the report, he said that the eastern side of the coastal belt is thickly populated and has no infrastructure for the movement of heavy vehicles, which is why the study had suggested the western waters for the deep seaport. The western part has less population which would be affected and also has infrastructure for communication, including the RCD Highway. Qazi Athar also proposed to the judges to call another report prepared by the Senate's standing committee on ports and shipping, which had also opposed the project, arguing that the KPT could not launch and execute any project without the prerogative of the federal government. The judges directed the KPT lawyer to file additional information by February 25.

**PESHAWAR:** Last year tied for the sixth hottest on record, confirming that Earth's climate is in the grip of long-term warming, the UN's weather agency said Wednesday. "The global temperature for the year 2013 is consistent with the long-term warming trend," World Meteorological Organization (WMO) chief Michel Jarraud said in a statement. Last year equalled 2007 as the sixth warmest year since reliable records began in 1850, with a global land and ocean surface temperature that was 0.5 degrees Celsius (0.9 degrees Fahrenheit) above the 1961-1990 average, the WMO said. Temperatures in both years were also 0.03 degrees Celsius (0.05 degrees Fahrenheit) above the average from 2001-2010, which in turn was an extremely hot decade, with 2005 and 2010 topping the warming charts. Those two years saw temperatures about 0.55 degrees Celsius (1 F) above the long term average. Thirteen of the 14 warmest years on record have occurred in the 21st century, said the agency. Jarraud acknowledged that "the rate of warming is not uniform" in every country.

Last year, for instance, was the hottest year on record in Australia, while the United States measured record highs in 2012. But, Jarraud stressed, "the underlying trend is undeniable." "Given the record amounts of greenhouse gases in our atmosphere, global temperatures will continue to rise for generations to come," the WMO chief warned. "Our action, or inaction, to curb emissions of carbon dioxide and other heat-trapping gases will shape the state of our planet for our children, grandchildren and great-grandchildren." - APP/AFP

RAWALPINDI: The Punjab government will inaugurate the Rs34.08-billion Metro Bus Service



# CLIMATE **ARE** BULLETIN

Statesman, Feburary,04 2014

working with the Punjab Wildlife Department to restore the population of the Oriental whitebacked vulture, also known as the white-rumped vulture. The scavengers have long been a crucial part of the ecosystem in Pakistan and across South Asia, helping to prevent disease and contamination of groundwater by feeding on animal carcasses. "We are fighting a losing battle but we can minimize the impact," Hasan Ali, a WWF-Pakistan conservation coordinator, said, speaking through a translator. On a recent visit to the program, there was a festive feel in the air as workers serenaded the caged vultures before feeding the bald blackand-white birds with the trademark curved beaks chunks of donkey and goat meat. The goal of the program is to help build up the numbers of birds, which have wingspans up to 8 feet, until the environment is safe to release them. Populations of the white-backed vulture (Gyps bengalensis) and the long-billed vulture (Gyps indicus) have dropped by more than 90 percent and are considered critically endangered across South Asia, mostly because of the use of veterinary drugs such as diclofenac, a non-steroidal anti-inflammatory drug, that have contaminated the cattle carcasses the birds feed on, the International Union for Conservation of Nature says. The drugs cause the vultures to suffer renal failure and death.

Uzma Saeed, another WWF-Pakistan conservation coordinator, concedes there is still much work left to bring these birds back from the brink of extinction. Part of the problem, Saeed said, is that the veterinary drugs are still being used despite a long-running ban in place across South Asia aimed at helping the vultures recover. A new class of pain killers for livestock has been introduced, including ketoprofen and aceclofenac, which pose similar threats to the vultures.

Muhammad Shafqat, director of the Punjab Wildlife Department, said authorities have levied fines and shut down pharmaceutical companies caught producing diclofenac, and are attempting to raise awareness about the importance of the birds. "We have specified five zones for vultures breeding in Punjab besides launching awareness programs," he said. However, it is not drugs alone that cause the vulture numbers to plummet. Another important factor may be the reduction of carcasses because of improved veterinary and livestock husbandry services and better carcass disposal in urban and semi-urban areas. The presence of two Gyps species in the remote Nagar Parkar area seems to support that argument, as veterinary and livestock husbandry services there are less sophisticated. The birds' breeding sites are also threatened by the loss of Dalbergia Sissoo trees, often home to vulture nests. An increasing number have been cut down by villagers for firewood, while others have fallen victim to termite attacks and dieback disease.

Muhammad Akram, dean of Wildlife and Fisheries at the University of Animal Sciences in Lahore, also blamed the lack of awareness among general public, unplanned urbanization, deforestation, lack of government attention and aggressive human behavior as factors behind the vultures' decline. "Even scientists with doctorates in Pakistan do not know what functions vultures perform for the environment," Akram said through a translator.

Ijaz Khan, a farmer from Burki village, is typical of most Pakistanis. Rather than recognizing the important role played by the birds, Khan said he was glad to see them disappear. "Stray dogs are enough in the city to eat the dead animals. I am happy vultures have disappeared from our beautiful land," Khan said.

None of this has dampened the desire of Saeed and other environmentalists to save the vulture. Along with the captive breeding program, WWF-Pakistan is also trying to educate the public about the birds and pressuring the government to do more to enforce the ban on the harmful veterinary drugs. "We will do what we can to save vultures from the cruel clutches of human beings," Saeed said. "We will leave no stone unturned for this purpose come what may."

GILGIT: The threat of impending landslides in Miacher Valley of Gilgit-Baltistan is raising concerns as a landscape ecologist has warned that if slopes fail, a disaster 10 times the magnitude of the one that struck Attabad four years ago, is lying in wait. Located about 70 kilometres from Gilgit, mountain slopes in Miacher Valley are laden with cracks that seem ready to give way. Failure of the slopes is expected to block the Hunza River, drowning many adjacent settlements in its wake. "A landslide in Miacher has the potential to cause a mega disaster," claims Mujahid Ali Shah, who studied landscape ecology at the University of Greifswald and is currently working as visiting faculty and researcher at the Department of Environmental Sciences at Karakoram International University, Gilgit. Rapid widening of cracks on mountain slopes is leaving little time for authorities to take preventive measures as the danger grows imminent by the day. "Since October last year, landmass in the valley is showing unexpected signs of a possible disaster, with cracks having widened from nine inches to 12, in a period of six months," Shah told The Express Tribune. "Towards the end of February, as temperatures in the bedding of mobilised debris increases to 4 degrees Celsius, the slopes can be expected to fail," he warned. If this happens, the landslide will create a damming wall 400 to 500 metres high and 200 metres wide out of a total of 1,000 to 2,000 million cubic metres of rock debris that will be displaced, according to Shah. "The damming wall can stay for more than 18 months, choking the Hunza River and submerging not just 40 kilometres of the Karakoram Highway, but also areas of Sumyar, Asqurdas, Shayaron in Nagar Valley, and Hasanabad and Ganish in Hunza Valley across the river," the ecologist said. Shah said it would be wrong to assume that the story would end there. A possible outburst of Miacher lake, beyond the 18 month period may further form three lakes in the area of Zee Sar, by submerging the already sliding lands of Mayun and Khanabad. "This could also cause flooding in the Hunza and Indus rivers, raising water levels by 20 to 35

Landslide: Another disaster awaits G-B as cracks in Miacher slopes widen

Express tribune, Feburary 03, 2014

metres and submerging downstream areas," he added.

In order to avert the natural disaster, Shah suggested the authorities build a 470 to 500 metres long and 10,000 cubic metres deep tunnel in the Hunza River that will allow water to pass through and avoid formations of artificial lakes. "Positive news emerging for now is that the government is busy in re-routing the way from Minapin to Khayadar and Miacher by constructing a four-kilometre-long road," he said about his meeting with the assistant executive engineer for Public Works Department Hunza, Nagar Iqbal Hussain. Meanwhile, the local administration has deployed police in the danger zone, to stop movement from the area. At least 25 families have been relocated to less disaster-prone areas, amid their cries for permanent settlements elsewhere.

CLIMATE 💑 BULLETIN

Sajjadul Haq, the spokesman at the chief minister's office, said that the issue has been taken up by the chief minister who has directed for a detailed report to be compiled on the matter. Four years ago, Hunza Valley witnessed a disastrous landslide that also killed 20 people and sank hundreds of acres of land in lower Attabad. Landslide debris blocked the Hunza River, which led to the formation of a 20-kilometre-long and two-kilometre-wide lake that is now known as Attabad Lake.

LAHORE: Dense fog continued to affect life in the plains of Punjab on Saturday, disrupting road and air traffic. It remained foggy in Lahore and several other cities even during the day. But the Met office expected it to clear in the next 24 hours. Lahore airport and motorway remained closed on Friday night because of poor visibility. A large number of passengers remained stranded at the airport on Friday night and Saturday because of the suspension of the flight operation and delays that followed. Traveling on city roads was difficult even in the morning which looked like an extension of the night because of the poor visibility. Temperatures in Lahore and other fogbound cities dropped. The maximum temperature in Lahore was 14.5 degrees Celsius and the minimum 7.7 degrees Celsius. According to the Met office, the westerly system that persisted over Balochistan began to generate some rain and snowfall over the hills on Saturday. Parachinar received 17mm of rain, Kalam 12, Pattan 11, Dir 10, Drosh and Chitral 7mm each, Malam Jabba 4 and Gilgit 2mm. It will remain cold and partly cloudy to cloudy over most parts of the country with scattered fog in the plains of Punjab during the next 24 hours. Scattered rain and snowfall is likely over Balochistan and upper parts of the country. It will remain partly cloudy with chances of some rain in Lahore. However, it forecast widespread rain with chances of heavy snowfall over the hills over upper Punjab, Fata, upper and central KP, Gilgit-Baltistan and Kashmir in the next 60 hours.

**TAXILA:** Obaidullah Khan, 38, from the Nowshera district of Khyber Pakhtunkhwa, grimaces with pain while standing in a long queue to see a doctor at the Pakistan Institute of Medical Sciences (Pims).

For the last over one month, Khan has been feeling a severe pain in the lungs. The doctor at Pims attributed his disease to the nature of his work. Khan has been working as a stone crusher in the Margalla Hills near Taxila for over 10 years.

Talking to Dawn, the labourer said he could not see any doctor for over a month as his contractor did not allow him to leave the site. He was suffering from the chronic obstructive pulmonary disease that makes it hard to breathe. "After the medical check-up, the doctor told me that it was due to my job in the dusty environment." The doctor also advised him to take rest for a month. "Is it possible for me to sit idle at home without work? I am earning Rs14,000 per month to support my family, including five children." In reply to a question, Khan said it was very dangerous to plant ammunitions in the hills to blast rocks into pebbles for the construction purposes. Due to the lack of safety measures, most of the time labourers working on stone crushing machines sustain injuries.

Salman Mughal, 22, a resident of Fort Abbas district in Bahawalnagar, added that he had also been working in the Margalla Hills for over a year. He said his uncle, who was also a stone crusher, lost his life in November 2013 when a stone hit him at the workplace. He said neither the owner nor the government paid any compensation to the family of his uncle. Mughal said the department of mines and minerals and the leaseholders promised insurance for the labourers during the auction of the stone crushing sites but the labourers were never provided any compensation or medical treatment in case of death or injuries.

Mohammad Sohail, 32, a resident of Sonda village in Attock, has also been working as a stone crusher for four years. Sohail said it was difficult to work on the plants because the chances of death increased during crushing, drilling and blasting of rocks. He said sometimes it became difficult to breathe due to the dusty environment. Most of the labourers are suffering from lung, kidney and eye diseases, he added. He said Asim Khan, one of his friends from Upper Dir, died during the blasting of rocks last year. "The government and the contractors don't care about the safety of the labourers while the stone crushers regularly get injuries and also develop eyesight problems. They are never compensated," he complained.

Ziauddin Khan, 23, a resident of Timergarah in Lower Dir, is another stone crusher at the site. He said the labourers worked tirelessly but the leaseholders and the government never provided them safety facilities. "This is a dangerous work and people get injured on a daily basis," he said "When the site was auctioned, the leaseholder was asked to write down the facilities for the workers. The list included opening of a dispensary, school and ambulance service. However, none of the facilities was provided to us," he added. Around 0.1 million labourers are working on the crushing plants in Taxila and its surrounding areas, including

Fog continues to affect life

**Besides pollution, stone** 

crushing plant owners

Daily Dawn, Feburary 01, 2014

violate labour rights

Dawn , Feburary 02,2014

# CLIMATE **SULLETIN**

Jhang Bahtar, Pathar Garh, Hassanabdal, Ahata, Fatehjang, Sung Trash, Sanjwal and Tarnawa Khanpur. Stone crushing on the Margalla Hills started in 1978. Today, around 30,000 labourers are working on the crushing plants on the five kilometres portion of the Margalla Hills near Taxila.

Inspector Mian Zahid Mehmood of the mines and mineral department of Punjab told Dawn that around 62 people had lost their lives on the crushing plants near Taxila in 2013. He said it was stated in the mines act 2006 that the contractor would pay Rs0.2 million compensation to the family of the labourer in case of his death during work. The department of mines and mineral was also to pay Rs0.3 million to the family of the victim. He said the department tried to ensure that the families of the victims got the compensation but it was not easy to convince the contractors to ensure the payments.

Khawaja Javed Akhter, who is the chairman of the Margalla Stone Crushers' Association, said under the agreement with the department the plant owners were not bound to pay any compensation to the family of a victim. Khawaja said though the government believed that stone crushing was the major reason for pollution he had installed a dust suppression system to reduce the emission of pollutants. He also said around 250 crushing plants were operational on the Margalla Hills but the lease agreements of 50 per cent of the contractors had expired. "Should we continue working without the renewal of the agreements," he questioned.

Chaudhry Mohammad Asif, the owner of a stone crushing plant, said the government provided lease for 10 years which was renewable. But the government stopped renewal of the lease agreements. Environmentalists believe that the activities of the stone crushers needed to be immediately stopped as continued operations can have an adverse impact on the natural habitat of the hills. The population of a large number of animal species will be affected if these activities continue unchecked and some species might even go extinct. Asif Shujja, the director general of Pakistan Environmental Protection Agency, said Islamabad's environment would adversely be affected if measures were not taken to control the stone crushing activities. He said according to the Pakistan Environmental Protection Act 1997, which was adopted by the Punjab government in 2012, the owners of stone-crushing plants had to submit an initial environment examination or an environment impact assessment to the Punjab EPA before starting a project. "If the project is deemed environmentally safe, EPA issues a no-objection certificate (NOC) to the owners. However, a number of stone crushers continue operating without any permissions or licences," he added. Shuja said the stone crushers were operating in violation of the law while EPA had asked the provincial government not to issue new licences or leases.

# CLIMATE **Service** BULLETIN

# CLIMATE RELATED REGULATORIES/ AGENCIES FRAMEWORKS NEWS

WWF-Pakistan supports London declaration

WWF-Pakistan

Feburary 16, 2014

http://www.wwfpak.org/

### WFP helps Pakistan prepare for natural disasters

WFP-Pakistan Feburary 21, 2014 www.wwfpak.org

Daud Bandagi, Shergarh Okara and WWF-Pakistan Join Hands to Go Green WWF-Pakistan LAHORE: Heads of state, ministers and high level representatives of 46 countries, including those most heavily impacted by poaching and illegal trade of wildlife, committed to taking "decisive and urgent action" to tackle the global illegal wildlife trade. The strongly worded declaration was issued after two days of closed-door negotiations hosted in London by the UK government. Princes Charles, William and Harry also participated in the event.

WWF-Pakistan supported the declaration as Pakistan faces many threats to wildlife species and illegal wildlife trade exists in this region as well. Illegal trade of shahtoosh and carcasses of endangered turtle species is a concern, whereas snow leopard and common leopard pelts are also reportedly traded.

African countries whose elephant populations are under threat were present at the occasion. Other countries that represent major transit points for ivory shipped from Africa to Asia were also in attendance, including Togo, the Philippines and Malaysia, and significantly, China, the major market for illegal ivory.

Similarly, countries at the centre of the rhino horn trade chain were represented, including South Africa, Mozambique and Vietnam, as well as some of those impacted by the illegal trade in tiger parts: Indonesia, Myanmar, Russia and China. Measures agreed by countries signing the declaration include action to eradicate the market from illegal wildlife products; agreement to strengthen law enforcement efforts and ensure that effective legal frameworks and deterrents are in place; and moves to promote sustainable livelihoods through positive engagement with local communities. WWF and TRAFFIC welcome the post-conference "London Declaration" for recognising the significant scale and detrimental economic, social and environmental consequences of illegal wildlife trade, including how poaching and trafficking are increasingly controlled by organized criminal networks that undermine the rule of law and good governance and encourage corruption.

Heather Sohl, chief species adviser at WWF-UK, said: "Governments signing the London Declaration sent a strong message: Wildlife crime is a serious crime and it must be stopped. This trafficking devastates species populations, but also takes the lives of rangers, impedes countries' economic development and destabilizes society by driving corruption. This is a crisis, not just at a national or regional scale, but one that demands urgent global attention, and so warrants high-level political support through the appointment of a dedicated United Nations Special Representative."

**LAHORE:** World Wide Fund for Nature-Pakistan (WWF-Pakistan) in collaboration with Horlicks-GSK Consumer Healthcare Pakistan hosted the 16th Annual Travelling Nature Carnival on Sunday, January 26th 2014, at Race Course Park.

More than ten thousand visitors and 80 schools from across Lahore participated in the event. Environmental education is the key objective and schools showed their concern for conservation by constructing 3D models on various environmental themes and giving live presentations and performances.

Winners of the 3D model competition were (2nd) Supreme Education School System, (1st) Beaconhouse Johar Town Junior (Category: Reduce, Reuse, Recycle); LGS Samanabad (3rd), Punjab School Junior (2nd),Laurel Bank Shalimar Campus (1st) (Category: Benefits of Trees); Beaconhouse Peco Road (3rd), LGS Wapda Town (2nd), LGS EME (1st) (Category: Green Neighbourhoods); Haleem Campus (3rd), MiCasa School, Beaconhouse (Category: Health, Hygiene & Environment); Bahria School & College (3rd), LGS Township (2nd), SISA (1st) (Category: Disaster Management); Froebels International (3rd), LGS EME (2nd), Sharif Education Complex (1st) (Category: Watershed Management); The New School (3rd), Aitchison (2nd), Lyceum NGCS (1st), LGS Paragon (Consolation) (Category: Illegal Hunting); FC College (3rd) University of Veterinary and Animal Sciences (2nd), Lahore College for Wormen University (Category: Environment Management Systems). Overall winners were SISA, Laurel Bank Shalimar Campus and LGS EME.

Chief Guest Rana Mashoodullah Khan, Minister for Education and Sports (Punjab Government) was present at the occasion to present the awards to the winning schools. He stated that he personally supports environmental causes and makes time to encourage youth to be environmentally aware and active.

Ali Hassan Habib, DG WWF-Pakistan said, "environmental education should be a specific component of our school curriculum, in public and private schools both. We can only create an environmentally sensitive population by instilling awareness in our young ones.

WWF-Pakistan and Horlicks-GSK Consumer Healthcare Pakistan also engaged young and old alike through specially designed educational and informational activities including an art competition, quiz competition, essay competition, magic shows, environmental puppet shows, a lucky draw, live music and an environmental theatre performance. The carnival will also have food stalls. Shezan and Tetra Pak also supported the event.

**LAHORE:** WWF-Pakistan's Green School Programme signed an accord with Daud Bandagi School, Shergarh Okara at MoU signing ceremony held today at WWF-Pakistan's Head Office, Lahore. Mitchell's Pakistan Limited has sponsored this community based school for the Green School Programme. Under this initiative, more than 600 students from local

# CLIMATE **WE BULLETIN**

Feburary 17, 2014

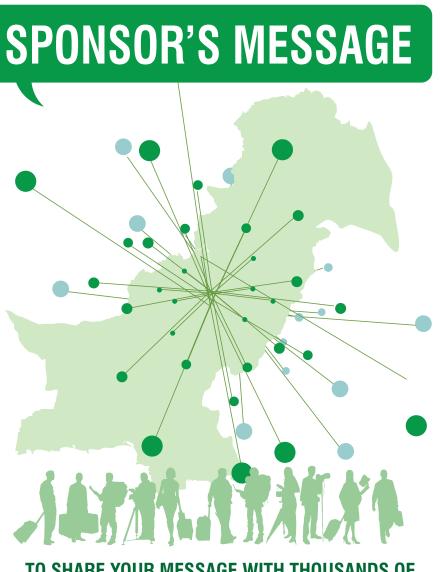
http://www.wwfpak.org/newsroom/170 214\_daudbandagi.php#sthash.5GnUi AU3.dpuf communities will benefit and participate in WWF's environmental education activities and events.

The agreement was signed by Tanvir Ahmad Chauhan, Principal Daud Bandagi School and Ali Hassan Habib, Director General, WWF-Pakistan. At the occasion, Mr. Ali Hassan Habib presented the Green School Certification shield to Syed Mehdi Mohsin, Director Mitchell's Fruit Farms Limited, as a token of appreciation for supporting this initiative for nature conservation.

Speaking at the occasion Ali Hassan Habib said that it is important to educate and empower the youth of Pakistan and that this programme needs to emphasize more on the local problems to find solution to those problems. He also appreciated Mitchell's for sponsoring the school and making Daud Bandagi School the second community based school in Pakistan to be signed as a Green School. Previously Hunza's community based Al Murtaza Academy also got registered as a Green School.

Mehdi expressed his commitment in fulfilling the partnership and congratulated Daud Bandagi School on becoming a certified Green School. He further stated that he fully supports WWF-Pakistan's mission and believes that each and every child of our country should benefit from such opportunities.

The Green School Programme is a structured environmental education and awareness campaign that engages the students in year around events, activities and skill development workshops. The partnership between WWF and Daud Bandagi aims to make the students more environmentally aware and conscious through WWF-Pakistan's Green School Annual Programme. Through this partnership the students will get an opportunity to become official ambassadors of WWF-Pakistan, and will participate in various WWF events and activities.



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### **HUMANITARIAN INTERVENTION'S IN CLIAMTE SECTOR**

#### **UNESCO-PAKISATN**

6 February 2014 http://unesco.org.pk/

### UNESCO-PAKISATN

Feburary 07, 2014 http://unesco.org.pk/

#### UNESCO and Pakistan's Education Ministry launches Malala Funds-in-Trust

**Islamabad:** UNESCO's Director General, Ms. Irina Bokova called on State Minister Education of the Ministry of Education, Training and Standards in Higher Education, Mr. Balig-ur-Rehman and other senior officials of the Click to enlarge image

Ministry on Thursday. On this occasion Ms. Bokova and Mr. Balig-ur-Rehman signed a memorandum of understanding (MOU) for the Malala Funds-IN-TRUST for Girls' Right to Education which aimed at expanding and improving education and safe environment for all children in Pakistan particularly girls specially in remote areas of the country.

#### 'UNESCO chair' set up at CIIT campus on water research

**ISLAMABAD**: UNESCO and COMSATS Institute of Information Technology (CIIT) on Thursday inked an agreement to establish the UNESCO Chair on 'Knowledge Systems for Integrated Water Resources Management' at the Institute's Wah Campus.

The signing ceremony, held at the Ministry of Science and Technology, was presided over by Minister for Science and Technology Zahid Hamid.

Director General UNESCO, Dr. Irina Bokova, and the Rector CIIT, Dr. S.M. Junaid Zaidi, signed the agreement on behalf of their organizations. The ceremony was witnessed by the Secretary S&T Kamran Ali Qureshi; Executive Director COMSATS, Dr. Imtinan Elahi Qureshi, Resident Director UNESCO to Pakistan, Dr. Kozue Kay Nagata, Secretary-General Pakistan National Commission for UNESCO, Amna Imran. In his remarks, the minister highlighted the role his ministry is playing for the promotion of science and technology in the country. He noted his ministry's recent initiatives on enhancing technical cooperative activities and viewed the recently adopted National Science, Technology and Innovation Policy (2012) of Pakistan as a step in the right direction for national development.

In his brief remarks on the occasion, the Executive Director COMSATS expressed his organization's desire to have long-term partnership with UNESCO based on synergy, complementarity and willingness.

He noted that COMSATS advocates S&T related South-South Cooperation as means to socio-economic development. He informed that COMSATS has 18 S&T Centres of Excellence, including a full-fledged university, CIIT, affiliated to the organization giving it leverage to play an important international role.

Dr. Qureshi recounted his recent visit to UNESCO Headquarters, Paris, in connection with the 37th Session of General Conference, and meeting with the UNESCO Assistant Secretary General for Natural Sciences, Prof. Gretchen Kalonji. It was informed that Prof. Kalonji had endorsed having stronger ties with COMSATS and recognized its important role as an inter-government organization.

Sharing her views on the occasion, Dr. Bokova reiterated UNESCO's pledge to work with the Government of Pakistan to elevate the level of knowledge and expertise in the country. UNESCO supports initiatives that aim at S&T advocacy, knowledge sharing and excellence in higher education, she said.

She also pledged support to COMSATS, especially for activities related to science, technology and innovation, which she considered pivotal for the future development frameworks. She said that this signing ceremony is a testimony of the importance UNESCO gives to science, technology and innovation.

The establishment of UNESCO Chair is a milestone in the history of CIIT since it can now be ranked among a select group of institutions focusing on water resources management.

The purpose of the Chair would be to promote an integrated system of research, training, information and documentation on water resources management, facilitating high-level international collaboration for researchers and teaching staff of the university and other institutions in Pakistan with those in other parts of the world.

### World Bank Group Holds Country-Wide Consultations for New Pakistan Country Partnership Strategy

#### STORY HIGHLIGHTS

The World Bank Group (WBG) is preparing a new strategy for Pakistan, which will guide the engagement of its three institutions (World Bank, International Finance Corporation, Multilateral International Guarantee Agency) for the next five years and will be designed to focus on the twin goals of ending extreme poverty and promoting shared prosperity.

Since July 2013, the WBG has been consulting diverse stakeholders around the country. The team met over 400 individuals, representing civil society organizations, parliamentarians and political leaders, civil servants, academics, think tanks, youth groups, media representatives, private sector, and other development partners. In addition to face-to-face meetings, over 700 clients and stakeholders participated in a Client Satisfaction Survey and 3000 provided feedback through a Facebook survey.

Some common messages heard have been tackling the energy crisis, increasing economic

World Bank-Pakistan

February 6, 2014

www.worldbank.org/en/country/paki stan

### CLIMATE **& BULLETIN**

#### **World Food-Pakistan**

WFP/

www.wfp.org/countries/pakista n

Feburary 24, 2014

opportunity for women and youth, improving service delivery, addressing inequality, and combating climate change.

### WFP to set up eight emergency response warehouses in disaster-prone areas of country

PESHAWAR: The World Food Programme (WFP) is executing a mega project costing \$17 million to establish eight warehouses in natural disaster-prone areas of the country to ensure swift emergency and disaster response in case of any hazards.

The network of Humanitarian Response Facilities (HRF) is being developed in seven strategic locations of the country to augment the government's warehouse capacity available for pre-positioning non-food and food items for emergency response in relief activities.

The warehouses are being established in Muzaffarabad, Lahore, Peshawar, Sukkur, Hyderabad, Quetta and Gilgit as one such facility has already been opened in Muzaffargarh by the WFP.

The locations for warehouses were selected based on evidence from previous natural disasters, population centers, and with a view to enhancing emergency preparedness and response capabilities,Lola Castro, Representative and Country Director, WFP Pakistan told APP.The project would be accomplished by 2015, she said.

Lola said the first five sites are expected to be constructed in 2015 while the rest would be subject to the availability of suitable locations and receipt of additional funds as the current shortfall was US\$6 million.

Lola Castro said recurring natural disasters in Pakistan substantiate the need to strengthen the country's emergency disaster preparedness and response capacity at all levels.

"The priority for WFP and partners through these on-going efforts is to establish a humanitarian warehousing network in the country to ensure a fast, effective and reliable logistics response mechanism at district level and, alongside the Government of Pakistan, to protect and empower communities most at risk".

She said WFP aims at assisting 8.3 million people between 2013 and 2015 at a total cost of US\$535 million seeking, amongst others, to improve economic opportunities and promote social inclusion in FATA, boost community resilience in disaster-prone areas, and address nutrition and education in the country.

The land for all these warehouses is being provided by the government of Pakistan, Lola added.

The warehouses would facilitate the affected community during the disasters situation, said Chairman, National Disaster Management Authority (NDMA), Major General Muhammad Saeed.

He said Pakistan has a long history of being severely affected by natural disasters and the warehouse is being established to strengthen the disaster preparedness and emergency response capacity of the country immediately.

The recently opened warehouse at Muzaffargarh will serve as a logistics base for Southern Punjab, a flood prone area and has an overall storage capacity of 3,200 tons, he added.

Among others, the facility includes climate-controlled area for temperature sensitive items with a capacity of 200 tons and the structure is earthquake resistant and other environmental hazards have also been factored into the construction, Chairman maintained.

Muzaffargarh HRF will serve as a logistics base for Southern Punjab, a flood prone area where approximately 25 percent of the Pakistani population lives, he said.

A second facility (currently under construction) in northern Punjab (Lahore) will cover an area where over 30 percent of the country's population resides, Chairman added.

The project is being implemented in close coordination with the National Disaster Management Authority and Provincial Disaster Management Authorities of Punjab, Sindh, Balochistan, Khyber Pakhtunkhwa and Gilgit-Baltistan with generous funding provided by the government and the people of Japan, Australia, Canada, Denmark, the Netherlands and the United States of America

#### WFP gives US\$10.8m to flood affectees under FFW, FFC project

PESHAWAR: World Food Organisation (WFP) has distributed almost US\$10.8 million among flood affectees including US\$4.7 million under Food For Work (FFW) and US\$6.1 million under Food For Cash (FFC) programme to improve community infrastructure and rehabilitate their livelihoods. In FATA, most of the cereals distributed were provided in-kind as part of the generous Government's contribution of 150,000 metric tons of wheat to WFP in 2013, said a news release issued here on Tuesday.

During last year community recovery and disaster risk reduction activities of United Nations World Food Programme (WFP) were implemented in partnership with the Government of Pakistan. Non-Government Organizations partners and communities themselves to ensure community resilience to cope with recurrent shocks in nine disaster-prone districts in Khyber Pakhtunkhwa, Sindh, Balochistan and six agencies in FATA. Naseer, who participated in one of the work schemes in Jaffarabad, Balochistan, sharing his view said, "We worked on the rehabilitation of a water channel in our village for which we received a cash incentive

UNDP-Pakistan Feburary 19, 2014 www.wfp.org/countries/pakistan



from WFP. Cash gives us freedom to choose what they buy, whether it's various foods or other items such as clothes, medicines or books for the children, he said.

Mainly the effects of unprecedented floods of 2010 and 2011 in Pakistan disrupted livelihoods and diminished people's capacity to recover from shocks. The projects also comprise of a training element to improve agricultural practices and production as well as post-harvest techniques with view to achieving sustainable food security.

Similarly, WFP's capacity development activities included the implementation of a broad range of training opportunities such as on community preparedness, early warning, disaster risk reduction and climate change adaptation. Furthermore, national disaster management counterparts responsible for coordinating post-crisis relief and recovery were provided technical and material support.

Sukhan, a trainee from Shikarpur, Sindh, commented, "During the first month, we were trained for 12 days on how to cope during natural disasters, and then on vegetable production after which I planted my own land. In the third training, we were taught how to keep the environment clean and how to disinfect the place where our animals stay."

WFP aims to assist 8.3 million people between 2013 and 2015 at a total cost of US\$ 535 million seeking, amongst others, to improve economic opportunities and promote social inclusion in FATA, boost community resilience in disaster-prone areas, and address nutrition and education in the country.





### **CLIMATIC PROFILE**

**DISTRICT GILGIT** 

### ENVIRONMENT

### **GEOGRAPHICAL CONTEXT**

Gilgit is situated between 34-04 north latitudes and 72-30 to 77-50 east longitudes. Total area of the district is 38,000 km<sup>2</sup> which is surrounded by steep vertical mountains 500m to 1500m surrounded by 2000m to 3000m high mountains.

One special feature that distinguishes District Gilgit from rest of the districts of Pakistan is that it has the confluence point of the three mightiest mountain ranges viz-a-viz Himalaya, Karakoram and Hindukush.

Gilgit lies about 10 kilometers (6.2 mi) off the Karakoram Highway (KKH). The KKH connects it to Chilas, Dasu, Besham, Mansehra, Abbottabad and Islamabad in the south. In the North it is connected to Karimabad (Hunza) and Sust in the Northern Areas and to the Chinese cities of Tashkurgan, Upal and Kashgar in Xinjiang. Beyond Gilgit there is no big town or city in any direction within a distance of about 450 Kilometers in any direction. Thereby, making Gilgit the trade center of the Northern Areas.

According to the Gilgit Master Plan 1977, (Pakistan Environmental Planning and Architectural Consultants Limited, 1977) Gilgit and its immediate hinterland may be divided into six areas by function and physical location as follows:

- 1. The Town Nucleus
- 2. Kunadas Plateau
- 3. Danyor Plain (+ Gujar Das)
- 4. Jutial
- 5. Basin
- 6. Transitional Belt

#### **Natural Resources**

Gilgit is blessed with diverse kinds of resources including precious gems, gold, uranium, copper, molybdenum, mica, forests, glaciers, lakes and rivers.

#### Water Resources:

Glaciers and seasonal snow deposits are the principal sources of all flowing water in the Gilgit. The melted water enters streams called nullahs, which subsequently ingress in rivers.

The main rivers in the District are:

- Khunjerab River flows south along the Karakoram Highway from the Khunjerab Valley, known as Hunza River in the south of Sust
- Hunza River flows further south and falls into Gilgit River just in the northeast of Gilgit town
- Gilgit River enters Gilgit District from west in the south of Bichhar Pass (Naltar Valley) and flows west through the Gilgit town.

• Indus River - enters Gilgit District from Skardu District about six kilometers north of Jaglot where Gilgit River falls into Indus River and the Indus flows south along the Karakoram Highway.

Astor River

Nallas:

There are five drinking water supply complex are situated in the south of Gilgit, charged by two water channels built around 30 years ago.

#### **Mountains/Peaks & Glaciers**

Towering above Gilgit is Mount Rakaposhi at 7,788 meters (25,551 ft.). The highest peak in the district of Gilgit is Distaghil Sar (7,885m) which is the seventh highest peak in Pakistan and 19th highest on earth, as well as Batura glacier in the area of Batura sar of the district region.

#### MINERALS

Geologically the region is characterized by Presence of Various types of sedimentary, igneous, volcanic and different grades of metamorphosed rocks. The presence of these geological features designate the entire region having most suitable geological environments as compared to the rest of the world where mineral deposits of economic grade are being extracted. These include metallic, non-metallic, energy minerals, precious/dimension stones and different rocks of industrial use.

STATUS OF ECONOMIC MINERAL POTENTIAL OF GILGIT-BALTISTAN (Focuing Gilgit):



Consequently world class geo-technical data has been generated that has established occurrences of various mineral commodities targets for subsequent development and ultimate mining. These include; Precious and base metals, Precious and semi-precious gemstones, Industrial minerals and Placer deposits for recovery of gold & other precious metals form the alluvial deposits.

#### ESTABLISHED TARGETS FOR DEVELOPMENT OF METALLIC ORES IN GILGILGIT-BALTISTAN REGION:

#### Table 1: Precious & base metals

A. Precious and Base Metals	No. of Targets
ARSENIC	1
ANTIMONY	2
IRON ORE	3
Gold	168
PLATINIUM	106
PALLADIUM	46
COPPER	496
LEAD	280
ZINC	352
COBALT	255
NICKEL	487
BISMUTH	67
MOLYBDINUM	1

#### Table 2: Precious/ Semi-Precious Stones

B. Precious/ Semi Precious Stones	No. of Targets
RUBY	3
EMERALD	2
SAPPHIRE	2
SPINAL	2
AQUAMARINE	12
TOPAZ	15
TOURMALINE	4
EPIDOTE	3
MOONSTONE	4
ZIRCON	3
PARGASITE	4
GARNET	15
AMETHYST	2
MORGANITE	3

#### INDUSTRIAL MINERALS AND DIMENSION STONES:

Quite a few industrial minerals like china clay, feldspars have been reported from the region and dimension stones among which marble and granite are eye-catching. Adequate deposits of dimension stones are found in Gilgit District.

#### DEMOGRAPHICS

The total population of Gilgit District is approximately, 0.2 million and 85% of the total population lives in rural areas, with literacy ratio up to 53%. It is one of the most densely populated districts with 28% of the Gilgit Baltistan population residing in this District with an annual growth rate of Gilgit District being 2.74%. Average household size is approximately eight people. The population density for Gilgit District is 6.4 persons per sq. km.

#### Table 3: Showing population statistics of Gilgit district

District	No.Of Households	Male	Female	Total Avg. Annual	Growth rate	Area (Sq.km)	Population Density/ Sq.km	Elevation(ft.)
Gilgit	31,065	128,028	115,296	243,324	2.66	38,000	6.4	4921

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### Table 4: Showing projected population of Gilgit (Urban area/City)

Urban Area/City	Year 1998	Population after 10 years	Population after 20 years
Gilgit	56,701	72,350	92,365

#### Sect-wise Population percentage

. The following table gives a brief overview of the sectarian division of population residing in Gilgit District. Gilgit is the epicenter of sectarian clashes resulting in one of the major shortcoming in the progress of the area.

### Table 5: Showing sect-wise population of Gilgit-Baltistan and Gilgit District

Sects	District G.B (%)	District Gilgit (%)
Shia	39	54
Sunni	27	19
Ismaili	18	27
Noor Bukhsi	16	-

### **Climate and Weather**

Weather conditions for Gilgit are dominated by its geographical location, a valley in a mountainous area, southwest of Karakoram Range. The prevalent season of Gilgit is winter, occupying the valley eight to nine months a year.

Gilgit lacks significant rainfall, averaging in 120 to 240 millimeters (4.7 to 9.4 in) annually, as monsoon breaks against the southern range of Himalayas. Irrigation for land cultivation is obtained from the rivers, abundant with melting snow water from higher altitudes.

The summer season is brief and hot. The piercing sunrays may raise the temperature up to 40  $^{\circ}$ C (104  $^{\circ}$ F), yet it is always cool in the shade. As a result of this extremity in the weather, landslides and avalanches are frequent in the area.

### Table 6: Temperature variations throughout the year

	-					-		-							
Site	Yrs	Max/ Min	Jan	Feb	Mar	Apr	Мау	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Extreme Daily Variation
Gilgit 1490m	30	Min.	-2.4	0.6	5.8	10.0	12.0	15.2	19.0	18.4	13.3	7.2	1.2	-1.4	-9.5
1490m		Max	9.1	12.1	17.8	23.6	28.0	34.0	35.0	35.6	31.7	26.2	17.9	11.0	45.4

### **Environmental Quality & Issues**

#### a. Air quality

An air quality survey carried out by IUCNP and SUPARCO revealed that current air quality of urban settlements in Gilgit is good as compared to the big town and urban settlements of Pakistan. However, Gilgit is faced with massive air pollution partly due to road building and other construction. (Quantity/Reference) There are deposits of CO, CO2 and SO2 in the atmosphere due to wood burning and traffic pollution.

### Table 7: Estimated Air Pollutants by Sector

Sector	1977-78				1987-88			1997-98		
	CO <sub>2</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO <sub>2</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO <sub>2</sub>	SO <sub>2</sub>	NO <sub>x</sub>	
Industry	12,308	19	NA	26,680	423	NA	53,429	982	NA	
Transport	7,068	52	NA	10,254	57	NA	18,982	105	NA	
Power	3,640	4	3	11, 216	95	10	53,062	996	76	
Domestic	16,601	5	NA	24,054	16	NA	39,980	40	NA	
Agriculture	845	5	NA	4,490	28	NA	6,368	40	NA	
Commerciial	1,726	11	NA	2,587	13	NA	4,261	25	NA	

# 

#### **b. Natural Disasters**

Northern Areas (Gilgit) on account of physical location and geo-physical nature of the terrain could easily be counted as the most hazardous region in Pakistan.

A disaster Inventory has been compiled based on information available with the NA Home Department and is given below in the table:

### Table 8: Type of Disasters and their frequency in Gilgit

Type of Disasters		e	ilgit				
		Frequency					
	Yes/ No	High	Medium	Low			
Earthquake	No						
Landslide / Rock fall / Mudflow	Yes						
Glacial Movement / Avalanches	Yes						
Flash Floods/Riverine Floods	Yes						
Glacial Lake Outburst Floods	No	·					
Snow Storm	Yes						
Wind Storms	Yes						
Lightening	Yes						
Drought	Yes						
Epidemics	Yes						
Cross border firing	Yes						
Road Accidents	Yes						
Wild Fires	No						
Ethnic & Sectarian Violence	Yes						

#### b.1.Seismology

Gilgit lies in a very active seismic zone and the seismic factor in this zone has been evaluated as "Zone of noticeable seismic danger" with acceleration values of 0.05 to 0.15 g. and to the immediate north and north-west lies the "Zone of significant seismic danger" with acceleration value of 0.15 to 0.2g.

Two devastating earthquakes occurred in the Northern Areas in near past on 28<sup>th</sup> December 1974 and 12<sup>th</sup> September, 1981 near the villages of Pattan and Sazine with magnitudes 6.1 and 5.7. Considerable Loss to the building was experienced in Gilgit as well during the Sazine earthquake (1981).

There is no observatory in the seismically active belt of Gilgit. This region is sparsely populated and very little attention has been given to their development in the past and as such the need for a seismic hazard data was hardly realized. Now when major development schemes involving sizeable engineering works are being planned and are underway, an accurate knowledge of seismicity is essential especially in the wake of recent earthquake.

#### Table 9: Historical Earthquakes in the Region

Date	Latitude N <sup>0</sup>	Longitude E⁰	Depth (Km)	Magnitude (Richter Scale)
15.11.1921	36.5	70.5	215.0	7.8
7.12.1925	37.0	76.0	-	6.0
30.5.1935	29.5	66.8	-	7.5
20.8.1936	36.5	71.0		6.3
24.9.1943	36.5	74.0	120.0	6.8
29.10.1947	36.5	70.5	230.0	7.3
4.3.1949	36.5	70.5	230.0	7.5
29.1.1965	36.6	73.6	11.0	5.7
2.2.1965	37.5	73.4	33.0	5.8
14.3.1965	36.3	70.7	219.0	6.6
10.4.1965	37.6	73.4	33.0	5.5

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35.0	73.0	38.0	5.1
37.4	72.4	31.0	5.6
35.5	74.2	25.0	5.2
35.1	73.1	10.0	5.4
36.1	73.6	47.0	5.9
3.0	73.4	36.0	6.3
35.9	73.4	33.0	5.8
36.1	73.4	33.0	5.7
Pattan	-	-	6.1
Sazin	-	-	5.7
	37.4 35.5 35.1 36.1 3.0 35.9 36.1 Pattan	37.4 72.4   35.5 74.2   35.1 73.1   36.1 73.6   3.0 73.4   35.9 73.4   36.1 73.4   Pattan -	37.4   72.4   31.0     35.5   74.2   25.0     35.1   73.1   10.0     36.1   73.6   47.0     3.0   73.4   36.0     35.9   73.4   33.0     36.1   73.4   33.0     Pattan   -   -

#### b.2. Floods

The hazard identification and assessment process shows that flood is the major hazard in the district of Gilgit and is of various kinds; the cloud burst flood, flash floods, glacial lake outburst floods and the River Floods.

Amongst the twelve union councils, the major floor area are 0.3846 Sq. Km lies between Jutial and Jaglot but most vulnerable are Sakarkoie, Konadas, Nalter, Jutial and Jaglote Goroo. The flood nullahs are very near to settlements and average speed on set is just 27 minutes, gives the community very little time to evacuate themselves.

As compare to above mentioned union councils, Haramosh, Sai Aglote, Charkorcot and Damot have been gone through floods but the average speed on set is one and half hour, thus causing less harm to the communities. The frequency of floods is usually 2 to 3 times a year and usually from end of June to mid-August.

There are 110 flood points in the whole district including Nullahs, rivers and channels, amongst them 21 are in Sharote Shakyot over an extended area, 16 in Municipal and 15 are in Nomal, which covered less area and this cause more damage to the settlements. According to the community and history profile; severe floods over the last few decades occurred in the district in 1980, 1994, 1996 and 2010.

#### b.3. Land sliding

Land sliding is the second major hydro metrological hazard in the district and triggered as a secondary hazard of heavy rainfall in summer and intense snow fall in winter.

According to the community observations, the average frequency of landsliding is 5-6 times a year and usually stays for 1 hour. In this duration in usually cause harm to homes especially in Sakarkoie and even to human lives in Kargah and Nalter valleys. Social forestry, agricultural land and cattle sheds are under threat of landslides in all most all the union councils.

#### b.4. Avalanches

Avalanche is again a major identified hydro – metrological hazard in the district. It usually occurs in winter when there is heavy snow fall and frequency could be 5-7 times such as in Nomal-Nalter. The speed on set is just few seconds to few minutes. Accordingly there are 10 avalanche points in the district with 01 in Sharote, 01 in the Haramosh, 02 in Bagrot and 06 in Nalter, covering an area of 1.8601 sq. km. The potential avalanches usually cause a huge damage to the natural forest and cultivable land in Nalter.

#### c. WATER SUPPLY AND SANITATION

#### c.1. Water supply:

Glaciers and seasonal snow deposits are the principal sources of all flowing water in Gilgit district. The melted water enters streams called nullahs, which subsequently ingress in rivers. There are two rivers in Gilgit vicinity, named as Gilgit and Hunza River. The channels which subsequently ingress in Gilgit and Hunza River are of 2-4 feet wide and of similar depth.30

A large number of small ravines emerge from various glaciers, springs and lakes that eventually mix in these rivers. Seasonal variations create significant effect on the discharge of primary rivers resulting in significant decrease in the discharge flow in peak winter seasons. The flow is greatest from July to September, when snow melts in the mountains, while southwest as well as northern monsoon brings torrential rain resulting in land sliding, high flood levels and increase in the turbidity of water.31

In areas where no pipeline exited, nearby households" fetch water for domestic consumption. The surplus water in the channels generally discharges into the river flowing in the valley bottom. In villages the activities like washing clothes, utensils and foodstuff is undertaken along the channel edge.

There are five drinking water supply complex, which are situated in the south of Gilgit, charged by two water channels built around 30 years ago. For population living in the north side of the Gilgit, main source of water for piped water delivery system is river.

#### c.2. SEWERAGE SYSTEM

Owing to rapid socio-economic development almost every households in urban settlements have pour-flash latrines. Due to lack of any proper sewerage system on-site disposal (sock-pits) of sewage is a common practice. The settlements which are along the river have open drains running along the side of the streets, and ends up in the river without any treatment.

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#### c.3. DRAINAGE SYSTEM

The settlements either urban or rural are situated on slope of the valleys towards river. Every urban settlement has a network of roadside sanitary drains downtown area constructed by NAPWD, and is being maintained by MCs.

These drains are not constructed for grey water effluent from the households but instead are basically for roads to collect storm water. The household drains in mohallahs or cluster of mohallahs are collected in katcha – paka drains constructed by self-help basis by the inhabitants or by members of MCs.

Frequent blockage and over flowing of all kinds of drains whether roadside drains or drains for collection of household waste water could be observed due to common practice of garbage being thrown in these drains by the inhabitants or due to improper maintenance.

#### d. MUNICIPAL SOLID WASTE DISPOSAL (SWM)

Gilgit faces more solid waste related problems than other areas within the region. A strategy is proposed to tackle this growing problem with emphasis on institutional strengthening of the line departments, making SWM financially sustainable and raising awareness among the general public, so that they can assist the Municipal Corporation.

The solid waste is collected with the help of Municipal tractor trolleys and transferred to the dumping site.

According to a survey conducted by IUCNP the average MSW generation (estimated) in Gilgit town is around 0.4 kg of waste per person per day. According to IUCNP survey conducted in 1998 the estimated MSW generation only in Gilgit urban area (town) is around 70-80 tons per day.

#### Main sources of Data & Information/References:

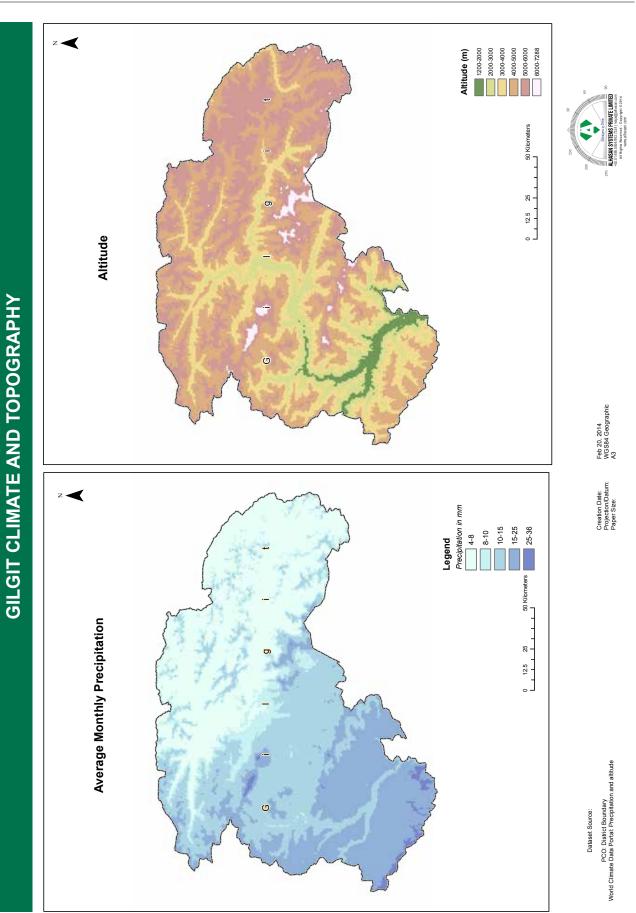
1. Research Report on the Eight Secondary Cities of Pakistan, supported by the UN Habitat project and the NED University Department of Architecture and Planning.

2. Research Supervisor Prof. Dr. Noman Ahmed And Architect Asiya Polack Research Partner An assignment undertaken by the U.N-Habitat & Department of Architecture and Planning, NED University of Engineering and Technology (DAP-NED-UET), Karachi Research Team Members Architect Mariam Karrar, Architect Affan Iqbal, Architect Aisha Rasheed DAP-NED-UET Report Writing & Compilation Architect Mariam Karrar, Architect Affan Iqbal, Architect Sarosh Mubarak DAP-NED-UET. Email: <u>coccdcrd@neduet.edu.pk</u>

3. MINERAL SECTOR OFGILGIT-BALTISTAN REGION (http://www.gilgitbaltistan.gov.pk/)

4. Wikipedia-Gilgit <u>http://en.wikipedia.org/wiki/Gilgit</u>







### Climate consensus

#### JOHN ABRAHAM

(The writer is a Professor of Thermal Sciences where he researches in climate monitoring and renewable energy generation for the developing world. He writes for the Guardian.)

#### (THE NATION) February 24, 2014

climate is a tough task. On the other hand, because it is energy needed to melt global ice, improvements to exciting, scientists around the world are working on it satellite and ocean measurements, and including deeper every day. One of the most active questions scientists are parts of the ocean and the arctic regions, particularly the trying to answer right now is, how much excess energy is arctic oceans. However, the books are still not balanced. the Earth gaining? Quantifying this excess energy and What do I think? Well first, the fact that ocean where it ends up, often called balancing the Earth's energy temperatures are increasing and sea level is still rising budget, is crucial for understanding the future of the means that the climate is still warming. There has been no planet.

energy the Earth is absorbing. First, scientists can perhaps not. My view is the accuracy of the measure increases in the energy of oceans, melting of ice, measurements, and a recent uptick in ocean heating, and changes in heat; they can use satellites with sensors particularly for the upper 2,000 meters will bring us closer to make measurements of the net inflow, or they specify to "closing the books" and accounting for all of the energy. all of the inputs from the sun and how it is modulated by We also have to learn more about what the very deep pollution and effects of volcanic eruptions and estimate the ocean is doing – we know heat is going there. Of particular energy using climate models.

Earth is gaining heat. But, how is this energy imbalance emitted particulates that have risen since about 2000 are impacted by greenhouse gases, changes to the sun's reflecting more sunlight than previously thought. output, natural climatic fluctuations such as El Niño, or Considering these effects helps in the overall accounting increases in particulates in the atmosphere that reflect and will be the subject of a future post. sunlight?

Scientists Kevin Trenberth, John Fasullo, and Magdalena experts: satellite sensing, radiation, atmospheric, aerosols, Balmaseda studied just these questions. While the details clouds, oceans, sea ice, glaciers, climate modeling... and are a bit complicated, the essentials are pretty easy to then special generalists to tie everything together and understand. In their paper Earth's Energy Balance, they nudge the topic experts to do even better. asked some straightforward questions. Can we monitor the energy imbalance with direct measurements? Can we track where the energy goes?

First, they used a powerful tool called ocean reanalysis to tie together real-world measurements with climate models. Calculations of the net energy balance were compared with satellite measurements and with simulations from computer climate model calculations.

They found that there are significant month-to-month variations in the Earth energy balance associated with weather patterns and longer cycles associated with ocean fluctuations. Additionally, changes to sun output account for up to about 15% of the recent climate change we've seen. They also found that a comparison of Earth energy imbalances from satellites at times differ from estimates obtained from ocean heating, particularly during 2008-2009. The discrepancy is best illustrated by quoting the article, which states,

"Temperatures were below normal globally and January 2008 was the coldest month relative to normal this century. This led to lower outgoing energy but was accompanied by an increase in absorbed energy, as clouds decreased in amount, leaving a pronounced heating of the planet for about a year during 2008-2009. Moreover, as shown above, ocean temperatures for the upper 700 meters from 2005-2008 suggested a substantial slowing of the increase in ocean heat content precisely during the time when satellite estimates depict an increase in planetary energy imbalance, compounding the difficulty. So, where did the heat go?"

Separating the human and natural influences on the Some of the heat has been accounted for by including

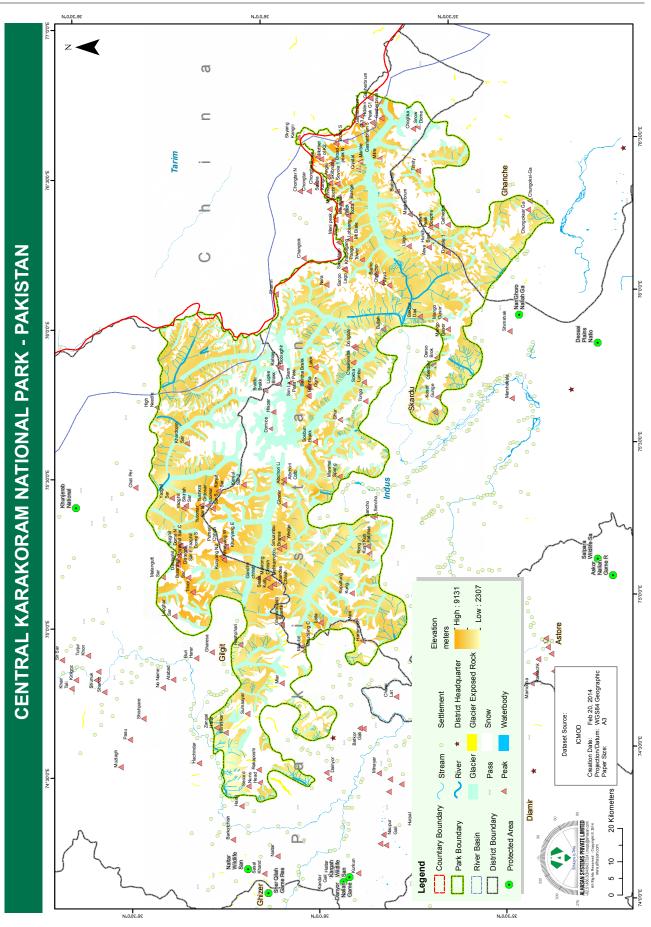
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halt or pause. My own research in ocean heat content tells There are a variety of ways to measure how much extra me that. Has the heating of oceans slowed? Perhaps - but

importance is the lack of reliable information on Arctic It is clear, from all of these measurement methods that the Ocean warming. Finally, I think that volcanic and human-

This complex topic clearly involves many different kinds of





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### The water-energy-food nexus of Pakistan

**Dr**. Afreen Siddiqi (The writer is Research Scientist at the Massachusetts Institute of Technology and Visiting Scholar at the John F Kennedy School of Government at Harvard University)

#### (The Express Tribune, February 13th, 2014)

The federal government has put energy security at the top of its development agenda in its Vision 2025. While energy certainly needs prioritised attention, it should be integrated with water and food security of the country. Over the last few decades, modern technologies in water, energy and agriculture have created dependencies such that the three sectors have become intimately connected. Water generates electricity in hydropower plants, cools thermal power and nuclear power plants, and is used to mine coal and extract oil and gas. Energy is increasingly being used to desalinate saline water and to distribute water in urban piped networks. Food production also increasingly requires energy to pump groundwater and process agricultural produce. Natural gas is consumed in manufacturing nitrogen fertilisers that are used for boosting crop production. These interconnections, often called the 'water-energy-food nexus', are increasing in significance as demands grow with an exponentially population while remain increasing resources constrained.

Failure to recognise and incorporate these issues in infrastructure development decisions can lead to adverse outcomes. Recent events are sounding alarm bells for decision-makers to take heed. In 2009, France had to shut down one-third of its nuclear power capacity located on inland rivers due to a heat wave that caused disruptions in cooling. In China, the water shortage in its north has slowed development of coal-to-liquid projects that are needed to meet the country's energy demands.

A number of corporations, international agencies and governments are now engaged in a scenario planning to consider the impacts of this water-energy-food nexus on future operations and economic implications. While recognition of the interconnections is important at a global level, information about local resources and established infrastructure is needed for informing national policies. In Pakistan, water and energy have traditionally been interlinked through hydropower plants and large multipurpose dams. However, new interactions have emerged between water, energy and agriculture sectors that are poorly understood.

Crop production in the heartlands of Pakistan — served by a massive network of canals — now increasingly relies on energy consuming groundwater pumps to meet irrigation needs. A million tube wells are reportedly installed in Punjab alone, and energy use in pumping and farm operations may account for up to one-fifth of the province's energy consumption. This link between energy, irrigation water and agriculture needs to be investigated with improved data collection and policy action.

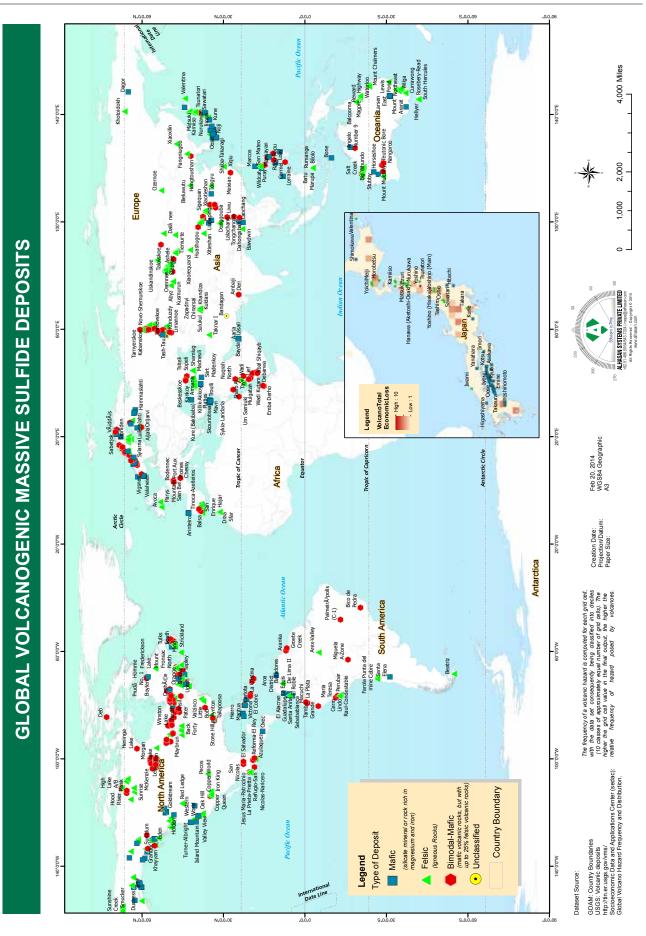
The coal deposits of Thar in Sindh promise energy supply on one hand, but will place demands on water resources in the arid region on the other. The new hydropower plants, currently under development in Khyber-Pakhtunkhwa, will further enmesh energy and water. For systems that are expected to function for decades to come, the implications of water and of energy must be evaluated if future water supplies in the Indus

and its tributaries get affected due to climate change or face disruptions in flow across national boundaries. The use of multipurpose dams should be assessed for the economic tradeoffs that result between ensuring food security (by prioritising supply for irrigation demands) versus cheap hydroelectric power that is desperately needed in the industrial and domestic sectors.

Managing each resource separately can lead to decisions that seemingly improve supply in one sector, but in reality, create problems in others. If the linkages are incorporated in policy evaluation, then unintended consequences may be avoided while multiple problems may simultaneously get addressed. Such integrated decision-making will require a combination of three factors: 1) highest level of sustained political commitment of providing long-term energy, water and food security for the nation; 2) cross-sector organisational linkages for information and knowledge exchange, and for joint identification of synergistic policies and plans; 3) collection of accurate and comprehensive information

Equitable and sustainable access to water, food and energy forms the basis of a high quality of life for the citizens of a new and prosperous Pakistan. It is time to put new ways of thinking in place.

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#### To do good, start cleaning up the erroneous climate debate

#### Bjorn Lomborg

#### (Daily Statesman) Feb 20, 2014

At the World Economic Forum's annual meeting in Davos last month, leading participants called for a rapid shift to cleaner energy to tackle climate change. There is something unsettling about the global power elite jetting into an exclusive Swiss ski resort and telling the rest of the world to stop using fossil fuels.

The apocalyptic bombast is even more disturbing. According to Angel Gurria, secretary-general of the Organization for Economic Cooperation and Development, "our planet is warming dangerously," and we need to act now "to avoid catastrophe." The United Nations climate chief, Christiana Figueres, maintains that global warming means that "the world economy is at risk."

Former U.N. Secretary-General Kofi Annan takes the prize for the most extreme rhetoric, claiming that not curbing global warming is "a terrible gamble with the future of the planet and with life itself."

Yet, the rhetoric is unconvincing. Yes, global warming is real and man-made. But creating panic and proposing unrealistic policies will not help in tackling the problem.

Both Annan and Gurria cited Typhoon Haiyan in the Philippines last November as evidence of increased climate-change-related damage. Never mind that the latest report by the U.N. Intergovernmental Panel on Climate Change found that "current datasets indicate no significant observed trends in global tropical cyclone frequency over the past century" and reported "low confidence" that any changes in hurricanes in recent (or future) decades had anything to do with global warming.

Annan and Gurria also neglected to note that global Accumulated Cyclone Energy, an index for total hurricane activity, is hovering at the lowest values seen since the 1970s. Indeed, the trend for strong hurricanes around the Philippines has declined since 1951.

Similarly, Gurria tells us that Hurricane Sandy, which slammed into New York City in 2012, is an example of inaction on climate change, costing the United States "the equivalent of 0.5 percent of its GDP" each year. In fact, the U.S. currently is experiencing the longest absence of intense landfall hurricanes since records began in 1900, while the adjusted damage cost for the U.S. during this period, including Hurricane Sandy, has fallen slightly.

Figueres claims "that current annual losses worldwide due to extreme weather and disasters could be a staggering 12 percent of annual global GDP." But the study she cites shows only a possible loss of 1-12 percent of GDP in the future, and this is estimated not globally but within just eight carefully selected, climatevulnerable regions or cities. By contrast, according to the IPCC, "long-term trends in economic disaster losses adjusted for wealth and population increases have not been attributed to climate change."

On the contrary, the bulk of peer-reviewed economic evidence indicates that, up to around 2050-2070, the net

global economic impact of rising temperatures is likely to be positive. Although global warming will create costs stemming from more heat-related deaths and water stress, they will be outweighed by the benefits from many fewer cold-related deaths and higher agricultural productivity from higher levels of carbon-dioxide.

Global warming is a long-term problem. Most models indicate that the cost toward the end of the century will be 1-5 percent of world GDP. This is not a trivial loss; but nor does it put "the world economy at risk." For comparison, the IPCC expects that by the end of the century, the average person in the developing world will be 1,400-1,800 percent richer than today.

Such incorrect statements by leading officials reinforce wasteful policies based on wishful thinking. Figueres sees "momentum growing toward" climate policies as countries like China "reduce coal use." In the real world, China accounts for almost 60 percent of the global increase in coal consumption from 2012 to 2014, according to the International Energy Agency. While Figureres lauds China for dramatically increasing its solar-power capacity in 2013, the increase in China's reliance on coal power was 27 times greater.

Figureres' weak grasp on the facts has led her not only to conclude that China is "doing it right" on climate change, but also to speculate that China has succeeded because its "political system avoids some of the legislative hurdles seen in countries including the U.S." In other words, the United Nations' top climate official seems to be suggesting that an authoritarian political system is better for the planet.

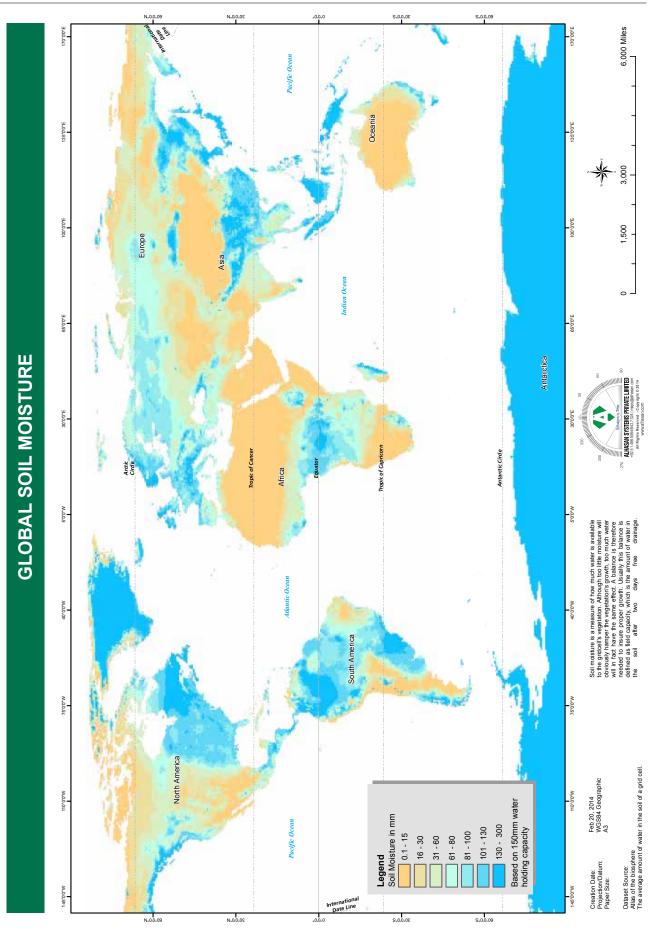
The fact remains that global wind and solar power usage in 2012 cut, at most, 275 million tons of carbon-dioxide, while soaking up \$60 billion in subsidies. With the electricity worth possibly \$10 billion, the average cost of cutting a ton of carbon-dioxide is about \$180. The biggest peer-reviewed estimate of the damage cost of carbondioxide is about \$5 per ton. This means that solar and wind power avoid about \$0.03 of climate damage for every dollar spent.

Compare this to smarter technological solutions. In the short run, the U.S. shale-energy revolution has replaced high-polluting coal with cheaper, cleaner natural gas. This has cut about 300 million tons of U.S. emissions – more than all the world's solar and wind power combined – and at the same time has profited Americans by saving them \$100 billion in energy costs.

intrinsically good; it would also make societies much more resilient in the face of extreme weather, whether caused by global warming or not.

Unfortunately, as we saw at Davos, the global climate debate is polluted with myths and wishful thinking. If we want to do more good at lower cost, we should start by cleaning the debate up.





# CLIMATE **See BULLETIN**

# سرخياں

دس برس بیس بحر ان کا خطرہ ہے:احسن روزنامہ نوائے وقت 2014 منصوبہ، قرضہ بروقت استعال نہ کرنے پر 22 کروڑروپے جرمانہ ہوا: پی اے سی کی ذیلی کمیٹی میں انکشاف

> روزنامہ نوائے وقت 26 فروری 2014

ماحولیاتی آلودگی کے خلاف سیٹیٹ سمیٹی ماحولیات کا اجلاس آج ثان<sub>ا</sub>وز 24 فروری 2014

> ماحولیاتی آلودگی کی اقتصادی قیمت نا قابل برداشت ہے۔منور مغل

> > ثنانيوز 22 فرورى2014

اسلام آباد میں ماحولیاتی آلودگی کے خلاف سینیٹ سمیٹی ماحولیات کا اجلاس کل ہوگا ٹنان<sub>ڈ</sub>ز 22 فروری 2014

تفصيلات

**اسلام آباد (نوائے وقت رپورٹ):** پاکتان میں آئندہ دس سالوں میں پانی کے بحر ان کا خطرہ ہے۔وفاقی وزیر منصوبہ بندی وترقی احسن اقبال نے قومی مشاور تی کا نفر نس سے خطاب کرتے کہا کہ پاکستان پانی میں خو د کفیل والے ملک سے پانی کی قلت والا ملک بن گیا۔ پانی کی بچت ہمارے 5 سالہ منصوبے کا اہم حصہ ہے۔ ڈیموں میں جمع ہونے والی جل اور موسی تغیر ات سے پانی کے ذخائر کم ہورہے ہیں۔

اسلام آباد (آن لائن) : قومی اسمبلی کی پبل اکائو منس سمبٹی (پی اے ی) کی ذیلی سمبٹی میں انکشاف ہوا ہے کہ دزارت پانی و بجلی کی عالمی تر قابا آلیتوں کی ایش کی جانب سے قومی لکا می آب منصوبہ کیلئے 26 کر دوڑ 10 لاکھ دالرکا قرضہ صحیح استعمال نہ کر نے پر 22 کر دوڑ روپ جرمانہ ادا کر نا پڑا جبلہ جبلہ رپنی کی سالان منصوب کیلئے 55 گاڑیاں مار کیٹ قیمت سے 1 کر دوڑ 10 لاکھ دوپے مہلتی کی گئیں۔ سمبٹی نے دونوں بے قاعد گیوں کے ذمہ داروں کا تعین کر کے پنداں منصوبہ کیلئے 25 گاڑیاں مارکس کی خیل کی مالوں کی تعامد گیوں کے ذمہ داروں کا تعین کر کے پندار دون شکی تعین کر نے پندا دار میں پار این شرائوں میں ہوا۔ پندرہ دوز میں رپورٹ پیش کرنے کی ہدایت کر دی۔ ذیلی سمبٹی کا اجلاس منظل کو کنوینز عاشق حسین گو پائل کی سربر این میں پار لینٹ بائوں میں ہوا۔ اجلاس میں دزارت پانی و بجلی کے آڈٹ اعتراضات کا جائزہ لیا گیا۔ سمبٹی کو آڈٹ حکام نے بتایا کہ عالمی تر قابق تعنین ( 22 کر دوڑروپے جرمانہ کیا گیا۔ وی پڑا کی آئی کا تعلین کا اجلاس منظل کو کنوینز عاشق حسین گو پائل کی سربر این میں پار لینٹ بائوں میں ہوا۔ 22 کر دوڑروپے جرمانہ کیا گیا۔ واپڈ احکام نے کہا کہ منصوبے کی د قم عالمی ادارے سے براہ دیلی پر پائی تی حکام ہی دار کی طرف سے الیا کہ میں تو می تکامی آب پر دوگر اس کیلئے دیا۔ پر دوگر اس کی حکام نے بتایا کہ عالمی تر قیاتی ایک حکومت کو عالمی ادارے کی طرف سے ایک میں پر پائی تانی حکومت کو عالمی ادارے کی طرف سے ایک میں ہو تی ایک کہ سر سراہی میں اول کی کی سربر ایک کی میں ہو تی ایک ہو گرام میں تو می تکا تی کی میں تو ہوں کے پاک کہ منصوب کی تر قر میں ہو تی ایک میں ہو تی ایک میں میں کی کی تعال نہ ہو تی ایک میں ہو تی ایک میں کی کی تی تی آل منصوب کیلئے خلاف صابط ایک ہیں ہو تی ایں معاہدہ کیوں کی گئی ، حکین کی میں میں ہو تی ایل میں میں میں کی کی تی کہ کی می تی تی ہوں دی پر ہوں کی کی میں میں میں میں میں ہو تی ایک میں تی گی تی تی تی ہوئی ایک میں تو تی گئی ہی میں ہو تی ایک می گوئی تی میں ہوں ہے بیا ہو تی ہی ہو تی ایک میں ہوئی ایک می ہوں کی پی می تی تی ہوں ہوں ہو میں ہوئی ہوں ہو تی ہی ہو تی اس ہو تی ہو تی ہو تی ہوں ہو ہو کی ہو تی ہو ہو ہو ہو ہو ہو ہو کی ہو ہو ہو تی ہ در دوڑ 35 لا کھروپ کی گی کی میں کی گی ہو ہے استعال نہ ہو نے پر جرمانہ چر تی پڑی ہی کی ہی ہی کی کی گی ہی ہو

اسلام آباد (شکاو فیوز)، دوانا قدار الحکومت میں ماحولیاتی آلودگی کے خلاف سینیٹ کی ذیلی سینٹی بر ائے ماحولیات کا اہم اجلاس آج ( بیر کو) پارلیدن باؤس کے سیٹی روم نمبر 1 میں منعقد ہو گا۔ ماد گلہ بلز سے شون کر یشر زکو پندرہ روز میں ہٹھانے کے لئے پیش دفت سے آگاہ کیا جائے گا۔ صدارت سیٹی کے کنویٹز سینیٹر مشاہد حسین سید کریں گے۔ وزارت موسمیاتی تبدیلی، تی ڈے اے اور اسلام آباد ٹر یفک پولیس نے نما کندے وفاقی دارا لحکومت کی حدود میں ماحولیاتی تحفظ کیلیے اٹھائے گئے مختلف اقد امات سے آگاہ کریں گے۔ اجلاس میں تی ڈی اے کی جانب سے کلین اینڈ کرین اسلام آباد آگاہی مہم، پا اسلک بیگز کے استعال کی حوصلہ شکنی، ماحولیاتی بات اکاہ کریں گے۔ اجلاس میں تی ڈی اے کی جانب سے کلین اینڈ کرین اسلام آباد آگاہی مہم، کی فرا بہمی، سیر یم کورٹ اور سینٹ کی ذیلی کمیٹی بر انے ماحولیات کی ایر این کی دوشن میں مار گلہ بلز سے سٹون کر یشر ذکاری نے کی جانب سے کمانے دیلیے محضوص جگلہ رفت اور اسلام آباد ٹریفک پولیس کی جانب سے دحوال چھوڑنے والی گاڑیوں کے خلاف قانون کارون کی اور کی پر میں خانے میں

اسلام آباد (شکام فیوز) ایف پی ی ی آئی کے نائب صدر منور مغل نے کہا ہے کہ ماحولیاتی آلودگی کے متعلق قوانین میں سقم ختم کر کے اضمیں فعال بنایا جائے تا کہ اس میں ملوث افر ادواداروں کے خلاف سخت کاروائی کی جائے۔ پاکستان کے گٹی شہر وں میں آلودگی نا قابل برداشت ہو چکی ہے جس کا فور کی حل نہ نکالا گیا تواسکے تباہ کن اثر ات سے کر وڑوں افر اد متاثر ہو گئے۔ منور مغل نے یہ بات ی ڈی اے کی جانب سے ماحولیات کے متعلق ایک تقریب اورواک سے اطور مہمان خصوصی خطاب کرتے ہوئے کہی۔ اس موقع پر ممبر ی ڈی اے شاءاللہ امان ، ڈی آئی بی پولیس ڈا کٹر سلطان اعظم تیوری، اسلام آباد چیمبر کے اول نائب صدر خالد چود حل کی جان موقع پر ممبر ی ڈی اے شاءاللہ امان ، ڈی آئی بی پولیس ڈا کٹر سلطان اعظم تیوری، مغل نے کہا کہ آلودگی آ تکھ ، کان ، ناک اور گلے کی پیاریوں نے ملاء دول ، حکر و گردہ کو متاثر کرتی ہے جس سے متاثرین کی استعداد میں کی آئی ہے جس کا مغل نے کہا کہ آلودگی آ تکھ ، کان ، ناک اور گلے کی پیاریوں نے ملاء دول ، حکر و گردہ کو متاثر کرتی ہے جس سے متاثرین کی سام افراد بھی موجود بھے۔ منور منتی اثر گھر اور سکول سے لے کر کار خانوں تک پڑتا ہے جو معا شی سن دوکی کا سب بذا ہے۔ متاثرین کو میں مالوں کی مات پاکستان میں صحت کا بچک صومالیہ اور کی کی تائی دوئے ، میارت کی طرح پیک ٹر انہوں سے متاثرین کی استعداد میں کی آئی ہے جس کا اسم میں بہت بچھ کرنا ہے۔ انھوں نے جنگ کم ہے۔ منور مغل نے سی ڈی کا جنب سے آ گری بڑی انے کی منہم کی تعرف کر تے ہو سے کہا کہ ہی ڈی کہتا ہوں سے متاثرین کی منہ کی استعداد و کر ہے جس کا پاکستان میں صحت کا بچک صومالیہ اور نے تک کر گائی دوئے ، محارت کی طرح پیک ٹر انہوں شیر سی معان کی منہ کی تعد کہتا کی دی تھی کی ت کیڑ سے میں مہت کی ہو کی کا میں کا ڈی دول ہے متاذ اس جر میں جو دیم میں معان کی مندی کی تعرف کر تے ہو کہ کہا کہ ا

**اسلام آباد (شاونیوز)** :وفاقی دارا لحکومت میں ماحولیاتی آلودگی کے خلاف سینیٹ کی ذیلی سیٹن برائے ماحولیات کااہم اجلاس کل سوموار کوپارلینٹ ہاڈس کے کمیٹن روم نمبر 1 میں منعقد ہوگا۔مارگلہ ہلز سے سنون کریٹر زکو پندرہ روز میں ہٹھانے کے لئے پیش رفت سے آگاہ کیاجائے گا۔صدارت سمیٹی کے کنوینٹر سینیٹر مشاہد حسین سید کریں گے۔وزارت موسمیاتی تبدیلی، ی ڈے اے اور اسلام آباد ٹریفک پولیس کے نما ئندے وفاقی دارا لحکومت کی حدود میں ماحولیاتی تحفظ کیلئے اٹھائے گئے مختلف اقد امات سے آگاہ کریں گے۔اجلاس میں ی ڈی اے کی جانب سے کلین اینڈ گرین اسلام آباد آگاہی مہم،

# CLIMATE **& BULLET**IN

پلاسک بیگز کے استعال کی حوصلہ شکنی،ماحولیاتی پاٹ لائن 1334 پر شکایات کے اندراج اور کاروائی کاطریقہ کار، فضلہ ٹھکانے لگانے کیلئے مخصوص جگہ کی فراہمی، سپر یم کورٹ اور سینٹ کی ذیلی تمیٹی برائے ماحولیات کی ہدایات کی روشنی میں مار گلہ بلزے سٹون کریشر زکاپندرہ روز میں خاتے میں پیش رفت اور اسلام آباد ٹریفک پولیس کی جانب سے دھواں حجوڑنے والی گاڑیوں کے خلاف قانونی کاروائی سمیت دیگر امور کوزیر بحث لایاجائے گا۔

کراپی (شکام میروز) چیئر مین پاکستان اٹاک انر ٹی کمیشن انصار پر دیزنے کہاہے کہ کر اپٹی میں نیو کلیئر پادر پلانٹ سے آبادی کو کوئی خطرہ نہیں، آئندہ آٹھ بر سوں بائیس سو میگاواٹ کے دونیو کلیئر پلانٹ لگائے جائیں گے۔کراپٹی نیو کلیئر پادر پلانٹ میں میڈیادرک شاپ میں بر لفنگ دیتے ہوئے چیئر مین پاکستان اٹا کما انر بی کمیشن انصار پر دیزنے بتایا کہ کراپٹی میں اڑتالیس سال سے نیو کلیئر پادر پلانٹ کام کر رہاہے، آن تک کوئی حادثہ بیش نہیں آیا، پادر پلانٹ سے آبادی کو کوئی خطرہ نہیں۔ انصار پر دیزنے کہا کہ توانائی بحر ان سے معیشت کو بھاری نافشان کا سامنا ہے۔ نیو کلیئر نیوں آیا، پاد حاصل کی جاسکتی ہے۔ اس سلسط میں کر اپٹی میں کہ توانائی بحر ان سے معیشت کو بھاری نفتصان کا سامنا ہے۔ نیو کلیئر نیکن او بھی تک حسن بلخل بی پلانٹ سے آبادی کو کوئی خطرہ نہیں۔ انصار پر ویزنے کہا کہ توانائی بحر ان سے معیشت کو بھاری نفتصان کا سامنا ہے۔ نیو کلیئر نیکن او جائیں میں بلا

کراچی : زر عی ملک کہلانے والا ملک پاکستان سالانہ 67500 ایکر جنگلات سے محروم ہور ہا ہے۔ ملک میں ماحولیات کی تبدیلی کے سبب ، پاکستان میں قدر رق آفات اور تبادی سے بچنے کیلیئے 5. 1 ٹریلین سے 2ٹریلین در خت لگانے کی ضرورت ہے۔ اس بات کا انکشاف امر کیی اخبار 'واشگلٹن پوسٹ ' کی ایک ر پورٹ میں کیا گریا ہے۔ پاکستان میں در ختوں کی کٹائی میں اضافے اور جنگلات کم ہونے سے پاکستان زیادہ تباہ کن سیل ب اور مٹی کے قووے گرنے کے واقعات میں اضافے سے فضائی آلود گی بڑھ رہ دی ہے۔ متاعی حکام کے مطابق ، پاکستان میں 10 کر وڑ پو دے لگا ہے جاتے ہیں ، جن میں سے نصف قعد او کے حماب سے بید درخت دوسال کی مدت بھی پوری نہیں کر پاتے ، جس کے باعث ، پاکستان میں 10 کر وڑ پو دے لگا تے جاتے ہیں ، جن میں سے نصف قعد او کہ سیٹلائٹ کے ذریعے اگر پاکستان کی زمین کا موازنہ کیا جاتے ، قریباں واضح طور پر جنگلات کی زمین کا ایک بڑا حصد غائب ہے۔ ماہریں ماحولیات نے پاکستان میں جنگلات کے کم ہوجانے کوایک تشویڈتاک صور تحال قرار دیا ہے۔ ر پورٹ میں کہا گیا ہے کہ ، پاکستان کی کل آبادی کا20 فیصد حصد بنا دی سہولتوں سے محروم ہے، جبکہ دیں اتوں سے تعلق رکھنے والے غریب شہری بلی پار واضح طور پر جنگلات کی زمین کا ایک بڑا حصد غائب ہے۔ ماہریں ماحولیات نے سپولتوں سے محروم ہے، جبکہ دیں اتوں سے تعلق رکھنے والے غریب شہری بلی کو او تائی کی سہولتیں میں میں زمین صرف ای دی قی میں میں مولیات نے میں لکڑ یوں کے حصول کیلئے درخت کا نے دہیں کی صور تعال قرار دیا ہے۔ ر پورٹ میں کہا گیا ہے کہ ، پاکستان کی کل آبادی کا20 فیصد حصد بنا دی میں لیکڑ یوں کے حصول کیلئے درخت کا نے خوار ہے ہیں۔ اس میں مزید ہو نے بڑی کہا گیا ہے کہ مالی پی مطابق کی سرز مین صرف 1.2 فی صد جنگلات سے فرق میں ایں جنگل جارت میں 22 قوالے خریب شہری بچا ہو تھا کی میں میں میں ہو نے کی باتوں کی مرز مین صرف 1.2 فی صد ہو ہو ہوں ہوں ہو ہے تھ می میں میں میں میں میں ہو تو میں میں میں میں میں در مین صرف 1.2 فی صد میں کی کی یو سے درخت کا نے میں کی کی کے باعث زمین بخر ہوجا ہے گی۔ جنگل تک کی کی صورت حال نے نہ صرف اندر دون ملک ہ علی سطح پر میں پی ہے ہو ہو تی تین کی کی کی اعرف زمین خیر ہو جو کی ہے۔ جنگل تک کی کی صورت حال نے نہ صرف اندر دون ملک ، بلکہ

کراچی میں نیوکلیئر پاور پلانٹ سے آبادی کو خطرہ نہیں،اٹامک انرجی کمیشن نان<sub>ڈی</sub>ز 17فروری2014

> سینٹ فنکشتل سمیٹی انسانی حقوق کام حرلیاتی **الودگی کانوٹس** ثانیوز 10 فردری 2014

> > **پاکستان جنگلات کھور ہاہے** ون پاکستان نیوز 08 فرور کا 2014

**بحارتی ڈیموں کی تعمیر کے خلاف قومی اسمبلی میں** متفقہ **قرارداد کی منظوری** ثا<sub>نیوز</sub> 05فردر 2014

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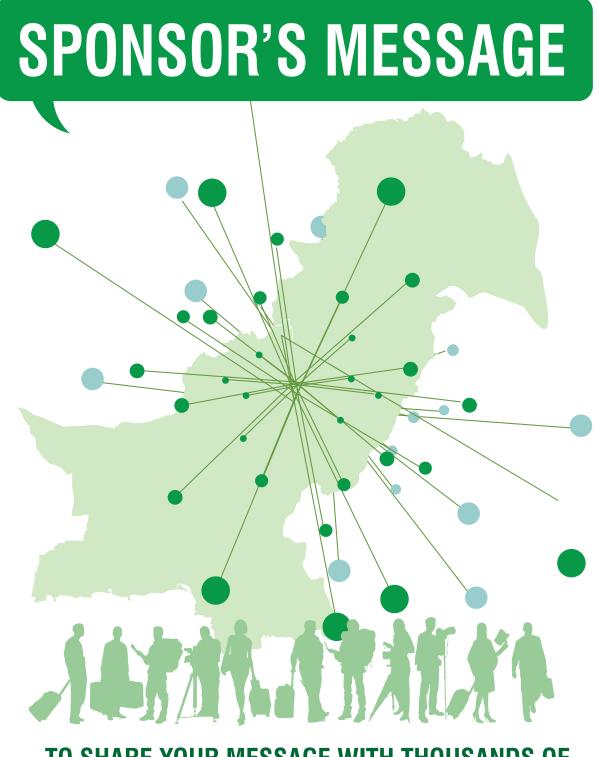
**بلوچیتان کے علاقے ڈام میں سمندری کٹائو،گھرو دکا نیں تباہ** روزنامہ جنگ 04فروری2014

صوبے کی تمام ضلعی انتظامیہ کو دریاوک، نہروں کے بندوں ویشتوں کے معائنہ کی ہدایت، محمد آصف ثانیوز 10فروری2014

امور شخ آ فاب احمد نے بل کی مخالفت کی جس پر مل کو مو خر کر دیا گیا۔ ایوان میں راولپنڈ کی اسلام آباد سمیت دیگر علاقوں میں گیس کی لوڈشیرنگ پر تحریک التواء بحث کے لئے منظور کر لیا گیا ہے وزیر مملکت بپٹر ولیم وقدرتی وسائل جام کمال نے تحریک کی مخالفت کی تھی تاہم وزیر سائنس و ٹیکنالو جی زاہد حامد کی در خواست پر ڈپٹی سپکیرنے تحریک کو بحث کے لئے منظور کر لیا۔

لاہور (شاہ میون) پر اونشل ڈیز اسٹر مینجنٹ اتحارثی کے ڈائر کیٹر جزل محمد آصف نے صوبے کی تمام ضلعی انتظامیہ کو ہدایت کی ہے کہ وہ دریاؤں، نہروں کے بندوں، پشتوں اور ندی نالول کی مرمت اور دیگر کا موں بارے رپورٹ مرتب کریں تا کہ آئندہ مون سون سے قبل اس کا تدارک کیا جائے۔ انہوں نے تحکمانہ اجلاس سے خطاب کرتے ہوئے کہا کہ ورلڈ فوڈ پر و گرام کے تحت لاہور اور مظفر گڑھ میں دوجدید اور کپیوٹر انزڈویتر کا ڈیز م عل میں لایا جاچکا ہے۔ مظفر گڑھ کا دیتر کا کہ پر کمل ہو دیکر فوڈ پر و گرام کے تحت لاہور اور مظفر گڑھ میں دوجدید اور کپیوٹر انزڈویتر کا ڈیز مرکا قیام عمل میں لایا جاچکا ہے۔ مظفر گڑھ کا دیتر کا کہ بر حکمل ہو چکا ہے جس کا افتان حاد وال کے دوسرے ہفتہ میں کر دیا جائے گا کام شر و عکر دیا گیا ہے۔ انہوں نے کہا کہ رود کو ہیوں کے سلاب سے سچاؤ کہ کہ ذائری خان میں دوجدید اور کپیوٹر انزڈویتر کا ڈیز ہو تحک م کام شر و عکر دیا گیا ہے۔ انہوں نے کہا کہ رود کو ہیوں کے سلاب سے بیچا تک ہوں دی خان کی خان میں دوجدید متعام ہو رکا دیتر کا ڈیز اور کا تو تو ہوں بیں جس سے قبل از وقت کی بھی سیلانی کیفیات اور پانی کی آمد بارے معلوم کیا جاستے گا۔ انہوں نے کہا کہ گزشتہ سال کے سیلاب سے گھروں کو خینچنے والے نقصانات کے حوالے سے ساد پی کیفیات اور پانی کی آمد بارے معلوم کیا جاستے گا۔ زند میں کر میا ہو کی اور اور کی خینچند اور کے تصانات کے حوالے سے ساز میں تقریبا 20 کر دوڑر و پر تشیم کئے گئے جبکہ جاں بحق ہونے والے 100 افراد کے لوا حقین کو نی کر کر

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	www.pcret.gov.pk
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