

# CLIMATE BULLETIN

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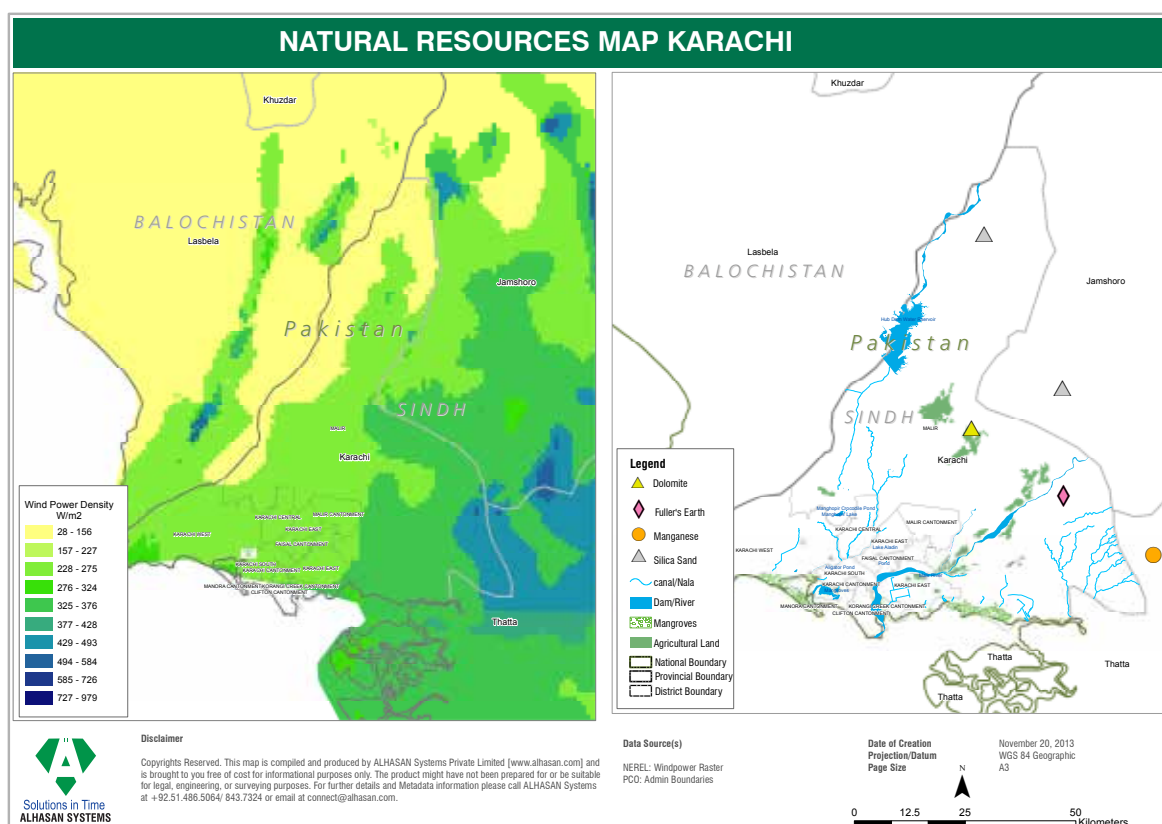
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- GLOBAL ANNUAL TOTAL PRECIPITATION
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### 41 brands selling contaminated water

*The Nation, January 31, 2014*

### Nuclear power: 'K-2, K-3 nuclear reactors more safe than Fukushima'

*Express tribune, January 29, 2014*

## DETAILS

**ISLAMABAD:** The National Assembly was informed Thursday that 41 brands of drinking water were selling contaminated water and playing havoc with masses in the name of purity and quality.

Minister for Science and Technology Zahid Hamid told the House in a written reply that during a sample testing campaign by Pakistan Council for Research in Water Resources (PCRWR) during April-June 2013, 27 brands were found selling water chemically or biologically unsafe.

The PCRWR had collected 86 samples of mineral water brands from Islamabad, Rawalpindi, Lahore, Faisalabad, Sialkot, D G Khan, D I Khan, Multan, Bahawalpur, Tandojam, Karachi, Quetta and Peshawar, the House was informed. When these samples were tested in accordance with the permissible limits of Pakistan Standards and Quality Control Authority, it was revealed that the said brands were selling drinking water injurious to health. The 27 brands which were stated to be selling contaminated water include Best Nation, Lock, Kalash Pure Water, Best Water, Cool, Aqua National, Active, Elixir, Nature Aqua, Aqua Safe, Al Sana, Oxygyzer, PanPura, Premier Pure Water, Safi Mineral Water, NN Welfare, Aqua Royal, Water Empire, Water Plus, Breg, Lite Wave, Oslo, Zindagi, Mathar, Sea Breeze, Kallan Water and Sunlay.

Similarly, after a time span of three months in July-September 2013, once again the testing process was conducted and 21 brands were found selling contaminated water. These samples also included those seven brands that were also found selling contaminated water during campaign in April-June 2013. These brands include Best National, Lock, Kalash Pure Water, Best Water, Cool, Aqua National and Active. Other brands found contaminated during July-September 2013 included Crystal Pure Water, Sparkle, Kinley, Al-Saudia, Naimat, Bliss Water, Union, Classic, A R Water, Verbena, Khaleej, Ideal Life, Miracle, and Al-Habib.

The minister informed the House that quarterly monitoring report of July-September 2013 has been disseminated to provincial Chief Secretaries with the request to take legal action against the substandard brands. He said to control the contamination, besides the actions by the provincial governments, Director General Pakistan Standards and Quality Control Authority has been instructed to establish a coordination mechanism with PCRWR and keep the Ministry of Science and Technology informed about legal actions against all those brands selling contaminated bottled water. Meanwhile, sale of substandard bottled mineral water of different brands is going unchecked in twin cities of Islamabad and Rawalpindi that is posing serious risk to the health of the citizens. It was observed that the sale of sub-standard mineral water is on rise at some of the main points including Pirwadhai, Faizabad, Saddar, Peshawar Mor, Khanna Pull, Karachi Company, Bhara Kahu, Alipur Farash and other places.

While expressing concern over the mushroom growth of illegal water (mineral) plants, the industry sources informed that most of these companies had flooded the markets without installing proper filters and processes to separate the contamination from the water and addition of valid nutrients and minerals in bottled water which caused water-borne diseases including gastro-enteritis, cholera and hepatitis. They said the unregistered companies deceived the customers by selling their "products" in bottles which looked the same as popular and registered brands of bottled water, thus earning them huge profits. Industry sources further claimed that some bottled water suppliers had also started illegal businesses under the "umbrella" of registered companies. While adding that these suppliers sold these illegal products in the market at lower rates than those of the original ones. They stressed upon the concern department to issue the official list of the legal bottled water brands to save the customers from using unhygienic bottled water. Health experts said most of the times the bottled water is unhygienic and polluted which must be taken into account besides unearthing hidden hands who were playing with the health of people. He said it was the responsibility of the administration to keep an eye on the fake and sub-standard products that are sold at prominent places.

When contacted, the Pakistan Standard and Quality Control Authority (PSQCA) official said that samples of the water have also been sent to the laboratory for tests and further action against the manufacturing company will be taken on the basis of the lab report. "The illegal bottled water is contaminated and is hazardous for human health, which should be banned in the larger interest of the public," he added.

**KARACHI:** Reactors of the Karachi nuclear power project – K-2 and K-3 – are more safe and sophisticated than those of Fukushima, said its project director Azfar Minhaj. Minhaj and his colleagues from Pakistan Atomic Energy Commission (PAEC), including Scientific Information and Public Relations director Shahid Riaz Khan, were briefing the media at the PAEC Office on Thursday. They were answering the queries of writers, civil society members and NGOs on the safety of the 2200-megawatt plants, which the government is building along the Karachi coast near the Karachi Nuclear Power Plant.

In his presentation, Minhaj said that they have conducted many studies of the site to ensure that the plants could survive the largest earthquake and tsunami that can be expected in the region. "The highest tsunami height expected in Karachi is about 2.8 metres above sea level, while the K-2 and K-3 ground level is 12 metre above the mean sea level," he said, adding that they have collected all the instrumental, historical data of earthquakes in the history of Karachi. They have also examined the ground but there is no history of major earthquakes in Karachi. He said that all seismic fault lines near the plants are inactive. "We have hypothetically

## Water issue graver than terrorism: Lawmakers

*Say India conspiring to make Pakistan barren/KBD reverberates in NA/ PPP lawmaker tables motion to de-seat PM under Article 64 over his absence from assembly for over 40 days*

**Water issue graver than terrorism: Lawmakers**

*The Nation, January 29, 2014*

assumed a 602-kilometre fault line near the city. If it gets ruptured, it will not affect the plant," he said. "Our plant is at 12-metre height and our electricity generation sources are at elevated levels. We have the mobile diesel electric generator ready and the plants have the passive emergency power supply and cooling water systems for 72 hours. In case of water storages, we can use fire water tanks for cooling."

According to Minhaj, the 'ACP1000' system proposed for the K-2 and K-3 plants, which is a third generation reactor with enhanced security measures and capabilities, is safer and more sophisticated than the Fukushima. The ACP1000 is a 'Pressurised Water Reactor' and has been used in the nuclear industry for the past five decades. He said that China is constructing 29 nuclear power plants in its country and the plant at Chashma is imported from China and has been working efficiently for the past 14 years. China has also provided loans for Chashma plants. For the K-2 and K-3, it is providing \$6.5 billion loan on soft terms.

Minhaj refuted the claim that the whole city would have to be evacuated in case of an accident or a complete meltdown of the plants. According to him, in the case of an accident, the population within the five-kilometre radius will be evacuated and they have prepared plans for it. "We will extend the evacuation plan till 15-kilometre radius which covers the area till Gulbai and population up to 100,000." He also said that they have sufficient stalk potassium iodide tablets for the population in case of an emergency. "Pakistan Army, provincial and national disasters management authorities and local administration and traffic police are in loop in case of emergency evacuation. We have made our plans according to our own census and survey in the area." He added that locality near the plant is thinly populated and the PAEC has acquired a land within 1.5 kilometre radius to halt any construction there. The plants are resistant to terrorist attacks and designed to take a commercial plane crash without letting it to penetrate through. "The plant has double-shell containment. Its outer shell is strong enough to stop attacks like 9/11," he said, adding that they have strong physical security system more secure than that of the General Headquarters and guarded by 920 officials.

**ISLAMABAD:** Several lawmakers from the treasury and the Opposition benches in the National Assembly on Tuesday expressed concern over construction of dams by India on the waters of Pakistan, cautioned the water issue was even more serious than terrorism and required immediate measures to tackle it. The legislators from both the sides of the aisle, on the first private members' day of the 8th session, came up with different proposals, including construction of small dams, review of Indus Water Treaty and saving of floods water, etc. Some of the opposition members even termed it more serious than terrorism, proposing to call an all parties conference (APC) to debate the future water scarcity matter in length. Taking part in the debate on the issue of construction of dams by India, Javed Ali Shah suggested reviewing Indus Water Treaty in length. "This must be the first priority as it is even more serious than terrorism," he added.

Naeema Kishwar, on her turn, suggested that there was a need to focus on available resources in the country to save the water getting waste. She further opined to take up the matter of water with Afghanistan. Shahida Rehmani, on the same issue, said it was being considered that the third world war will erupt on the water issue. "No need to depend on India, the rulers should focus on this issue," she added. Independent MNA Jamshed Dasti urged the government to construct Kalabagh Dam. "If someone is against Kalabagh, it could be renamed as Chittabagh, but its construction is necessary," he added.

Taking the floor, Qaumi Watan Party (QWP) chief Aftab Sherpao spoke at length against the construction of Kalabagh Dam, saying the three provincial assemblies had already passed a resolution against it. "Without consensus dams could not be built anywhere," he asserted. Another senior PPP lawmaker, Yousuf Talpur, also repeated the same reservation, saying the three provincial assemblies had passed a resolution against Kalabagh Dam. Former NA speaker Fehmida Mirza proposed to call an all parties conference (APC) to discuss the water scarcity issue. Ameer Haider Hoti from ANP said they were not in favour of Kalabagh Dam. "Why is there so much stress on the controversial dam?" he added. Defending the sharp criticism from the lawmakers, Marvi Memon from the treasury benches told the House the government would not take any step without consensus of all the parties. "No need to worry, but you should also give some practical suggestions," she said. Another lawmaker proposed that water scarcity was one of the most pressing issues being faced by the country and there was a dire need to construct new dams with consensus. Some of them also termed it a conspiracy to barren Pakistan. It was also suggested that the government should go for non-controversial water reservoirs to meet the irrigation needs. They said India was constructing dams on Pakistani waters, which would badly affect the industrial and agriculture sectors. Earlier, three bills were introduced in the House and referred to the standing committees concerned. The bills are "Education of the holy Quran according to recitation by sighting and with translation, learning by heart and with correct pronunciation Bill," "Constitution (Amendment) Bill, 2014," and "The Criminal Law (Amendment) Bill, 2014." The statement of objects and reasons of the bill 'Education of the Holy Quran according to recitation by sighting and with translation', moved by JI lawmaker Sahibzada Muhammad Yaqoob, says it is needed that awareness and understanding of teachings and propagation of the holy Quran must be promoted among the general public. The bill "The Constitution (Amendment) Bill, 2014" says there were 10 reserved seats for non-Muslims when the number of general seats was 207, which has now increased. The minorities strongly feel representation should be increased. PPP lawmaker Imran Zafar Leghari, on a point of order, quoting Article 64 (Clause-2), said the prime minister had not been attending the NA proceedings for over last 40 days, so he should

## 'Rainwater harvesting only way to control flooding'

Daily Dawn, January 28, 2014

## Atmospheric pollution: Collect data before you start anti-pollution project

Express tribune, January 27, 2014

be de-seated. "I had submitted a motion to the NA Secretariat in this regard, but it was not included in the order of the day," he added. Article 64 (Clause-2) says: "A House may declare the seat of a member vacant if, without leave of the House, he remains absent for 40 consecutive days of its sittings."

**KARACHI:** India has made it mandatory for all new structures coming up in big cities to have provision for rainwater harvesting. It's the only method to control flooding and replenish water resources, said Mumbai-based geologist Dr Amar N. Joshi while speaking at a workshop on Monday.

Part of the World Wide Fund for Nature-Pakistan's Climate Change Adaptation Project, the workshop was organised in collaboration with the Lahore University of Management Sciences (LUMS) and Centre for Dialogue and Reconciliation, Mumbai.

Explaining why water conservation is important, Dr Joshi said 60 per cent of world's population would be urbanised by 2020, a concentration that made urban water infrastructure development an extremely urgent issue. "We are currently using more than half of the world's reliable run-off of surface water and could be using 70-90pc by 2025. About 70pc of the water we withdraw from rivers, lakes, and aquifers is not returned to these sources," he pointed out, adding that available freshwater was being used unsustainably as it was being wasted, polluted and charged too little. Highlighting the adverse impact of the conventional storm-water drain system, he said that it not just increased flooding and run-off volume, it decreased groundwater recession flow, evapotranspiration and groundwater recharge. Water stress, he said, could become grave with climate change as it would lead to more precipitation and evaporation that in turn would affect water resources. New patterns of run-off and evaporation would also affect natural ecosystems while rising seas could invade coastal freshwater supplies. "Reduced water supplies would place additional stress on people, agriculture and environment and could spark conflicts. Improved water resource management, however, can help reduce vulnerabilities," he said. Introducing the concept of rainwater harvesting, Dr Joshi said that it was an ancient tradition in the Indian subcontinent, as evidenced by archaeological findings such as those found in Mohenjodaro, Harappa, Lothal (Gujarat), Inamgaon (Maharashtra) and Dholavira, an important site of the Indus Valley civilization. "More remarkably, some 676,000 currently functioning rainwater harvesting structures, most of them hundreds and even thousands of years old, the majority of them constructed, utilized and maintained by local communities and the state for a variety of purposes are related to rural and urban life. "These technologies are a pointer to the environmental, meteorological, geographical knowledge and were characterised by decentralised governance of natural resources," he said. Rainwater harvesting, he said, was a central theme in natural resources management. Since very little precipitation in the Indian subcontinent was in the form of snow, harvesting rainwater when it fell and where it fell was critical to sustain all life-supporting systems and activities. In those days, centuries ago, the state built only large structures essentially for irrigation and water supply to important towns. These were obviously not enough and, therefore, the village communities were encouraged to build their own water harvesting devices to meet their water needs, he said. Historians, he said, had found that there was no water scarcity where community organizations were strong and the people relied upon their own efforts to build water harvesting structures. The problem started with the urbanization which, he said, altered the morphology of ground and original landforms followed by outward peripheral growth of similar process. "Let us revive and expand this old wisdom for the benefit of all," he remarked. Rainwater harvesting, he said, was a technology used to collect, convey and store rain from relatively clean surfaces such as a roof, land surface or rock catchments for later use. This was the water that would otherwise have gone down the drainage system, into the ground or been lost to the atmosphere via evaporation. "The water is generally stored in a rainwater tank or directed into mechanisms that can recharge groundwater. Since the gap between successive monsoons is nine months, provision for tanks to store rainwater (which will last for a few days for an industrial unit after monsoon season), recharging the groundwater is the preferred solution. These schemes are feasible in densely populated urban/industrial pockets," he said. Rainwater harvesting can provide water for human consumption, reduce water bills and lessen the need to build reservoirs, which may require the use of valuable land, he said.

**KARACHI:** The city is presently faced with serious levels of atmospheric pollution, especially in major traffic corridors. Unplanned highrise buildings, concentric traffic patterns, use of adulterated oil and lack of maintenance of roads and vehicles have worsened the condition. These coupled with traffic composition and poor traffic management have led to significant emissions of greenhouse gases.

According to the findings of the 'Study of the Karachi Transportation Improvement Project', conducted in 2012 by the Karachi Traffic Engineering Bureau, the air pollution levels along the city's roads and at intersections far exceed the limits recommended by the National Environmental Quality Standards of Pakistan. The same study also shared alarming figures on the estimated increase in vehicular load. Using sophisticated trip generation models, the number of trips generated was 29 million in 2020 and 33 million in 2030, which is the sum of the trips by travel mode. Compared to 2010, these values are 1.5 times and 1.7 times more, respectively. If urban spread continues at the same rate, the average time it takes to travel in the city will also increase.



## Students throng WWF's Nature Carnival

*The Nation, January 27, 2014*

## 'Pakistan worst affected by climate change'

*Pak tribune.com/Pakistan news service, January 26, 2014*

### Get your facts

It is, nevertheless, unfortunate that the factors that are leading to an increase in traffic load and harmful emissions are not being addressed. There are grandiose plans to start a Bus Rapid Transit System, reviving the Karachi Circular Railway and introducing more CNG buses. By the way, what happened to the ones imported a few years back?. However, what is needed first is a comprehensive effort to understand the scale of the problem before planning and implementing new project-based interventions.

Firstly, the authorities must establish relations between the air quality of traffic corridors and the volume of the vehicles going through them, their movement and the development works around these traffic corridors. There is an urgent need to document the emission levels from vehicular transport in primary traffic corridors, not on a random, but a continual basis for future reference. This will help determine how effective any greenhouse gas reduction strategies are for the promotion of environmentally sustainable urban transport.

Pakistan has a serious shortcoming in identifying what constitutes environmentally sustainable urban transport and there is an urgent need to document this issue. By applying modern information technology tools, the country needs to develop a model framework that can assess the effects of urban transport on air quality. They can also record air quality data on Geographic Information System (GIS) and develop relationships with other methods to reduce emissions. This will have to be a goal-oriented exercise with a strictly observed schedule and use of high quality instruments that are placed in strategically located permanent 'monitoring and documentation' stations to ensure the data-gathering procedure is reliable. The starting point could be developing a selection criterion and identifying which corridors can be used for the study. A satellite map of Karachi will have to be prepared with the monitoring data that can be transferred from the field log in Global Positioning Systems (GPS) unit to the GIS. All information will have to be updated regularly and may be accessed by other users and stakeholders.

### Hidden costs

Traffic-related pollution is not only harming residents but also our architectural heritage, for example, parts of Saddar downtown. A serious shortcoming with us in all sectors of development is an aversion to collect comprehensive 'primary data' and establish the relevant trends and future scenarios.

**LAHORE:** World Wide Fund for Nature-Pakistan (WWF-Pakistan) in collaboration with Horlicks-GSK Consumer Healthcare Pakistan hosted the 16th annual Travelling Nature Carnival at Race Course Park on Sunday with the aims of enhancing awareness about nature conservation among students and the general public. Over 10,000 visitors and 80 schools from across Lahore participated in the event. Environmental education was the key objective and schools expressed their concerns 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 Women University (Category: Environment Management Systems). Overall winners were SISA, Laurel Bank Shalimar Campus and LGS EME.

Chief Guest Rana Mashhood Khan, Minister for Education and Sports presented 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 curriculum, in public and private schools both. "We can only create an environmentally sensitive population by instilling awareness in our young ones", he said. WWF-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.

**KARACHI:** Agriculture is extremely vulnerable to climate change globally and in Pakistan, which is the one of the worst hit countries of climate change, agriculture is badly affected, said climate change experts and nature conservationists on Saturday.

Addressing a conference on climate change organised by the Habib University, experts said water availability, food security and human healthcare were most likely to be negatively affected by climate change, ie, erratic weather patterns, changing rainfall trends and extreme weather events including floods which have been plaguing the countryside for the past few years. Experts also said that beside Pakistan, other developing countries, several of them in

## Climate change: Food security should be top priority for Pakistan

*Daily Dawn, January 25, 2014*

the Asia Pacific region, are also likely to face the brunt of the environmental, social and economic impacts of climate change. There are assertions that greenhouse gas emissions were a major factor in climate change; however, developing countries contribute only 10 percent of the annual global carbon dioxide emissions. In fact, Pakistan, the sixth most populous country in the world, ranks 135th in carbon dioxide emissions. Quoting recent report from the World Bank, climate change experts warned Pakistan of the existence of five major risks related to climate change. Those include rise in sea level, glacial retreats, floods, higher average temperature and higher frequency of droughts. These raise major challenges for current and future decision-making and have multifaceted impact on the economy, agriculture, water resources and urban management. Experts estimate the country incurs financial losses of \$5.2 billion annually as a result of environmental degradation. The speakers added that Pakistan had witnessed devastating floods and droughts. The seesaw weather patterns are a new phenomenon but the term 'climate change' was neither widely recognised nor completely understood in the country. In fact, global warming and climate change is still seen as a global issue and policy makers and stakeholders in Pakistan have been unable to root it in the indigenous context. This hampers discussions and consensus building on the subject and exacerbates the problem.

Dr Bruce A McCarl, Regents Professor, Department of Agricultural Economics, Texas A&M University, while delivering the presentation, "Climate Change and Decision Making: An Economic and Agricultural Perspective" said as a result of climate change, there had been increases in rainfall intensity and dry periods between events and Pakistan suffered more than any place in the world. "Due to the impacts of the climate change, crop yield will reduce drastically by 2030 in many regions of the world," he said. He added that the number of the warmest years was increasing, which in turn accelerated evaporation from the ocean, increasing the annual rainfall. "But Pakistan has seen a decline in recent years," he said. "All 12 years since 2000 are among the 14 warmest years since 1879 and only one year during 20th century-1998 was warmer than 2012," he said, adding that the year 2012 was the 36th consecutive year with global temperatures above the 20th century average.

Dr Muhammad Mohsin Iqbal, Head of Agriculture Section at Global Change Impact Studies Center, Islamabad Pakistan in his address, "Climate Change: Vulnerability of Pakistan and Impacts on Agriculture," said the growing season length of wheat and rice in Pakistan will be reduced as a result of climate change with negative effects on yield. He said the reduction was greatest in the semi-arid areas and rice seemed to be more sensitive to climate changes than wheat, as evidenced by greater yield reduction of rice under the same scenarios. Quoting data, he said Pakistan had continuously witnessed history's worst disasters since 2001. "Both irrigated and rain-fed agriculture were vulnerable to climate extreme events. "In 1949-50, the agriculture sector was contributing 53 percent in the country's GDP, which dropped to 31 percent during 1980-81, and during 2012-13 it has dropped drastically to only 21.4 percent."

Dr Shoaib Zaidi, Dean of School of Science & Engineering, Habib University, Professor Ilan Chabay, Dr Balgis Osman-Elasha and Dr Heinz Gutscher of the University of Zurich also spoke.

**KARACHI** : Experts from various disciplines gathered at the Climate Change Conference in Karachi stressed a dire need for research on the issue in Pakistan as it ranked amongst countries highly vulnerable to the phenomena.

The conference, organised by Habib University, highlighted the urgent need to incorporate climate change adaptation into the national climate policy. The keynote speaker, Dr Bruce McCarl, a disitnguised professor of Agricultural Economic at Texas A&M University, sounded the alarm and advised the government of Pakistan to put a special emphasis on saving it agricultural sector, first and foremost since it was most sensitive to extreme weather.

McCarl, who was also part of the Noble Peace Prize winning team of Intergovernmental Panel for Climate Change (IPCC) in 2007, said, "From agricultural point of view, Pakistan should focus on its most staple crops like Wheat" because food security should be the top priority in the climate change scenario.

Shafqat Kakakhel, chairperson of Sustainable Development Policy Institute (SDPI) said that Pakistan was prone to natural disasters and was frequently facing an increase in floods, droughts and other extreme events. Kakakhel also stressed the need for educational institutes to introduce climate change and environment policy in the school curriculum. Climate change and the role of media was the subject of another important panel discussion at the conference where Rina Saeed Khan, a prominent writer on environment, said in her presentation that though Pakistan was one the lowest emitters of green house gases in the world it remained highly susceptible to the climate uncertainties. Her presentation touched upon the hurdles of communicating climate change phenomenon to the masses in local languages without losing its impact.

Muhammad Badar Alam, the editor of Herald Magazine, was also of the opinion that there was a serious lack of credible information about climate change as the government departments were often tight lipped about the dissemination of information about the issue. Alam had a three-point solution to address the situation. Firstly, access to viable information from the institutes and the scientists, secondly, its comprehension from the journalists, and most importantly passing that information to the masses in jargon free language.

## Scientists from developing countries collaborate for climate change research

*Statesman, January 24, 2014*

## Senator Mushahid Hussain proposes Environment Action Plan for Islamabad at first Public Hearing held at Parliament House

*January 24, 2014  
allvoices.com(Pakistan)*

Later in a panel discussion director World Wide Federation (WWF), Sindh, Rab Nawaz, stressed upon the need for downstream water in the Sindh delta to keep the mangroves in healthy condition.

**ISLAMABAD:** Scientists from developing countries have gathered in Islamabad to deliberate on matters relating to climate change and called for fostering extensive international cooperation among the countries of the South for meeting common global challenges pertaining to this phenomenon. These consensus views were expressed during the third meeting of COMSATS' International Thematic Research Group (ITRG) on 'Climate Change and Environmental Protection' held on the premises of COMSATS Institute of Information Technology, Islamabad. The meeting had participation of scientists and researchers from meteorological departments, scientific and research organisations, and higher education institutions of Bangladesh, China, Iran, Malaysia, Nepal, Pakistan, and Sri Lanka.

Led by the Director of International Centre for Climate and Environment Sciences (ICCES), Prof. Zhaohui Lin, the Group was launched in November 2010 and is undertaking a joint research project on 'Characteristics and Mechanism of the Extreme Climate Events under the Climate Change Background'. Relevant COMSATS' Centres of Excellence and institutions from developing countries are cooperating for the research programme.

Executive Director COMSATS, Dr. Imtihan Elahi Qureshi, in his opening remarks gave the background of COMSATS' ITRGs formed with a spirit to collaborate scientific research aimed at finding solutions to common problems of the developing countries. Explaining the concept and modus operandi of the groups, Dr. Qureshi highlighted their effectiveness in facilitating the sharing of technical know-how and pooling of the necessary laboratory resources available with the Group members. Showing satisfaction towards the group activity, he thanked the Group Leader, Prof. Lin.

In his welcome address, Prof. Lin expressed gratitude to the Executive Director COMSATS for providing great support to his Group and recalled its history of establishment, objectives, and the contributions made by the members so far. He noted that climate change has badly affected almost all countries of the South in the form of flash floods, droughts, rising sea levels and receding glaciers.

**KARACHI:** Senator Mushahid Hussain Sayed, Chairman of the Senate sub-Committee on Environmental Degradation of Islamabad convened the first ever Public Hearing in the history of parliament on environment at Parliament House today. The Public Hearing was very well attended by the representatives of the government including the Cabinet Division, Climate Change Division, CDA and the Environmental Protection Agency as well as parliamentarians, media and civil society representatives.

Senator Mushahid Hussain said that the right to a Clean and Green Islamabad is the fundamental right of the citizens of Islamabad and it was in this context that they were given to formulate an Environmental Action Plan which will then be implemented by the relevant government departments. He said cutting of trees is a crime and environment is a national issue, above party or provincial lines.

He gave a directive for implementation which included:

- a) Proposal for waste management system of utilizing almost 700 tons of waste generated daily in Islamabad and their conversion into energy;
- b) Coping with the menace of plastic bags including a plan of recycling of plastic bags;
- c) Designating a site in Islamabad for disposal of hospital and clinics waste;
- d) Notice to 16 illegal stone crushers who are destroying the ecology of Islamabad; and
- e) Initiation of a public awareness campaign for implementation of existing laws and preparing future laws plus also a review of what is to be done to preserve, promote and protect the environment of Islamabad.

The sub-Committee also presented a vote of thanks to the Chief Justice of Pakistan, Mr. Justice Tassaduq Hussain Jilani for his directive to the CDA regarding preserving the environment of Islamabad. Senator Mushahid Hussain also appreciated the services of the former Chief Justice Mr. Iftikhar Muhammad Chaudhry in this regard. Senator Mushahid Hussain said that it would be a private/public partnership and it would be a collective effort for the common goal. The Public Hearing had presentations by Mr. Ayaz Amir, Columnist, a documentary by Dr. Abid Sulehri, President, Sustainable Development Policy Institute (SDPI), Ms. Cristina Afridi, civil society activist and Mr. Shaban Khalid, President, Islamabad Chamber of Commerce & Industry, as well as environmental expert from the European Union, who prepared a research paper on the subject.

The next meeting of the sub-Committee will be held on Monday, February 10, 2014 at 11.00 am at Parliament House which will include a briefing on climate change as well as a follow up to the directions given by the Senate sub-committee today.



## CDA promises proper waste disposal to Supreme Court

*Daily Dawn, January 23, 2014*

**ISLAMABAD:** A red-faced Capital Development Authority (CDA) gave its word to the Supreme Court on Wednesday that it will dispose of solid waste properly and undo the damage it caused to the city's environment by dumping waste in the foothills of the Margallas.

In a report called by the chief justice of Pakistan, the CDA spelled out four short-term and four long-term steps that it will take for proper waste management and reverse the damage that its landfill site in Sector D-12 had caused over a six-month period.

Chief Justice Tassaduq Hussain Jilani had called for the report after taking notice of a news item that exposed the civic body's disregard of environment laws and the protected nature of the dumping site. D-12 lies within the National Park Area in the Margalla foothills which is a protected area under the Constitution. As directed by the chief justice of Pakistan, the CDA prepared its action plan for composite solid waste management and rehabilitation of the contaminated D-12 site in consultation with the director general of Pakistan Environmental Protection Agency. After going through the report, the chief justice directed the CDA chairman "to submit follow-up reports on quarterly basis, till the plan is materialised and executed". Below is the CDA's action plan, as detailed in a press release of the Supreme Court:

### Short-term actions to reverse damage of site at D-12

- i. Since the natural biodegradation process of waste has already taken place, the site will be leveled and decontaminated with spray.
- ii. A thick layer of fertile soil will be laid out and tree plantation will be carried out during the coming spring season.
- iii. Warning signboard of "No Visit Area" will be displayed till such time the area is declared contamination free.
- iv. Pakistan Environmental Protection Agency will periodically monitor air quality and test soil quality till such time it gets satisfied that the area is no more contaminated.

### Long-term action for proper Solid Waste Management

- i. Recycling industry will be encouraged to utilise recoverable materials such as metal, glass, plastics, wood etc.
- ii. The planning wing has started selection of site suitable for development of landfill site in consultation with Pakistan Environmental Protection Agency.
- iii. Ministry of Climate Change has been engaged for technical advice and for arranging Environmental specialists for future long term planning.
- iv. The organisations working in the field of Environment Protection are being approached for preparing a plan for possible area of garbage and for preparing a plan for possible area of garbage and for the recycling as well.

"We will implement the orders of the Supreme Court in letter and spirit and ensure all the steps are taken to restore the natural NIH lab to handle hazardous microbes.

## Talking climate change, Shaukat hints at legal action

*Statesman, January 22, 2014*

**PESHAWAR:** Governor Engineer Shaukatullah has said that the ground realities with regard to depleting ratio of forests and their importance both from environmental protection and socio economic uplift point of view demands efficient role and contribution of every segment of the society to take it a challenge and cover each and every chunk of the barren land of FATA with greenery. He was chairing a high level meeting at Governor's House Peshawar on Tuesday. A detailed briefing was given to Governor from the officials of the Forest department FATA. Additional chief secretary FATA, Arbab Mohammad Arif, Secretary A, I and C and other relevant authorities also attended the meeting.

Highlighting the importance of the environment, the Governor said, "I believe in the practical field work and it is always my earnest desire to join hands with the general public to promote forests; make tree plantation process a success story in true sense and I expect a vigorous response in this respect". He said that forests protect the upland watersheds against erosion and landslides and maintain ecological balance, production and, forest resources are extremely important for the nation due to their invaluable services, particularly sustaining water supply in the river systems of the country.

Global warming and climate change are the greatest challenges of the modern era, posing serious threats to the survival of mankind on the earth as well, he also said and therefore, conserving and enhancing carbon stocks in the forests is the most economical and viable option to overcome this problem.

Appreciating the efforts of the Forest department FATA, the Governor hoped, it will indeed enable to devise more realistic and effective strategies to meet the confronting problems. In fact, the Governor said, it is a joint responsibility of the government, civil society and public at large to plant, protect and promote trees in order to enhance the forest resources. Governor also issued a statement saying legal action will be taken against those found guilty of violating wildlife rules and regulations. Governor also said that uneducated and untrained population was a major problem for every society, so it was a need of the hour to inform people of problems created by a large population. This he said while chairing a high level meeting at Governor's House, Peshawar. The Additional Chief Secretary FATA, Secretary Social sector

### NIH lab to handle hazardous microbes

*Daily Dawn , January 22, 2014*

### COMSATS sets centre for CCRD for climate change

*Statesman, January 21, 2014*

FATA and others also attended the meeting. He said a nation with limited resources cannot afford uneducated and untrained population, adding that everyone should cooperate in the struggle to spread awareness among the people about population welfare programmes. He said no work is possible without cooperation and participation of the all the people in a society. He also directed relevant authorities to facilitate the population welfare centers in FATA to get maximum output. He said the issue of increasing unskilled population had not been considered a major problem in the past, adding that his government was fully devoted to spread awareness in the people about the problem. He said that Reproductive Health Services Centers, Mobile service Units and Family Welfare Programs is the need of the day to educate the people about increasing population and it affects on the health of a mother and her child. The Governor said that department of Fata Welfare Population is playing its best role in this regard and said that it should continue its program with the same pace to achieve its goals in Fata as soon as possible.

Presiding over another meeting to evaluate the reports of the efficiency of ongoing projects and construction work of different departments of the Fata Secretariat at Governor's House, he said that there is a need to further concentrate on the ongoing arrangements to make the measures in this connection fully productive.

**ISLAMABAD:** Transporting infected samples containing hazardous microorganisms for laboratory diagnosis is being discouraged worldwide. Therefore, developing countries such as Pakistan must have laboratories to provide timely and accurate report to ensure early detection of diseases.

This was stated by State Minister for National Health Services, Regulations and Coordination Saira Afzal Tarar during the inauguration of Bio-safety Level 3 Laboratory at the National Institute of Health (NIH) on Tuesday. She said the laboratory was of an international standard with the facility to diagnose diseases, adding that diseases such as Congo Fever and Corona would be detected immediately. "Travel has increased in the past two decades, and the laboratory will ensure that diseases which can easily spread from one country to another are diagnosed immediately," she said. habitat and report the progress to the court," CDA spokesman Asim Khichi told Dawn.

**ISLAMABAD:** COMSATS institute of information Technology (CIIT) has set up a Centre for Climate Research and Development (CCRD) to develop Pakistan's capacity to enhance understanding of climate change, develop research capacity, promote teaching of climate sciences and establish research networks in the region and internationally.

Rector COMSATS Dr. S M Junaid Zaidi said this while addressing international conference on "Asian Monsoon and Climate Change", organised by CCRD, in association with the Potsdam institute for Climate Impact Research (PIK) of Germany and International Centre for Climate and Environment Sciences (ICCES), Institute of Atmospheric Physics (IAP) of China, here Monday. Rector COMSATS said CCRD will work in a trans-disciplinary manner, building on the knowledge and skills of CIIT's allied departments with research institutions, universities and Government bodies at the national level. At the international level, CCRD has already established partnerships with the Potsdam Institute for Climate Impact Research (PIK) of Germany and the International Centre of Climate and Environment Science (ICCES) of China to promote cooperative activities.

Addressing on the occasion, Federal Minister for Science and Technology Zahid Hamid said developing countries are the least responsible for climate change contributing only 10 percent of annual global carbon dioxide emissions but they are the ones which are the most vulnerable to the environmental, social and economic impacts of climate change. He stated that Pakistan being a developing country is in a similar situation. It has the least contribution to global warming and is ranked at 135th position in carbon dioxide emissions. Yet, it is faced with severe climate changes and has been ranked 3rd in the list of most vulnerable countries to climate change.

While addressing, Advisor CIIT, Ambassador shahid Kamal said the monsoon is a critical factor in the climate system of our region and monsoon precipitation is of vital importance for more than 60 percent of the world's population. Pakistan is regarded by the global community as being high vulnerable to climate change. Ensuring food, water and energy security is vital for the country, he said. Shifting rain patterns, melting of glaciers, rise in sea levels are reflective of the challenge of climate change. The need for building climate resilience has therefore become critical, he added.

A large number of leading scientists and researchers at the international and national level participated in the conference. The conference aims to provide a platform for presentations, scientific discussions and knowledge sharing on the variability of the monsoon and its relationship with the changing climate system. The conference will help to improve understanding and capacity to manage the impacts of climate change on the monsoon system. In the opening session of the conference, Prof Juergen Kropp, Head International Cooperation, and Potsdam Institute for Climate Impact Research (PIK), Germany delivered the keynote Address and remarks regarding the importance of holding the conference were made by Prof. Dr. Zhaohui Lin, Director, international Centre for Climate and Environment Sciences (ICCES), Institute of Atmospheric Physics (IAP) China.

## 100 MW from waste-to-energy project next year

*Daily Dawn, January 21, 2014*

**LAHORE:** A waste-to-energy project will initially start generating about 100 megawatt electricity from the solid waste produced in the city after its completion next year.

German company ALBA had in November last agreed to make most of the investment for installation of the 100 megawatt power plant to generate energy from garbage and hospital waste produced in the Punjab capital. "Work on the project is being executed speedily and the plant will start producing 100MW electricity from next year," said the Lahore Waste Management Company spokesperson on Monday. "As rapid progress on the construction of country's first scientific waste disposal site at Lakhodair is underway, the Lahore Waste Management Company (LWMC) is also considering various other technologies suitable for its Waste-to-Energy project," he said. A five-member delegation of US firm 'Princeton Environ Group' on Monday briefed LWMC officials about its recycling and gasification technology.

Delegation head and the group's Chief Executive Officer Mr Peter Tien elaborated that the technology would use solid waste's recyclable components and convert its combustible parts into Refused Derived Fuel (RDF), an alternative to coal that could be used in cement industry. Even its ash could be used for brick manufacturing, he added. The US plant would have capacity to process 1,035 tons of waste and generate 550 megawatts daily. The feasibility study would require two to three months, whereas installation and functioning of plant needed at least three years, said the CEO.

Later, the members of the delegation visited LWMC's under-construction sanitary landfill at Lakhodair and the dumpsite at Mehmood Booti.

## Move to make cities more climate-resilient

*Statesman, January 20, 2014*

**PESHAWAR:** For Jamal Mujtaba, the news that the government has prepared a plan to make Islamabad a model disaster-resilient city comes as a relief.

Mujtaba, a resident of a slum area called Pathan Colony, has suffered damage to his home and livelihood because of frequent heavy rains that swell the streams emerging from the scenic Marghalla Hills to the north-west of the capital, triggering flooding in the city. "For me any plan to make the city disaster-resilient is the need of the hour," he says. Last month, Pakistan's Climate Change Division unveiled a Climate Change Vulnerability Adaptation Assessment (CCVAA) for the Islamabad Capital Territory to reduce the city's vulnerability to climate change-related disasters such as flooding, heat waves and landslides.

Drawn up in collaboration with the Pakistan chapter of UN-Habitat, the plan calls for assessing the current climate-resilience capacity of civic authorities and potential partners, collecting data on the vulnerability of the city's infrastructure and reviewing existing building and energy codes.

"The ... overarching goal of the initiative is to create a platform for debate among relevant government and non-governmental stakeholders on existing planning and (to) devise concrete, viable projects to promote climate resilience in the future city development plans," said Raja Hassan Abbas, secretary of the Pakistan Climate Change Division, during a meeting on the initiative in Islamabad. Backers hope the assessment will lead to redesigned infrastructure plans for water, sanitation, roads, health and education, and the improvement of slum areas to make them more resilient to the effects of climate change. The plan also calls for the promotion of innovations in green energy and the launching energy-efficient mass transit. Abbas said efforts will also be made to build the capacity of individuals, communities, and governmental and non-governmental institutions to enable them to respond efficiently to the vagaries of the shifting climate.

### Cost Savings

Irfan Traiq, who is in charge of the initiative for the Climate Change Division, said that approximately \$500 million would be invested under the plan, but that the money could ultimately save billions of dollars. "Integrating a resilience aspect in infrastructure development and construction programmes is more cost effective than failing to prepare and then dealing with the repercussions," he said.

According to a report by the London School of Economics, 93 percent of the world's cities report that green development initiatives already provide economic benefits. Development and climate resilience experts and city managers from Islamabad's Capital Development Authority noted that with the increasing impacts of climate change on cities and the global shift to urban populations, there is a window of opportunity to make effective changes.

Tauqeer Ali Sheikh, Asia regional director of the Climate and Development Knowledge Network (CDKN), observed that migration from rural to urban centres is being prompted by better living standards, health and education facilities, water and sanitation, as well as by job opportunities in cities. But the burgeoning urban populations and consequent pressure on inadequate resources are causing deepening worry about climate change-related risks faced by cities.

Urban planner Sarmad Khan, who is dealing with the project for UN-Habitat, said that predictions of extreme weather striking rural and urban areas of Pakistan have highlighted an urgent need for new, viable settlement designs to enable humans as well as livestock, crops and wildlife to adapt to changing risks. The concentration of human capital, infrastructure, industry and culture in cities like Islamabad offers great potential for it lead innovation to reduce emissions of greenhouse gases and help communities and systems adjust to the effects of

## No to toxic packaging

*Daily Dawn, January 20, 2014*

changing weather patterns, said Arif Hasan, an urban architect.

### Sufficient Political Will?

However, CDKN's Sheikh cautioned that without strong political will, the plans were unlikely to bear fruit. Everyone involved needs "to push for sensitising politicians about (the) unprecedented significance and need for (the plan) not only for Islamabad but also for all the cities and towns of the country," Sheikh said

The UN Environment Programme not only calls for a global ban on plastics but also warns against storing edible commodities like wheat in toxic packaging, which puts the health of people at risk.

Bangladesh is the first country to ban plastic bags. They have been banned there since 2002 after being found to be responsible for the 1988 and 1998 floods that submerged most of the country. Decision-makers in the Sindh and Punjab Food Departments seem to care least about ecological problems and losing precious human lives. The Pakistan Environmental Protection Agency seems to be ignoring these tenders.

Last year, the EPA asked policymakers and senior bureaucrats to procure wheat in jute bags only, a biodegradable packaging material. It is also globally accepted that jute bags are best suitable for preserving edible commodities for a longer period. Could the Sindh and Punjab food departments please explain how to deal with aflatoxins developed in conditions of non-aeration under polypropylene packing and the hazards associated with the decomposition of these bags?

It is well-known that they cause contamination in wheat and other commodities.

How come the federal government never takes any action against provincial departments which play havoc with the health of the people? How can it be so irresponsible so as to ignore the UNEP's call? Why does the EPA always remain a silent spectator?

Shouldn't the government shut down environmental departments and agencies that can't check against hazardous tenders? How come it keeps making fake claims regarding implementing the Pakistan Environmental Protection Act, 1997?

## Rising pollution: Senators for compliance of environmental laws

*Express tribune, January 18, 2014*

**ISLAMABAD:** A parliamentary panel Friday formed a sub-committee to address the issues of environmental degradation, to keep a check and to sort out ways to stop increasing violations of the environmental laws in the federal capital.

Senate Standing Committee on Human Rights Chairperson Senator Afrasiab Khattak formed a three-member committee on receiving complaints about presence of factories in the residential areas and other issues badly affecting the environment of the city. The committee met here on Friday with Senator Khattak in the chair.

Headed by Senator Mushahid Hussain, Senator Farhatullah Babar and Senator Hidayatullah will be the members of the committee. The committee will work closely with the CDA, the Islamabad Capital Territory Administration (ICTA) and EPA to relocate existing factories and brick kilns from the residential areas of Islamabad. The owners of factories will be asked to observe the relevant environmental laws and they will be suggested to install approved gadgets for maximum prevention of environmental degradation. The members criticized the Capital Development Authority (CDA), Environmental Protection Agency (EPA) and other agencies responsible for not taking action against violations.

Climate Change Division head Javedul Islam briefed the committee that in the late 80s, the civic body had issued 19 licenses for establishing the industrial units in the Industrial Area. Out of 19, some 10 licenses were not renewed while nine licenses are still valid. Similarly, out of 98 brick kilns, 27 have been closed down in Lohi Bher area of Islamabad. He said that Indian technology will be introduced to save the environment from pollution. Senator Hidayatullah suggested that CDA should grant relaxations to those factory owners who wanted to relocate industrial units.

## Scientific approaches sought to mitigate coastal erosion threats

*Statesman, January 18, 2014*

**KARACHI:** Experts along with activists have sought management of coastal zones of the country in a more scientific manner so as to particularly mitigate coastal erosion threat the communities concerned are exposed to.

Discussing findings of national assessment report on Coastal Erosion in Pakistan the experts said climate change is an emerging challenge with far reaching consequences for coastal communities in the country. "Coastal areas run the highest risk of being drastically impacted by climate-change-related extreme events, such as sea level rise, flooding and erosion," said the experts attending the event organised, here Friday, by IUCN, International Union for Conservation of Nature, in collaboration with Pakistan Climate Change Division. Deliberations took place in a workshop organised as part of the two-year regional project, "Strengthening the Resilience of Coastal Communities, Ecosystems, and Economies to Sea-Level Rise and Coastal Erosion," funded by Mangroves for the Future (MFF) Initiative. It was attended by stakeholders representing the coastal development agencies of Sindh and Balochistan, civil society, NGOs working in coastal areas, the media and academia.

Sindh Chief Secretary, Sajjad Saleem Hotiana said given the scale of the adverse impacts of climate change, intensive collaborative efforts are needed to promote sustainable management



## 4.1m in Pakistan need humanitarian help: UN

*The Nation, January 18, 2014*

of coastal resources, as no single initiative or agency can address all of these issues single-handedly. In order to respond effectively to the threat of sea erosion, scientific and environmental aspects of sea-level rise and its induced coastal erosion need to be fully studied and understood, he said.

Dr Wong Poh Poh, Consultant UNEP-COBSEA, in his detailed presentation said The National Assessment Report will not only address coastal erosion but will also be a major document and reference in the development of new plans, policies, strategies and programmes on integrated coastal management.

Syed Mahmood Nasir, Inspector General Forests - Pakistan, highlighted the significance of the National Assessment Report and described it as a crucial document that would pave the way for practical strategies and a road map for addressing coastal erosion.

Aban Marker Kabraji, IUCN Regional Director Asia said the organisation has been making steady efforts towards planting trees along the vulnerable coasts across the region, as mangroves act as a major protection against sea level rise in low-lying inland areas. She also underscored the need for conducting studies on the extent of tree-coverage required along the coasts prior to the plantation of mangroves.

IUCN Pakistan Country Representative Mahmood Akhtar Cheema said, IUCN has been taking necessary steps towards promoting institutional collaboration at the national and regional levels and is actively engaged in the conservation of coastal mangrove ecosystem in collaboration with provincial forest departments of Sindh and Balochistan contributing to minimizing the negative impacts of climate change, such as coastal erosion and sea erosion. It would be pertinent to mention that Strengthening the Resilience of Coastal Communities, Ecosystem, Economies to Sea Level Rise as Coastal Erosion Project focuses on two countries - Thailand and Pakistan and is being implemented by the United Nations Environment Programme (UNEP) and the Coordinating Body of the Seas of East Asia (COBSEA) in collaboration with National Partner Institutions in Thailand and Pakistan. The Project aims to develop practical knowledge in climate change adaptation, assess needs and gaps of the participating countries, and prioritize interventions for strengthening the resilience of coastal ecosystems and communities against coastal erosion. It will also prioritize needs in legislation, policies, institutional structures and capacities, for addressing coastal erosion in Pakistan and Thailand. The financial contribution by MFF is USD 200,000, paired with a planned co-financing of approximately USD 200,000 from KOICA Yeosu Project (for the wider COBSEA region) and USD 40,000 as an in-kind contribution from UNEP COBSEA.

**ISLAMABAD:** As many as 4.1 million people in Pakistan including those of over one million displaced last year due to insecurity in FATA (Federally Administered Tribal Areas) and Khyber Pakhtunkhwa are in an urgent need of humanitarian assistance, the United Nations has said. The affectees include the internally displaced persons (IDPs), flash floods victims, registered Afghan refugees and Balochistan earthquakes' victims, reveals the latest humanitarian update issued here Friday by the UN Office for the Coordination of Humanitarian Affairs (OCHA). It has also pointed to 57 per cent rise in polio cases in Pakistan last year compared to 2012, from 58 cases in 2012 to 91 in 2013.

Last month, the OCHA said \$ 344 million were required in the ongoing 2014 to assist people affected by insecurity, floods and earthquakes. The latest break-up of the 4.1 million in need suggests that 161,072 registered families with more than one million individuals are currently displaced in KP and FATA as a result of ongoing insecurity since 2008. More than 1.4 million people have returned to FATA since 2009 but still require humanitarian help. In addition, 185,000 people were affected by earthquakes in Balochistan in September 2013, of whom 120,000 need shelter assistance whereas 1.61 million Afghan refugees in Pakistan assisted by the United Nations High Commissioner for Refugees (UNHCR) also need humanitarian aid, of whom 592,648 of whom live in 81 refugee villages.

The UN humanitarian update on IDPs in the FATA and KP comes on the heels of the ongoing targeted crackdowns in Waziristan region. Following attacks on the security pickets in North and South Waziristan Agencies, Pakistan Army and its paramilitary wing Frontier Corps KP recently launched targeted operations in the two insecurity plagued tribal agencies from where thousands of locals are reported to have relocated to the alternative places, mostly in Bannu, Hangu and the adjoining belts. Prior to that, the military last year had launched two security operations, each in Khyber and Kurram Agencies that saw intense gun battle between the military men and the militants. While these areas are said to have been completely cleared of terror elements, the needs for humanitarian assistance persist. The OCHA says, an assessment mission to Kurram Agency in FATA is slated from 21 to 24 January to determine whether the conditions for return are appropriate, and the support that would be required by IDPs seeking to return.

Last month, the UN humanitarian agency said that 108,273 people (19,095 families) returned to FATA including the first phase of returns to the Tirah Valley (Khyber Agency), which saw the return of nearly 31,000 registered IDPs (6,187 families) of the 80,000 displaced earlier in 2013. "Insecurity remained a challenge in north-west Pakistan, as 140,000 people were displaced from the FATA due to increased hostilities and security operations against non-state armed actors, pushing the number of IDPs to more than one million that required continued life-saving food, shelter, water, health care, nutrition and protection support. More than 108,000 IDPs from FATA returned home during the year, though many returned to damaged homes and limited



## Pakistan ranks eighth among climate changes-hit countries

*Daily Dawn, January 17, 2014*

basic services. Over 1.4 million people who have returned to FATA since 2009 continue to try to recover and rebuild their livelihoods," the humanitarian agency stated. On the rain floods and earthquakes, it said that monsoon floods affected more than 1.5 million people, many of them for the fourth consecutive year, and two strong earthquakes in Balochistan province affected more than 185,000 people, damaging about 47,000 houses and leaving many exposed to serious health risks in the current winter season. "Vulnerable families in Balochistan, KP and FATA face a bitter winter and urgently need winterised non-food items and support to rebuild damaged or destroyed houses." Hosting 1.61 million registered Afghan refugees, Pakistan according to the UN, remains the world's largest refugee hosting country. The world body says Pakistan faces climate change risks whose impacts include rise in sea level, glacial retreats, recurrent floods and droughts. "Pakistan faces a range of threatening climate change risks: sea water intrusion into the Indus Delta, valley glaciers melting in high mountain areas and flooding while at the same time water scarcity leads to annual droughts. Climate change effects could exacerbate food insecurity in areas currently vulnerable to hunger and malnutrition," according to OCHA's humanitarian update from last month.

**FAISALABAD:** High resistant crops are need of the hour to fight climate changes as Pakistan is facing its worst impact and has been ranked eighth in climate change-hit countries. The country's temperature will have risen to 2.8 degree Celsius in day timings by 2070 that will heighten the food insecurity threat.

This was echoed at a seminar titled "Climate Changes Adaption Strategies to Ensure the Food Security" organized by the University of Agriculture Faisalabad in collaboration with the Agriculture Model Inter-comparison and Improvement Project (AgMiP) here on Thursday.

Qamruz Zaman, former director-general of Pakistan Metrological Department, said that climate changes were not only posing a threat to environment but also creating development and farm production challenges. He said farm scientists should play their role in developing the heat tolerant varieties to ensure the food security.

World Bank's former chief economist Manzoor A Khan said we had failed to construct big dams for the last 40 years. He said that climate changes were the manmade crisis, adding that the deforestation and heavy emission of smoke from factories were aggravating the situation. Washington State University scientist Dr Gerrit Hoogenboom said that joint efforts were needed to cope with the increasing carbon dioxide. He called upon the world science community to expedite its efforts in this regard. AgMiP's principal investigator and UAF Prof Dr Ashfaq Ahmad said the carbon dioxide was likely to increase from 390 to 571 ppm in the future. He said that climate changes could reduce wheat production by 14 per cent and rice yield by 15.2 per cent in the future. "We will have to adopt modern techniques in agriculture and enhance efforts to fight climate changes," he said. Dr Daniel Alderman from CIMMYT Global Wheat Production, Mexico, said they had trained at least 200 scientists in Pakistan. He said that joint efforts would address the issue and ensure the food security.

PMD deputy director-general Dr Ghulam Rasool said the last century saw one centigrade increase in temperature while another one degree increase was witnessed only in the first decade of the current century. He said the temperature of the world could go up two centigrade by 2050. UAF Vice-Chancellor Prof Dr Iqbal Ahmad said glaciers were melting causing floods while famine-like situation would emerge in the years to come. He said the water scarcity was the major concern. "The country is dumping 80 per cent of the water into the sea while the remaining A number of projects for the livelihood development of coastal communities were being implemented by the BCDA, he added. water is resulting in bringing Rs15 billion in the GDP through agriculture," he said.

## WWF signs MoU to promote environmental awareness among students

*Statesman, January 17, 2014*

**PESHAWAR:** An MoU to promote environmental education and activities was signed between World Wide Fund for Nature-Pakistan's (WWF-Pakistan) Green School Programme and The Bridges School (TBS), which is now a registered Green School to create environmental awareness among students. The MoU was signed by Sania Rauf Khan, Manager Corporate Relations, WWF-Pakistan and Humaira Ayub, Principal, The Bridges School, said a press release issued here on Monday.

Speaking on the occasion Ms Khan laid emphasis on the need to educate the youth about various environmental issues so they can be better prepared to tackle them. She congratulated TBS upon taking this initiative with WWF-Pakistan. Humaira Ayub expressed her commitment in fulfilling the partnership and assured all those present that TBS students will actively participate with WWF-Pakistan in conserving nature for a better tomorrow. The Green School Programme is a structured environmental education and awareness campaign that engages with students in events, activities and skill development workshops through the year. The partnership between WWF-Pakistan and TBS aims to make students more environmentally conscious. Students will get an opportunity to become official ambassadors of WWF-Pakistan and will participate in various events and activities of the organization.

The Green School Programme was launched in 2010, and since then more than 15,000 students have become a part of the campaign. The Green School Programme successfully engages students in events such as WWF-Pakistan's Nature Carnival, Earth Hour (an international movement for energy conservation) and the National Arts Competition. Each year as a part of Earth Day celebrations, thousands of saplings are planted by WWF's Green Students all across Pakistan. Students also work on themes such as "say no to plastic bags" and water conservation. Under the Green School Programme students are also given an

## PAEC has its safety standards intact

*The Nation, January 17, 2014*

opportunity to participate in WWF's Eco-Internship Programme where they are engaged in challenging activities such as nature photography and documentary making, and also get to learn about pressing environmental issues. To date approximately 50 school systems and campuses across Pakistan are currently registered as WWF-Pakistan's Green Schools.

**KARACHI:** Responding to objections raised by experts and civil society members, the Pakistan Atomic Energy Commission invited them to visit the site of K-2/K-3 project. In a letter sent to stakeholder organisations including Pakistan Fisherfolk Forum, Pakistan Institute of Labour Education and Research and Strengthening Participatory Organisation on Wednesday, PAEC has sought their visit to the site followed by a briefing about the plant. All the partner organisations arranged a dialogue on the Implication of Nuclear Power Plants in Coastal Areas and expressed concerns over the project, keeping in mind the impacts of similar projects like Japan.

PAEC chairman Ansar Parvez said, "PAEC welcomes such discussions but would also seek an opportunity to ensure that all views are based on objective information about various aspects of the project. I wish to invite those related to your organisations and with concerns about these issues to a participatory forum to see closely how the PAEC is handling or plans to handle the issues of safety, environment and emergency procedures for nuclear power plants in the country including the K-2/K-3 plant," he added. "When you are at site, I will be available to give a briefing on various aspects of the K-2/K-3 project including the steps taken in its design, construction, and operational phases to ensure the safety of people living in the surrounding area and in the city of Karachi. Features of the plant are designed to protect the environment, including the air, sea and land will also be highlighted," he said in the letter. The site has already a nuclear power plant, KANUPP, which has safely operated for more than 41 years, he added. "We would also like to share experiences from the long history of this plant that may be relevant to the new project. PAEC will ferry all the participants to the site from some central points in the City. To meet security requirements, a list of names and CNIC numbers will be required at least two days in advance. Traveling to and from the site, visits, presentations and discussions may take up to five hours," the letter said.

## Accord signed for Balochistan coastal communities

*Daily Dawn, January 17, 2014*

**ISLAMABAD:** KARACHI: The Balochistan Coastal Development Authority (BCDA) and the World Wide Fund for Nature-Pakistan (WWF-P) on Thursday signed a memorandum of understanding (MoU) to conserve, share information and develop programmes for the well-being of coastal communities in Balochistan.

Under the MoU, both organisations will work together in development and implementation of policies related to coastal areas through consultative process while seeking input from various stakeholders. They will also collaborate in conservation measures, including development of eco-tourism in coastal areas of Balochistan. They will also organise consultation programmes for building their institutional capacity and share available information to broaden their knowledge base.

WWF-P regional director Rab Nawaz said that coastal areas of Balochistan were facing numerous challenges that might adversely affect environment and development activities. Improved communication among various stakeholders was required to address these challenges, he added. BCDA director general retired major Akbar Lashari said that the authority had developed a plan for infrastructural development in the area and would support economic activities along Balochistan coast.

## Climate change: Mapping of infrastructural vulnerabilities urged

*Express tribune, January 16, 2014*

**The Kyoto Protocol is an international treaty, ratified by some 191 countries, which binds industrialised countries to reduce their emissions of greenhouse gases.**

**ISLAMABAD:** The government needs to conduct scientific studies to determine the country's infrastructural vulnerabilities to climate change, experts said at a discussion on Wednesday. At the roundtable discussion on "Climate Change: Challenge and Response," senior climate change expert, Dr Qamaruz Zaman Chaudhry, said he has recently sent a proposal to the Climate Change Division to conduct a study to determine how vulnerable Pakistan's infrastructure is to climate change. Infrastructure such as communications and road networks are hit hardest whenever Pakistan experiences floods during the Monsoon season, he stated. "Understanding the extent of vulnerabilities could help the authorities develop climate-resilient infrastructure."

During the discussion, Chaudhry, who is also the lead author of Pakistan's National Climate Change Policy, gave a presentation on its salient features. The policy was launched in February 2013, but there has been little work on its implementation since. Chaudhry said even though Pakistan has very low greenhouse gas emissions, it is one of the countries in the world most vulnerable to the negative impact of climate change. The national policy addresses steps Pakistan can take in terms of both adaptation to and mitigation from climate change effects, he added. The policy focuses on issues like water resources, agriculture and disaster preparedness. The policy calls for additional water storage facilities, energy-efficient farming mechanisms, enforcement of floodplains regulations as some of the actions that could prepare Pakistan for extreme weather events, Chaudhry said. "There are international financing facilities available to help developing countries fund adaptation and mitigation projects, but the capacity to apply for those funds needs to be developed."

Mirza Hamid Hassan, former water and power secretary, said it was unfortunate that climate change had also become a victim of geopolitics. "The countries with the most greenhouse gas

## Sindh-Balochistan coast under environmental pressure: report

*Daily Dawn, January 16, 2014*

emissions are not willing to take responsibility for the impact of these emissions," he added. "America is an example: it contributes around 30 per cent of all emissions but has not signed the Kyoto Protocol." The Kyoto Protocol is an international treaty, ratified by some 191 countries, which binds industrialised countries to reduce their emissions of greenhouse gases. Participants said as the people are vulnerable to climate change, the available literature should be translated into local languages to ensure greater accessibility.

Munir Sheikh, head of Climatology section of the Global Change Impact Studies Centre (GCISC), said the global assessment reports prepared by the Intergovernmental Panel on Climate Change are supported by local analyses done by Pakistani researchers. He claimed the GCISC studies have shown that Pakistan is witnessing twice the average global warming elsewhere. "The frequency of extreme weather incidents has increased since 1991." Chaudhry said people should also play their part in protecting the environment and reducing the carbon footprint. Recycling, planting trees and using public transport are some ways people can help, he said. "Conservation of energy by switching off extra lights can also bring down greenhouse emissions." The event was organised by the Institute of Policy Studies and the Riphah Institute of Public Policy.

**KARACHI:** Environment experts have called for incorporating scientific principles of protecting the coast in development projects being undertaken along it, as coastal erosion according to them has aggravated in the areas where unplanned construction has been undertaken. There was a need for a policy to deal with the situation, they said while speaking at a national consultative workshop organised by the International Union for Conservation of Nature (IUCN) in collaboration with the Climate Change Division under the federal government. The programme was held to discuss and debate the draft of a national assessment report on coastal erosion in Pakistan. It was part of a two-year regional project, Strengthening the Resilience of Coastal Communities, Ecosystems, and Economies to Sea-Level Rise and Coastal Erosion, funded by the Mangroves for the Future (MFF) Initiative.

Sharing the findings of the report, the speakers said the coast of Sindh and Balochistan was under environmental pressure due to development activities being undertaken for the construction of harbours and ports, dredging, land reclamation, disposal of solid waste and sewage. These activities, they said, had made the coast vulnerable to erosion. The beaches along Balochistan coast that used to be stabilised until the late 1980s had now been facing massive erosion at Kund Hub, Gadani, Damb, Pasni, Gwadar, and Jiwani, due to development of structures in the coastal zones, they said. At some areas, they added, erosion was so strong that seawater had found its way to enter the residences of the local community. Shah Bundar, Jati, Kharo Chan, Ketu Bundar, Ghorabari, Bundal were the areas in Sindh facing fast erosion due to sea intrusion, they said, warning that the process would speed up on account of climate change and there was a need for future planning. The speakers strongly recommended to the authorities concerned that coastal development authorities of Sindh and Balochistan should set up a task force to monitor and control the coastal erosion. They also appreciated the mangroves conservation and plantation along the coast, as these trees presented a natural solution to save the coast.

"Given the scale of the adverse impacts of climate change, intensive collaborative efforts are needed to promote sustainable management of coastal resources, as no single initiative or agency can address all of these issues single-handedly," said Sindh Chief Secretary Sajjad Saleem Hotiana in his keynote address. He expressed the hope that the report on coastal erosion would help draw the attention of coastal stakeholders and policy makers to the emerging problem and strengthen regional collaboration.

Dr Wong Poh Poh, a consultant to the coordinating body on the Seas of East Asia, United Nations Environment Programme, said the national assessment report would not only address the coastal erosion but would also be a major document and reference in the development of new plans, policies, strategies and programmes on integrated coastal management.

Aban Marker Kabraji, the IUCN Regional Director for Asia, highlighted efforts of her organisation that she said had planted a large number of mangroves along the vulnerable coasts across the region as mangroves acted as a major protection against sea level rise in low-lying inland areas. She also underscored the need for conducting studies on the extent of tree-coverage required along the coasts prior to the plantation of mangroves.

Earlier, IUCN Pakistan Country Representative Mahmood Akhtar Cheema in his welcome address said the organisation had been taking necessary steps towards promoting institutional collaboration at the national and regional levels and was actively engaged in the conservation of coastal mangrove ecosystem in collaboration with provincial forest departments of Sindh and Balochistan contributing to minimising the negative impacts of climate change – such as coastal erosion and sea erosion.

The Mangroves for the Future (MFF) Initiative focuses on two countries - Thailand and Pakistan – and is being implemented by the United Nations Environment Programme (UNEP) and the Coordinating Body of the Seas of East Asia (COBSEA) in collaboration with national partner institutions in Thailand and Pakistan. In Pakistan, Climate Change Division, Islamabad is acting as the National Focal Agency for supervising and guiding the implementation of the project activities through the IUCN, Pakistan.

## Peerowal forest short of

**MULTAN:** Over a century old forest in Peerowal, Khanewal, faces shortage of water,

## water

*Daily Dawn, January 14, 2014*

### WASA envisages 'no free water'

*Daily Dawn, January 13, 2014*

### Pakistan losing 4% of economy to bad sanitation, water supplies

*Express tribune, January 12, 2014*

threatening survival of natural habitat for birds and animals.

Sources in the Forest Department said the Peerowal forest had been notified in 1915 and spread over 19,289 acres. However, a sizeable portion had been given to other government departments, including wildlife and fisheries. Availability of water had been haunting forest department officials for a few years, Divisional Forest Officer Liaquat Gulzar told APP on Sunday. He said the Peerowal forest was compact and needed regular water supply. He added it was provided with only 50 per cent water against its need, which had threatened the survival of trees and posed a challenge to further plantation. He said the Punjab government had planned "mass afforestation" to cater to the growing needs of fuel and promote greenery across the province. He added 187 acres in the Peerowal forest would be planted with different trees, including Sheesham, Bakai, Keekar and others. Gulzar said MNA Abdul Ghaffar Dogar had been assigned a special task for plantation in the forest by the Punjab government.

**LAHORE:** The Water and Sanitation Agency has been asked to devise an effective strategy for charging on a monthly basis all those supplying water to consumers in scores of private housing schemes, commercial plazas and government colonies through tube-wells installed other than the agency, it is learnt.

The proposal has been floated by the Lahore Development Authority, a parent body of Wasa, in a recent meeting in which head of the Strategic Planning Unit (SPU), an LDA think tank, has been given the task to identify the entire privately operated tube-wells, name of scheme, agency, institution or individuals, including the Pakistan Railways and various government departments and get the process started to serve monthly bill to them keeping in view the water consumption. Wasa currently operates 483 tube-wells and it could not expand its water supply network owing to shortage of funds and low recovery. Officials term the proposal a good step towards rehabilitating the deteriorating revenue situation of the agency. "After a go-ahead from the higher authorities, we have so far succeeded in identifying 1,270 tube-wells being operated by a number of private colonies and cooperative societies since long. And it has been agreed in principle that the underground water available in the territorial jurisdiction of Lahore city district is the property of Wasa. So when this is our water no one can be allowed to supply it to people without paying bill to the agency," a senior Wasa official told Dawn on Sunday.

Talking about the action plan after approval of the proposal in the upcoming meeting of the LDA's governing body, the official said the Wasa had already identified water capacity (in cusecs) of 1,270 tube-wells. There were various sorts of tube-wells (one to five cusecs) installed at scores of places, including the railway colonies, he said. "According to a study, if the agency charges Rs25,000 per month (per cusec), its revenue will jump, leading to generation of funds for accomplishing various small schemes, including installation of new tube-wells and generators for uninterrupted water supply to citizens and payment of bills to Wapda," he said. According to the official, the agency would not only be able to increase its revenue through charging bill but also bring the entire private tube-wells into its regulatory framework. Talking about the proposed plan for outsourcing of various Wasa departments, the official said: "A team of ISKI, a subsidiary of the Istanbul Municipality, is due in Lahore on Jan 16 to enter into a contract with Wasa in this regard. This team has already visited some time ago and studied Wasa installations. And the agency is likely to outsource its Johar Town division to ISKI as a pilot project."

The official said, if ISKI entered into an agreement with the agency, it would have complete control over the entire system/installations related to Wasa's operations, revenue, human resource and equipments in Johar Town.

For the poor, water is a primary resource. The availability of water and proper sanitation is a global issue with over 884 million people suffering from poor conditions. Developing countries such as Pakistan suffer severe consequences. This, according to Muhammad Irfan Tariq, the director of the Climate Change Division in the Pakistani government, means that investing in proper water and sanitation facilities is a crucial element for the social well-being of the country and should be a priority for the government.

Tariq was speaking at the second plenary session for the South Asian Cities Conference being held here over the weekend. It began with an elaborate presentation on the dire conditions of the country's water and sanitation sector. According to a study conducted by the Ministry of Environment, "Pakistan is losing 4% of its economy due to a lack of these facilities." Tariq believed that investment in this sector will have a huge impact on women, as special focus should be given to menstrual hygiene. For whatever it is worth, the government did adopt a National Drinking Water Policy in 2009 and more recently a National Climate Change Policy in 2012. He stressed that budget constraints on the national and provincial levels have kept the urban water development low.

Highlighting the rapid urbanization in Sindh, Khalid M Siddiqui, who is working with the Sindh government, spoke about the alarming rate of depleting water sources in the province. As Sindh is a lower riparian province it overly depends on the Indus River water which has been gradually declining. "Seventy-nine per cent of the population uses surface water and over 50% of the population has no access to proper sewer systems." Siddiqui outlined a list of challenges faced by the Sindh urban community and one of the central limitations he pointed was that even though national sanitation policies are in place the authorities are not adhering to them. To add to this, Sindh faces inadequate water treatment, high dependency on surface water and strong political interests that hamper a demand-driven water supply. According to Siddiqui, a



## Steps needed to make climate resilience plan workable

*Daily Dawn, January 12, 2014*

number of measures, such as ensuring strong private sector participation and establishing technically advanced water-testing laboratories, can be adopted.

**ISLAMABAD:** To offset the effects of global warming, climate resilience approach has gained popularity in different parts of the world. The climate resilience is the capacity of an ecosystem to respond to a perturbation or disturbance by resisting damage and recovering quickly. Climate Change Division is also in the process of developing such plan for Islamabad in association with UN-Habitat. The environmentalists in this regard have suggested various steps to make the plan workable. Commenting on the plan they particularly called for saving the Margalla Hills from stone crushers and conserving water resources as first steps to make Islamabad climate resilient. "Stone crushing in the tail of the Margalla Hills, private and unauthorised housing societies and all other encroachments must stop immediately," said Chief Meteorologist, Department of Meteorology Dr Ghulam Rasul. "Twin cities have several systems which operate through mutual interaction. For example, in pre-monsoon summer pumping of ground water is intensified in Rawalpindi, which causes drastic decline of water table in Islamabad. Likewise torrential rains in Islamabad catchments produce catastrophic floods along Nullah Lei and its tributaries," said Dr Ghulam Rasul explaining further that thousands of people commute between the two cities contributing to emissions and sharing the resources. He also called for increasing tree cover of Islamabad, which was not even 50 per cent of the city's requirement. Director General Pakistan Environment Protection Agency (Pak-EPA) Asif Shuja expressed similar views about deteriorating eco-system of the Margalla Hills. He said if the expansion of the city was not stopped, it would lead to severe water shortage in various sectors of Islamabad in the future, but also result in rising the city's temperatures. Environmentalists argued that the impact of climate change was visible in the twin cities in the shape of persistent heat waves, heavy downpours, urban flooding, stormy winds, depressing water table, smog, haze and dust in suspension.

"Most of these problems appeared as a result of deviation from the original plan, which had been designed keeping in view the balance of resources and population pressure to maintain the equilibrium with the ecosystem," said Dr Ghulam Rasul who blamed the industrial pollution from Sectors I-9 and I-10, which is not only been playing havoc with human health but also damaging the natural ecosystem. According to his research, Dr Ghulam Rasul explained how in future, the heavy downpour spells would become intense. Spring rains would behave like summer rainfall in terms of intensity. "The policy makers while devising climate resilient plan for the twin cities must keep in mind the size of population, land cover and its use, mass transit system, emissions and water use policy," he said. Experts appreciating the idea warned against adopting models of other parts of the world especially Philippines, which they believed could not be replicated in Pakistan. "Examples of Quito, Equadore, Guizhou, China and Zurich, Switzerland may help us to maintain a balance between the development and the environment," Dr Ghulam Rasul said. Giving his view former member of PMs special task force on climate change, Pervaiz Amir expressed the hope if the plan worked it can be replicated in southern Punjab, in coastal areas, in Attabad where the new lake was formed to mention some hot spots where developing climate resilience is particularly important to save agriculture," said Pervaiz Amir. UN-Habitat's Sarmad Khan said it was too early to comment on the plan. Director Urban Affairs, Climate Change Division, Irfan Tariq, however, maintained that all aspects were being looked into to make twin cities climate resilient. "From rehabilitating sewerage and improving disaster management and drought conditions to ground water recharging to environment education in schools to strengthening government systems and more are necessary to new realities of changing climate," said Irfan Tariq.

## KP govt prepares master plan for making Peshawar clean & green: CM

*Statesman, January 11, 2014*

**PESHAWAR:** Chief Minister Pervaiz Khattak said that provincial government has prepared a master plan for development of Peshawar besides making it as clean and green city. This he said while addressing a reception hosted in his honor by Haji Haleem Jan, President Markazi Tanzeem Tajran KP at his residence on Thursday night.

Senior Minister KP, Sirajul Haq, Speaker KP Assembly, Asad Qaiser, Provincial Minister for Health, Shaukat Yousafzai, Provincial Minister for Local Government, Inayatullah Khan, Senator Haji Ghulam Ali, MPAs and representatives of business community were present on the occasion.

Addressing the gathering of trading community, Chief Minister said work on making Peshawar clean and green project has been started from Jan 1. The government plans to revive the lost glory of the provincial metropolis which was once known as 'City of flowers'. The government is also initiating a project with the assistance of World Bank at a cost of Rs. 1 billion for preservation of historic buildings of Peshawar. The heritage of this historic city which is oldest living city in South Asia would be preserved and for this purpose renowned architects would be hired, he added. Similarly, the KP government plans to set up Mass Transit facility in the city and if we faced shortage of some funds for achievement of this goal, we will opt for taking loan from banks. The feasibility study of Mass Transit facility is in progress and as it was prepared work would start over the project. We want to develop Peshawar as all cost because it is the provincial metropolis and was ignored by previous governments, Pervaiz Khattak said and added that people of Peshawar have given a heavy mandate to PTI and we will try to come up to their expectations. About removal of encroachment, Chief Minister said strict decisions will be taken and trading community should extend cooperation to the government. Referring to the demand of traders for taking action against extortionists, Chief Minister said provincial government has set up a special department for Intelligence gathering and fighting militancy. The said department will soon start functioning and government will be in better position to take



## Training course to improve disaster response

*Daily Dawn, January 11, 2014*

action against extortionists. He also urged the businessmen to avoid paying money to the extortionists and take police into confidence if some one is blackmailing them. Earlier, Finance Minister, Sirajul Haq also spoke on the occasion and assured the participants of the gathering that present KP government top priority is to develop Peshawar.

Chairman Markazi Tanzeem Tajran, Haji Haleem Jan asked the Chief Minister to take measures for regulating influx of Afghan refugees in the city. He also demanded reduction in rent of Aqaf and Municipal Corporation property.

**LAHORE:** A 15-day international training course for instructors (TFI) was initiated in collaboration with the National Society for Earthquake Technology (NSET), Nepal, and National Disaster and Management Authority at the Punjab Emergency Services Academy on Friday. The training course, which is a part of fourth pilot training programme for the Enhancement of Emergency Response (PEER) in Pakistan, is being organised here after five such courses had been conducted in Bangladesh, India, Indonesia, Nepal and the Philippines.

According to a news release, the countries were selected for the programme on basis of their high seismic vulnerability, need to improve disaster response capacity, and interest shown by respective governments and civil society. The main objectives are to establish and strengthen the capabilities of PEER countries to provide collapsed structure search and rescue and basic and advanced life support, beginning with the first responder and continuing through medical facilities. These courses also helped in developing a training system that continually provided disaster response with qualified personnel for search and rescue besides medical first response and facilities prepared to receive victims. Five trained instructors from Nepal would monitor the course whereas two regional emergency officers, four DEOs and over 20 rescue instructors would be participating in the course. PES Director General Dr Rizwan Naseer addressed the opening session.

## Nuclear plans: Even a small earthquake can damage plants

*Express tribune, January 09, 2014*

**KARACHI:** Nuclear physicist Dr Pervez Hoodbhoy feared that if the two nuclear plants are set up near Karachi, even a small earthquake or a terrorist activity can damage the reactors. "I am worried that an operator's error or act of terrorism can cause destruction to the nuclear reactors of these power plants," he said. "In case of any accident, the deaths in Karachi may not be in hundreds but in hundreds of thousands."

Dr Hoodbhoy, nuclear physicist Dr AH Nayyar and civil society activists had gathered on Wednesday to discuss the merits of setting up two large nuclear power plants, K-II and K-III, along Karachi coastline. The seminar, titled 'Impacts of Nuclear Power Projects K-II and K-III along the Coastal Areas', was organised by Pakistan Fisherfolk Forum (PFF), Pakistan Institute of Labour Education and Research (Piler), ActionAid Pakistan and Strengthening Participatory Organisation (SPO) at Regent Plaza on Wednesday. The speakers demanded the government re-conduct all the studies necessary to install the plants and take the public into confidence. In his speech, Dr Hoodbhoy recalled that a human error at the Chernobyl power plant in the 1980s caused between 8,000 and 24,000 deaths – several more died from cancer. "The effects of the radiation emission from Fukushima reactors are still being felt after three years," he pointed out, adding that countries, such as Germany, Japan and Switzerland are now shifting to alternative energy options. He regretted that developed countries are closing down nuclear power reactors, and China cannot find a buyer except Pakistan in the whole world. China is providing \$6.5 billion as loan to Pakistan to purchase the nuclear reactors, he added. "We need to eye our Thar coal power and keep the option of small dams open." In his presentation, Dr AH Nayyar said that the current total installed capacity of nuclear power plants is 725 megawatt including KANUPP and Chashma plants and all the plants cover three per cent of the total energy production of Pakistan. By 2030, Pakistan intends to install 8,800 MW. For K-II and K-III, only the SITE Evaluation Report has been prepared and the Reactor Safety Report and Environmental Impact Analysis has yet to be made. He also feared that in case of a nuclear accident, it will be difficult to evacuate the entire population of Karachi, as there is no effective disaster management system. "The Pakistan Atomic Energy Commission needs to assert its importance by establishing more nuclear power plants and claim its share on national resources," he said, adding that the commission has a budget of Rs56 billion this year.

### On defence

K-II and K-III project director Azfar Minhaj defended the project by saying it has been approved by the elected governments and all the stakeholders necessary. "The project has not come from the sky in a day but has taken six years in which studies and surveys were conducted," he said. Minhaj told The Express Tribune that they are building the plant 12 metres above the sea level, which is safe as the estimated height of tsunami waves in a worst-case scenario will be 2.8 metres. If the safety system of the plant fails, only the population within a 16-kilometre radius will need to be evacuated. "That area ends before Gulbai and has a population of not more than 100,000," he explained.

## River flows likely to improve this year: SUPARCO

*Daily Dawn, January 08, 2014*

**ISLAMABAD:** A mapping study carried out by the Space and Upper Atmosphere Research Commission for the period between 2008 and 2013 has shown that snow cover over the Indus River basin during the winter of last year was greater. If meteorological conditions remain average, it is expected that rivers this year will have greater flows when compared to previous years, says the study. The snow cover has been calculated for the entire Indus river basin, including its eastern and western tributaries. Results show large variations in snow cover from year to year, with a rising trend from 2008 to 2013. Snow cover in 2013 was higher as compared to the rest of the years (2008-2012), the study shows. February 2013 saw greater

## Water quality monitoring system established in City

*Statesman, January 08, 2014*

snow cover over Indus Basin as compared to the other years. The snow and glacier melt stream flow is especially valuable because it occurs between April and June before monsoon rains. In May 2013, snow cover over Kabul river basin above Nowshera was calculated at 29,037km which was higher than the rest of the years between 2012 and 2008. Similarly in June 2013 the snow-covered area was measured at 18,510km which is also higher than the rest of the years. The major sources of river flow in Pakistan are Hindu Kush Karakoram-Himalaya mountains, which are mostly covered with snow throughout the year. Monthly averages of snow covered areas from 2008 to 2013 have been calculated to assess the runoff situation in the Indus.

According to an analysis of the data, monthly average snow-covered area over the entire Indus basin in Jan and Feb 2013 was 232,775km and 344,981km, respectively. In March it was 298,850km and in April, May and June 236,270km, 176,608km and 116,587km, respectively. Similarly, monthly average snow-covered area from Jan to June 2013 at upstream Tarbela was 132,026km, 191,813km, 172,949km, 146,415km, 98,940km and 76,196km, respectively. The study concludes that as runoff depends not only on snow cover but also on thermal conditions and if the temperatures remain the same as that of previous years then there will be higher runoff contribution due to snowmelt as compared to the previous years.

**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 sources told APP, Tuesday. 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". Official 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 a 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.

## India admits its coal plants causing fog inside Pakistan

*The News, January 07, 2014*

**ISLAMABAD/ RAWALPINDI:** Every winter major parts Pakistan's Punjab get exposed to a thick blanket of fog mainly because of coal based power houses in India and trans-boundary pollution is inflicting millions of dollars loss to the country's environment and economy. This has been unveiled in a letter written by eminent climate expert Arshad H Abbasi, associated with SDPI, to Prime Minister Mian Muhammad Nawaz Sharif. "India has itself acknowledged in the international courts while defending the controversial hydropower project on Pakistan's rivers, arguing that the thermal electric power generation based on coal is not sustainable environmentally. India says: "Our coal based thermal power plants are emitting ash, causing serious pollution and helping to forming fog in the Sub-Continent." "India further maintains in the international courts to justify the erection of hydropower projects on Pakistan's rivers that the ash generation was not only polluting the environment but also adding fuel to global warming," mentions the communication of Arshad Abbasi to the prime minister.

When contacted, former DG Met Office Dr Qamaruz Zaman Chaudhry, who is currently associated with LEAD-Pakistan as Senior Adviser on Climate Change, confirmed that the carbon emissions from the coal based power houses in India is the main reason of fog in many areas of Pakistan's Punjab. He said two years back the Met Office had conducted a study on fog and reached the conclusion that coal based power plants in India's Punjab are contributing a lot in generating fog in eastern part of Pakistan's Punjab. "We are witnessing extended fog in Pakistan and this phenomenon has started occurring in last 7-8 years." However, in the letter to the chief executive of the country, Arshad Abbasi highlighted startling disclosures, saying that in South Asia, the total coal consumption was 685 million tones out of which 98% was in India, with the majority of coal consumed in the power sector. The energy mix in India is heavily dependent on coal, and electricity generation on coal fuel is 71%, the highest in South Asia. Yet, the coal in India is of poor quality, with high ash content and low calorific value. He also quoted an interesting report by Centre for Study of Science & Technology, Bangalore that reveals that the Indian coal's quality is very poor having 35%-45% ash content, low heating value thus generation of one unit electricity emits one kilogram of Carbon Dioxide and almost annually, 200 million tons of ash is generated using coal in power sector. The Indian coal unlike the rest of the world has the highest arc contents, 25%-45%, with low heating value,

## Factories sealed for poisonous emissions

*Daily Dawn, January 07, 2014*

## Foggy days

*Daily Dawn, January 05, 2014*

thus to generate one unit electricity, coal power plants emit one kilogram of carbon dioxide. The emission of other more hazardous gasses, such as sulphur oxides, nitrogen, fly ash, and suspended particles are responsible for the greenhouse effect. Arshad Abbasi appreciated the PML-N government's efforts in making peace with India, admitting that this is necessary for the future prosperity of our two nations. However, this should not be at the expense of our citizens' health and environmental sustainability in the region. In fact, environmentalists in India are concerned about the negative environmental effects of coal. Citizens in Saarc nations are concerned about trans-boundary externalities of coal and call for an agreement similar to the Asean Agreement on Trans-boundary Haze Pollution model in South Asia. Arshad Abbasi also mentioned that while it is a common error to think of climate change as something in the future, every single day we are affected by poor decisions that are leading to terrible environmental degradation. As a thick blanket of fog envelopes Pakistan, a phenomenon that only seems to increase every year, it is integral to understand the reasons why this is happening and take urgent action to mitigate its effects. It is a mistake to think of haze creation and fog formation in Pakistan as a natural effect of falling temperatures and relative humidity. The distinct fog formation in Pakistan — the persistence, and the intensity — signals a deeper problem: air pollution. While automobile exhaust and burning of dried leaves contribute to this effect in smaller doses, the single biggest factor is the use of coal in thermal power plants for electricity generation.

Flying ash and trace elements in atmosphere after coal is burned is a major environmental hazard and public health concern, causing respiratory ailments like asthma, impairing the immune system and even causing cancer. Moreover, power plants running on coal emit carbon dioxide and other greenhouse gases.

**FAISALABAD:** The Environment Department sealed three factories on Monday for emitting poisonous smoke and causing harm to the environment. On the orders of District Coordination Officer Noorul Ameen Mengal, DO (environment) Mohammad Nawaz inspected various factories and sealed Al-Ghafoor Dying and Gulzar Foundry on Maqbool Road and another factory on Samundri Road for violation of the relevant law. The DCO told Dawn the action was part of a crackdown on the factories violating environmental laws and creating problems for the masses. He said the Environment Department officials had been asked to mend their ways and move against the violators on a daily basis. Many small industrial units in the district are violating law by burning used tyres and plastic material as fuel, emitting poisonous fumes and polluting the environment.

The density of the fog that has been blanketing parts of Pakistan for some years now has been steadily increasing. Steps urgently need to be taken to mitigate its effects. Many mistakenly think that the fog that has become the norm during the winters is the natural outcome of falling temperatures and relative humidity. However, fog created in this manner is localised and vanishes as the temperature rises. The persistence and intensity of the haze currently enveloping parts of the country is actually the effect of the deeper problem of air pollution. While automobile exhaust, the burning of dried leaves and other polluting activities are contributors, the single biggest factor is the use of coal for the generation of electricity in thermal power plants. In terms of air pollution, South Asia is amongst the most badly affected areas in the world. Unchecked industrial activity that uses fuels that endanger the environment has brought about severe changes in climate, including fog.

Regions that don't have such polluting industries are not spared either: the levels of gases such as sulphur dioxide, nitrogen oxide and particulate matter have been increasing with pollutants being carried by the wind for thousands of miles. Consequently, pollution is an issue not just for the country that produces it but for other states as well. The phenomenon of persisting fog during December and January has been increasing in Pakistan over the past 15 years. Its range also includes the Indo-Gangetic plain that stretches from Peshawar to Kolkata and beyond. The single largest contributor to air pollution in South Asia is coal-run thermal power generation. The consumption of coal in South Asia during 2012 was around 685 million tons in total, out of which 98pc was used in India; the majority of this coal was consumed by the power sector. The share of electricity generated using coal as fuel in India is 71pc, 3.2pc in Bangladesh and 0.1pc in Pakistan. A report by the Centre for Study of Science, Technology and Policy in Bangalore reveals that the quality of Indian coal is very poor, with 35-45pc ash content and low heating value. Thus, the generation of one unit of electricity emits one kilo of carbon dioxide; annually, almost 200 million tons of ash are generated by the use of coal in the power sector.

Energy is vital for growth in India and consequently, the fog that envelopes Pakistan over the winter months has kept pace with its generation and grown thicker. Indian reports on the energy statistics of 2013 say that today India is the ninth largest economy in the world driven by a real GDP growth of 8.7pc. This has placed enormous demand on its energy resources. The demand and supply imbalance in energy is pervasive and requires serious efforts by the government of India to augment energy supplies. The country faces possibly severe energy-supply constraints. Nevertheless, India is violating transnational environmental laws by creating negative externalities for the countries it shares borders with.

Indian scientists concede that coal-based thermal power plants are major air pollutants, including small particle pollutants — the aerosol. Recent studies using satellite modeling show a significant increase in aerosols in the Indo-Gangetic plain. Several reports also conclude that the coal supplied to power plants is of the worst quality. This factor, coupled with the low

### Muqam directs ERRA to complete uplift projects in quake hit areas

*Statesman, January 04, 2014*

efficiency, results in more pollution. The emission of other, more hazardous gases, fly ash and suspended particulate are responsible for aggravating the greenhouse effect. Pakistan is suffering from dire changes in its climate. Many projects have been envisaged and some even pursued for remedying global warming, but the lack of clearly identified goals and effective strategies have resulted in zero gains.

Like the fog that envelopes much of Pakistan, these efforts have been draped in a shroud of failed promises and never accomplished aims. Climate change has evolved into an industry in the country but the only effort is in terms of getting funding. Ensuring the implementation of practical measures is hardly on the agenda of any non-governmental organisation working in the climate change sector in Pakistan. While I appreciate the efforts of the present government for increasing cooperation with India, there is a need to augment these by taking steps to prevent environmental degradation. Pakistan needs to follow the model of the Asean agreement to come up with a 'Trans boundary Haze Pollution' model in South Asia. At the same time, other countries including Bangladesh, Bhutan, the Maldives, Nepal, and Sri Lanka, have to find the courage to ask India to replace its coal-power plants.

**PESHAWAR:** Advisor to Prime Minister Engr Amir Muqam said on Friday that he would recommend to the Prime Minister to allow ERRA (Earthquake Reconstruction and Rehabilitation Authority) to work within its reforms so that ongoing development schemes in KP and AJK could be completed in time. He expressed these views while chairing a high level meeting which was attended among others by Deputy Chairman ERRA Major General® Muhammad Azeem Asif, and PERA Consultants. Amir Muqam said, Prime Minister Muhammad Nawaz Sharif was interested in early completion of the uplift projects in KP and AJK. He expressed concern over slow pace of work on some projects in quake hit areas of Abbottabad, Shangla, Mansehra, Batagram and Kohistan districts and directed for accelerating the construction work. It was the priority of the present government to provide better facilities of education, health and communication in these districts and gave relief to the quake affectees. He said that issue of Balakot City would be resolved soon under the supervision of Federal Minister for Religious Affairs.

Earlier Deputy Chairman ERRA briefed the meeting about the construction work and informed that ERRA has completed 9500 projects out of 14000 at a cost of Rs.217 billion which included construction of hospitals, schools and colleges in the quake hit areas of the province and AJK. Construction work on other projects was underway which would be accelerated further with the availability of the funds. He disclosed that due to timely completion of projects by the ERRA, the donor agencies and foreign countries have waived off 40.8 billion euro loan to Pakistan. The sooner we complete these projects, the government would get rid of the foreign debt, he concluded. - APP

### Tarbela only hope for water-starved twin cities

*Daily Dawn, January 02, 2014*

**ISLAMABAD:** A multi-billion rupee project to meet the increasing water needs of Islamabad and Rawalpindi has long been on the anvil, waiting for approval by the Indus River System Authority (Irsa) for implementation.

Sources in the Capital Development Authority (CDA) say the project it designed over a decade ago draws on the Tarbela Dam water and Irsa has the final word on the distribution of Indus waters. If approved, the more than five million residents of the twin cities will get extra 655 million gallons of water every day. The CDA plans to complete the project of the estimated cost of over Rs100 billion in three phases.

According to the CDA, the Cabinet Division has forwarded its feasibility study report to Irsa and the federal minister of water and power is taking keen interest in the project. Irsa is meant to resolve issues relating to water distribution among the provinces. Unfortunately, there is no mention of water allocation for federal capital from river resources in the Irsa Act. Still, the CDA authorities are hoping for a positive response from Irsa, a federal entity. Since Rawalpindi city will also benefit from the project, the feasibility report quotes Punjab's claim over water from Indus river system.

Water scarcity has been rising in the twin cities with the rise in their population. New settlements mushrooming around Islamabad and Rawalpindi have depleted the underground water table in the region to an alarming level. Every year during summer, residents of worse-hit localities are seen taking to the streets to protest water shortage. Having exhausted available water resources, the CDA planners believe water from Tarbela is the only option to meet the scarcity. Currently, water from Simly and Khanpur dams, and tubewells installed by CDA, is being supplied to the residents of Islamabad and Rawalpindi. The CDA has been stressing on the federal authorities that these resources are not enough to meet the increasing demand for water.

### Country shivers in icy cold

*Statesman, January 01, 2014*

**ISLAMABAD:** The cold wave, sweeping through most parts of the country, has caused further drop in mercury and the Metrological Department has reported that temperature could drop further within two or three days. The minimum temperature hovered around freezing point at different places even as mercury plummeted to -21°C in Kalat and -13°C in Quetta. Even, the federal capital went through its most uncomfortable day in 46 years as the mercury plunged to -2°C.

According to Met Office, a westerly wave is prevailing over upper parts of the county and expected is to persist during next 24 hours. Cloudy conditions with rain (light snowfall over the hills) is expected at scattered places of Lahore, Gujranwala, Hazara divisions and Kashmir

## WWF to protect, manage pastures of Kalash valley

*Daily Dawn, January 01, 2014*

while at isolated places of Malakand, Peshawar, Kohat, Bannu, Sargodha divisions, Islamabad and Gilgit-Baltistan. The north Balochistan and upper parts of the country are likely to remain under the grip of severe cold wave for the next few days. - INP

**CHITRAL:** The World Wide Fund for Nature (WWF) will provide pasture management plan based on scientific approach to ensure sustainability and soil protection in pastures of Kalash valley of Rumbur.

Talking to Dawn here, WWF's field biologist for Chitral region, Shafiqullah Khan said though the grazing and pasture management were not new to Chitral, where 62 per cent area is covered by pastures, it was to be harnessed on scientific lines. He said the pasture of Rumbur valley, which is a buffer zone for Chitral Gol National Park, was one of the major pastures in Chitral known for its rich variety of forage and other allied resources which faced threat of overgrazing and other unhealthy interventions by local people. Mr Shafiqullah said the WWF had evolved the management plan after holding a series of meetings with the local community with a view to incorporate indigenous knowledge and practices in the plan. He said salient features of the plan included rotational grazing, seasonal selection of grazing areas and causing least interruption to habitat of wildlife in contiguous areas. Mr Shafiqullah said being the buffer zone of the national park, the Rumbur pasture had many peculiar conditions, including being a host to wild animals like markhor, snow leopard, Himalayan wolf and many bird species like chukar. "The management plan will ensure security and conservation of these species", he added. "Different measures will result in effectively checking the soil erosion which has played havoc with the plain fields of Rumbur and Ayun villages after torrential rains," said Mr Shafiqullah. "The plan will also ensure good health of people as it will also ensure flow of pure water supply to villages," he said. Mr Shafiqullah said the plan also envisaged pastures' regulation as a good number of people derived their sustenance from there by collecting mushrooms and medicinal plants. The WWF official said women belonging to Kalash community were also included in the consultative process of the plan to make it more result oriented.



## ENVIRONMENT & RELATED REGULATORIES/ AGENCIES FRAMEWORKS NEWS

### Representatives from Afghanistan, China, India and Pakistan visit Ecuador to share knowledge on monitoring glaciers and climate change

WorldBank: January 24, 2014

[www.worldbank.org/en/country/pakistan](http://www.worldbank.org/en/country/pakistan)

**QUITO**, January 23, 2014 - Academics and government officials from Afghanistan, China, India and Pakistan will visit Ecuador (January 27-30) to learn about the regional program, Adaptation to the Rapid Impact of Glacier Retreat in the Tropical Andes (PRAA). The PRAA is funded mainly by the Global Environment Facility (GEF) and implemented in Bolivia, Ecuador and Peru, with some activities in Colombia, with World Bank support and under the administrative management of the General Secretariat of the Andean Community of Nations.

Part of the economic development and growth of the Andean countries and the countries located in the Indo River Basin depend on water resource systems nourished by glaciers. These countries (which receive water from glaciers of the Andean Mountains in the case of Bolivia, Ecuador and Peru, and of the Himalayas Mountains in the case of Afghanistan, China, India and Pakistan) face several common challenges, including population growth, vulnerability to climate change and hydrological variability from year to year.

The impact of climate change on the Indo River Basin is a key concern because its inhabitants depend heavily on snow and water from melting glaciers, which contribute significantly to the annual water flow. Nevertheless, the more than 18,000 glaciers that nourish this basin have not been studied and are largely unmonitored. Climate change represents a major challenge for the highly complex management of the basin's water resources. According to some estimates, the combined impact of climate change and population growth is expected to reduce the per capita availability of renewable water from 1,329m<sup>3</sup> to below 750m<sup>3</sup> by 2050 among the populations living along the Indo River. In this scenario, monitoring of glaciers provides crucial data for decision-making with respect to the adaptation to climate change and the economic growth of the basin.

In the case of the Andes, through the aforementioned PRAA Project and other national initiatives, significant progress has been made in recent years in consolidating a systematic study of the glaciers, their monitoring at the national and regional levels, as well as with respect to understanding the impact of glacier retreat on local ecosystems and economies. In this region, important advances have been made in building regional consensus and in the field implementation of specific measures for adapting to climate change in highland areas. Therefore, the exchange of information and experiences among participants from both basins will prove valuable since the two groups can exchange experiences and lessons learned. The Andean countries participating in the PRAA project have much to share regarding the implementation of glacier monitoring technologies, the creation of regional networks and specific adaptation measures to improve water resource management. This visit will create an ideal opportunity to do so. The exchange includes a visit to Antisana Glacier, whose monitoring stations, at over 4,000 meters above sea level, are the highest in Ecuador and the only ones installed near and directly above the glacier surface. These stations collect valuable information on atmospheric conditions and help scientists learn more about the relationship between climate and the resulting water balance.

Additionally, the visit seeks to build technical capacities of participants as well as inform on and initiate the joint regional implementation of glacier data management and information sharing among countries. Moreover, during the visit, participants will learn about implementation of the PRAA project in Bolivia and Peru.

### Environmental Education Wins Big at WWF's Nature Carnival

WWF-Pakistan

January 26, 2014

[www.wwfpak.org](http://www.wwfpak.org)

**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 Women 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

## The Government of Pakistan and UNDP launch the Millennium Development Goals Report 2013

UNDP-Pakistan

January 22, 2014

[www.undp.org](http://www.undp.org)

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.

The Ministry of Planning, Development and Reform (MPDR) and the United Nations Development Programme (UNDP) launched the fifth National MDG Report for Pakistan in Islamabad (MDGR). The report assesses progress towards achieving the MDGs, galvanising efforts for a final push for their achievement. The report records successes and challenges, and shares initial thoughts on the post-2015 development agenda for Pakistan. For the first time, this MDGR includes a review of sub-national and district level status and trends. UNDP Pakistan is also launching an Internet MDG monitor to make up-to-date information on the country's MDG progress more widely available at [www.mdg.undp.org.pk](http://www.mdg.undp.org.pk). The MDGs are a set of 8 goals adopted by 189 countries, including Pakistan in 2000 and to be achieved by 2015. The MDGs provide concrete, numerical benchmarks for tackling extreme poverty in its many dimensions.

Pakistan has adopted 16 targets and 41 indicators against which progress is measured and reported. According to the MDG Report 2013, Pakistan is likely to reach to ten of the indicators, while the progress on many others indicate that additional and more focussed efforts are needed in order to be able to reach close to these.

Pakistan has shown consistent, though slow, progress on many of the MDGs. The Government has already geared up efforts to achieve the target set for achieving Universal Primary Education, and the Net Primary Enrolment Ratio. The recent enrolment drive is an effort towards achieving these targets.

Professor Ahsan Iqbal, Federal Minister of Planning, Development and Reform, Government of Pakistan, thanked the UN and other development partners for their support in pushing the National development agenda forward and for driving progress on the Millennium Development Goals, which are in fact Pakistan's National Development Goals. He stressed that had the level of support from the development partners been according to the plan, Pakistan would have performed much better in terms of achieving most of the MDGs. Underlining the importance of National MDG Report, he said that it takes stock of the national milestones and successful policies/programmes/initiatives around the MDGs and provides a robust fact base and repository of data for informed and evidence based policies formulation in the country, provinces and regions. He said that while the country is lagging on most MDG targets and faces a host of challenges impacting the pace of progress; the Government is committed to work toward the achievement of MDGs, in particular towards investing in its people. He said MDGs are in reality National Development Goals, which are critical for development of the country. People have to be at centre of all development strategies and goals for sustainable and inclusive growth. Quality of human resource determines quality of development. In post eighteenth amendment scenario, there is greater need for collaboration among all stakeholders. Pakistan 2025 puts human development at the top of development agenda. He underscored the need for collective efforts led by the provincial, regional and federal government together with civil society, academia and other development partners to expedite progress on achieving the MDGs. He highlighted the development of the MDG Acceleration Framework for Education as a successful exercise in which this is occurring.

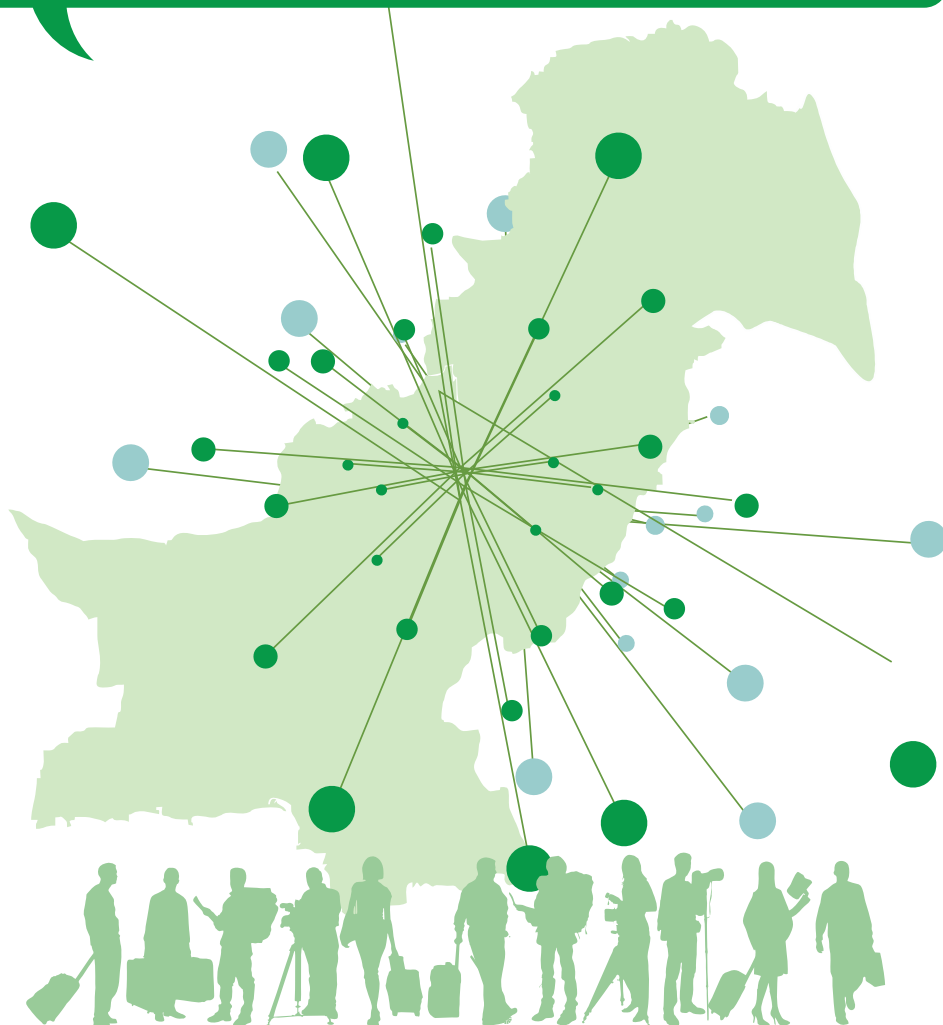
Ms. Marriyum Aurangzeb, Parliamentary Secretary for Interior and Narcotics Control and Convener of the Parliamentary Task Force on MDGs elaborated on the objective of the Task Force and the formation of similar groups at the provincial level. These groups have oversight on the implementation of the Millennium Acceleration Framework on Education and Pakistan's Priorities in the Post-2015 Development Agenda, coordinating with the provinces and the national government. She described the importance of credible, authentic, and comparable data, which plays a critical role in tracking, monitoring and evaluating social sector reforms to inform policy making. She also highlighted the importance of peace, security and stability in the implementation of social sector reforms. Ms. Aurangzeb urged civil society, bilateral and multilateral partners, media and the private sector to support a unified national agenda for social sector reform in the country.

Mr. Haoliang Xu, UN Assistant Secretary General and the new UNDP Director for Asia and the Pacific highlighted the setbacks Pakistan has encountered in the form of natural disasters, a deteriorating law and order situation and the global financial crisis, in spite of which progress has been made on some MDG indicators. He noted the commendable performance of other South Asian countries such as Nepal, Sri Lanka and Bangladesh on achieving the MDGs vis-a-vis Pakistan and emphasised the need for South-South learning. Pakistan can learn a lot from countries in South Asia with better MDG performance. He noted that the Pakistan MDG report analyses disparities and inequalities across different

geographical areas and gender. The report identifies rising income and gender inequalities as one of the main development challenges, not only for Pakistan, but also for the world as a whole.

Four lessons from other countries in South Asia on accelerating progress toward achieving the MDGs were highlighted: 1) social policies are as important as economic policies; 2) investing in women and girls has multiple, strong benefits for all MDGs; 3) public sector expenditure on the social sector is important, especially spending on education, 4) governance issues at the country level can be a major constraint. He also commended the efforts of the MPDR in prioritising some of these issues in the Vision 2025 and the 11th Five Year Plan and creating synergies and closing links between policies and strategies at the national and sub-national levels

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## HUMANITARIAN INTERVENTION'S IN CLIMATE/ ENVIRONMENT SECTOR

### WWF-Pakistan

January 16, 2014

[www.wwfpak.org](http://www.wwfpak.org)

#### WWF-Pakistan records authentic occurrence of Hawksbill turtle for the first time in Pakistan

**KARACHI:** A species of marine turtle which was not previously reported from Pakistan has been recorded for the first time by WWF-Pakistan from offshore waters of Pakistan with the help of local fishermen. The Hawksbill sea turtle which is scientifically known as *Eretmochelys imbricata* was caught by a tuna gillnet from offshore waters near Ormara on Balochistan coast. Two species of marine turtles i.e. Green and Olive Ridley turtles are reported from Pakistan; of which the Green turtle is the most common, nesting along the Sindh and Balochistan coast. Although no recent record of Olive Ridley turtle was reported from Pakistan but WWF-Pakistan has located large population of Olive Ridley in offshore waters of Pakistan during the last two years. Last year another rare species i.e. Leatherback turtle was reported from Sur, Balochistan which was successfully released by the staff of WWF-Pakistan, other environmental organizations and local communities

Mr. Rab Nawaz, Director, WWF-Pakistan informed that Hawksbill turtle is declared as a critically endangered sea turtle in 1996 under IUCN Red Data List because according to Marine Turtle Specialist Group of IUCN the worldwide hawksbill sea turtle population had declined by 80% and no significant population increase occurred since 1996. Report of hawksbill turtle from Pakistan is a new addition to the diversified marine fauna of Pakistan. In the Indian Ocean, the Hawksbill turtle is widely distributed from African coast to the Persian Gulf, India and South and far-East Asian countries. He further pointed out that previously only one dead shell of hawksbill was reported collected from Cape Monz, however, this cannot be authenticated independently.

The Hawksbill turtle has worldwide distribution in tropical and subtropical waters. There are two subspecies are known. *Eretmochelys imbricata imbricata* is found in Atlantic Ocean whereas *Eretmochelys imbricata bissa* is found in the Indo-Pacific region which is now reported from Pakistan as well. Hawksbill turtles can easily be distinguished from other sea turtles by its sharp and curved beak and the saw-like appearance of its shell margins. Hawksbill turtle can grow up to 1 m in length and weighing around 80 kg.

The Hawksbill turtle was caught on board tuna gillnet boat "Al Gul Muhammad" and Mr. Shah Zamin was its Nakhuda. The boat left for fishing on November, 22, 2013 and returned after a fishing trip 57 days returned on January 13, 2014. While fishing in the off Ormara, Hawksbill turtle having a carapace length of 47 cm. Mr. Muhammad Moazzam Khan, Technical Advisor (Marine Fisheries), WWF-Pakistan informed that all marine turtles including Hawksbill have been listed on Appendix I of the Convention on International Trade in Endangered Species (CITES), therefore, it is illegal to import or export turtle products, or to kill, capture, or harass hawksbill sea turtles. WWF-Pakistan has initiated training of fishermen to release turtles that are incidentally caught in the fishing gears. Vital data about the hawksbill turtle was recorded and fishermen have successfully released this hawksbill turtle which swam away.

Hawksbill turtles are omnivorous but sea sponges are the principal food (70–95%) in some areas. They also feed on algae, cnidarians, comb jellies and other jellyfish, and sea anemones. Normally hawksbill lays around 140 eggs which hatch after about 60 days. Turtle mature in about 20 years and lay eggs after every 2 or three years. There is no authentic record of their breeding in Pakistani waters although coastal communities do report typical track of hawksbill in some isolated localities along Balochistan coast.

WWF-Pakistan since long has been involved in the conservation of marine and freshwater turtles and many projects have been implemented. Presently a turtle watch programme is implemented in Hawksbay area whereas monitoring of marine turtle population in offshore waters is being undertaken. The results have indicated a healthy population of Olive Ridley and green turtles in the offshore waters.

### LASOONA/ KP-Pakistan

January 02, 2014

<http://www.lasoona.org/>

#### Inception Workshop, LASOONA- ASF Project

An Inception workshop was conducted by LASOONA in collaboration with ASF (The Agribusiness Project) Funded by United States Agency for International Development on December 31, 2012 in Swat. Project concerned personals like, persons from different fields participated in inception workshop, including Govt. line departments (Agriculture Extension, Research, Livestock etc.) Agribusiness Support Fund staff, local and International NGOs, LASOONA program/project staff, Farmers and farmers' groups/organizations.

In its inaugural speech, Mr. Azam Khan-Executive Director LASOONA welcomed, ASF, Line departments and farmers for their participation in the inception workshop. He briefed the participants on previous project, which LASOONA implemented in collaboration with ASF. Mr. Muhammad Akbar M&E and Communication Manager- Agribusiness Project had a discussion on duration of the project, cooperative agreement, date of commencement, budget of the project, project goal and objectives.

The Project Coordinator LASOONA (Mr. Sheeraz Ahmad) had a detailed presentation on

## Solidar-Switzerland / Pakistan

[www.solidar-switzerland.org.pk/](http://www.solidar-switzerland.org.pk/)

## World Bank/ Pakistan

[www.worldbank.org/en/country/pakistan](http://www.worldbank.org/en/country/pakistan)

January 08, 2014

LASOONA-ASF project. The Farmers Enterprise Groups (FEGs) structure and criteria was briefly discussed, like FEGs will have past experience in particular value chains, Co-FEGs (Mix group), Geographical connectedness, identified value chains relation and having no political agenda of the partner FEGs. It was also explained that 70% male and 30% women are allocated in the entire project and these male/female farmers groups will commercialize the value chains in national/international market. Afterwards, there was detailed questions and answers session where the participants especially the farmers asked about the program in detail and the concerned persons clarified. In the end, Mr. Rauf- Director Agriculture Research Institute in his closing remarks thanked the participants for their active participation.

### Rehabilitation and Development of Irrigation system in District Charsadda and Nowshera, KPK

12 irrigation channels rehabilitation is in process in Union Council Pirsabaq District Nowshera and Union Council Agra District Charsadda. 1,489 farmers will have easy access to enough water for their crops from these rehabilitated channels. 12 communities around the irrigation channels will have disaster risk maps and disaster risk reduction Plans. 15,000 poplars will be planted alongside of rehabilitated channels to mitigate the environmental degradation caused by reconstruction work. A study to analyze "How to prevent child and forced labor being used in emergency and early recovery projects, strategy development recommendation for the support of wider fight against child/forced labor in general" is in progress.

### Budding Young South Asian Economists Tackle Barriers to Cooperation

(The 10th South Asia Economics Students Meet was held in Lahore, Pakistan to share research and discuss the political economy of South Asia. Students also shared ideas to improve regional cooperation.

The meet brought together 82 top economics undergraduate students who met and interacted over a week-long packed schedule of events. Having grown from four countries to seven, it has convened nearly 1,000 economic students from across the region.

Most of the participants had never had the opportunity to interact with their peers from other South Asian countries, and consistently remarked how pre-conceived notions and apprehensions were being broken down. Despite shared languages, history, culture, and borders, South Asia remains one of the least integrated regions in the world. The cost of weak regional cooperation tends to hurt the poor and vulnerable more than other segments of the population. Increased cooperation holds many opportunities for development gains for all countries of South Asia, yet many barriers exist to further regional cooperation.

How to tackle these issues and help South Asia maximize the gains from such cooperation were discussed last week in Lahore, Pakistan by a group of budding young South Asian students. Hosted jointly by the Lahore University of Management Sciences (LUMS) and Lahore School of Economics (LSE), the 10th Annual South Asian Economics Students Meet brought together 82 economics undergraduate students from around South Asia. With teams of 10 members each, students from Bangladesh, Bhutan, India (two teams), Nepal, Pakistan, Sri Lanka, and for the first time, Afghanistan met and interacted over a week-long packed schedule of events.

The theme this year was the Political Economy of South Asia, with each student submitting a paper on one of six sub-themes, discussing wide-ranging topics from the differences in the ready-made garment industries between India and Bangladesh, to development-induced displacement, to the relationship between trade and security in the region. The students each presented their papers, with a panel of judges, made up of professors of economics from around the region, picking a winner in each sub-theme.

Consistently throughout the events, participants were challenged to think and apply economics theories they have learned in the classroom to real-world issues. Dr. Atif Mian from Princeton University set the context at the opening session explaining to participants how to think about political economy, particularly in a South Asian context. Alongside this was also held the Budding Economist competition, consisting of a paper submission and a written exam on micro-, macro- and development economics. A visual round was then held, where participants were shown a picture and had to creatively describe it using economic theories. The finalists then had a public, panel interview. The winner, and Budding Economist of 2013 was Chathuni Kaneesha Uduwela, from the University of Colombo in Sri Lanka. An inter-university quiz competition was also held, won by the team from Bangladesh.

The World Bank, which has supported the conference since 2007, participated in a discussion on the political economy of multilateral institutions and stabilization policy. Here, students heard from panelists who have been directly involved in economic policymaking and IMF and World Bank programs for various countries, including the 1990s East Asian financial crisis to the negotiation of the IMF-Pakistan program in 2008. A second panel discussion was held on urbanization in South Asia. The UN Industrial Organization (UNIDO) also presented some of their trade-related initiatives in Pakistan. The participants presented their own papers as well as attending panel discussions. The participants had a retreat,



## UNDP-Pakistan

January 24, 2014

[www.undp.org/content/pakistan/en/home/](http://www.undp.org/content/pakistan/en/home/)

visiting Harappa, Islamabad, and the Old City of Lahore.

After the academic events, the participants had a retreat, visiting Harappa, Islamabad, and the Old City of Lahore. In the spirit and theme of regional cooperation and political economy, the World Bank also hosted a policy competition. In the session, participants were split into six groups with representation from each country, and asked to answer how they think national competitiveness can be improved through South Asian regional cooperation. Some ideas consistent across all groups was to break down barriers for people meeting, increasing trust between countries, and for more opportunities that allow people to meet. Others suggested building a South Asian University and leveraging and boosting the South Asia Association for Regional Cooperation (SAARC).

After a grueling three days of academia, the participants traveled to sites signifying the rich and common history of Pakistan and South Asia. They visited Harappa, an ancient site of the Indus Valley Civilization; Islamabad, the modern capital of Pakistan; and the old city of Lahore, a major urban center of South Asia for centuries.

This year marked the conference's landmark 10th anniversary. Having grown from four countries to seven, it has convened nearly 1,000 economic students from across the region. SAESM grew out of a request in 2004 from a few Pakistani students to their visiting Indian economics professor of their desire to visit India. Ali Hasanain was one of those original students. Then an economics student at LUMS, he is now an Assistant Professor at the school and was one of the primary faculty organizers this year. The Indian professor he and his peers approached, Dr. Deb Kusum Das from Ramjas College, is also still involved as a primary coordinator in India, showing the strong, lasting bonds participants – both faculty and students – alike have built through SAESM.

SAESM provides a unique opportunity for undergraduate economics students in the region not only to interact with their peers, but also faculty from other countries. Most of the participants this year had never had the opportunity to interact with their peers from so many other South Asian countries, and consistently remarked how pre-conceived notions and apprehensions were being broken down. The success of the conference allows it to continue to expand, with the next SAESM being planned to be hosted for the first time in Bhutan.

### Development Advocate Pakistan: New quarterly highlights development challenges and solutions

Seeking the opportunity to share and foster robust national public discourse on development challenges and solutions in Pakistan and to provide a platform for Pakistani authorities, civil society and intelligentsia to exchange ideas on key development solution pathways in Pakistan, UNDP released its development magazine, The Development Advocate today.

A combination of analysis and public opinion articles promote and inform public discourse on development ideas while providing up-to-date information. This publication presents varying perspectives from civil society, academia, government and development partners, with an explicit effort to include the voices of women in youth in the ongoing dialogue.

The first edition titled A New Way Forward for Local Governance in Pakistan focuses on local governance including perspectives from the civil society, academia and government counterparts. In countries around the world, the absence of effective local governance arrangements exacerbates inequality, instability and underdevelopment, as well as social exclusion and lack of empowerment among youth, women and minority groups. Local government is fundamental to mitigating these grievances as it brings government closer to the people, and has the potential to increase the quality and coverage of services to citizens.

Mr. Haoliang Xu, UN Assistant Secretary General, UNDP Assistant Administrator and Director of the Regional Bureau for Asia and the Pacific launched the publication. He said, 'The 18th Constitutional Amendment - unanimously passed in 2010 - has set new directions for Pakistan as a federal, democratic and parliamentary state. Pakistan is undergoing a very critical phase of implementation and transition management of this Amendment. In this most important endeavor - and at the request of the Government of Pakistan - UNDP is pleased to support the Government and the people of Pakistan in this process.'

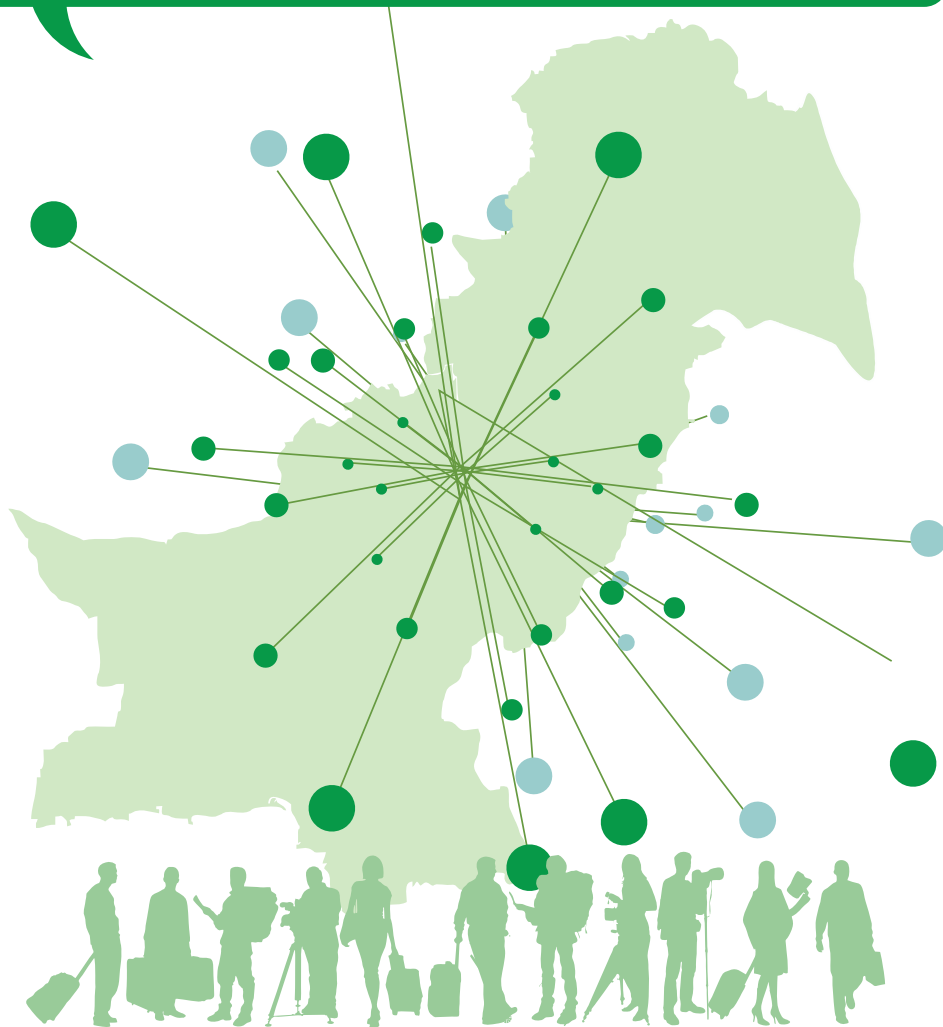
Following the keynote address by Mr. Xu, the group of panelists shared their views and perspective on local governance and how Pakistan can implement wide reaching policy changes in favor of local governance. The panelists included Ms. Khawar Mumtaz, Chairperson of the National Commission on the Status of Women, Mr. Saeed Shafqat, Director of Center for Public Policy and Governance, Mr. Harris Khalique, Analyst and Columnist and Mr. Babar Sattar, Lawyer. The discussion was moderated by Ms. Mehreen Khan, Television Broadcaster and Policy Specialist.

Mr. Shafqat, whose analysis - local government acts 2013 and province-local government relations - is included in the Development Advocate, said that with the advent of local governments, there also is a need to put civil service reform back on the agenda. The provinces could, for example, consider the establishment of the District Cadre Service and strengthen the Provincial Public Service Commissions. Also, the role of the Election Commission of Pakistan and the higher judiciary in upholding the spirit of the Constitution bodes well for the credibility and continuity of local governments.

Mr. Khalique added that Local governments provide religious minorities a better chance to make decisions that affect their daily lives at the grassroots level, while also providing a nursery for future higher level political leadership.

Mr. Marc-André Franche, Country Director UNDP in Pakistan thanked the panelists and said, "Today marks the beginning of what will be an ongoing discourse leading to innovative development solutions. We are creating a space for dialogue that bridges the gap between policy and people's daily lives."

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## CLIMATIC/ ENVIRONMENTAL PROFILE: CITY DISTRICT KARACHI

### Environment

#### Surface Geology

Two synclinal valleys that are the Malir valley running from the north to southwest and the Lyari River valley running from the north to the south dominate the structural geology of Karachi. An anticlinal ridge known as Drigh road anticline separates these two synclinal valleys. Another anticlinal hilly range is called Manghopir range located in the northwest of the city. Intermittent streams and run off form monoclinical ridges, hogbacks and cuestas erode these folded structures. Scarp features are dominated in these structures. Generally angle of dip slopes are in between 30 to 70 degree. Strikes are mostly north to south and northwest to southwest. There are several strike slips faults, which indicate the past tectonic activity in the area. The Sona pass, the Mulri hill pass and several faults in the Manghopir and Orangi hills.

Cliffs, sea stacks, sandy beaches, sand bars and sand spits, swamps, mudflats and salt marshes dominate the coast of Karachi. Due to the hill torrents at the slope of hills, alluvial fans and bajada features form depositional surface while the low angle piedmont slopes represent the erosional surface. Weathering and mass wasting are two dominant geomorphic processes in the area are examples of strike slip faults. Dip-slip faults like normal faults, reverse fault etc. The outcrops in Karachi comprise different epochs of tertiary period and quaternary surface deposits. It comprises from Eocene to Pliocene rocks. The outcrops are exposed in different areas of the City belong to Pliocene locally called Manchhar formation, Miocene locally called Gaj formation and Oligocene locally called Nari formation. All rocks are sedimentary rocks belong to limestone, clays, shale and sandstone.

#### Torrential Rainfall and Surface Runoff

Rainfall in Karachi is low and highly variable. However, whenever torrential rain, falls, which usually is for short duration, the surface runoff intensifies. This is because the rate of water percolation into the soil is lower than the amount of rainwater that falls on the surface. Heavy showers take place in the city due to the effects of tropical storms, usually in June, which rarely hit the coastal areas. Usually these heavy shower cause flooding. On June 6, 2010, due to the tropical storm, Karachi received 130 mm rain within a day causing huge surface runoff. The Scatter Graph given below depicts a correlative effect between the rainfall and the surface run-off.

#### Surface Water Drainage

The drainage pattern of Karachi is dominated by dendritic. The surface drainage of Karachi City is divided in to four parts based upon surface runoff and streams' flow

- a. Malir River Basin
- b. Lyari River Basin,
- c. Budnai Basin,
- d. Coastal Basin

The Malir River basin and the Lyari River basin are the two main basins which contribute about 80 percent of the surface runoff. The Budnai basin and the coastal basin are minor basins. All basins collect surface runoff through hundreds of small and large channels which finally drain into sea. Karachi's network of drains is not designed to handle high intensity of rainfall. In addition, the drains get blocked or are covered up by encroachments. This happens, for example, when sewage lines are connected to the drainage networks and garbage is dumped in them. The encroachments and squatter settlements on the bed and along the banks of the Malir River have been a major cause of flooding in Karachi during heavy rainfalls.

### Environmental Quality

According to the Asian Green City Index (2013), Karachi is the 7th least livable city in the world out of 140 and at the bottom of the 22-city's list of the Asian Green City index. The index compared environmental performance of 22 Asian cities in cooperation with "Economist Intelligence Unit", and rated Karachi as "well below average" on the basis of eight environmental categories (Air quality, Environmental governance, Energy & CO<sub>2</sub>, Land use & buildings, Transport, Waste, Water, and Sanitation).

**Air Pollution:** Main sources of air polluting emissions in Karachi include old and ill-maintained motor vehicles, open burning of garbage at the landfill sites and uncontrolled industrial growth (e.g. steel mills, chemical and engineering works, oil refineries, ship building yards, railroad yards, jute and textile factories, printing and publishing plants and food processing plants. Over 1, 000 tons per day of uncollected solid waste finds its way directly or indirectly in to the sea, providing a constant source of marine pollution .

Firewood, dung and solid wastes are still used as alternative sources of energy in certain parts of the city, particularly the villages and Katchi Abadis. Biomass is used by 17,000 households, or 2.01 percent, of dwellings in the city, according to the Bureau of Statistics.

**Noise Pollution:** Rapid urbanization is contributing towards the emission of noise due to traffic. Increase in the number of vehicles, traffic jams, defective vehicles, and poor roads, all contribute towards noise pollution. Although industrial estates have been demarcated away from the residential areas, the unplanned 'katchi abadis' not only leads to extemporaneous industrial activity but expose the residents to noise and air pollution. The most important non-industrial sources identified in Karachi are: vehicular traffic, loudspeakers, radio, TV, record players, construction work, rail and air traffic. The tolerable range of 60 to 70 dB(A) has been far exceeded and the average level is in the range of 75 to 85 dB(A).

**Costal:** The Karachi coastline, which stretches over 135 km, is facing severe pollution from industrial, port, municipal, and transportation activities in the area. Effluent from Malir and Lyari rivers is also a major contributor. The marine environment is being overwhelmed with pollutants discharged to the marine environment. A recent study found that some of the marine life was contaminated with lead. When consumed by humans through seafood, this has been linked to anemia, kidney failure, and brain damage. The coastline is heavily dependent on the mangrove forests that line the coast to maintain the marine environments ecological balance. The mangroves provide habitat for a complex and interdependent community of invertebrates, fish, birds, and reptiles. Mangroves protect the coast line from soil erosion and also minimize the disastrous impact of cyclones and tsunamis. They are an important habitat for fishes and shrimps. The Mangrove forest has plummeted from 600,000 hectares in 1930s to just 86,000 hectares in 2005 (Karachi Strategic Development Plan 2020/ Compiled-December 2007).

<sup>1</sup> ADB 2005a Karachi Mega Cities Preparation Project. August 2005. Asian Development Bank, Manila

<sup>2</sup> Dieter Schwela, Gary Haq and Mohammad Aqib Uddin (2009). A Strategic Approach for Air Pollution Reduction in Karachi

**Oil Pollution:** About 2,500 ships and 200 oil tankers visit the Karachi harbour through the Manora Channel annually and some 20 million tons of cargo is handled as a result. There is large scale shipping traffic at Port Qasim. The sources of oil pollution in Manora channel are bilges, washings from engine rooms of vessels, discharges and leaks from bunkering points, and leaks and small spills occurring during loading and unloading at the oil piers. Some of the oil is also carried to the channel through the Lyari river discharge. It is estimated that all the sources of oil pollution in the Karachi harbour collectively contribute about fifteen to twenty thousand tons of oil per year within the harbor and adjacent waters connected with it through the Manora channel. Oil pollution also occurs due to the National Oil Refinery and Pakistan Oil Refinery discharges into the Korangi Creek.

Apart from this, the Sindh coastline appears to be relatively free from oil pollution. Among the creeks of the Indus delta, Gizri Creek and Korangi Creek are most affected by oil pollution from the waste oil discharges of refineries, industries and municipal activities of sources located in the Korangi area. At Karachi, the Lyari River discharges considerable amounts of suspended matter into the Manora channel throughout the year. Part of this settles at the bottom and may be responsible for the chronic siltation problems the channel suffers, owing to which; it has to be dredged throughout the year.

**Waste Water Discharge:** It is estimated that approximately 362 million gallons per day (MGD) of sewage is generated in Karachi and the adjacent areas from domestic and industrial sources. Approximately, 60 % are industrial effluents and 40% domestic discharges. The industrial wastewater and sewage are discharged into the two seasonal rivers: the Lyari River and the Malir River. These rivers act as main open sewers for liquid waste disposal from the city. The Lyari and Malir Rivers are thus contributing about 59% and 25% of the total pollution load of Karachi City respectively, while 15% of the pollution load is directly discharged into the adjacent open seacoast or discharged via Gizri, Korangi and Ghara Creeks.

The Lyari and Malir rivers, which have been converted into large open sewers, cause severe marine pollution along the coast and impact the harbor's marine environment. Further, solid waste dumping and hazardous industrial sewage aggravates the contamination of the Lyari River. The high levels of pollution flowing into the Lyari River and Malir River have created areas in the Karachi Fish Harbour and the Gizri Creek in which no marine or plant life can exist.

**Solid Waste:** Karachi city, that has a population of about 17 million, generates approximately 9,000 tons of domestic solid wastes per day. Approximately, 60 percent of this waste remains uncollected and is either burnt or deposited directly into storm drains or coastal rivers which ultimately transport it to the coastal waters. This is one of the major causes of the reduced aesthetic and recreational potential of the coastline. Components of waste, such as plastic bags, are known to damage mechanized fishing crafts and harm marine life. This problem is growing in magnitude and could increase further if the coastal areas are developed without planning for the effective management and disposal of solid waste.

There is a regular solid waste management system for Karachi City. Solid wastes such as garbage from domestic sources are collected by garbage collection vehicles and dumped in landfill sites. There is no arrangement for the disposal of hazardous solid waste except for the hazardous waste from hospitals. There are a few garbage / refuse collection sites within the city. It is taken away by vehicles (open trucks and specially designed garbage vehicles) to either the composting center or to the two designated dumping / landfill sites for refuse located in the outskirts of the city (Deh Jam Chakro landfill site near Surjani Town and Deh Gond Pass landfill site near Hub Chowki). It is estimated that hardly 1,200 tons of the domestic waste, out of a total of around 9,000 tons generated by the city, is transported to the landfill sites of Jam Chakro and Gond Pass. The remainder is being dumped inside Karachi.

WASTE MANAGEMENT	AMOUNT
Estimated Garbage 2005	9009.43 TPD
CDGK	80% Area (only 40% capacity)



DHA, CD, SITE.	20% Area
Vehicles	567
Cost of Disposal at Landfill	Rs. 92.00 per ton
Cost of Collection and Transportation	Rs. 294.00 per ton
Community Bin	4085 nos
Manpower	4170
Total Household waste generated	4500 TPD
Total city lifting capacity	1880 TPD/450 vehicles/3 trips

Source: Karachi Strategic Development Plan 2020

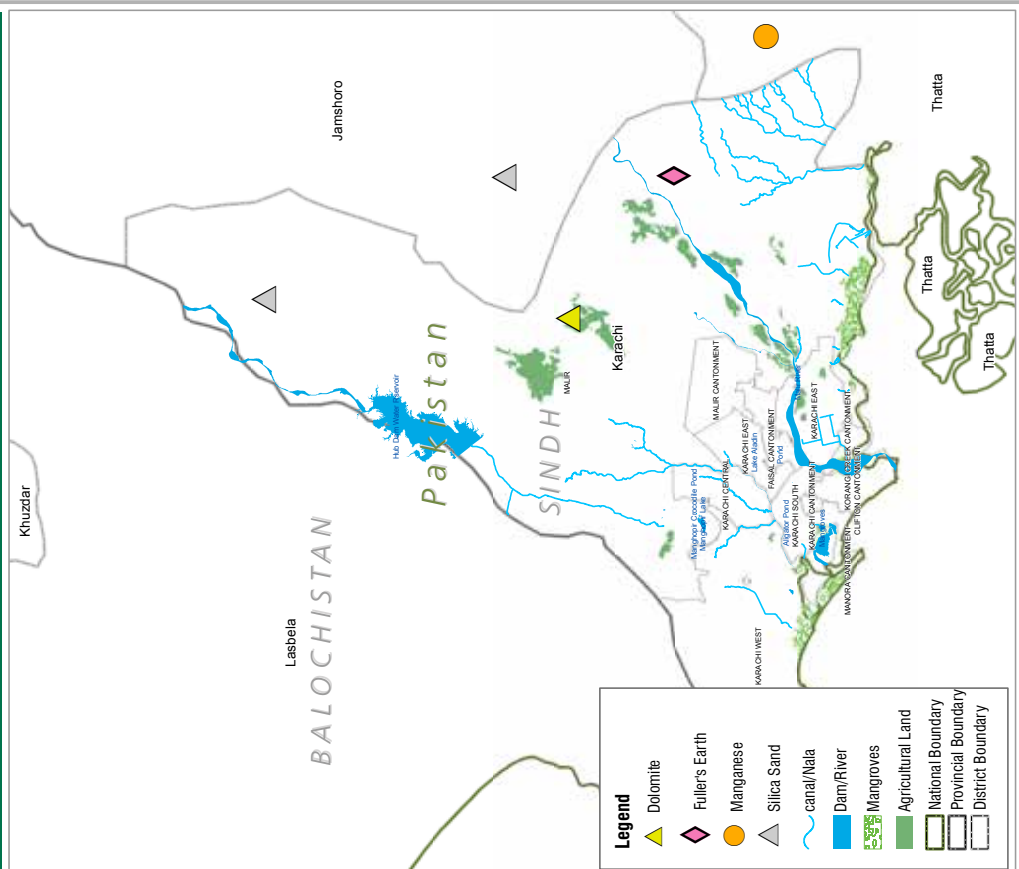
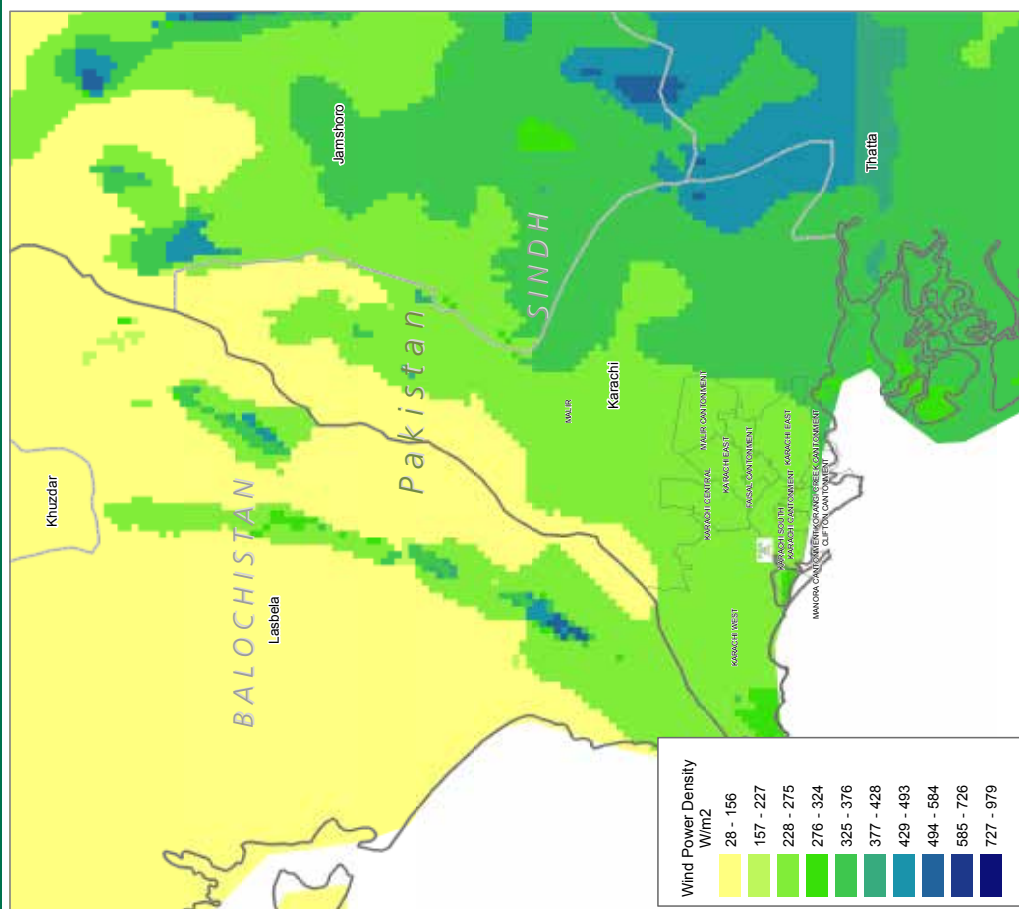
**Port Operations:** Significant pollution risks are associated with port construction and operations. Dredging is a major activity involving sediment transport, which is carried out constantly along the port area in Karachi. Dredging takes place during the development of new harbours and ports, for their extensions and to maintain the depth of channels, dock entrances and estuaries. Dredging is required annually for removing about 500,000 m<sup>3</sup> of silt and sand, which gets deposited in the navigational channel of Karachi harbour during the monsoons. Debris and material removed by dredging operations are dumped about 50 nautical miles south of Manora breakwater wall or in the open sea. Dredging activities also take place in Port Qasim.

<sup>1</sup> Sewerage and Solid Waste Management

<sup>1</sup> Strategy for Industrial Waste Water and Pollution Control: Pakistan Business Review October 2010

[http://www.iobm.edu.pk/PBR/1010/PBR\\_1010\\_601\\_Strategy%20for%20Industrial%20Waste.pdf](http://www.iobm.edu.pk/PBR/1010/PBR_1010_601_Strategy%20for%20Industrial%20Waste.pdf) Accessed on 28/12/2013

## NATURAL RESOURCES MAP KARACHI



### Data Source(s)

NEREL: Windpower Raster  
PCO: Admin Boundaries

Date of Creation  
November 20, 2013  
Projection/Datum  
WGS 84 Geographic  
Page Size  
A3

0 12.5 25 50  
Kilometers

### Disclaimer

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## The challenge of deep de-carbonization

By: Jeffrey D. Sachs

(The Statesman) January 23, 2014

Energy lies at the heart of the world's sustainability challenge. On the one hand, abundant, accessible, low-cost energy is vital for economic prosperity. On the other hand, the world's pattern of energy use, based on fossil fuels, threatens massive future climate change with devastating potential consequences. The greatest sustainability challenge, therefore, is to meet the energy needs of a growing world economy while moving to a safer pattern of energy use.

The difficulty can be explained in the following way. Currently, the world energy system uses the equivalent of around 170kg of oil in primary energy for every \$1,000 of output, if one adds up the annual use of oil, gas, coal, nuclear and renewable energy and converts each primary energy source into units of oil equivalent. On an average, each unit of primary energy (again measured in tonnes of oil equivalent) contributes 2.4 tonnes of carbon dioxide (CO<sub>2</sub>) into the atmosphere. With a world economy of around \$90 trillion, measured in purchasing-power adjusted prices, the result is around 36 billion tonnes of CO<sub>2</sub> emitted into the atmosphere.

The basic tendency is for CO<sub>2</sub> emissions to grow. This is because the world economy is growing around 3-4 per cent per year. That global economic growth is vital for the well-being of at least 6 billion of the world's 7.2 billion people — notably those living in developing countries. Energy forecasts made by the International Energy Agency, the US Energy Information Agency and others point to the likelihood that global emissions could reach 50 billion tonnes of CO<sub>2</sub> per year by 2050, if not higher.

The problem, of course, is that such rates of CO<sub>2</sub> emission would be a devastating threat to the world's climate. Most scientists concur that the world should do everything within its reach to keep the world's average temperature from rising by more than 2 degrees Celsius, compared with the Earth's temperature in the pre-industrial age (say in the year 1800). Some scientists say that even a 2 degree Celsius rise threatens the well-being of the planet and that the limit should be no higher than 1 degree Celsius. Yet, the current global trajectory of energy use and the resulting high rates of CO<sub>2</sub> emissions will likely lead to an increase of more than 3 degrees Celsius this century and can indeed unleash a series of physical feedback processes that cause runaway warming, even beyond 5 degrees Celsius.

Again, we can put numbers on the problem. To keep the rise in mean temperature below 2 degrees Celsius would require that today's annual emissions of around 36 billion tonnes should decline by mid-century to around 15 billion tons, and perhaps even less. Therefore, we need to meet the needs of a growing world economy combined with a sharp cut in global CO<sub>2</sub> emissions. The world economy may grow by a factor of more than three times by mid-century, from today's \$90 trillion to around \$280 trillion, the result of population growth from 7.2 billion people to 9.3 billion people, combined with a tripling of average income per person. Yet, that increase in the world economy needs to be combined with a cut in global emissions by more than half!

There are two basic dimensions of change that can make this possible. The first is a massive rise in energy efficiency, meaning a sharp decline in primary energy use

per unit of economic output. As stated earlier, the world currently uses around 170kg of oil equivalent to produce \$1,000 of output. That needs to come down by around 5 times, to around 30-35kg of oil equivalent per \$1,000 of output.

The second is a shift to lower CO<sub>2</sub> emissions per unit of energy. The current energy mix leads to 2.4 tonnes of CO<sub>2</sub> for each tonne of oil equivalent. That could be reduced to around 1.5 tonnes of CO<sub>2</sub> for each tonne of oil equivalent by shifting the global energy mix towards low-carbon or zero-carbon energy sources. With a world economy of \$280 trillion, using 31kg of oil equivalent per \$1,000 of output and emitting 1.4 tonnes of CO<sub>2</sub> for each tonne of oil equivalent of primary energy, the result will be global annual emissions of around 13 billion tonnes of CO<sub>2</sub> as of 2050, with the boundaries needed to keep the rise of temperatures below 2 degree Celsius.

Yet, is such a massive energy transformation feasible? The answer is yes. Enormous gains in energy efficiency are possible in every major energy sector. Residential and commercial buildings can use far less energy for heating, cooling and ventilation by using state-of-the-art methods. Transport energy use can be cut sharply through more energy-efficient vehicles and modes of public transport. Many large cities can reduce their energy loads substantially through better urban design and using the heat exhaust of power generation for heating of buildings. Many industrial energy processes can cut energy use substantially and can save on energy use through the shift to new energy-efficient materials in manufactured goods.

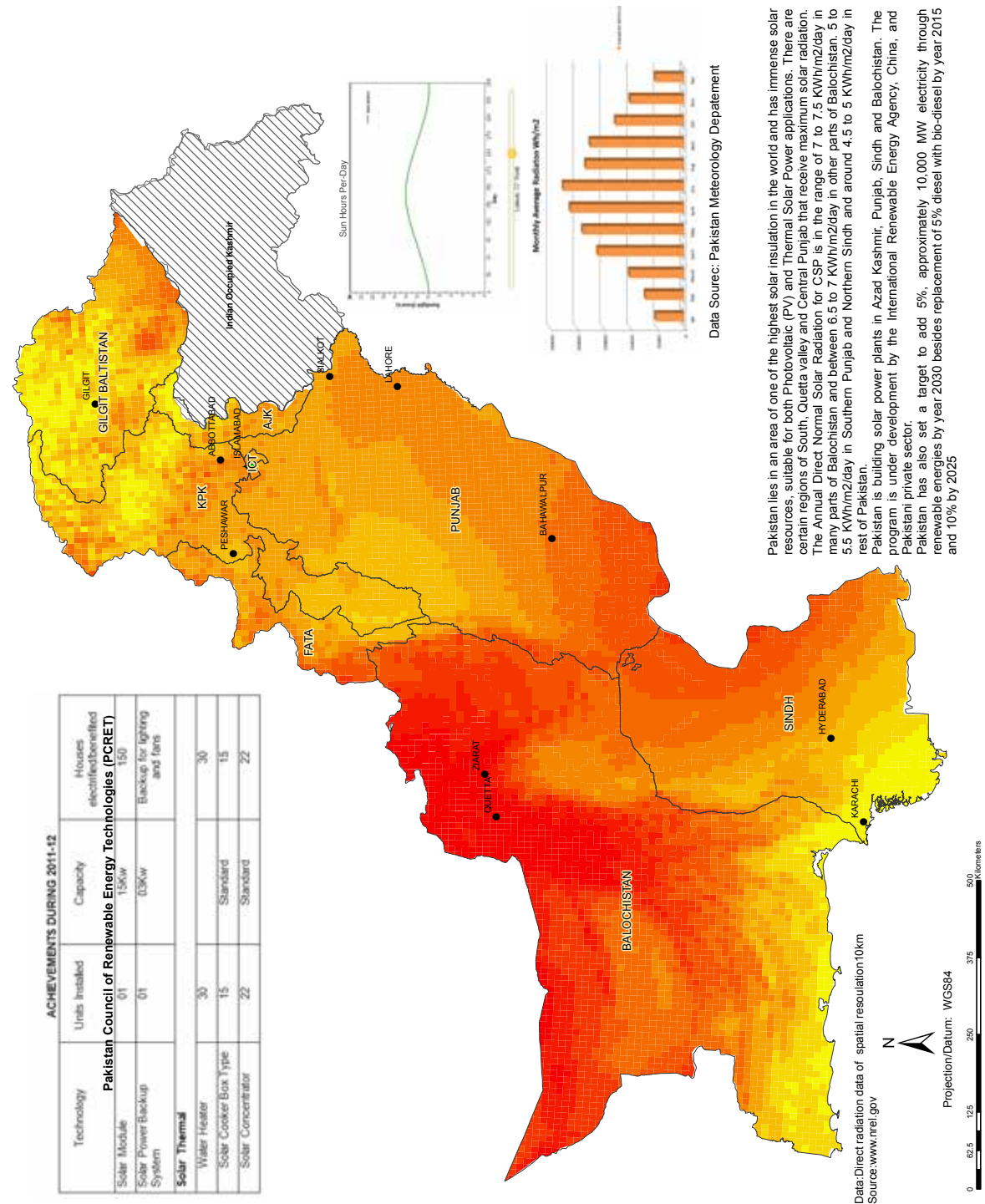
At the same time, the energy that is used can emit far less CO<sub>2</sub> per unit of energy. This involves a phase-out of coal use and its replacement by lower-carbon natural gas as well as by zero-carbon energy from nuclear, hydro, wind, and solar power. Oil use would also be cut sharply, though not as sharply as coal. Today's automobiles running on petrol will, by 2050, almost surely have to be run on electricity or hydrogen fuel cells (with the hydrogen produced by low-carbon electricity).

These transformations are feasible, but they are not easy to accomplish. They will require a major degree of global cooperation, to replace coal with low-carbon or zero-carbon alternatives; to shift to electric vehicles; to improve the energy efficiency of our buildings, cities and industrial processes. Each part of the world will need a road map on deep decarbonisation to ensure that it can have the energy that it needs for prosperity, while reducing drastically the CO<sub>2</sub> emissions per unit of final output.

As Director of the UN Sustainable Development Solutions Network (UNSDSN) on behalf of the United Nations Secretary-General, Ban Ki-Moon, I am committed to working with every nation to find a practical pathway to deep decarbonisation. For that purpose, the UNSDSN has launched a Deep Decarbonisation Pathways Project (DDPP) to help nations identify their own cost-effective transition path to a low-carbon future. My colleagues and I look forward to working with governments around the world — both national and metropolitan — to identify those practical pathways and governments are warmly invited to contact the SDSN for further information.

## DIRECT SOLAR RADIATION - PAKISTAN

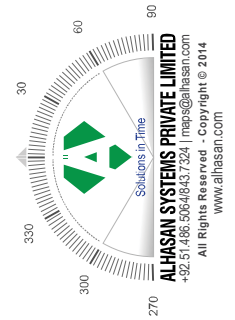
ACHIEVEMENTS DURING 2011-12				
Technology	Units Installed	Capacity	Houses electrified/benefitted	
Pakistan Council of Renewable Energy Technologies (PCRET)				
Solar Module	01	150kw	150	
Solar Power Backup System	01	03kw	Backup for lighting and fans	
Solar Thermal				
Water Heater	30		30	
Solar Cooker Box Type	15	Standard	15	
Solar Concentrator	22	Standard	22	



Pakistan lies in an area of one of the highest solar insolation in the world and has immense solar resources, suitable for both Photovoltaic (PV) and Thermal Solar Power applications. There are certain regions of South, Quetta valley and Central Punjab that receive maximum solar radiation. The Annual Direct Normal Solar Radiation for CSP is in the range of 7 to 7.5 KWh/m<sup>2</sup>/day in many parts of Balochistan and between 6.5 to 7 KWh/m<sup>2</sup>/day in other parts of Balochistan. 5 to 5.5 KWh/m<sup>2</sup>/day in Southern Punjab and Northern Sindh and around 4.5 to 5 KWh/m<sup>2</sup>/day in rest of Pakistan.

Pakistan is building solar power plants in Azad Kashmir, Punjab, Sindh and Balochistan. The program is under development by the International Renewable Energy Agency, China, and Pakistani private sector.

Pakistan has also set a target to add 5%, approximately 10,000 MW electricity through renewables by year 2030 besides replacement of 5% diesel with bio-diesel by year 2015 and 10% by 2025.





## Glacier melting and hydroelectric uncertainty in South Asia

**Dr. Javaid Laghari (former chairperson of the Higher Education Commission)**

*(The Express Tribune, January 3rd, 2014)*

Stretching east to west over 2,000km and comprising over 60,000 sq kms of ice, the Hindu Kush-Karakoram-Himalayan glaciers are a source of water for the quarter of humanity that lives in South Asia. Glaciers are natural reservoirs and regulators of water for rivers for domestic and industrial consumption, and for irrigation and hydroelectric dams.

Glaciers are melting faster in the Himalayas than anywhere else in the world due to global warming. Between 2003 and 2009, the Himalayan glaciers lost 260 gigatonnes of water each year, causing one-third of the global sea level rise, as well as catastrophic floods in the Indus, Ganges and Brahmaputra rivers. The warming climate increases land and sea temperatures, as well as leading to external events, like draughts, hurricanes and floods. Pollution, mostly from India and China, is accelerating the melt. An 'Asian Brown Cloud', formed from the 2m metric tonnes of carbon soot and dark particles sprayed into the atmosphere every year, warms the air. Such emissions over the past two decades will contribute 0.1 degree centigrade to global average temperature at ground level by 2024.

South Asia is starved for energy. Power shortages of up to 20 hours a day are stunting development. Importing oil and gas from the Gulf, Iran or Tajikistan is expensive or politically difficult. So, countries across the region are turning to indigenous hydroelectric power, in addition to other renewables, such as solar and wind, as a source of cheap, sustainable energy. But hydropower faces a difficult future in South Asia due to the combination of climate, environmental and political-economic factors. Warmer temperatures mean more precipitation and also greater snow melt much earlier in the spring. More water flow because of the earlier melted snow when it's not needed will not help in the summer when it is needed. Lower summer stream flows will result in dry streams, withered and abandoned crops, dead fish, record low rivers and declining ground water levels. The earlier increased water flow would increase electricity production during spring, but lower summer flow would decrease power production during summers when it is most needed.

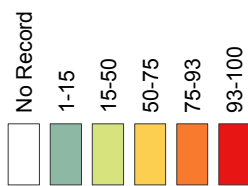
Pakistan's glaciers, covering almost 17,000 sq km amidst over a 100 peaks above 6,000m, feed thousands of miles of rivers. The largest, the Indus, depends on glacial waters for up to half of its flow. Glaciers in the Karakoram Range in the disputed Jammu-Kashmir, where the Indus rises, are thinning at an alarming rate of 0.66m a year. If the present rate continues, the likelihood of them disappearing in the next 50 years is very high. Their total area will likely shrink from the present 500,000 to 100,000 sq km by the year 2035. The increased melt will bring intense floods, such as that which inundated Pakistan in 2010 and directly affected about 20 million people, which is more than the entire population hit by the Indian Ocean tsunami. Damage to structures was estimated to exceed \$4 billion, while the total economic impact may have been as much as \$43 billion.

Pakistan currently generates 37 per cent (6,700MW) of its electricity from hydropower on the Indus and has the potential to increase its capacity to over 25,000MW. India generates about 28,000MW or 14 per cent of its electric power by hydro and has plans for expansion. Bhutan currently produces 1,500MW, but is capable of generating over a 100 times more.

The rapidly melting glaciers are already changing river flow patterns in South Asia. Hurricanes caused by warming ocean temperatures can also disrupt the hydropower infrastructure and cause flooding. As the electricity generated is directly proportional to the flow discharge, the potential to generate will be also be disrupted. It has been estimated that a one per cent reduction in stream flow can reduce electricity output by roughly three per cent. This will lead to uncertainty in the reliability of hydroelectric power, which South Asian nations can least afford. It will also lead to controversies and disputes between neighbouring countries where these rivers flow through. Hydroelectric power also comes with other negativities, including environmental impacts, ecological changes, displacement of population, and the politics of dams on water storage and distribution issues within as well as between countries. The construction of the Kalabagh Dam, with a capacity to generate over 3,600MW and store over 6.5 million acre feet of water, has been a subject of distrust between the provinces. Sindh's concern is that its share of the Indus water will be curtailed as water from Kalabagh will go to irrigate farmlands in Punjab and Khyber-Pakhtunkhwa (K-P), at its cost. Sindh holds that its rights as the lower riparian have precedence according to international water distribution law. Sindh's coastal regions require a constant flow of water into the sea so that the flowing water can keep the seawater from intruding inland. Such seawater intrusion would turn vast areas of Sindh's coast into an arid saline desert and destroy coastal mangroves. K-P's concern is that large areas of the Nowshera District would be submerged by the dam and even wider areas would suffer from water-logging and salinity as has occurred with the Tarbela Dam. India and Pakistan have been in dispute over India's plans to build 60 dams on the Chenab in disputed Kashmir since the Baglihar Dam was completed in 2008.

This is a result of Pakistan's fear that since the source rivers of the Indus basin are in India, it can potentially create droughts and famines in Pakistan. The future of power production in South Asia lies in hydroelectric generation. The political and technical issues between the provinces and between countries need to be resolved to build a level of trust. There is also a need to control pollution and black carbon deposits so that global warming is contained, particularly in regions around the Himalayas. Modelling of changing river flows, and its impact on flooding and on power generation need to be evaluated so that the future of hydroelectric power production in South Asia is safeguarded.

## Legend

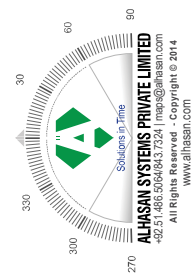


MDG 7.F  
District-wise Proportion-  
Access to improved  
Water sources

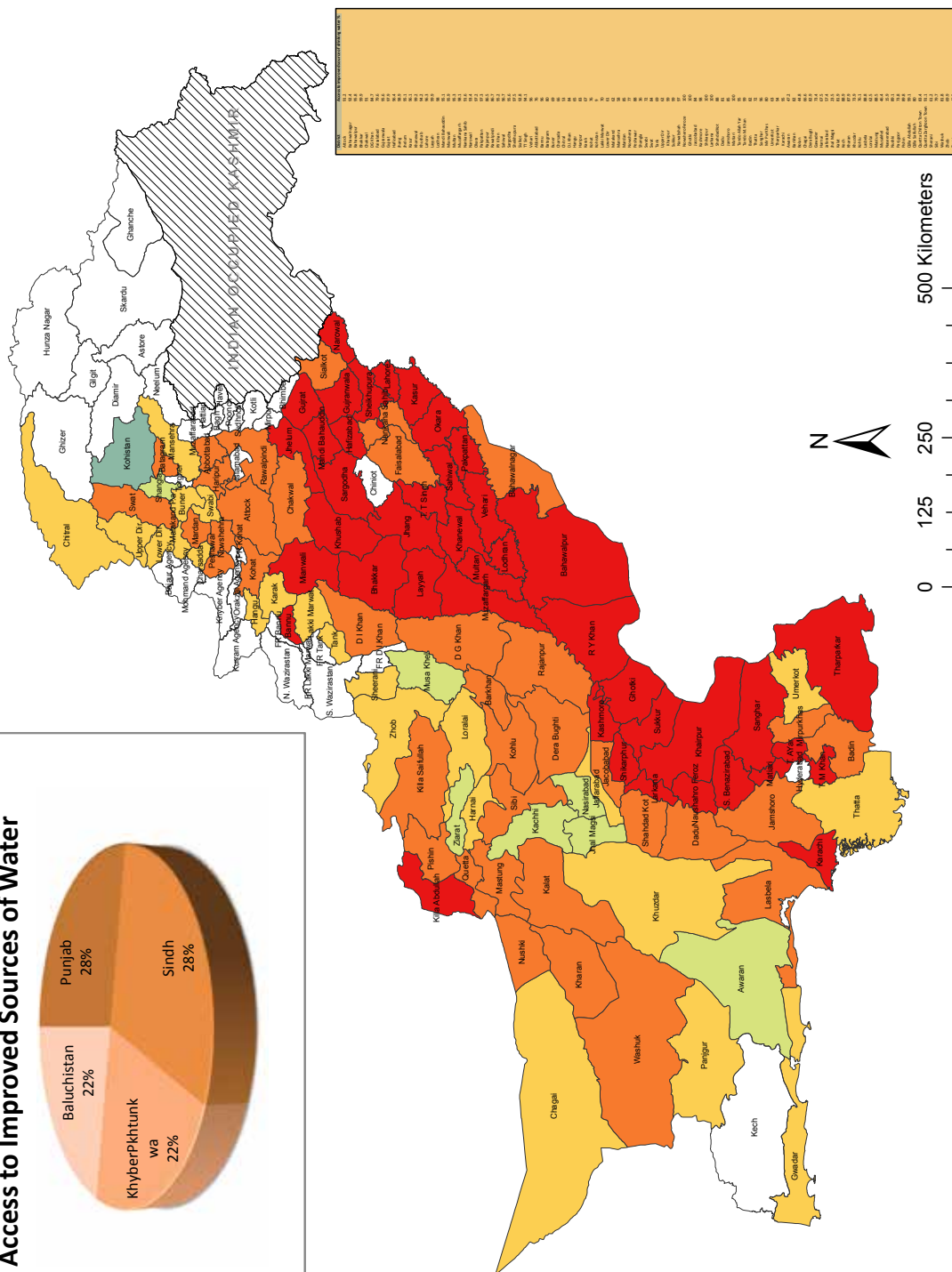
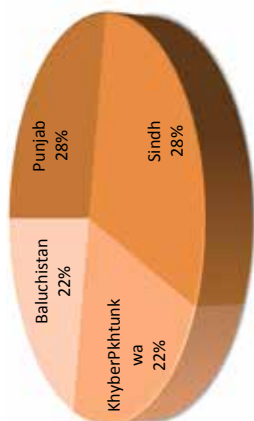
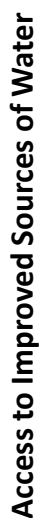
01-15 Completely off-track  
15-50 Relatively off-track  
50-75 Relatively further from target  
75-93 Relatively close to target  
93-100 Achieved target

Creation Date: 24-JAN-14

Projection/Datum WGS\_1984 Degree



Data source  
Millennium Development Goals  
Pakistan/Provincial Reports  
(2011-12)  
[www.undp.org](http://www.undp.org)



## No escape from climate change

**Rina Saeed Khan**

*(The Express Tribune, January 01, 2014)*

In 2013, the UN's global panel of scientists told us that global warming is the result of human activities (95 per cent confidence), effectively putting an end to the debate over whether mankind is responsible for rising temperatures or if we are undergoing yet another cyclical movement of warming caused by natural factors. Science is now telling us that extreme weather events are to become the new normal; that climate change will mean more intense storms, droughts and flooding and sea level rise. Super Typhoon Haiyan, which devastated the Philippines this year, was described as the strongest typhoon that has ever made landfall in the course of recorded human history.

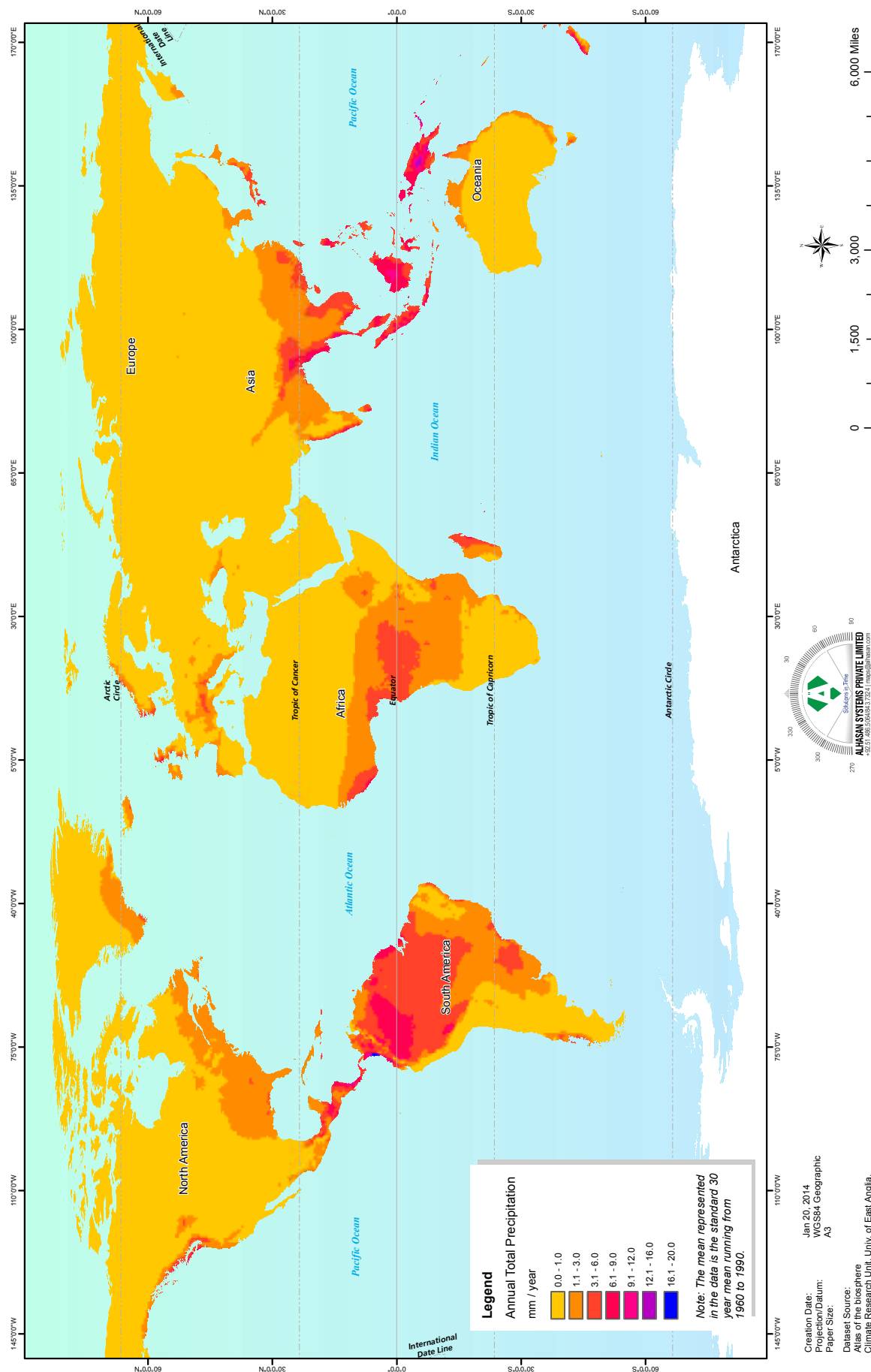
Today, the impacts of climate change are more than apparent — sea level rise is already threatening the small islands of the Pacific, Caribbean and Indian Ocean; in the mountains of the Himalayas and Andes, communities now have to deal with glacial floods. In the savannahs of Africa, food and water have become scarce due to drought and in the Arctic, the polar ice cap is visibly melting. Massive hurricanes have already started hitting the Gulf of Mexico and the eastern seaboard of North America. While scientists continue to warn us and reality proves they are right, there is still little or no action at the international level when it comes to reducing carbon emissions, with the UN's climate change negotiations c According to a statement made by Greenpeace Executive Director Kumi Naidoo, "Too many governments, North and South, continue to block progress towards a new global climate agreement while serving their coal and oil lobbies, rather than their people." The walkout was about

"sending a clear statement that our leaders need to wake up ... they need to actually act with the urgency that both science and extreme weather events are actually saying that we need to." Civil society organisations, like the WWF, Greenpeace and Oxfam, now want to chalk up a new course of action. "We are committing ourselves to mobilise the largest number of people in every single country in the world to say to every parent, 'your child and your grandchildren's future is at stake. You need to stand up now and take action'."

Pakistan, too, is acutely vulnerable to the impacts of climate change; we are facing erratic monsoon rains, rising temperatures leading to reduced agricultural productivity, increasing intrusion of saline water into the Indus delta, glacial flooding and extreme weather events, particularly flooding and droughts. currently deadlocked.

The major response so far has been the launch of the National Climate Change Policy earlier this year. The policy identifies vulnerabilities in the sectors of water resources, agriculture, forests, coastal areas, biodiversity and vulnerable ecosystems and puts forward appropriate measures relating to disaster preparedness, capacity building, institutional strengthening, technology transfer and international cooperation. Unfortunately, it has been shelved for now; in June 2013, the new finance minister announced in his budget speech a cut of over 62 per cent in the annual spending for Pakistan's ministry of climate change — which has been downgraded from a ministry to a division. Pakistani NGOs .

## GLOBAL ANNUAL TOTAL PRECIPITATION





## تفصیلات

کراچی (اسٹاف رپورٹر) ایڈمنسٹریٹر بلدیہ لیا شفاق ملاح نے مرکزی و ذیلی شاہراہوں پر زور دیتے ہوئے کہا کہ بلدیاتی اداروں کی کارکردگی کی بنیاد صفائی ستھرائی کے نظام سے جڑی ہوئی ہے اگر ہم لوگوں کو صاف ستھرا اور صحت مند ماحول فراہم کرنے میں ہی غفلت اور لاپرواہی برتیں گے تو بلدیاتی سہولیات کی فراہمی کے حوالے سے عوام کو بلدیاتی اداروں پر سے اعتماد ہی ختم ہو جائے گا ہمیں اپنے ادارے کی سادہ اور عوام کے اعتماد کو بحال اور برقرار رکھنا ہے اس ضمن میں تمام تر دستیاب وسائل، محکمہ جاتی تجربات اور اپنی صلاحیتوں کو بروئے کار لاتے ہوئے صاف ستھرا ماحول کے قیام کو یقینی بنایا جائے ان خیالات کا اظہار انہوں نے میونسپل کمشنر بلدیہ لیا رحمت اللہ شیخ کے ہمراہ مین فیٹل ہائے کے دورے کے دوران صفائی ستھرائی کی صورت حال اور امور کا جائزہ لیتے ہوئے کیا۔

لاہور (شام نیوز) وزیر ایکسائز و ٹیکسیشن، خزانہ پنجاب میاں مجتبیٰ شجاع الرحمن نے کہا ہے کہ 60 فیصد بیماریاں گندے پانی کی وجہ سے جنم لیتی ہیں اور حکومت نے دیہی علاقوں میں واٹر فلٹریشن پلانٹ 10 ارب 87 کروڑ روپے فراہم کئے ہیں تاکہ صاف پانی کی عدم فراہمی کی وجہ سے پھیلنے والی بیماریوں کو روکا جاسکے۔ انہوں نے کہا کہ نوزائیدہ بچوں کو طبی سہولیات کی بلا تھقل فراہمی کے لیے 2- ارب روپے کے فنڈز فراہم کئے ہیں۔ مختلف وفود سے گفتگو کرتے ہوئے میاں مجتبیٰ شجاع الرحمن نے کہا کہ امراض گردہ میں مبتلا غریب مریضوں کو مفت ڈائلیسز کے لیے 30 کروڑ روپے جاری کئے گئے ہیں جسکی ضلعی و تحصیل سطح پر بلامعاوضہ ادویات کی فراہمی کے لیے 50 کروڑ روپے کی رقم مہیا کی گئی ہے۔ انہوں نے کہا کہ صحت کے شعبہ میں ترقیاتی سکیمیں شروع کرنے کے لیے 17 ارب روپے کی کثیر رقم فراہم کی ہے تاکہ ایسے منصوبوں کے ذریعے عوام کو علاج و معالجہ کی معیاری سہولیات فراہم کی جاسکیں اور موجودہ مالی سال کے دوران صحت کے لیے 102 ارب روپے اور تعلیم کے لیے 244 ارب روپے فراہم کئے گئے ہیں۔ انہوں نے کہا کہ کم وسائل رکھنے والے لوگوں کو صحت کی معیاری سہولیات کی فراہمی کے لیے 7 ارب 50 کروڑ روپے مختص کئے گئے ہیں۔

لاہور (شام نیوز) کسان بورڈ پاکستان کے سیکرٹری جنرل ملک محمد رمضان روہاڑی نے راجن پور سے آئے کسانوں کے ایک وفد سے گفتگو کرتے ہوئے کہا کہ داخل کینال میں پانی کو بند کر دیا گیا ہے۔ جس کی وجہ سے راجن پور اور گرد و نواح کے ہزاروں دیہات کے لاکھوں انسانوں کو پینے کا پانی بھی میسر نہیں ہے۔ مویشیوں کے لئے بھی پینے کا پانی مہیا نہیں جس کی وجہ سے یہاں کے مکین شدید مشکلات کا شکار ہو چکے ہیں۔ گذشتہ سال اسی مسئلہ پر کسان بورڈ ضلع راجن پور نے آؤٹ مارچ کیا۔ ان کے احتجاج کے نتیجے میں اس نہر میں پانی چھوڑا گیا۔ مگر موجودہ حکومت کے دور میں پانی پھر بند کر دیا گیا۔ اس علاقہ کے لوگ اسی نہر کا پانی خود بھی پیتے ہیں اور اپنے مویشیوں کو بھی پلاتے ہیں۔ ملک رمضان روہاڑی نے کہا کہ ملک بھر میں کروڑوں افراد کو پینے کا صاف پانی میسر نہیں ان علاقوں میں نہروں میں کم از کم اتنا پانی ضرور چھوڑ دیا جائے کہ جس سے اس علاقہ کے انسان اور حیوان اپنی زندگی کی ڈور کو ٹھنسنے سے بچاسکیں۔ انہوں نے حکومت کو وارننگ دی کہ وہ انڈیا کی آبی دہشت گردی کو روک کر اسے دیاؤں پر بند باندھنے سے روک دیں۔ ورنہ چند سال بعد پورے ملک میں کروڑوں انسانوں کو نہ زراعت کے لئے پانی ملے گا نہ پینے کے لئے اور ملک ایتھوپیا اور صومالیہ کا نقشہ پیش کرے گا۔ انہوں نے نیلوں پر واقع کسانوں کو پانی فراہم کرنے کی اپیل کرتے ہوئے کہا کہ پانی چوری کے تدارک کے لئے سخت قوانین بنائے جائیں اور پانی چوری کرنے والے بااثر وڈیروں اور محکمہ نہر میں چھپی کالی بھیڑوں کو بھی سخت سزا دی جائے۔ اس موقع پر راجن پور کے کسانوں نے دھمکی دی کہ اگر داخل کینال میں پانی نہ چھوڑا گیا تو وہ پنجاب اسمبلی کے سامنے احتجاجی دھرنا دیں گے۔

کراچی (پ) سیمنس اور شہری ماحولیاتی قیادت گروپ سی 40 نے دوسرے سالانہ اور بین الاقوامی شہرت رکھنے والے ماحولیاتی قیادت ایوارڈ کا اعلان کر دیا جس کے بعد اس ایوارڈ کیلئے 140 منتخب شہروں سے درخواستیں مانگی گئی ہیں جس میں کراچی بھی شامل ہے۔

اسلام آباد (شام نیوز) ایر ایڈ کوآرڈینیشن ڈپٹی چیرمین ایر ایڈجنرل محمد عظیم آصف کی زیر صدارت ایک اعلیٰ سطحی اجلاس میں آزاد کشمیر اور خیبر پختونخواہ کے زلزلے سے متاثرہ علاقوں میں 25.21 ارب روپے کی لاگت سے جاری 16 منصوبہ جات پر کام کی رفتار کا جائزہ لیا گیا۔ ڈپٹی چیرمین نے منصوبہ جات پر کام کرنے والے متعلقہ اداروں کے سربراہان کو منصوبہ جات کو بروقت مکمل کرنے کی ہدایات دیں اور گنگ عبداللہ ٹینچنگ ہسپتال ایبٹ آباد کے ایمر جنسی بلاک کی تکمیل پر اطمینان کا اظہار کیا اور ہسپتال کے بقیہ تین بلاکس کی تعمیر کو اگلے چھ ماہ کی مدت میں مکمل کرنے کی ہدایات دیں۔ ایر کے سیشنل پراجیکٹ کے ڈائریکٹر کرنل خلیل احمد نے گنگ عبداللہ ٹینچنگ ہسپتال کے بارے میں بریفنگ دیتے ہوئے اس امید کا اظہار کیا کہ 497.438 ملین روپے کی لاگت سے تعمیر کیا جانے والا یہ منصوبہ اگلے چند ماہ میں پایہ تکمیل تک پہنچ جائے گا۔ ڈائریکٹر جنرل ہاؤسنگ ظفر حسین والہ نے 15.75 ارب روپے کی لاگت سے جاری 14 منصوبہ جات پر بریفنگ دیتے ہوئے کہا کہ مظفر آباد میں واٹر ٹریٹمنٹ پلانٹ پر کام جاری ہے اور یہ منصوبہ بروقت مکمل کر لیا جائے گا جس سے شہریوں کے صاف پانی کی ضرورت کو پورا کیا جاسکے گا۔ انہوں نے ضلع باغ میں جاری تعمیر نو کے منصوبوں کے بارے میں بتاتے ہوئے کہا کہ اس وقت 7 منصوبہ جات پر کام تیز رفتاری سے جاری ہے جبکہ کوالڈھیر کو روڈ پر 7 کلومیٹر سڑک کی تعمیر کا کام مکمل ہو چکا ہے اور سخت موسم سرما کی وجہ سے اس وقت اس منصوبہ پر کام بند ہے۔ باغ شہر کو دیگر علاقوں سے ملانے کیلئے ہلر برج، باغ پانی پاس روڈ، سپورٹس کمپلیکس، باغ ڈھلی روڈ اور ایف جی پبلک سکول باغ کے منصوبوں پر تعمیر نو کا کام جاری ہے۔ ڈپٹی چیرمین ایر نے 450 ملین روپے کی لاگت سے بروقت مکمل کیے جانے والے طارق آباد آبائی

## سرخیاں

**دستیاب وسائل میں صحت مند ماحول کو یقینی بنایا جائے، شفاق ملاح**

روزنامہ جنگ

29 جنوری 2014

**60 فیصد بیماریاں گندے پانی کی وجہ سے جنم لیتی ہیں**

ساؤتھ ایشین نیوز ایجنسی (شام)

25 جنوری 2014

**داخل کینال بند ہونے سے راجن پور اور گرد و نواح کے لاکھوں انسان پانی سے محروم**

ساؤتھ ایشین نیوز ایجنسی (شام)

25 جنوری 2014

**سیمنس کی جانب سے ماحولیاتی قیادت ایوارڈ کا اعلان**

روزنامہ جنگ

24 جنوری 2014

**ڈپٹی چیرمین ایر کی زیر صدارت ایر ایڈ کوآرڈینیشن اعلیٰ سطحی اجلاس**

ساؤتھ ایشین نیوز ایجنسی (شام)

22 جنوری 2014

پاس مظفر آباد کی تکمیل پر اطمینان کا اظہار کیا۔

**تلہار (نامہ نگار)** دنیا بھر کی طرح پاکستان میں بھی تیزی سے آبادی میں اضافے کے ساتھ ماحولیات کی آلودگی میں دن بہ دن اضافہ ہوتا جا رہا ہے، بدین ضلع بھی اس وقت سخت ماحولیات کی آلودگی کی زد میں ہے بدین ضلع میں اس وقت سب سے زیادہ اہم اور حساس مسئلہ پینے کے صاف پانی کا ہے اور بدین ضلع کی 70 فیصد سے زائد آبادی پینے کے صاف پانی سے محروم ہے اور ضلعی حکومت عوام کو پینے کا صاف پانی فراہم کرنے میں قطعی ناکام ہو چکی ہے اور بدین ضلع کی تحصیل کو نسلوں اور یونین کو نسلوں کے سالانہ اربوں روپے کہاں جاتے ہیں اور کیسے استعمال ہوتے ہیں یہ ایک سوالیہ نشان بنا ہوا ہے۔ بدین کے دیہی علاقوں میں تو آج تک پینے کا صاف پانی فراہم کرنے پر حکومت اور کسی ایس جی اوز نے کوئی دھیان دینے کی زحمت کو اہرہ نہیں سمجھی ہے اور اکثریتی دیہی عوام اپنے علاقوں کی جھیلوں میں برسات کا جمع شدہ پانی استعمال کرنے پر مجبور ہیں اور ان دیہات میں گندہ، آلودہ اور بدبودار پانی استعمال کرنے کے باعث خطرناک امراض جنم لیتے ہیں اور سیکڑوں بچے اسہال جیسے موذی مرض میں مبتلا ہوتے رہتے ہیں اور جلد، معدے کی خرابی، گردوں کی خرابی، ویسٹائٹس جیسے مرضوں میں بھی تیزی کے ساتھ اضافہ ہوتا جا رہا ہے مگر اس طرف کوئی توجہ دینے کے لئے تیار نہیں ہے سول سوسائٹی کے رہنماؤں نے حکومت سندھ، ضلعی انتظامیہ بدین وغیرہ سرکاری تنظیموں کے ذریعہ مطالبہ کیا ہے کہ بدین ضلع میں پینے کے صاف پانی کی فراہمی کے لئے ہنگامی بنیادوں پر انتظامات کئے جائیں۔

**بدین ماحولیات کی آلودگی کی زد میں، 70 فیصد آبادی صاف پانی سے محروم**

روزنامہ جنگ

20 جنوری 2014

**صحت افزاء ماحول کے لیے صفائی کے نظام کو بہتر بنانا ہوگا، کمال مصطفیٰ**

روزنامہ جنگ

18 جنوری 2014

**ایشی پاور پلانٹس ماحول کیلئے نقصان دہ ہیں، بجلی کی پیداوار کیلئے متبادل ذرائع استعمال کئے جائیں، مقررین**

روزنامہ جنگ

10 جنوری 2014

**کراچی (اسٹاف رپورٹر)** ایڈمنسٹریٹو بلدیہ وسطی کمال مصطفیٰ نے کہا ہے کہ صاف ستھرا ماحول مہذب معاشرے کی عکاسی کرتا ہے جو عوام کو صحت افزاء ماحول کی فراہمی اور جراثیم کی افزائش کے خاتمے اور بیماریوں کی روک تھام کے لیے صفائی ستھرائی کے نظام میں بہتری لائے بغیر ناممکن ہے اور عوام کے تعاون سے ضلع وسطی کو کچرے اور طے سے پاک بنادیں گے۔ ان خیالات کا اظہار انہوں نے وزیر بلدیات کی ہدایت پر بلدیہ وسطی کے مختلف علاقوں میں جاری صفائی ہم کے کاموں کا معائنہ کرتے ہوئے کیا۔ ایڈمنسٹریٹو متعلقہ افسران کو ہدایت دیتے ہوئے کہا کہ مرکزی و ذیلی شاہراہوں پر صفائی ستھرائی کے ساتھ ساتھ کچر اکٹڑیوں سے روزانہ کی بنیاد پر کچرا اٹھانے کے کام کو مزید بہتر کیا جائے۔ اس موقع پر میونسپل کمشنر لطیف لودھی دیگر افسران ان کے ہمراہ تھے۔

**کراچی (اسٹاف رپورٹر)** نیوکلیر پاور پلانٹ پر حادثہ ہو جانے کی صورت میں متاثرہ لوگوں کی نسلیں اپنا جی پیدا ہو جاتی ہیں آبی حیات اس سے متاثر ہوتی ہے۔ امریکہ میں پچھلے 20 برس سے کوئی نیوکلیر پاور پلانٹ نہیں لگایا گیا جرمنی نے طے کیا ہے کہ وہ لگ بھگ 5 برسوں میں اپنے تمام نیوکلیر پاور پلانٹ ختم کر دے گا۔ جاپان، سویٹزر لینڈ اور جرمنی نے طے کیا ہے کہ وہ اب نیوکلیر پاور پلانٹ نہیں لگائیں گے۔ چھوٹے ڈیم، وینڈ پاور، شمسی توانائی اور دیگر ذرائع سے بجلی بنائی جاسکتی ہے جس سے نیوکلیر پاور پلانٹ سے حاصل ہونے والی بجلی سے زیادہ بجلی حاصل کی جاسکتی ہے۔ ہمیں ان نیوکلیر پاور پلانٹس کی کوئی ضرورت نہیں۔ ان خیالات کا اظہار مقررین نے پائلر، پاکستان فشر فوس فورم، ایس پی او اور ایکٹ اور ایڈ کے تحت کراچی میں نیوکلیر پاور پلانٹس کے خطرناک اثرات کے موضوع پر منعقد کئے گئے مشاورتی اجلاس سے خطاب کے دوران کیا۔ مقررین میں ڈاکٹر پرویز ہود بانی، ڈاکٹر اے ایس نیر، پائلر کے کرامت علی اور پاکستان فشر فوک فورم کے چیئرمین محمد علی شاہ شامل تھے۔ محمد علی شاہ نے کہا کہ وزیر اعظم کی جانب سے ساحلی علاقوں میں نیوکلیر پاور پلانٹ کے ٹودور کے تھری لگانے کا اعلان کیا گیا ہے سمندر کے کنارے نیوکلیر پاور پلانٹ لگانے سے اگر زلزلہ، سونامی یا سائیکلون آجائے تو اس سے بہت بڑی تباہی آسکتی ہے آبی حیات متاثر ہوگی جبکہ روزمرہ زندگی میں بھی اس کے بہت سارے برے اثرات مرتب ہوں گے۔ اس سے دہشت گردی کے واقعات بھی ہو سکتے ہیں کیونکہ بھارت راجستھان میں نیوکلیر پلانٹ لگا رہا ہے اور پاکستان سمندر کے کنارے اسے تعمیر کر رہا ہے اسی سے دونوں ملکوں کے درمیان تناؤ بڑھے گا دونوں ملکوں کے عوام متاثر ہو گئے۔ جاپان کی مثال ہمارے سامنے ہے جہاں نیوکلیر بم سے ہونے والی تباہی کے اثرات آج بھی پائے جاتے ہیں حکومت کی طرف سے ہمارے لئے تباہی کا سامان لایا جا رہا ہے۔ ڈاکٹر پرویز ہود بانی نے کہا کہ تباہی کے اثرات مختلف ہوتے ہیں، حادثہ ہو جانے کی صورت میں بہت بڑی تباہی پھیلتی ہے۔ ایک نیوکلیر ری ایکٹر میں ٹنوں کے حساب سے یورینیم ہوتا ہے جس میں حادثہ ہو جانے کی صورت میں لاکھوں افراد ہلاک ہو سکتے ہیں، انہوں نے کہا کہ تباہی کے اثرات سے معذور بچے پیدا ہوتے ہیں آج بھی جاپان میں 52 نیوکلیر ری ایکٹر بند ہیں جن کو تاحال کھولنے کا فیصلہ نہیں کیا گیا۔ اب ایران، سعودی عرب، بھارت اور پاکستان چاہتے ہیں کہ نیوکلیر ری ایکٹر لگائیں، ہمیں سوچنا چاہئے کہ ہم کیا کرنے جا رہے ہیں، فوکوشیما میں جب زلزلہ آیا تو 3 نیوکلیر ری ایکٹر چل رہے تھے اگر وہ پھٹ جاتے تو نہ صرف فوکوشیما بلکہ پورا جاپان تباہ ہو جاتا۔ کراچی میں بھی سونامی کی تارخ سے بھی بڑے زلزلے کے جھٹکے محسوس ہوتے ہیں غلطی کا بھی امکان ہے روزانہ خود کش حملے بھی ہوتے ہیں اگر کچھ ہو گیا تو لاکھوں اموات ہو سکتی ہیں۔ دنیا کے مختلف ملکوں کی مثالیں ہمارے سامنے ہیں جو متبادل ذرائع استعمال کر رہے ہیں ونڈ پاور کو استعمال کیا جا رہا ہے۔

**قدرتی آفات کی بڑی وجہ آلودہ ماحول اور سمندری سطح کا بلند ہونا ہے، مناسب قوانین اور پالیسیاں بنان ضروری ہیں**

روزنامہ جنگ

**کراچی (اسٹاف رپورٹر)** اقوام متحدہ کے جاری کردہ اعداد و شمار کے مطابق گذشتہ پانچ دہائیوں میں دنیا پر نازل ہونے والی مصیبتوں میں سے ستر فیصد قدرتی آفات شامل ہیں۔ جس کی بڑی وجہ ماحول میں شفافیت کی کمی اور گلوبل وارمنگ کے باعث سمندری سطح کا بلند ہونا ہے۔ سطح سمندری کی بلندی کے باعث دنیا کے دو سو ملین مائیسوں کو شدید خطرہ لاحق ہے۔ خصوصاً پاکستان جیسے ترقی پذیر ممالک کو جہاں سہولتیں اور مناسب حکمت عملی کا فقدان پایا جاتا ہے۔ ضرورت اس امر کی ہے کہ حکومتی سطح پر مناسب پالیسیاں و قوانین ترتیب دیئے جائیں اور ان کی ترویج پر خصوصی توجہ دی جائے، ان خیالات کا اظہار شیخ الجامعہ پروفیسر ڈاکٹر محمد قیصر، سینیٹر عبدالحیہ خان اور پروفیسر ڈاکٹر عطا الرحمن نے جامعہ کراچی میں ماحولیات پر منعقدہ دوسری سہ روزہ عالمی کانفرنس سے خطاب کرتے ہوئے کیا۔ مذکورہ کانفرنس شعبہ کیمیا اور بین الاقوامی مرکز برائے کیمیائی و حیاتیاتی علوم جامعہ کراچی کے اشتراک سے منعقد کی گئی جسے ڈاکٹر عطا الرحمن کے نام سے منسوب کر کے خصوصی خراج تحسین بھی پیش کیا گیا۔ کانفرنس میں پچاس سے زائد بین الاقوامی اور پچاس قومی محققین و ماہرین نے شرکت کی۔ اس موقع پر شعبہ کیمیا کے صدر پروفیسر ڈاکٹر علی اکبر کھٹنا کا پاکستان

02 جنوری 2014

## پاکستان کے بیشتر حصے شدید سردی کی لپیٹ میں آگئے

ساؤتھ ایشین نیوز ایجنسی (شہ)

01 جنوری 2014

میں قدرتی ماحول کی آلودگی اور پانی میں صنعتی فضلہ گرنے کے باعث بے پناہ بیماریاں اور نٹ نئے جراثیم جنم لے رہے ہیں۔ جن سے مقابلہ کرنے کے لئے ضروری ہے کہ نہ صرف حکومتی سطح پر بلکہ انفرادی حیثیت میں بھی ہم سب مل کر دنیا کو بچانے کے لئے کوشش کریں۔ کانفرنس کے چیف منتظم پروفیسر ڈاکٹر ماجد ممتاز نے کانفرنس کے اغراض و مقاصد پر روشنی ڈالتے ہوئے کہا کہ کانفرنس کا مقصد ایک مستحکم قدرتی ماحول حاصل کرنے میں کیبنیائی علوم کے کردار کے حوالے سے بحث کرنا ہے۔ اس موقع پر ماہرین اپنی تحقیق کے ذریعے عوام الناس کے سامنے دنیا کے ماحولیاتی نظام کے حوالے سے معلومات فراہم کریں۔ بین الاقوامی مرکز برائے کیبنیائی و حیاتیاتی علوم جامعہ کراچی کے ڈائریکٹر پروفیسر ڈاکٹر اقبال چوہدری کا کہنا تھا کہ صنعتی انقلاب جس دور میں آیا اس دور میں محض چند افراد کو تمام دنیا کے ذخائر تک رسائی حاصل تھی جس کے نتیجے میں آج ہم صنعتی فضلے آبی و ماحولیاتی آلودگی جیسے مسائل کا سامنا کر رہے ہیں۔ گلوبل انوائرنمنٹل لیبارٹریز کے چیئرمین ڈاکٹر سیج الزمان نے ماحولیاتی آلودگی سے نمٹنے کے لئے مختص محدود بجٹ اور محدود ذرائع کی جانب توجہ مبذول کرائی۔ کانفرنس اگلے دو روز تک جاری رہے گی۔

اسلام آباد، لاہور، پشاور، کوئٹہ، کراچی، مظفر آباد (شہ نیوز) پاکستان کے بیشتر حصے شدید سردی کی لپیٹ میں آگئے، نظام زندگی مفلوج ہو کر رہ گیا، شمالی علاقوں اور پہاڑوں پر برفباری کے بعد اسلام آباد میں درجہ حرارت منفی دو اعشاریہ سات ڈگری تک گر گیا۔ لاہور میں رات گئے بلکی بارش کے بعد موسم مزید سرد، درجہ حرارت صفر تک گر گیا، ملک کے زیادہ تر علاقے شدید سردی کی لپیٹ میں ہیں، شمالی علاقوں اور پہاڑوں پر برفباری کے بعد اسلام آباد میں درجہ حرارت منفی دو اعشاریہ سات ڈگری تک گر گیا۔ لاہور اور اس کے گرد و نواح میں ہلکی بوند اباندی کے بعد موسم مزید سرد ہو گیا ہے۔ بلوچستان میں خون بھری دہلیز سردی پڑ رہی ہے، کوئٹہ میں کم از کم درجہ حرارت منفی 13، قلات میں منفی 15 ہو گیا۔ کپاک، ہنڈوک، سین کاریز، دشت، مستونگ، چھچھ اور دیگر علاقے بھی دھند میں گم ہیں۔ محکمہ موسمیات نے اگلے چند روز تک شمالی بلوچستان میں سردی کی شدت برقرار رہنے کی پیش گوئی کی ہے۔ شمالی حصوں میں متعدد شہروں کے اندر درجہ حرارت منفی 17 سے منفی 21 کے درمیان رہا جس سے معمولات زندگی بری طرح سے متاثر ہو رہے ہیں۔ محکمہ موسمیات نے سردی کی موجودہ لہر آئندہ تین سے چار روز تک برقرار رہنے کی پیش گوئی کی ہے۔ ملک کا سب سے بڑا شہر کراچی جہاں عام طور پر سردی کی شدت کم ہوتی ہے، گزشتہ رات یہاں کم سے کم درجہ حرارت چار ڈگری سینٹی گریڈ ریکارڈ کیا گیا۔ کراچی شہر میں سب سے کم درجہ حرارت 14 دسمبر 1986 میں ایک اعشاریہ تین سینٹی گریڈ ریکارڈ کیا گیا تھا۔ اس سے قبل پیر کو یہاں کم سے کم درجہ حرارت چھ ڈگری سینٹی گریڈ ریکارڈ کیا گیا۔ صوبہ پنجاب بھی ان دنوں شدید ترین سردی کی لپیٹ میں ہے اور لاہور شہر میں درجہ حرارت نقطہ انجماد تک پہنچ گیا ہے۔ شدید سردی دہواؤں سے شہریوں کو مشکلات کا سامنا کرنا پڑ رہا ہے۔ پنجاب کے در سے شہروں کی طرح ملتان میں دو جبکہ گجرات میں درجہ حرارت منفی ایک سینٹی گریڈ ریکارڈ کیا گیا۔ وفاقی دارالحکومت اسلام آباد میں تازہ ترین درجہ حرارت منفی تین ڈگری سینٹی گریڈ ریکارڈ کیا گیا۔ گزشتہ روز اسلام آباد موسم سرما میں سب سے سرد ترین دن رہا جہاں 46 سالہ ریکارڈ ٹوٹ گیا۔ خیال رہے کہ 1984 میں منفی تین میں دارالحکومت اسلام آباد میں کم سے کم درجہ حرارت منفی دو اعشاریہ آٹھ ریکارڈ کیا گیا، لیکن اس سے پہلے یہاں سب سے کم درجہ حرارت 1967 میں منفی دو اعشاریہ نو سینٹی گریڈ ریکارڈ کیا گیا تھا۔ حکام کے مطابق یورپ سے آنے والی ٹرین سردی دہواؤں کی وجہ سے سردی کی شدت میں اضافہ ہوا ہے، جبکہ آئندہ کچھ روز تک انہی خشک سردی دہواؤں کی وجہ سے ملک کے مختلف علاقوں میں بارشوں کا بھی امکان ہے۔ محکمہ موسمیات کے ڈائریکٹر جنرل ڈاکٹر محمد حنیف کا کہنا ہے کہ ملک بھر میں سردی کی شدت میں مزید اضافے، جبکہ پہاڑی علاقوں، گلگت بلتستان میں ہلکی برف باری اور لاہور، سرگودھا، یو این میں بارش کا بھی امکان ہے۔ انہوں نے کہا مغرب سے آنے والی دہواؤں کی وجہ سے ان بارشوں کی شدت کم ہوگی اور کشمیر کو بھی اپنی لپیٹ میں لیں گی۔ فوجی وی کے مطابق ملک کے بالائی علاقوں میں وقفے وقفے سے برفباری کے باعث لواری ٹاپ، گلیات، مری اور دیگر رابطہ سڑکیں بند ہو گئیں۔ محکمہ موسمیات کے مطابق اسکر دو میں منفی 12، پاراچنار میں منفی 10 اور استور میں درجہ حرارت منفی 8 ڈگری تک پہنچ گیا ہے۔ ادھر قبائلی علاقوں میں بھی سردی میں اضافہ ہو گیا ہے اور گزشتہ روز شمالی وزیرستان کے علاقے میرانشاہ میں پانچ سال بعد پہلی برفباری ریکارڈ کی گئی۔ ملک کا جنوب مغربی صوبہ بلوچستان بھی شدید سردی کی لپیٹ میں ہے جہاں صوبائی دارالحکومت کوئٹہ کا درجہ حرارت منفی چودہ سینٹی گریڈ تک جا پہنچا۔ کوئٹہ کے علاوہ شمالی بلوچستان کے علاقوں چن زیارت، پشین خانوڑی، کان مہتر، زئی توبہ، اچکزئی، ژوب، سیٹ مختلف علاقے رواں موسم کے شدید ترین سردی کی لپیٹ میں آگئے ہیں جہاں پر درجہ حرارت منفی 17 سینٹی گریڈ ہے، جبکہ شدید سردی کے باعث لوگوں کو سخت مشکلات کا سامنا ہے۔ شدید سردی سے سڑکیں سسنا ہیں جبکہ ندیوں میں بھینٹے والا پانی بھی برف کی شکل اختیار کر چکا ہے۔ ملک بھر کی طرح پشاور میں بھی سردی کی شدت میں اضافہ ہو گیا ہے، لیکن گیس کی لوڈ شیڈنگ کے باعث لوگوں کو لکڑیاں جلا کر سردی کی شدت کو کم کر رہے ہیں جہاں پر درجہ حرارت صفر ڈگری سینٹی گریڈ ریکارڈ کیا گیا۔ دوسری جانب خیبر پختونخوا کے بلائی علاقوں میں برف باری کا سلسلہ بھی جاری ہے جس سے آمدورفت میں مشکلات کا سامنا ہے۔

اسلام آباد (شہ نیوز): سپریم کورٹ نے منچر جمیل آلودگی کیس میں وزارت خزانہ کو مضبوط کیلئے فنڈز بروقت فراہم کرنے کی ہدایت کر دی۔ چیف جسٹس صدیق حسین جیلانی کی سربراہی میں تین رکنی بنچ نے کیس کی سماعت کی۔ دوران سماعت منچر جمیل نکاسی آب منصوبے کے ڈائریکٹر ظہیر شاہ نے عدالت کو بتایا کہ منصوبہ دو ہزار آٹھ میں مکمل ہونا تھا، لیکن فنڈز کی عدم دستیابی کے باعث منصوبہ تاخیر کا شکار ہے اور رواں سال مکمل ہو گا۔ عدالت کو بتایا گیا کہ سڑک فیصد کام مکمل ہو چکا ہے، لوگوں کو صاف پانی کی فراہمی کیلئے بارہ میٹریٹ پلانٹس لگائے گئے ہیں، فنڈز کی عدم دستیابی سے متعلق وزیر اعلیٰ سندھ کو سمری بھیج دی گئی ہے، صوبائی حکومت فنڈز کی فراہمی یقینی بروقت اجرا کیا جائے۔ مقدمے 4 بنائے تو منصوبہ موجودہ سال کے آخر تک مکمل کر لیا جائے گا۔ عدالت نے وزارت خزانہ کو ہدایت جاری کی ہے کہ منصوبے کیلئے فنڈز کا کی مزید سماعت ستائیس جنوری تک ملتوی کر دی گئی۔

روس کے جنوبی شہر نیو نیوگورود کے سائنس دانوں نے مقامی موسم کی پیش گوئی کرنے کا نیا طریقہ سوچ لیا ہے۔ اس کے ذریعے چھوٹے سینرز استعمال کئے جاتے ہیں۔

منچر جمیل نکاسی آب منصوبے کے لیے وزارت خزانہ فنڈز بروقت فراہم کرے سپریم کورٹ

ساؤتھ ایشین نیوز ایجنسی (شہ)

08 جنوری 2014

اپنے علاقے میں موسم کی پیش گوئی

## جاننے کا نیا طریقہ

امریکہ اور قزاقستان اس نئی ایجاد میں دلچسپی ظاہر کر چکے ہیں۔ اندازہ ہے کہ یہ طریقہ چاول اگانے والے ایشیائی ممالک کے کام آسکتا ہے۔ یہ طریقہ استعمال کرتے ہوئے مقامی موسم کی پیش گوئی زیادہ درستگی کے ساتھ کی جاسکتی ہے، کسی دیوار پر سینسر لگایا جانا کافی ہے۔ سینسر کے ذریعے حاصل کی جانے والی معلومات دنیا کے کسی دوسرے علاقے میں واقع انٹرنیٹ سرور میں جمع کی جائیں گی، نیٹنی نووگوروو کی سٹیٹ یونیورسٹی کی علم طبعیات کی لیبارٹری کے سربراہ ایکس یو منوہ نے بتایا۔ ان کے مطابق آج موسم کے مطالعہ کے لیے موسمیاتی اسٹیشن استعمال کئے جاتے ہیں جو ایک دوسرے سے سینکڑوں میل دور واقع ہوتے ہیں۔ اس لیے موسم کی پیش گوئی میں غلطیاں ہوتی ہیں۔ فرض کریں کہ فوٹو میں ٹھوس منظر کی بجائے رنگین داغ دکھائی دیں تو تصویر نہیں بنے گی۔ مختصر یہ کہ تفصیلی معلومات حاصل کیا جانا ضروری ہے۔ موسم کے بارے میں معلومات جمع کرنے والے سینسر زکاروباری افراد اور عام لوگوں کے لیے بھی مفید ثابت ہو سکتے ہیں۔ یہ معلومات باغ لگانے والے ماہرین، کشتیوں کے کپتان، ہوا باز وغیرہ استعمال کر سکتے ہیں۔ سینسر بنانے والے سائنس دانوں کا منصوبہ ہے کہ کسانوں کو یہ طریقہ استعمال کرنا سکھائیں۔ اندازہ ہے کہ اس صورت میں چاول اگانے والے ایشیائی ممالک بھی اس طریقے میں دلچسپی ظاہر کریں گے۔ کسانوں کو موسمی حالات کے علاوہ مٹی کی حالت کے بارے میں بھی معلومات حاصل ہو سکتی ہیں جن کے پیش نظر کاشت کاری کے طریقوں کو زیادہ موثر بنایا جاسکتا ہے، پوں فصلیں زیادہ ہوں گی۔ سائنس دان اپنی ایجاد کی تفصیلات نہیں بتا رہے، یہ کمرشل راز ہے۔ تاہم انہوں نے واضح کر دیا ہے کہ دنیا میں اس ایجاد کا کوئی ثانی نہیں ہے۔ ایسکے اُمنو نے کہا: ہمارا جیسا نظام کہیں بھی نہیں ہے۔ ملتے جلتے نظام تو ہیں لیکن ہمارا جیسا دوسرا نظام نہیں ہے۔ ہم دس میٹر کی درستگی سے معلومات حاصل کر سکتے ہیں جبکہ موسمیاتی اسٹیشن عموماً ایک کلومیٹر کی درستگی سے کام کرتے ہیں۔ روسی موجودوں کو امریکی ریاست میری لینڈ میں مدعو کیا جا چکا ہے تاکہ وہ اپنی ایجاد کی تفصیلات بتائیں۔ توقع ہے کہ روس میں نئی ایجاد پر مبنی آلات کی صنعتی پیداوار ایک سال بعد شروع کی جائے گی۔



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<p>Swat Participatory Council Local NGO Muhammad Roshan Executive Director spcswat@gmail.com 0092-345-9510067, 0092-946-721296 Naeem House, Near Girls College, Swat <a href="http://www.spcswat.org">www.spcswat.org</a></p>	<p>Social Action Bureau for Assistance in Welfare and Organizational Networking Local NGO info@sabawon.org 0092-91-5810424 House No. 230, Street: 4, Sector: H-I, Phase-II, Hayatabad, Peshawar <a href="http://www.sabawon.org">www.sabawon.org</a></p>
<p>Japan International Cooperation Agency Donor/NGO 0092-51-9244500 -7 4th Floor, Serena Office Complex, Plot No. 17, Ramna 5, Khayaban- e-Suhrawardy, Sector G-5/1, Islamabad <a href="http://www.jica.go.jp">www.jica.go.jp</a></p>	<p>UNDP GEF Small Grants Programme UN-NGO Masood Ahmed Lohar Project Coordinator chatro.khatri@undp.org 0092-22-2108074 House No. 144, Defence Officers Housing Society, Phase-1, Hyderabad <a href="http://www.sgppakistan.org">www.sgppakistan.org</a></p>
<p>South Asia Partnership Pakistan Donor/NGO Mr. Mohammad Tahseen Executive Director tahseen@sappk.org 0092-300-4459124, 0092-42-35311701 Haseeb Memorial Trust Building, Nasirabad, 2 K.M. Raiwind</p>	<p>Leadership for Environment and Development International NGO Hina Lotia Program Director main@lead.org.pk 0092-51-111 511 111, 0092-51-2651511 LEAD House, Sector: F-7 Markaz, Islamabad <a href="http://www.lead.org.pk">www.lead.org.pk</a></p>

Road,Thokar Niaz Beg, Lahore <a href="http://www.sappk.org">www.sappk.org</a>	
Mountain and Glacier Protection Organization Local NGO Ms.Aisha Khan CEO aisha@mgpo.org 0092-345-8589001. House No. 73, Street No. 59, Sector: I-8/3, Islamabad <a href="http://www.mgpo.org">www.mgpo.org</a>	Institute for Social and Environmental Transition Local NGO Atta ur Rehman Research Associate atrehman@isetpk.org 0092-345-8569856,0092-51-2552188 House No. 8-B, Street No. 1, Sector: F-8/3, Islamabad <a href="http://www.isetpk.org">www.isetpk.org</a>
BAGHBAN Pakistan Local NGO Shafi Ullah CEO info@baghbanpk.org 0092-945-825360 Shah Trade Center, Flat No.8, Balambat Road, Timergara, KP <a href="http://www.baghbanpk.org">www.baghbanpk.org</a>	Tribal's Integrated Efforts Local NGO Shaban Ali Executive Director shabanties@gmail.com 0092-345 9152267, 0092-926-3567373,0092-926-312838 Backside National Bank, Silicon Center, Kurmi Bazar, Parachinar
Environment and Protection Agency Govt.department Neseer Kashani Director General 0092-81-9201840 Samugali road , near wood couk speny nersary , Quetta, Balouchistan	Eco-Conservation Initiatives Local NGO Azhar Qureshi Chief Executive Officer info@eci-networks.org 0092-300-9565378,0092-51-4446362 House No.718, Street No.82, Sector: I-8/4, Islamabad <a href="http://www.eci-networks.org">www.eci-networks.org</a>
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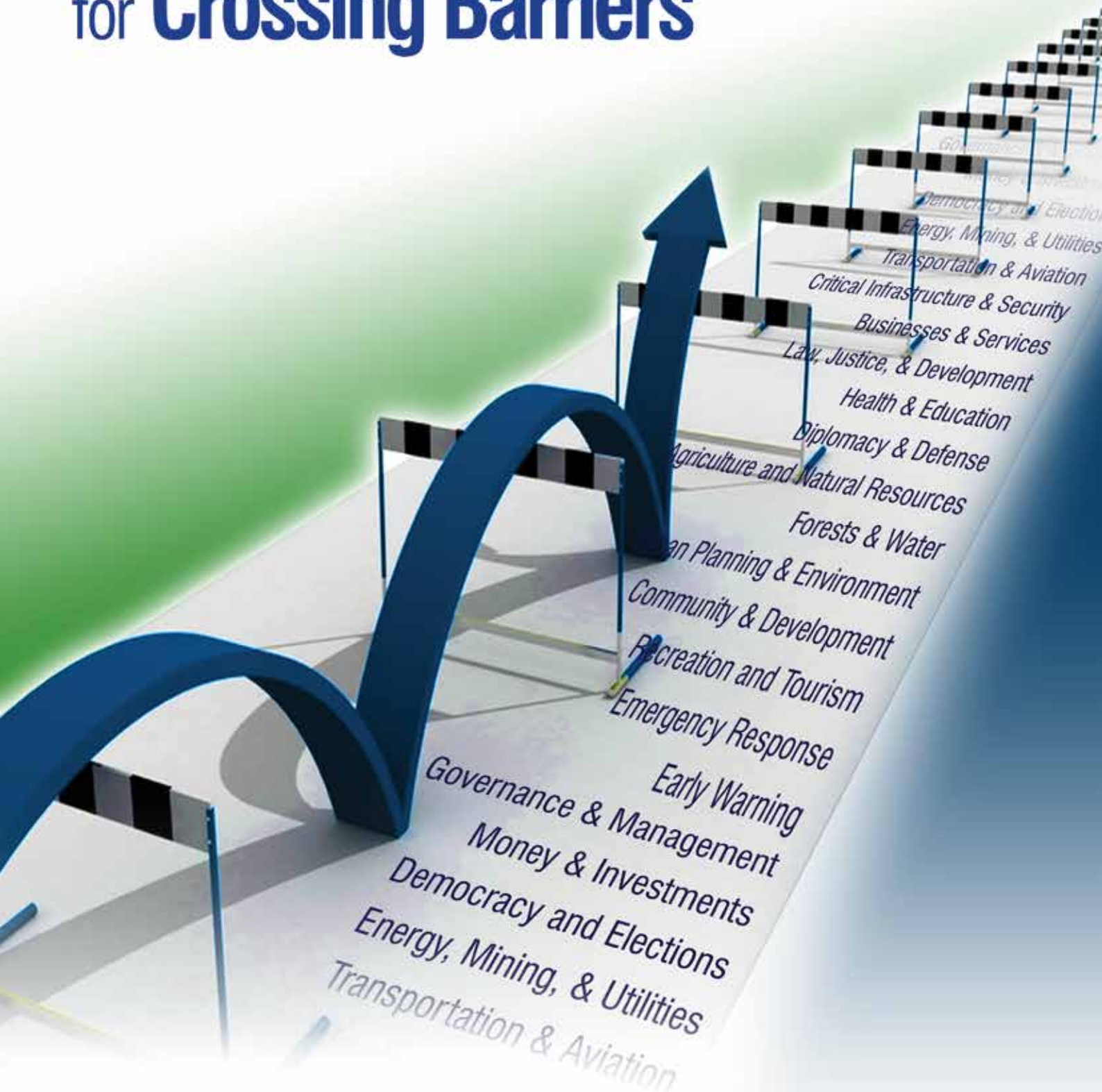


	<a href="http://www.greenrural.net">www.greenrural.net</a>
<p>Foundation for Urban and Rural Development Local NGO Qazi Wajid Mahesar Chairperson / Executive Director furd.pk@gmail.com 0092-312-3355111 Village Qazi Arif, Taluka Mehar, Dadu <a href="http://www.furdpk.org">www.furdpk.org</a></p>	<p>Population Council International NGO Dr. Zeba A. Sathar Country Director pubinfo@popcouncil.org 0092-51-8445566 Population Council House No.7, Street 62, F-6/3, Islamabad <a href="http://www.pcpak.org">www.pcpak.org</a></p>
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NDMA. GOVT.OF PAKISTAN Disaster/risk mgmnt. Government Department <a href="mailto:info@ndma.gov.pk">info@ndma.gov.pk</a> 0092 51 9205037 UAN#: 051-111-157-157,0092 51 9205086 Prime Minister's Office 2nd Floor , Sector G-5-1, Constitution Avenue, Islamabad <a href="http://www.ndma.gov.pk">www.ndma.gov.pk</a>	Pakistan Environmental Protection Agency Climate change Division Government Department Director General Mr. Asif S. Khan 0092-51-9267621, 0092-51-9267625 Pakistan Environmental Protection Agency, 311, Margalla Road, F-11/3 Islamabad 44000, Pakistan. <a href="http://www.environment.gov.pk">www.environment.gov.pk</a>
Pakistan Wetlands Programme WWF International NGO 0092-51-2114125-9 ,0092-51-2114130 House # 451, Street #2, Sector F-11/1 Islamabad <a href="http://www.pakistanwetlands.org">www.pakistanwetlands.org</a>	Sustainable Peace and Development Organization /SPADO Local NGO <a href="mailto:info@spado.org.pk">info@spado.org.pk</a> 0092-51-2293658, 0092-51-2293659, 0092-51-8431702 Head office House No: 277, Street 6, F 10/3, Islamabad <a href="http://www.spado.org.pk">www.spado.org.pk</a>
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