



Council of Pakistan
Newspaper Editors



Pakistan

Climate-smart Reporting

A Handbook for Journalists and
Communications Professionals



July, 2017

Acknowledgments



The Council of Pakistani Newspapers & Editors (CPNE) is grateful for the efforts of Rafiul Haq, Afia Salam and the technical review team comprising of Irshad Junejo, Qazi Athar Ali, Shabina Faraz and Muhammad Noman Ali to complete the first draft of this document. Excellent coordination and timely input by Abdul Rahim Moosvi, Muhammad Anis Danish and Rubina Rasheed were key in taking this document from a one page outline to a complete guidebook for journalists and media person in Pakistan. We would like to acknowledge Ms. Shahnaz Kapadia Rahat and her team at Mera Maan for their efforts in revising and redesigning this guidebook for final publication. We would also like to compliment the core team of Reflect Global for their behind-the-scenes extensive efforts and efficacious coordination.

CPNE is very grateful to the United Nations Development Program and its team including Glenn Hodes, Asad Abass Maken and Ahsan Raza Gillani who have supported and guided us through the whole process of preparation of this document. Many other persons, not mentioned here, also enriched the process through their advice.

Last but not the least, we are thankful to Dr. Jabbar Khattak, Chairman Programs and Projects Committee, whose guidance and support made it possible to complete this publication. We also appreciate all the CPNE members, whose trust and confidence has enabled us to deliver this daunting task and be ready to take it to the next stage.

Aijaz ul Haq
Secretary General
Council of Pakistan Newspaper
Editors (CPNE)

With generous support from:



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Preface

This Guidebook is expected to serve as key resource for media personnel and communication professionals to better understand, identify and report on climate change and climate finance issues facing Pakistan. It introduces media professionals to the challenges Pakistan faces on climate change and that why is it important to highlight climate change as a public and a wider governance issue. Specifically, it gives this audience a clearer picture of the economic impacts of climate change as well as the players and processes involved in climate finance and climate budgeting, both nationally and globally. In suggesting possible story angles and topics as well as challenges to accurately report on this new topic, this guidebook is, in many ways, the first of its kind.

The media in Pakistan acts as an important pillar on all policy issues of critical importance to the public. The emerging issues related to climate change and climate finance are no exception. As the evidence of the serious implications of climate change on Pakistan continues to mount, the need to put in place mechanisms for ensuring more transparent and judicious use of resources has become more and more evident.

CPNE is therefore proud to support this collaborative effort with UNDP to ensure that the media can be a constructive instrument to raise voices and demand at both the national and local levels for climate action. We hope that this effort will be instrumental in bringing Pakistan a step ahead to deal with the real problems related to climate change and building more accountability on how available funds for mitigating and adapting to its impacts are directed.

Dr. Jabbar Khattak
Chairman
Program & Projects Committee
Council of Pakistan Newspaper
Editors (CPNE)

It is a pleasure to see the launch of this guidebook for the media on reporting on climate change and climate finance in Pakistan. Media plays a critical role in building broader public understanding about these issues. But perhaps less well understood is also how it can help to build consensus and momentum among different groups to ensure adequate and equitable resource allocation to respond to new risks and challenges posed to livelihoods brought about by faster climate change.

As Pakistan's economy grows and overall poverty rates decline, the country is moving towards achieving the goals set out in Agenda 2030 and Pakistan's Vision 2025. However, considerable challenges remain, including widening gaps of inequality, limited opportunities for youth and women, risk of natural disasters, insecurity, etc.

Among these great challenges to future prosperity is climate change, to which Pakistan is particularly vulnerable. Indeed, based on international indices, Pakistan consistently ranks among the top ten most vulnerable countries in the world to climate change. Flooding, extreme weather events, glacial lake outburst floods, devastating heat waves, rising sea levels and increased health risks from vector-borne-diseases all threaten the lives and livelihoods of the poorest and most vulnerable in Pakistan. In the face of a changing climate, UNDP helps communities build resilience to mitigate the worst effects of climate change, and works with government to ensure policies and budgeting support a sustainable future.

But the role to be played by civil society and other actors such as the media cannot be understated. The media can act as an educator to highlight the new risks brought by a changing climate, an early warning system for extreme weather events, and an interlocutor between government and the people, making clear the policies and efforts to better use climate finance for the benefit of the most vulnerable. Financing for climate action, and assisting the government in clarifying budget systems responsible for the allocation of public funds, is a key area in which UNDP, with the support of DFID, is helping the government better mobilize, manage and monitor climate funds.

We hope that you will find this guide useful in better articulating the complex but critical role of climate finance in Pakistan and see this as an important part of UNDP's wider programme of assistance. Without our strong collaboration with the Council of Pakistan Newspaper Editors (CPNE), a leading national forum for promoting media freedom and high-quality standards for reporting, this guidebook would not have been possible.

On behalf of UNDP, I would also like to thank the Department for International Development (DFID) of the United Kingdom for their support of this initiative along with all other civil society organizations that have taken part in this activity.

Ignacio Artaza
Country Director
UNDP Pakistan



Acronyms and Abbreviations

AJK	Azad Jammu and Kashmir
CC	Climate Change
CCD	Climate Change Division
CCFF	Climate Change Financing Framework
CCI	Council of Common Interests
CCVI	Climate Change Vulnerability Index
CDM	Clean Development Mechanism
CM	Chief Minister
Co2	Carbon Dioxide
CPEIR	Climate Public Expenditure and Institutional Review
CPNE	Council of Pakistan Newspaper Editors
CRI	Climate Risk Index
CTCN	Climate Technology Center & Network
DRR	Disaster Risk Reduction
ECNEC	Executive Committee of the National Economic Council
EEZ	Exclusive Economic Zone
EIA	Environmental Impact Assessment
EPA	Environment Protection Agency
ERRA	Earthquake Reconstruction and Rehabilitation Authority
GB	Gilgit-Baltistan
GHG	Greenhouse Gas
GLOF	Glacial Lake Outburst Flood
GoP	Government of Pakistan
IEE	Initial Environmental Evaluation
INDC	Intended Nationally Determined Contribution
IPC	Inter-Provincial Coordination
IPCC	Intergovernmental Panel on Climate Change
IRS	Indus River System
KP	Khyber Pakhtunkhwa
MAF	Million Acre Feet
MFF	Mangroves for the Future
MoCC	Ministry of Climate Change
MoF	Ministry of Finance
MoWP	Ministry of Water and Power
MPDR	Ministry of Planning, Development and Reforms
NCCP	National Climate Change Policy
NDMA	National Disaster Management Authority
NDRRP	National Disaster Risk Reduction Policy
NEC	National Economic Council

NEEDS	National Economy and Environment Development Study
NFC	National Finance Commission
PAC	Public Accounts Committee
PER	Public Expenditure Review (World Bank)
REDD	Reducing emissions from deforestation and forest degradation
SDG	Sustainable Development Goals
SEA	Strategic Environmental Assessment
SUPARCO	Pakistan Space and Upper Atmosphere Research Commission
TFCC	Task Force on Climate Change
UNCCD	United Nation Convention to Combat Desertification
UNDP	United Nations Development Programme
UNFCCC	United Nations Framework Convention on Climate Change

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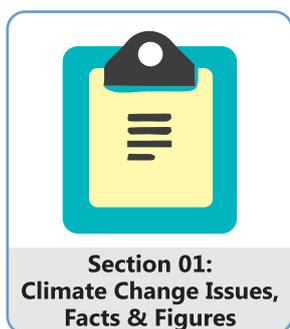
Section 04: Glossary of Terms

Media Matters - An Introduction

Despite its importance climate change is one of the more underreported topics in Pakistan. This is, in part, due to lack of awareness and information about the global and national climate effort. This guidebook is meant to serve as a resource and toolkit for the Pakistani media and journalists on climate change and climate change finance.

The contents of this guidebook are meant to inform, inspire and equip you for effective reporting. Moreover, this guidebook is the culmination of an effort to promote voices for equitable allocation and judicious accountability of Climate Change Finance (CCF) at the local and national level in Pakistan. This document is the first of its kind in Pakistan and we hope that it will serve as an effective resource for you to understand, identify and report on climate change and climate change finance related issues in Pakistan.

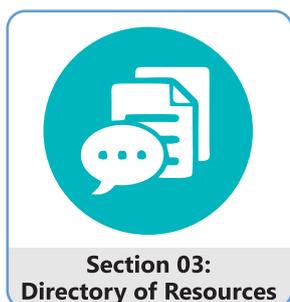
This guidebook is structured as follows:



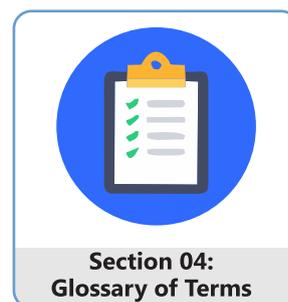
This contains relevant information that you need to know about the climate change phenomenon, threats to Pakistan because of climate change, mitigation measures and adaptation strategies, the global fight against climate change, Pakistan's climate change policy framework as well as climate change finance.



A 'how-to' guide to equip you to write better, more relevant and more effective stories about climate change and climate change finance.



Resources that will prove to be useful in your journalistic endeavors include: list, and contact information of relevant organizations and resource persons; list, and brief summary of important learning platforms and media network; list of reports and publications you can refer to for additional information; a calendar of events.



A handy list of important terminology specific to climate change and climate change finance.

Climate change is undoubtedly one of the most pressing global issues of our generation. The decisions, policies and actions that we implement today may prevent catastrophe for future generations. 2016 was the hottest year on record and the impacts of climate change such as drought, sea level rise, and more erratic storms are already having an effect. If left unchecked, these impacts will threaten the lives and livelihoods of billions of people. While climate change is a global problem, the solution is local and all Pakistanis have the power to make a difference.

There are many reasons why your readers are demanding more stories about climate change. In addition to being a relevant story, climate change is also a political issue. People are extremely concerned about whether governments are addressing climate issues effectively. A third reason is that more people and organizations now realize that the climate change phenomenon will affect every single person on Earth in one way or another. Moreover, reporting at the local level is a way for international platforms to understand how the problem is affecting people across the world. Journalists and media outlets reporting on climate issues often receive international recognition and exposure.

Journalists and the media are essential partners for government and development agencies in our fight against climate change. In a very real sense, the media plays a vital role in addressing the challenge of climate change by:

Serving as an accurate, timely **source of news and information** for all stakeholders involved in the climate effort: the public, policy-makers and the private sector that they can make effective, informed decisions.

Serving as an extremely important **adaptation measure** by reaching and informing vulnerable populations and communicating key contents of the national adaptation plans. A better-informed public can more effectively cope with climate related threats and hazards.

Monitoring and reporting on climate change finance to ensure that all funds received by the Pakistani government and civil society are effectively spent on climate change mitigation and adaptation measures.

Representing and amplifying the voices of the people, particularly the poor, marginalized and vulnerable communities to ensure that their concerns and suggested solutions make their way to policy-makers.

Serving as an **effective mechanism for accountability and transparency**, particularly when reporting on how the government uses the funds available through climate change finance.

Section

01

Power outages
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Climate Change Issues, Facts & Figures

co-op to
with energy c

he said Pakistan's human resource
had benefited tremendously from its
interaction with experts and academics
from the USA. The visit done by the
Joint Working Group on energy has laid
solid foundations for the development
of Pakistan's energy sector to its optimal
potential, he added.

At present, the prime minister said NEA
was looking after the bulk of high impact
power projects in Pakistan under the Chi-
na Pakistan Economic Corridor.

"I take this opportunity to acknowledge
that the fast track implementation of En-
ergy Finance Program will be an critical
component of our effort to eliminate
power shortages by the middle of next
year" he remarked.

He apprised the audience, comprising
heads of various power sector firms
that a 100 mega Watt solar power pro-
ject and two wind power projects of 50
MW each, had already started
power production.

Similarly, the Solar coal-fired pro-
ject was ahead of schedule and the
first unit of 660 megawatts was expect-
ed to enter in production in the month
of June. The first unit of the Port Qasim
coal-fired project was also moving at a
high pace and was expected to become
operational by November.

Apart from this, number of other pro-
jects in the generation and transmission
sectors are also under implementation,
he added.

He viewed that President Xi's visit
was not only a "game-changer" for
Pakistan, but also for the world. It
would stimulate inclusive economic
development, help to reduce poverty
and promote peace and stability in
the region and beyond.

Prime Minister Nawaz Sharif
said that a strategic alliance between
China and Pakistan was not merely a
strategic alliance, but a partnership
between Pakistan and China.

From the fact that a very large number
of countries are now observing the
Paris Agreement and become part of this
initiative, he said that it was a clear
signal for economic, development and
social progress. Pakistan not only
needed support in the energy sector
but the world's progress initiatives to
improve water storage capacity. The
development of the North India Canal
was a major focus of my Government
and the construction of the Sharda Dam
was a very important initiative in this
regard, he added.

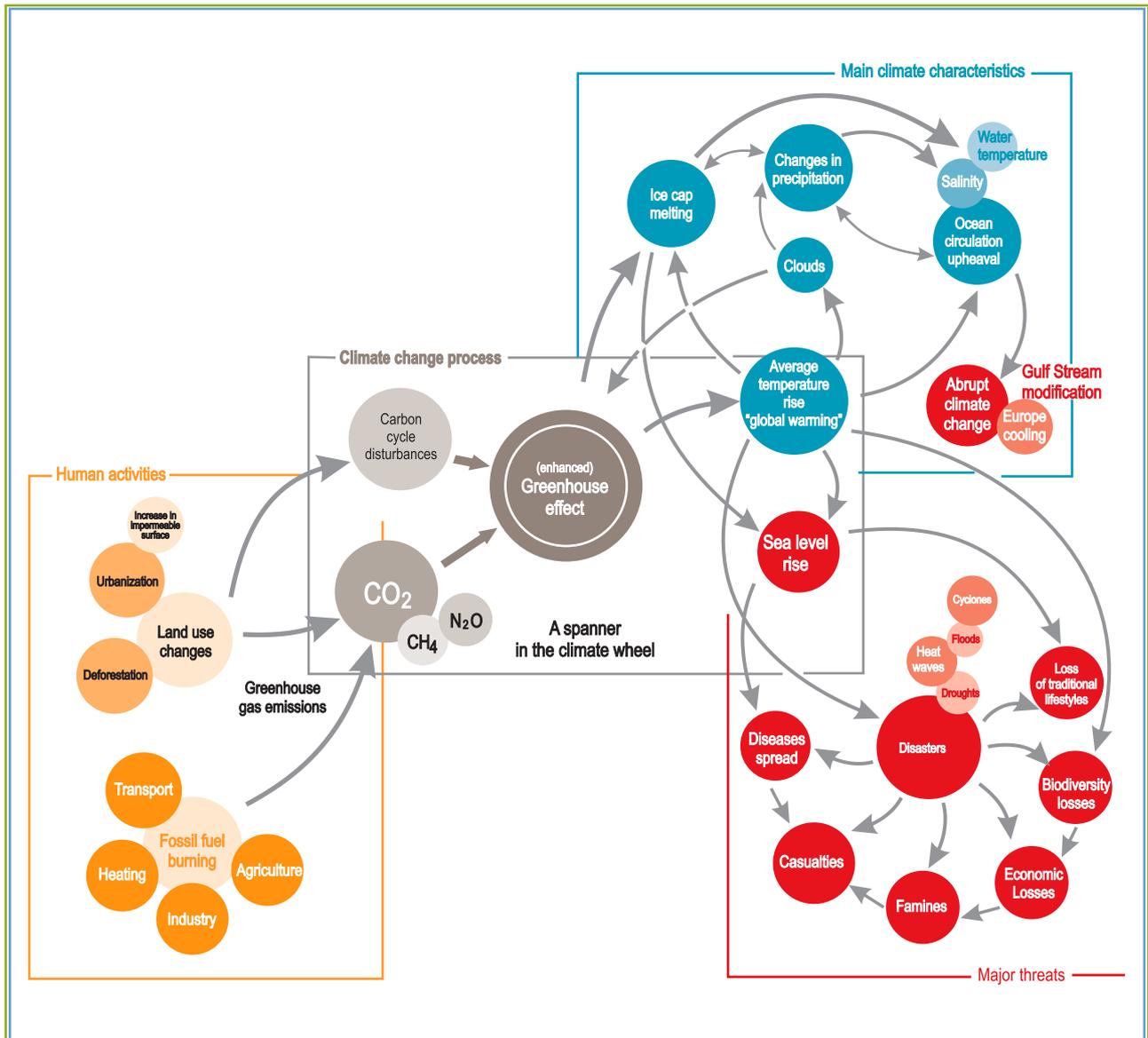
He said that the visit was of great
importance for Pakistan in the
context of climate change.

At the conference, the heads
of various power sector firms
presented their study on the
impact of climate change on power
production.

Later, the Prime Minister
announced the approval of
power projects worth \$10 billion
signed by the Chinese and
Pakistan.

Climate Change: A Crisis in the Making

Climate Change is a long-term change in the average weather conditions. Specifically, climate change refers to the fact that the world is getting warmer due to emission of greenhouse gases because of human activities which is, in turn, creating harmful changes to the Earth's environment. As illustrated in the diagram below, human activity produces greenhouse gases that affect climate characteristics leading to unpredictable and extreme weather events and other threats. However, it should be noted that the future impacts of climate depend largely on the actual level of global warming, how different climate systems interact with each other as well as the response of societies and ecosystems to these changes.



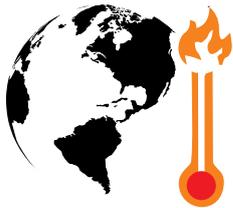
Source: United Nations Environmental Program

Global Evidence of Climate Change¹ includes the following:



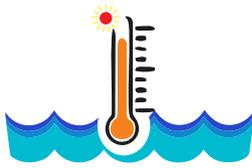
Rising Sea Levels:

Global sea level rose about 8 inches in the last century. The rate in the last two decades, however is nearly double that of the last century.



Rising Temperature:

Earth's average temperature has risen about 1.1C since the 19th century because of carbon dioxide and other man-made emissions. Temperatures have been consistently rising since 2001, and 2016 has been recorded as the warmest year to date.



Warming Oceans:

The oceans have absorbed much of this increased heat, with the top about 2,300 feet of ocean showing warming of 17.61C since 1969.



Melting Ice:

Both the extent and thickness of sea ice has declined rapidly over the last several decades. Glaciers are retreating almost everywhere around the world. In parts of the Himalayas, many glaciers are in retreat. As they melt, they feed a growing number of glacial lakes that threaten to burst at the seams. By 2010 more than 200 of the more than 8,000 lakes in the Himalayas were identified as potential threats for "glacial lake outburst floods."



Extreme Events:

The number of instances of extreme weather conditions such as tsunamis, hurricanes, tornadoes, earthquakes and floods have increased around the world.



Disease:

A changing climate can mean a rise in Vector-Borne Diseases (E.G. Malaria) and pests and agricultural disease - adding further stress to lives and livelihoods.

¹: Climate Change: How Do We Know, 2017, NASA <https://climate.nasa.gov/evidence/>

If left unchecked, Climate Change will directly affect:



Agriculture

Rising temperatures, climatic uncertainty as well as an increase in extreme weather conditions such as drought and floods pose as serious challenges to agriculture. Overall, climate change may make it difficult to grow crops and reduce land area suitable for agriculture thereby leading to a decline in food production.



Livestock

Exposure to heat over time increased vulnerability of animals to disease, reduces fertility and reduces milk production. Drought and declining crop production means less fodder is available for livestock to graze on, leading to animal starvation.



Fish

Changing water temperatures combined with overfishing and water pollution are already causing stress to fisheries around the world. Warmer water temperatures lead to disrupted ecosystems which affects the life cycles, ability to reproduce as well as health may lead to large population declines in many different fish species.



Water Cycle

One of the most prevalent impacts of climate change has been changes to the water cycle. Rainfall has been less frequent, or more intense leading to too much water in some places and too little in others. Longer periods of time between rain along with rising temperatures have led to droughts.

All of the above changes are likely to result in:

- Reduced agricultural yields, widespread food insecurity and breakdown of food systems.
- Damage to rural livelihoods with losses of agricultural income leading to slowing down of economic development and loss of GDP.
- Insufficient access to water for drinking and irrigation.
- Damage to marine and coastal ecosystems and bio-diversity.
- Intense weather conditions such as floods, typhoons, cyclones etc. leading to loss of lives as well as damaged physical infrastructure.

Climate Change - Key Facts



Source: Bureau for Policy and Programme Support, United Nations Development Program, 2017

Climate-related Threats to Pakistan

According to the Climate Change Vulnerability Index (CCVI), Pakistan ranks 8th in the world in terms of long-term risks. In 2014, Pakistan was identified as 5th worst affected country in the world. The Climate Change Risk indices that have been developed so far rely on country-level data to calculate which countries will suffer more damages in case of an extreme event. With a poverty rate of 21 percent and a substantial proportion (23%) of the population dependent on agriculture, climate change has potentially devastating effects for Pakistanis. Impending stress on water, health, energy and food security could lead to concerns for livelihood and survival of all, particularly the poorest in the society.



Source: Maplecroft Climate Change Vulnerability Index

Pakistan's resolve is translated in various supporting actions which includes different laws (ACTs at Federal and Provincial levels), establishment of different institutions/authorities and ratification of different internationally accepted conventions and best practices. Pakistan's Intended Nationally Determined Contribution (INDC) is rooted in the country's strategic plan 'Vision 2025.' It is aligned with the respective policies, plans and sectoral growth targets set by the Paris agreement, as well as various ministries and other government entities. This is a considerable effort to realize and reduce carbon footprint from the economic activities, which has been a compromise with growth and economy.

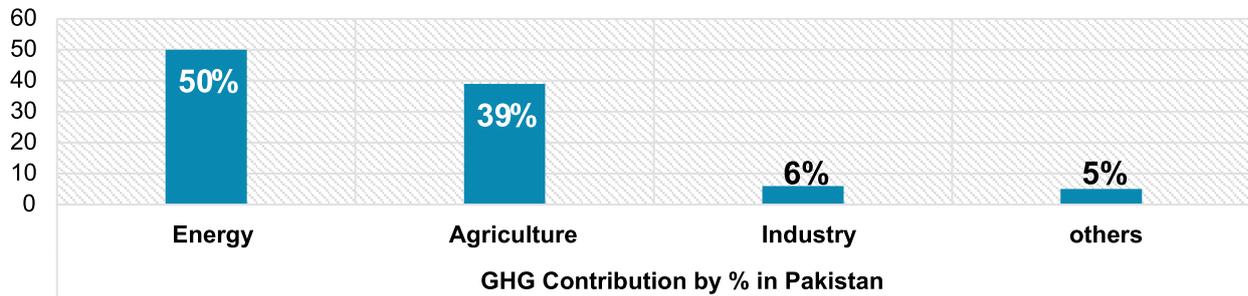
The total GHG emissions of Pakistan add up to 405 MT CO₂-equivalent. The five key GHG contributing sectors of the economy are energy, agriculture, industrial processes, land use and forestry, and waste.

Sector Wise Projection of GHG Emissions for Pakistan (Metric tons of CO₂-equivalent):

Sectors	1994	2015	2030
Agriculture	72	175	457
Energy	86	186	898
Industrial Process	13	22	130
Land-Use Change and Forestry	7	10	29
Waste	4	12	89
Total	182	405	1603

Projected levels of GHG emissions and their comparison with GHG inventory years are in the table below:

Sectoral divide of GHG in Pakistan



Source: INDC for Pakistan

The National Climate Change Policy (2012) has identified the following major threats to Pakistan:

1. Increases in the frequency and intensity of extreme weather events including monsoon rains, intense floods and droughts.
2. Recession of the Hindu Kush, Karakoram and Himalayan glaciers threatening water inflows to the Indus River System leading to flooding.
3. Increased stress between upper and lower river catchments vis-a-vis water resource sharing.
4. Increased siltation of major dams caused by more frequent and intense floods.
5. Rising temperatures resulting in heat and water stressed conditions leading to reduced agricultural productivity.
6. Further decreases in already scanty forest cover.
7. Increased intrusion of saline water in the Indus delta adversely affecting coastal agriculture, mangroves and fish breeding grounds.
8. Threat to coastal areas due to rising sea levels and increased cyclonic activity.
9. Increased health risks and climate change induced migration and displacement.

For more information, and latest resources on Climate Change in Pakistan, visit the Climate Change Portal Pakistan: <http://www.ccportal.org.pk/>

In Pictures: A Decade of Climate Change in Pakistan



Picture Credit: sherryrehman.com

1999 – 2003

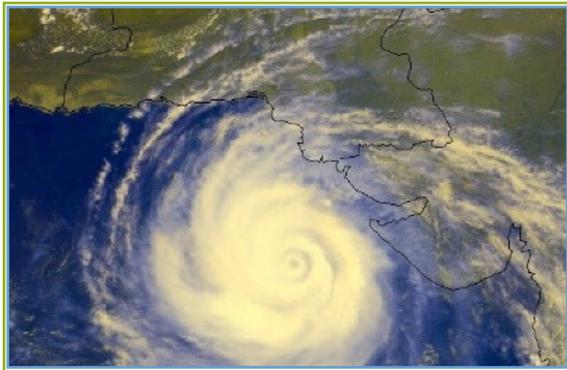
Drought affected 58 districts in Pakistan. Agricultural growth fell by 2.5% leading to economic losses of an estimated \$1.2 billion. A total of 2.2 million people and 7.2 million livestock were affected.



Picture Credit: Jaime Kozak

2006

A total of 5218 glaciers in Northern Pakistan were identified for potential of glacial lake outburst flood (GLOF). Of these 52 lakes were classified as hazardous. To date more than 2900 people have been displaced due to GLOF.



Picture Credit: Jaime Kozak

2007

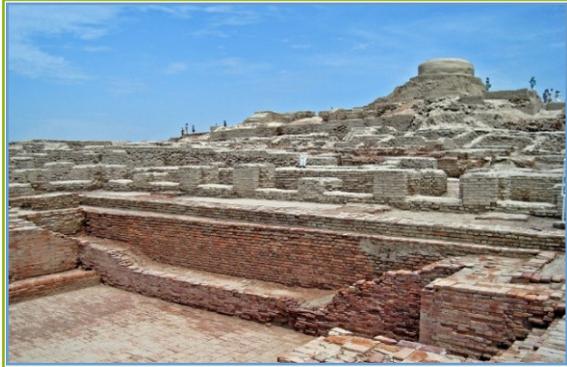
Deadly Tropical Cyclone Yemyin made landfalls in Pakistan in June 2007 killing 730 people, associated flooding affected the lives of over 2 million people. More than 2 million livestock, worth over Rs. 4 billion were killed by the storm.



Picture Credit: DAWN Newspaper

2010

Unprecedented rainfall inundated one-fifth of the country's land and affected 21 million Pakistanis. An estimated 70% of farmers across the country lost more than half of their expected income. A record of 740,150 people were displaced as climate migrants.



Picture Credit: Rare Delights Magazine

2010

Temperatures in Mohenjodaro were recorded as above 50C, which is the fifth-highest temperature ever recorded on earth and the hottest reliably measured temperature ever recorded in the continent of Asia.



Picture Credit: Trek Earth

2013

A cold wave struck Islamabad where temperatures plunged to a record -3.9C.



Picture Credit: Gazette Review

2015

A heat wave with temperatures higher than the past 30 years caused the deaths of more than 1200 people in Karachi alone. The situation worsened due to weak infrastructure, weak governance and emergence of high density structures, obstructing life-saving sea breezes. These factors were exacerbated by the city's water and electricity shortages.



Picture Credit: Pakistan Today

2017

In April 2017 a severe heat wave with temperatures as high as 51C hit Pakistan. Unprecedented highs in temperature led to dehydration, sunburn and heatstroke. Additional health risks reported included increased prevalence of waterborne diseases. Increased power needs led to blackouts affecting hospitals, transport and communication.

Combating Climate Change

Responding to climate change calls for two possible strategies:

Strategy # 1: Mitigation:

Limiting the effects of climate change by reducing and stabilizing the levels of heat trapping greenhouse gasses in the atmosphere. Mitigation can mean using new technologies and renewable energies, making older equipment more energy efficient, or changing management practices or consumer behavior. It can be as complex as a plan for a new city, or as simple as improvements to a cook stove design.

Examples of **Mitigation Measures** include²:

Phasing out **fossil fuels** and switching to low-carbon energy sources such as renewable and nuclear energy.

Expanding **carbon sinks** through reforestation thereby removing greater amounts of carbon dioxide from the atmosphere.³

Ensuring **energy efficiency** through various measures, for example improving building insulation, use of plastic building and construction

Strategy # 2: Adaptation

Adaptation aims to integrate climate risks into national planning to reduce the severity of impact of disastrous events and help people recover faster. For example, if a country was worried about extreme storms related to the impacts of climate change - building sea walls would be an adaptation measure. The goal is to reduce human vulnerability to the harmful effects of climate change, such as sea-level encroachment, extreme weather conditions or food insecurity.

Examples of **Adaption Strategies** include:



Water

- Rainwater harvesting
- Improved water storage and conservation
- Water re-use plans
- Desalinization of sea water
- Irrigation efficiency measures
- Awareness raising and capacity building



Agriculture

- Adjustment of crop planting and harvesting dates
- Changes in crop varieties and seed selection
- Crop relocation
- Soil protection through tree planting
- Awareness raising and capacity building



Infrastructure

- Building seawalls and storm surge barriers
- Creation of marshlands/wetlands as buffer against sea level rise
- Protection of existing natural barriers
- Awareness raising and capacity building



Health

- Heat-health action plans
- Emergency medical services
- Improved climate sensitive disease and surveillance control
- Safe water
- Improved sanitation
- Awareness raising and capacity building

²: Climate Change Mitigation, 2017 Wikipedia, https://en.wikipedia.org/wiki/Climate_change_mitigation

³: Low-Emission Growth: Promoting Renewables and Improving Energy Efficiency, UN Environment, 2017

The Global Effort



On April 2017, more than 200,000 people marched to Washington DC, USA to demonstrate public support for bold action to address climate change rooted in economic and social justice.

International efforts to address climate change started with the **Earth Summit** held in Rio De Janeiro in 1992. The global community came together and signed the **United Nations Framework Convention of Climate Change (UNFCCC)**, with the objective of working together to stabilize the level of greenhouse gases in the atmosphere thereby preventing drastic global warming. Climate negotiations have been taking place around the world since then, culminating in the **Kyoto Protocol** in 2005 which recognized that some countries were more responsible than others for carbon emissions and therefore had to bear the bulk of the financial responsibility for the curtailment effort.

Developed countries agreed to reduce their carbon emissions by 5.2% (average) below 1990 levels by 2012. In 2009, world leaders gathered again in Denmark and signed the **Copenhagen Accord** where developed countries pledged USD 30 billion in climate change finance for the period of 2010-2012. In December 2010, the **Cancun Agreements** resulted in the establishment of the **Green Climate Fund**, the **Technology Mechanism**, and the **Cancun Adaptation Framework**, to assist developing nations in dealing with climate change. In 2015, the historical **Paris Agreement** was adopted where 195 nations across the world agreed to work together to combat climate change and invest in a low-carbon, resilient and sustainable future.

About the Paris Climate Agreement:

On April 22, Earth Day, representatives from close to 200 countries around the world got together to ratify a historic document that served to unite nearly every nation in the world around their responsibilities to take action against climate change. Key points of the agreement are as follows:

Key Points:

The historic pact, approved by 195 countries, will take effect from 2020



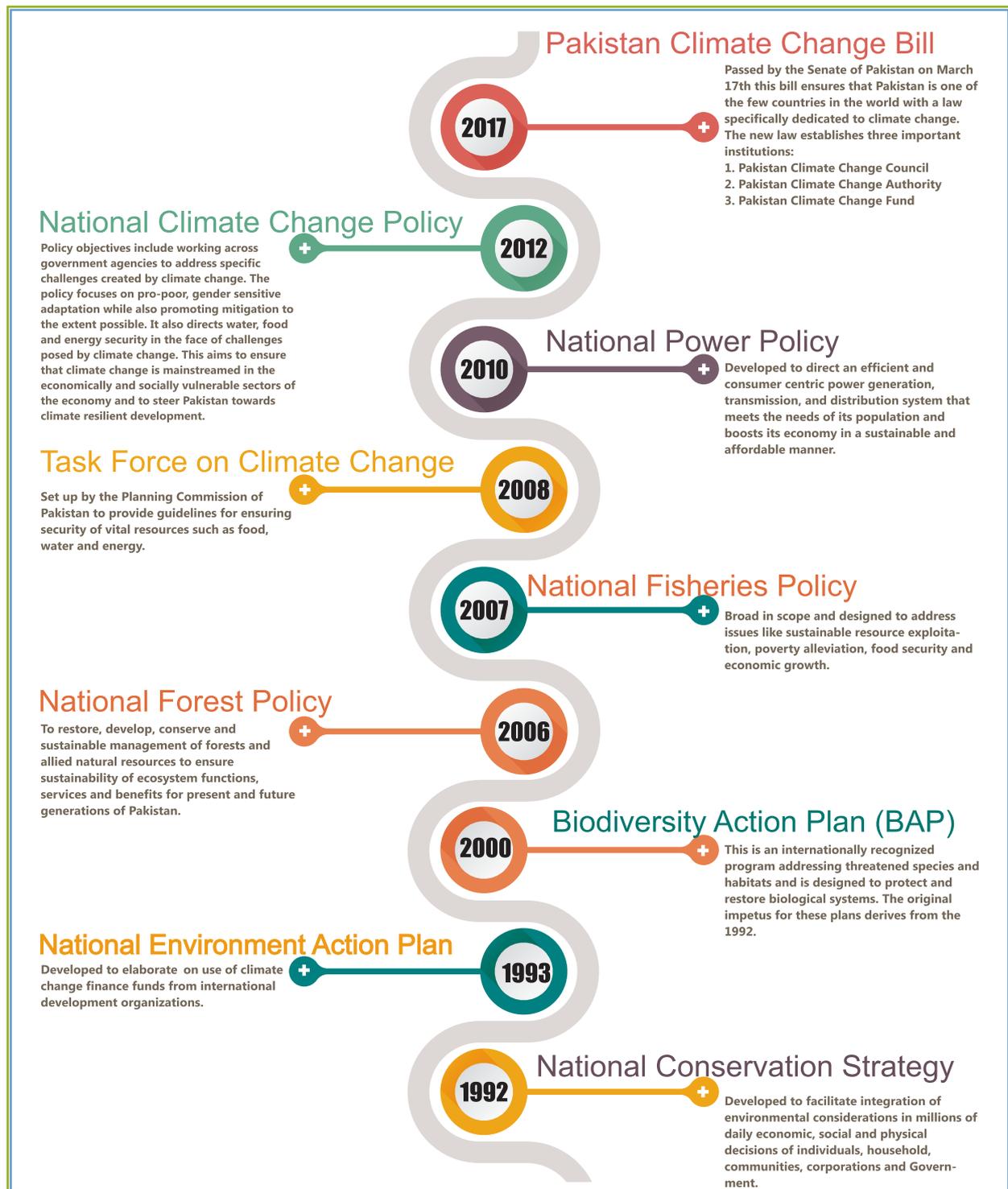
<p>Temperatures 2100</p>  <ul style="list-style-type: none"> • Keep warming “well below 2 degrees Celsius”. Continue all efforts to limit the rise in temperatures to 1.5 degrees Celsius” 	<p>Finance 2020-2025</p>  <ul style="list-style-type: none"> • Rich countries must provide 100 billion dollars from 2020, as a “floor” • Amount to be updated by 2025 	<p>Differentiation</p>  <ul style="list-style-type: none"> • Developed countries must continue to “take the lead” in the reduction of greenhouse gases • Developing nations are encouraged to “enhance their efforts” and move over time to cuts 	<p>Emissions objectives 2050</p>  <ul style="list-style-type: none"> • Aim for greenhouse gases emissions to peak “as soon as possible” • From 2050: rapid reductions to achieve a balance between emissions from human activity and the amount that can be captured by “sinks”
<p>Burden-sharing</p>  <ul style="list-style-type: none"> • Developed countries must provide financial resources to help developing countries • Other countries are invited to provide support on a voluntary basis 	<p>Review mechanism 2023</p>  <ul style="list-style-type: none"> • A review every five years First world review: 2023 • Each review will inform countries in “updating and enhancing” their pledges 	<p>Climate damage</p>  <ul style="list-style-type: none"> • Vulnerable countries have won recognition of the need for “averting, minimising and addressing” losses suffered due to climate change 	

AFP

Source: Global Forum on Sustainable Energy, 2017

Pakistan's National Commitments

Recognizing the potentially devastating impact of climate change on the country, the Pakistan government has adopted a 'can-do' attitude and is focused on implementing adaptation and mitigation measures to climate change threats. Pakistan is a low carbon contributor, but committed as a Conference of the Parties member to reduce the green-house gas load. The United Nations Framework Convention on Climate Change (UNFCCC or FCCC) is an international environmental treaty negotiated at the United Nations Conference on Environment and Development (UNCED), informally known as the Earth Summit, held in Rio de Janeiro from 3 to 14 June 1992. The objective of the treaty is to "stabilize greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system"⁴. Pakistan's resolve is translated in various supporting actions and laws, as described in the timeline below:



⁴: UNFCCC, Wikipedia, 2017
https://en.wikipedia.org/wiki/List_of_parties_to_the_United_Nations_Framework_Convention_on_Climate_Change

Climate Change Finance

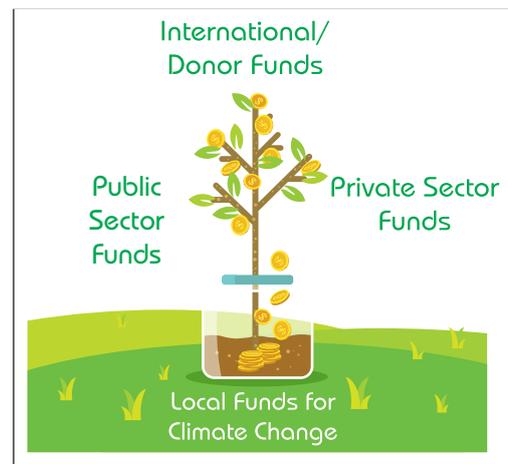
Climate change finance refers to the public, international and private resources and funds available for a country to invest in climate change adaptation and mitigation measures. These financial resources are critical as large-scale investments are required to significantly reduce greenhouse emissions, and reduce the impacts of climate change. There are three types of climate finance:

Mitigation Finance: to fund projects that limit the severity and onset of climate change.

Adaptation Finance: to fund projects that adapt to climate change .

REDD+: Money invested in forest protection and reforestation projects, sometimes through carbon trading schemes⁵.

According to a national study, Pakistan's needs between \$7 to \$14 billion per annum to implement effective adaptation measures for Climate Change⁶. Climate Change Finance is available to Pakistan through national public-sector funds, international and donor funding as well as private sector funds. **As Journalists, your role in monitoring the use of domestic and international climate change finance is critical to successful design and implementation of climate change mitigation and adaptation projects.**



Public Sector Funds

The National Budget Brief 2016-2017 has identified the need of a 'Climate Change Financial Framework' which is currently under development.

The major decision makers of the amount and direction of public funding for climate change finance are:

- Ministry of Planning Development and Reform (MPDR)
- Ministry of Finance (MoF)
- Ministry of Climate Change (MoCC)

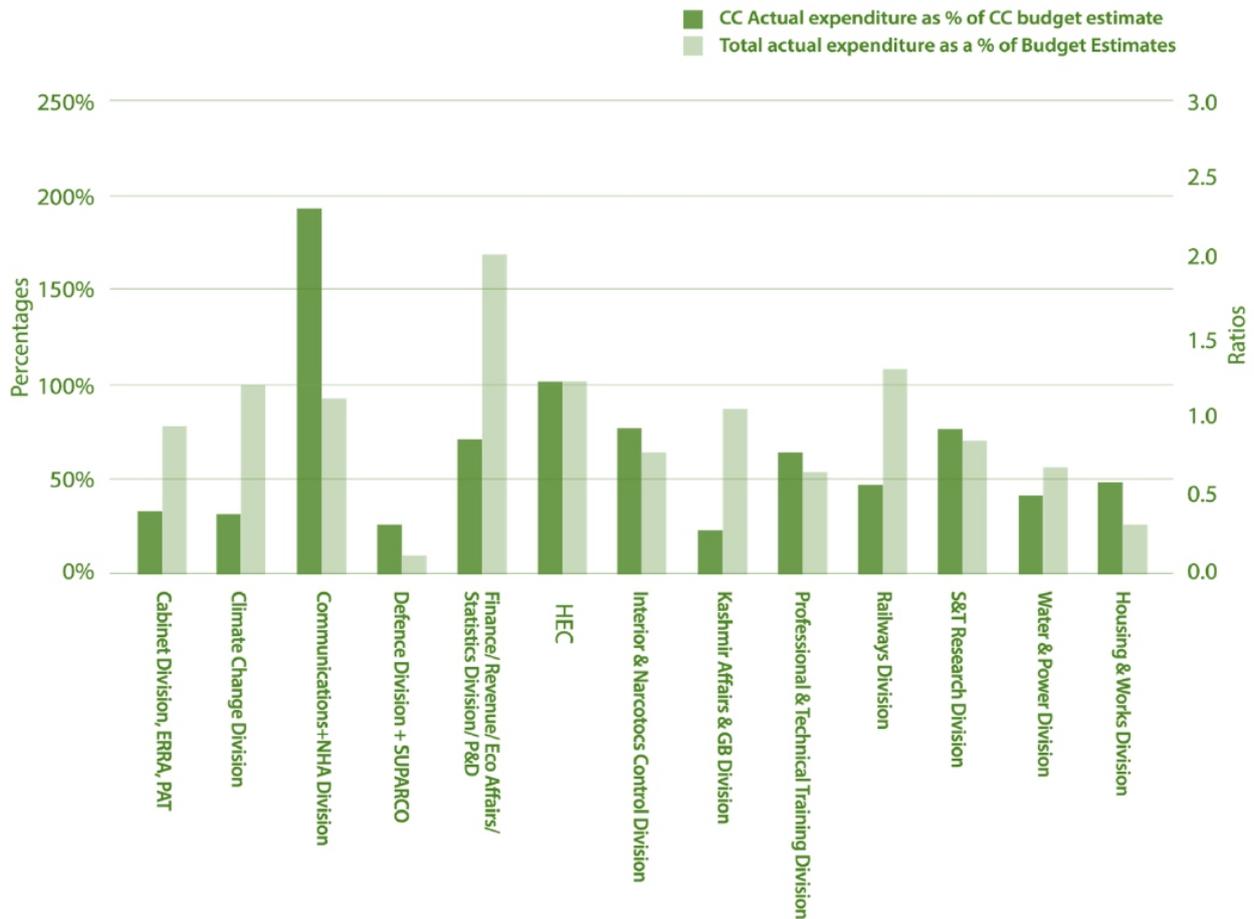
The Climate Public Expenditure and Institutional Review (CPEIR) in 2015 has identified resources for climate change related work with the following government Ministries and Departments:

- Ministry of Climate Change (formerly the Climate Change Division)
- ERRA, P&DD, Cabinet Division
- National Highway Authority
- Kashmir Affairs & Gilgit Baltistan Division
- Defense Division
- Professional & Technical Training Division
- Finance/Revenue/Economic Affairs/Statistics Division
- Ministry of Planning, Development and Reform
- Water & Power Division
- Science & Technology Division
- Higher Education Commission
- Railways Division

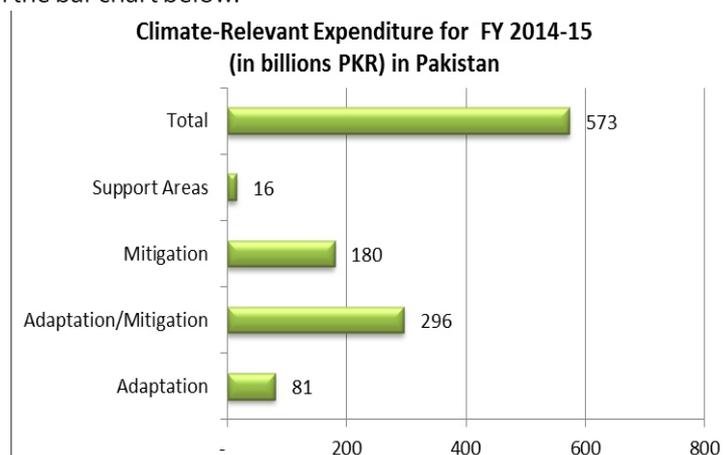
⁵: Transparency International, 2017, 'A Handbook for Communicators & Journalists on Climate Change and Corruption'

⁶: UNFCCC 2016, "Pakistan INDC", <http://www4.unfccc.int/Submissions/INDC/Published%20Documents/Pakistan/1/Pak-INDC.pdf>

As an illustration of public funding for climate change, the following graph displays the relationship between allocation and spending of funds for climate change related issues by different government agencies in the fiscal year 2013-2014. It is interesting to note that of the various agencies with funds for climate change related activities only the Higher Education Commission (HEC) utilized 100% of its allocation. While most other ministries and departments spent less than 50% of their allocated funds, NHA of the Communication Ministry exceeded their budget by spending almost 200% of the allocated amount.



As reported in the Climate Public Expenditure and Institutional Review (CPEIR), completed in 2017 by the UNDP led by Ministry of Climate Change and Ministry of Finance, the aggregate CC related development and current expenditures of Federal Government, Provincial Governments, AJK, Gilgit Baltistan, and FATA was PKR 572.5 billion in FY 2014-15. Thus in the year 2014-15 the climate change expenditures were 8.5 percent of the total national expenditures of the government. The break-up of this expenditure into the above-mentioned categories is reflected in the bar chart below:



The CPEIR also highlights that the share of CC related expenditure has increased by around 20% from 2012 to 2015. The aggregate CC related development and current expenditures of Federal Government plus four provinces and 3 regions increased from Pk Rs. 330.4 billion to 572.5 billion from 2012 to 2015⁷.

International/Donor Funds

Pakistan is eligible to receive funding from two established funds under the UNFCCC architecture to finance investment in adaptation efforts⁸; the **SCCF** and the **Adaptation Fund**. Both are managed by the Global Environment Facility (GEF) and are open to all vulnerable developing countries. A group of 11 countries announced contributions totaling USD 248 million to the Least Developed Countries Fund. The Adaptation Fund has received pledges amounting to almost USD 75 million from Germany, Sweden, Italy, and Walloon Region of Belgium. Under the auspices of the UNFCCC, or complementary to it, climate funds have been established to facilitate financial flows from developed countries to developing countries, which are defined by the convention. As these funds grow and implement more adaptation and mitigation projects, the need for integrity and transparency will only increase. Currently, Pakistan is receiving funding through the Adaptation Fund to support project implementation of 'Reducing Risks and Vulnerabilities from Glacier Lake Outburst Floods in Northern Pakistan' through UNDP.

Pakistan is amongst those countries that has received funding and assistance from the **Green Climate Fund**. Intended to be the main fund for global climate change finance, the GCF aims to mobilize USD 100 billion by the year 2020. These funds have been pledged by the governments of rich, carbon-emitting countries who have the greater responsibility in causing climate change. At present pledges totaling USD 10.1 billion have been announced in the initial mobilization of the Green Climate Fund. How this money is allocated, distributed and spent could have tremendous impact on the futures of billions of people around the world.

The bilateral and multilateral development agencies have a budget and mandate for climate change related investment and activities in Pakistan include the following:

- United Nations Development Program (UNDP)
- United Nations Environment Program (UNEP)
- Food and Agriculture Organization (FAO)
- International Fund for Agricultural Development (IFAD)
- World Bank
- International Union for Conservation of Nature (IUCN)
- World Wildlife Fund (WWF)
- International Center for Climate Governance (ICCG)
- Oxfam International
- Department for International Development (DFID)
- Swiss Development Cooperation (SDC)
- USAID
- Asian Development Bank (ADB)
- Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)
- Asia-Pacific Network for Global Change Research

For more information, and an updated list of Recent Climate Funding Announcements visit the UNFCCC website: <http://newsroom.unfccc.int/financial-flows/list-of-recent-climate-funding-announcements/>

⁷: The CPEIR Report 2017 is expected to be published in August, 2017.

⁸: Murphy, Keller & Parry (2013), Identifying Priority Adaptation Actions in Pakistan: A Situation Analysis, IISD ,

Private Sector Funds:

Climate Finance is also available through the private sector. One possibility for funding comes from 'leveraged' climate finance, where companies decide to invest in economically viable climate change related projects that were initially started by the government. Sources of private sector investment include:

- Individual investors
- Private equity including venture capitalists
- Insurance companies
- Sovereign wealth funds
- Financial Institutions

Most large multinational companies invest in climate change under their corporate social responsibility banner. This is particularly true for industries that have a direct impact on climate change, such as oil & gas, the auto industry or beverages and fast-moving consumer goods. Many private sector companies are also directly working with governments and development agencies by providing funds to ongoing programs on climate change. The Fauji Fertilizer Company, for example is currently investing in projects related to improved water stewardship and reduction of chemical fertilizers and pesticides usage in different crops.

There are increasing market opportunities for Pakistani companies to provide climate-friendly goods and services available to private industry. Demand for agricultural inputs and export commodities with a lower water and carbon footprint is also growing worldwide. In addition, professional service firms provide support to companies and government to design bankable projects for climate finance and strengthen institutions and systems to support the monitoring and verification of climate actions also represents an opportunity to create new jobs for small and medium enterprises. Commercial, development, and agricultural banks can consider accessing climate finance from the Green Climate Fund for on-lending by going through the accreditation process as a national implementing entity.

Let's Investigate!

What are the following companies doing about Climate Change? Are any of their efforts currently directed towards meaningful intervention in Pakistan?



An example of private sector investment in the climate change effort are the environmental goals for 2020 put forward by Coca-Cola, one of the largest multinational beverage companies in the world. Under their CSR banner, Coca Cola is committed to investing in climate change mitigation and adaptation measures. As a regional hub and large consumer market for Coca-Cola products, some of the company's CSR efforts may be directed towards Pakistan

OUR 2020 ENVIRONMENTAL GOALS

At Coca-Cola, we are dedicated to contributing to a healthier, happier world. That's why we are committed to:



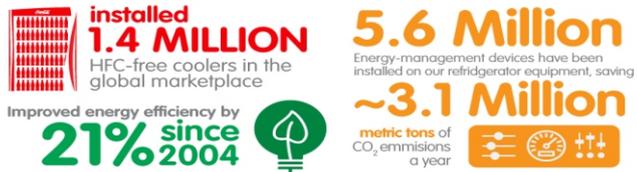
WATER STEWARDSHIP

Goals: Improve water efficiency by 25%, help ensure healthy, resilient freshwater systems through conservation efforts with World Wildlife Fund and replenish 100% of the water we use



ENERGY AND CLIMATE

Goal: Reduce CO₂ emissions embedded in 'the drink in your hand' by 25% through our entire value chain



PACKAGING

Goal: Reach a 75% recovery rate in developed markets of the equivalent amount of bottles and cans we introduce into the marketplace



AGRICULTURE

Goal: Sustainably source key agricultural ingredients



Coca-Cola and World Wildlife Fund are jointly working on sustainability goals for the Coca-Cola system—the Company and its nearly 250 bottling partners in more than 200 countries. These goals include sustainably sourcing key agricultural ingredients, helping to ensure healthy, resilient freshwater systems, working to reduce CO₂ emissions across the entire value chain, responsibly sourcing material for PlantBottle™ packaging and improving water efficiency.



Section

02

Power outages in Pakistan

Co-op to with energy

he said Pakistan's human resource had benefited tremendously from its interaction with experts and academics from the USA. The visit done by the joint Working Group on energy has laid solid foundations for the development of Pakistan's energy sector to its optimal potential, he added.

At present, the prime minister said NEA was looking after the bulk of high impact power projects in Pakistan under the China-Pakistan Economic Corridor.

"I take this opportunity to acknowledge that the fast track implementation of EPC by Chinese companies will be an integral component of our effort to eliminate power shortages by the middle of next year," he remarked.

He apprised the audience, comprising heads of various power sector firms that a 100 megawatt solar power project and two wind power projects of 50 megawatt each, had already started power production.

Similarly, the Solar coal-fired power project was ahead of schedule and the first unit of 660 megawatts was expected to enter in production in the month of June. The first unit of the Port Qasim coal-fired project was also moving at a high pace and was expected to become operational by December.

Apart from this, number of other projects in the generation and transmission sectors are also under implementation, he added.

He reviewed that President Xi's vision of "One Belt One Road" was an early initiative of "One Belt One Road". EPC was not only a "game-changer" for

Pakistan, but also for the region. It would stimulate inclusive economic development, help to create jobs and promote peace and stability in the region and beyond.

Prime Minister Nawaz Sharif said EPC was not merely a strategic alliance but a kind of decade-long friendship between Pakistan and China.

He said that a very large number of projects are now being implemented and because part of this initiative for economic, development and investment prosperity, Pakistan not only gained support in the energy sector but the model project initiative to expand its water storage capacity. The development of the North India Canal is a major focus of my Government.

He said that the construction of the Sharda Dam is a single most important initiative in the field of power sector.

He said that the dam would be a paramount importance for Pakistan to meet the challenges of climate change.

At the conference, the heads of government of various provinces and representatives of power sector firms in China gave presentations of their study of the Dam project for a longer study.

He said that the dam would be a paramount importance for Pakistan to meet the challenges of climate change.

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Media Toolkit

Finding Stories to Report

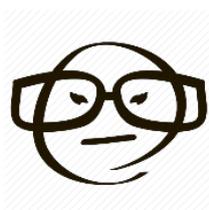
Climate change and climate finance are complex and challenging areas to write about. For direction, and inspiration, consider the following:



Follow the Money

Investigate the use of resources available to Pakistan for climate action. Monitor the use of these sources and report on their effectiveness. Questions to guide your investigation may include:

- Where did the finances come from?
 - Who controls the resources?
 - Who is going to spend the money—government agencies, NGOs or civil society organizations?
 - Who is responsible for monitoring and oversight?
 - Which companies stand to make a profit from climate change action, and who stand to lose?
 - How is the money being spent? How efficiently has it been used?
 - Will vulnerable groups be reached?
 - How much of the government budget is being allocated towards climate change related activities?
 - Are development projects being screened for climate change sensitivity?
 - Is climate change budgeting sensitive to climate change?
-



Put on a Climate Change Lens

Be well aware of the climate change phenomenon and assess seemingly unconnected topics like irrigation or highway projects through your climate change lens. When considering everything, think about two questions:

- How will this affect climate change?
 - How can climate change affect this?
-



Think Global, Write Local

What is Pakistan's response to climate change and how adequate is it? What are policy makers presenting to the public? What do grassroots communities need to communicate to policy makers and implementing agencies?



Stay Well Informed

Keep abreast of the climate change story by following the work of renowned international journalists from reputed news agencies including IPS, Reuters AlertNet, The Guardian, New York Times and the BBC. Use social media to discover what people are saying about climate change. Join mailing lists where you can be informed about latest reports, information and events. Stay aware of the latest research and theories on climate change by reading journals and scientific papers.



Make Networks

A journalist can never have enough sources! Building a large group of contacts of people from different sectors in Pakistan and around the world. Useful contacts for you to have include policy makers, decision makers at intergovernmental organizations, UN agencies, NGOs as well as scholars and researchers. Even more useful contacts for the media are from the general public: farmers and small business owners who are deeply connected to the changing climate and know firsthand what its impact may be on lives and livelihoods.

Do's & Dont's of Climate Change Journalism



The scale of climate change's impacts can be beyond many people's everyday understanding. Show how individuals such as farmers are affected, supported by quotes from them. And turn big numbers into smaller numbers that people can relate to. For example if the cost of a flood is 10 billion rupees, how many new hospitals or schools could that money have funded.



Do not underestimate your audience. One of the most prevalent errors that journalists make is assuming that their audience is unintelligent simply because they may be ill-informed.



Do ensure that you have a thorough understanding of the subject matter. If you don't understand key topics you will never be able to tell others about them. If you are in doubt consult an expert, or educate yourself by reading or taking courses.



Do not get distracted by too many details, or lose track of the big picture while researching your story. Remember that a good article usually has one big takeaway.



Do team up with other journalists. Climate change is a complicated story to tell and you may require expertise along different sectors and subject areas to ensure that you cover all the different dimensions of your story.



Do not use excessive jargon or complicated terminology which may confuse your readers. Using simple language is the best way to communicate with your target audience.



Do humanize your stories by grounding them in your readers' realities. People respond better to climate change related stories when they understand how it is relevant to their health, wealth and the future of their children.



Do not believe everything you hear! Remember to ask for evidence to back up people's assertions. Watch out for vested interests. Use and cite credible information sources, cross-check facts (and publicly correct any published errors), and provide both sides of the argument, ideally supported by quotes from named individuals.



Do start a conversation by posting your stories on social media such as Facebook and Twitter to get your readers', listeners' or viewers' feedback and ideas. This can be a great way to identify new stories and on-the-ground information sources to keep the issue burning, and to build a loyal following for your journalism.



Do not think of climate as only an environmental problem. Remember that climate change is connected to a much bigger challenge which has the potential to heavily impact the lives and livelihoods of future generations.



Do make the issue 'life size'. The scale of climate change's impacts can be beyond many people's everyday understanding. Show how individuals such as farmers are affected, supported by quotes from them. Turn big numbers into smaller numbers that people can relate to.



Do empower people by enabling them to act on your insights. Provide practical suggestions of how people can get involved, call for change, and find out more. For example, through links to pressure groups and information sources. Checklists of actions can be useful: "Five things you can do"



Do think visually! Bring your story to life by adding photographs, headlines, graphs, maps and infographics to your articles whenever possible.

'Calamity is coming' as Pakistan struggles with climate change

AFP

UPDATED DEC 10, 2015 01:26PM

KARACHI: The sprawling megacity lies crumbling, desiccated by another deadly heatwave, its millions of inhabitants suffering life-threatening water shortages and unable to buy bread that has become too expensive to eat.

It sounds like the stuff of dystopian fiction but it could be the reality Pakistan is facing. With melting glaciers and a surging population — Pakistan's climate change time bomb is already ticking. In a nation facing violence and an unprecedented energy shortage slowing economic growth, the environment is a subject little discussed.

But the warning signs are there - including catastrophic floods which displaced millions, and a deadly heatwave this summer in Karachi which killed 1,200 people. Three of the world's most spectacular mountain ranges intersect in the north of Pakistan: the Himalayas, the Hindu Kush and the Karakoram, forming the largest reservoir of ice outside the poles.

The mountain glaciers feed into the Indus River and its tributaries to irrigate the rest of the country, winding through the breadbasket of central Punjab and stretching south to finally merge with the Arabian Sea near Karachi. The future of Pakistan, whose population the United Nations predicts will surge past 300 million people by 2050, can be read in part by the melting of glaciers like Passu, at the gateway to China.

From its magnificent rocky slopes, the glacial melt is obvious. "When we would come here 25 years ago, the glacier reached that rock up there," explains Javed Akhtar, indicating an area some 500 metres from the tip of the ice. Akhtar, his face bronzed by the sun, is a villager who has been employed by a team of glaciologists measuring the impact of climate change.

Temperatures in northern Pakistan have increased by 1.9 degrees Celsius in the past century, authorities say, causing "glof" — glacial lake outburst floods, where the dams of such lakes abruptly rupture, sending water cascading down the slopes. Today, thirty glacial lakes are under observation in the north. According to the Intergovernmental Panel on Climate Change (IPCC), such mass loss of water is "projected to accelerate throughout the 21st century, reducing water availability, hydropower potential, and changing seasonality of flows in regions supplied by meltwater from major mountain ranges".

Most of the country is fed by the lush, fertile plains of one such region: Punjab. The breadbasket. Despite its growing population, Pakistan remains self-sufficient in agricultural terms, largely thanks to the rich Punjabi soil.



A general view of Passu glacier is seen in Pakistan's Gojal Valley. — AFP



A Pakistan Meteorological Department (PMD) employee overlooks the Passu glacier in the Gojal Valley. — AFP



A Pakistan Meteorological Department (PMD) employee takes observations at a glacier monitoring station, set at an elevation of 4,500 meters, at the 26km-long Passu glacier in the Gojal Valley. — AFP



A Pakistan Meteorological Department (PMD) employee takes observations at a glacier monitoring station, set at an elevation of 4,500 meters, at the 26km-long Passu glacier in the Gojal Valley. — AFP

But in recent years the province has seen unprecedented, deadly floods that wipe out millions of acres of prime farmland. The disasters are caused by monsoon rains, but are a bellwether for the havoc that melting glaciers could cause, with any variation in water levels threatening farmers' crops.

"When there is too much water it's not good for rice, and when there is not enough, that's also bad. And it's the same for wheat," says farmer Mohsin Ameen Chattha during a walk through his family land just outside of Lahore.

Surplus monsoon water is mostly stored in the country's two large reservoirs, the Tarbela and the Mangla dams — but, warns Ghulam Rasul, director general of the Pakistan Meteorological Department (PMD), the supply would hardly last 30 days. "That is not sufficient," he says. Throughout the rest of the year, farmers rely on the rivers, primarily the glacier-fed Indus, to irrigate their land. For now, the production of rice and wheat is still rising.

But if the glaciers were to one day disappear, "we would be totally dependent on the monsoon. And already it varies," says Rasul. "All this has an impact on food security" for the country, he added. If its daily wheat production should no longer suffice, the country would have to begin importing wheat — driving the price of bread up.

Karachi: The perfect storm? Like the Indus, the ominous warning signs all culminate around Karachi. The city draws almost all of its water from the river and already fails to meet even half of the 4 billion litres a day its inhabitants require, in part because of its inadequate pump network. By 2050 the IPCC predicts a decrease in the freshwater supply of South Asia, particularly in large river basins such as the Indus. That means Karachi will somehow have to manage its growing population with even less water — a population with a significant poverty rate that will also struggle should food prices rise.

"In the long term, it is a huge challenge," says Syed Mashkoor ul-Hasnain of the Karachi Water Company. To make matters worse, the meteorologist Rasul predicted changes in atmospheric pressure over the Arabian Sea that could reduce the breezes that currently temper the sweltering heat of the coastal city. In June an unprecedented heatwave took 1,200 lives, mostly in poor neighbourhoods of Karachi — heat traps with their massive concrete buildings, lack of shade, and the absence of aqueducts.

Could it have been a taste of the future? Back on the Passu Glacier, the research assistant Javed Akhtar is unequivocal. "A calamity is coming," he warns.



Pakistani residents board boats to cross Attabad Lake, which was formed following a landslide in January 2010, in Pakistan's Gojal Valley. — AFP



Boats are moored in Attabad Lake, which was formed following a landslide in January 2010, in Pakistan's Gojal Valley. — AFP



A partially-submerged house is seen in Attabad Lake, which was formed following a landslide in January 2010, in Pakistan's Gojal Valley. — AFP



A Pakistan Meteorological Department (PMD) employee takes observations at a glacier monitoring station, set at an elevation of 4,500 meters, at the 26km-long Passu glacier in the Gojal Valley. — AFP

Overview

To support your journalistic endeavors this guidebook presents you with a directory of resources organized as shown below. While these are not exhaustive lists and much more information is available for your review we hope that this directory will point you in the right direction and offer a helpful start on your research and writing.

1



**Resource Persons
& Organizations**

2



**Learning Platforms &
Media Networks**

3



**Reports &
Publications**

4



**Calendar of
Events**



Resource Persons & Organizations

Government of Pakistan

Department/Ministry	Contact Person	Phone	Email
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Federal Government

Ministry of Climate Change	Secretary Climate Change	+92-51-9224579, +92-51-9204126	secretarymocc@gmail.com
Global Impact Studies Center	Mr. Shahbaz Mehmood Head, Climatology & Environment Section	+92-51-9262716	shahbazmehmood@gmail.com
Pakistan Environment Protection Agency (Pak-EPA)	Ahsan Rafi Kiani Deputy Director (LAB/NEQs)	+92-51-9267632-34	ahsanrafi2002@yahoo.com
Ministry of Science and Technology	Secretary Science and Technology	+92-51-9203416, +92-51-9210208	ecymost@most.gov.pk
Ministry of Finance	Secretary Finance	+92-51-9202373, +92-51-9203424	
	Mr. Saeed Javed, Director General (Media)	+92-51-9211707, +92-51-9210877	
Ministry of Planning Development and Reforms	Secretary Planning	+92-51-9212831, +92-51-9206444	secretary@pc.gov.pk
Ministry of Information	Secretary Information	+92-51-9103557	webmaster@infopak.gov.pk
Ministry of National Food Security & Research	Secretary National Food Security & Research	+92-51-9203307, +92-51-9210351	secretarynfsr@yahoo.com
Ministry of Water and Power	Secretary Water & Power	+92-51-9211852	secretarymowp@gmail.com
Department of Meteorology	Director General	+92-51-9250367	rasul@pmd.gov.pk
Hydrocarbon Development Institute of Pakistan, Ministry of Petroleum	Mr. Hilal A. Raza, Director General/ Chief Executive Officer	+92-51-9203588 +92-51-9203958	
Pakistan Agricultural Research Council (PARC)	Dr. Yusuf Zafar, Chairman	+92-51-90762000	chair@comsats.net.pk
Pakistan Forest Institute	Director General	+92-91-9216123	pfiesbranch@gmail.com
SUPARCO (Pakistan Space and Upper Atmosphere Research Commission)	Dr. Badar Ghauri, Deputy Chief Manager	+92-21-34690765-79	b_ghauri@yahoo.com am.pr@suparco.gov.pk
National Disaster Management Authority (NDMA)	Lt. General Omar Mahmood Hayat, HI(M), Chairman	+92-51-9222373, +92-51-9212444	

Department/Ministry	Contact Person	Phone	Email
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Provincial Government, Khyber Pakhtunkhwa:

Department of Forestry, Environment & Wildlife, KP	Mr. Syed Nazar Hussain Shah, Secretary	+92-91-9210333	
Environmental Protection Agency (EPA), KP			
Department of Agriculture, KP	Mr. Muhammad Israr Message, Secretary	+92-91-9210025	

Provincial Government, Punjab

Environmental Protection Department, Punjab	Capt. (Retd.) Saif Anjum, Secretary	+92-42-99232227 +92-42-99232235	secy.epd@punjab.gov.pk
Environmental Protection Agency (EPA), Punjab			
Department of Agriculture, Punjab	Capt (R) Muhammad Mahmood Secretary	+92-42-99210499 +92-42-99210130	

Provincial Government, Sindh

Sindh Environmental Protection Agency (EPA)	Mr. Naeem Mughal Deputy Director, Monitoring	+92-21-35065950	epasindh@cyber.net.pk tunio@cyber.net.pk
Department of Agriculture, Sindh	Secretary Agriculture	+92-21-99211462 +92-21-99211468	

Provincial Government, Balochistan

Environmental Protection Agency (BEPA), Balochistan	Mr. Muhammad Ali Batur, Officer Environment	+92-81-9203270 +92-333-7800604	batur_chang@yahoo.com
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Gilgit-Baltistan

Environmental Protection Agency (BEPA), Gilgit Baltistan	Shehzad Hassan Shigri, Director	+92-05811-920676	shigri_shehzad@yahoo.com
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Education & Research Institutes

University	Contact Person	Phone	Email
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Islamabad Capital Territory

Quaid e Azam University	Faculty of Science	+92-51-90640000	info@qau.edu.pk
Arid Agriculture University Rawalpindi.	Faculty of Science	+92-51-4845623	saqlan@uaar.edu.pk
International Islamic University	Faculty of Environmental Science	+92-51-9019445, +92-51-9258984	drirfan@iiu.edu.pk
National University of Science & Technology (NUST), Islamabad	Dr Ijaz Hussain Associate Dean, IGIS	+92-51-90854400, +92-51-90854401	ejaz@igis.nust.edu.pk
Center for Climate Change Research and Development, COMSATS	Ambassador (Retd.) Mr. Shahid Kamal, Incharge Department, Advisor	+92-51-8435051, +92-51-8318471	shahid.kamal@comsats.edu.pk shahidkamal_amb@hotmail.com
Pakistan Institute for Development Economics (PIDE)	Dr. Asad Zaman, Vice Chancellor	+92-51-9248024 +92-51 9248051	vc@pide.org.pk

Khyber Pakhtunkhwa

Peshawar University	Faculty of Life and Environmental Sciences	+92-91-9216701	webmaster@upesh.edu.pk
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Punjab

Punjab University	Faculty of Science		dean.science@pu.edu.pk
University of Engineering & Technology (UET), Lahore	Dr. Habib ur Rehman Director, Centre of Excellence in Water Resources Engineering	+92-42-99250256-58, +92-300-4693613	director@cewre.edu.pk
Agriculture University, Faisalabad	Prof. Dr. Iqrar Ahmad Khan, Vice Chancellor	+92-41-9200161-70	

Sindh

University of Karachi	Faculty of Science	+92-21-99261077	dos@uok.edu.pk
NED University of Engineering and Technology, Karachi	Mr. Sheeraz Ahmed, Assistant Professor	+92-21-9921261-2271	memonenv@neduet.edu.pk
Mehran University of Engineering & Technology, Jamshoro	Dr. A. K. Ansari, Professor, Chemical Engineering Department	+92-22-2771642	gakpk@yahoo.com

International Development Organizations

Organization	Contact Person	Phone	Email
United Nations Development Program (UNDP)	Media Inquiries Desk	+92-51- 8355650	pak.communications@undp.org
UNFCCC	Mr. Muhammad Irfan Tariq, Director General/National Focal Point Pakistan	+92-51-9245533	mirfantariq@gmail.com
Green Climate Fund	GCF Communications & Outreach	+82-32-458-6062	communications@gcfund.org
World Bank	Country Office Contact	+92-51-9090000	mariamaltaf@worldbank.org
Asian Development Bank	Ms. Xiaohang Yang, Country Director Pakistan	+92-51-2600351-69, +92-51-2087300	
USAID	Ms. Christine Gleichert, Mission Contact	+92-51-20800000	infopakistan@usaid.gov
DFID	Ms. Joanna Reid, Head of DFID Pakistan	+92-51-2012000	enquiry@dfid.gov.uk
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Organization	Contact Person	Phone	Email
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Learning Platforms & Media Networks

Climate Funds Update

Climate Funds Update: The Latest Information on Climate Funds

An independent website that provides information on the growing number of international climate finance initiatives designed to help developing countries address the challenges of climate change. Multilateral climate funds play an important role in supporting countries to adopt low-carbon development trajectories as well as adapt to the unavoidable impacts of climate change. They also hold critical political significance, reflecting an acknowledgement by developed countries for the majority of historical greenhouse gas emissions.

The site provides current information on:

- The major climate change funds in operation;
- The scale of funding pledged and delivered by donors to these sources; and
- The distribution of financial support provided by funds to different themes, regions and projects

CLIMATETRACKER.ORG

Climate Tracker

Since 2009, Climate Tracker has brought talented teams of young reporters to the UN climate negotiations, where they have infamously become known as Negotiator Trackers. Their combination of passion, insight and drive have demonstrated how powerful young citizen journalists can become. In 2015, they offered one-on-one trainings, skills development courses and mentorships that helped hundreds of young journalists shape their national climate change debate.

They have created 58 webinars and training videos and published over 2000 articles around the world. This year we continue to connect with young people around the world through 7 different regional Hubs, acting as training grounds for young Climate Trackers around the world.

Metcalf

Metcalf Institute for Marine & Environmental Reporting

Metcalf Institute for Marine & Environmental Reporting

Journalists can obtain valuable resources and tools on a wide range of topics including climate change, global fisheries, oil spills, water pollution, coastal ecosystems, extreme weather, marine deep biosphere, and more

Poynter.

Poynter. News University

The Poynter Institute's News University is an online journalism training program with more than 150 free and low-cost courses, such as "Covering Water Quality: What You Need to Know" and a new course on climate change reporting. For more information see the NewsU.org website



Sci Dev Net

This section of the SciDev.Net website provides news, features and opinion articles related to science communication and science journalism. Of more value to working journalists are the Practical Guides on topics such as: reporting on science policy, on climate change, and on biodiversity, risk and controversy.



Youtube Reporters Center

The YouTube Reporters' Center features top journalists and news organizations sharing instructional videos with tips and advice for better reporting. It includes videos on topics such as how to conduct good interviews and how to find good sources of information.



The World Federation of Science Journalists

Access the "world's first online course in science journalism." Although it is a general science journalism course, much of it is relevant to reporting on environmental health and climate change. The online course consists of ten major lessons written by experienced science journalists actively working in the field. Each lesson consists of an e-lecture with examples, self-teaching questions, and assignments.



Society of Environmental Journalists

The Society of Environmental Journalists is the only North-American membership association of professional journalists dedicated to more and better coverage of environment-related issues. SEJ's mission is to strengthen the quality, reach and viability of journalism across all media to advance public understanding of environmental issues. SEJ's membership is open to all journalists who work for a credible news outlet or organization irrespective of where they are geographically located.



Earth Journalism Network

Earth Journalism Network (EJN) works to empower and enable journalists from developing countries to cover the environment more effectively. With over 8,000 members from 120 countries, EJN trains journalists to cover a wide variety of topics, develops ground-breaking digital media stories, establishes networks of environmental journalists in countries where they don't exist, and builds their capacity where they do, through workshops and development of training materials, Fellowship programs, support for story production and distribution, and dispersing small grants.



International Journalists Network

IJNet delivers the latest on global media innovation, news apps and tools, training opportunities and expert advice for professional and citizen journalists worldwide.



Reuters AlertNet

A new Reuters AlertNet online training module aims to help journalists in the developing world cover climate change. The free, 45-minute course gives an overview of some of the pitfalls journalists may face, as well as suggests story ideas. Additionally, an accompanying blog explores the question "Who's helping media in developing countries tackle climate change?" It also provides information on resources and training for journalists.



Climate News Network

The Climate News Network is free, objective, and publishes a daily news story on climate and energy. It is run by four veteran journalists who have covered climate change for many years for international newspapers and broadcasting organizations and are now freelancing. They use their contacts and experience to help both scientists and journalists to overcome the difficulties they face in telling people the facts about climate change.



Journalist's Resource

Based at Harvard's Shorenstein Center on Media, Politics and Public Policy, Journalist's Resource examines news topics through a research lens. They surface scholarship relevant to media practitioners, bloggers, educators, students and general readers. The philosophy is that peer-reviewed research studies can, at the very least, help anchor journalists as they navigate difficult terrain and competing claims. In 2013 the American Library Association named the Journalist's Resource one of the best free reference Web sites.



IISD Climate-L Newsletter

The SDG Update compiles the news, commentary and upcoming events that are published on the SDG Knowledge Hub, delivering information on the implementation of the 2030 Agenda for Sustainable Development to your inbox. CLIMATE-L is a news and announcement listserv that focuses on climate change policy and issues. Postings include announcements of workshops and conferences, job listings, and information on new publications and online resources.



Know Climate Change: Your Knowledge Space on Climate Change

Informative, educational website with lots of information on climate change through the change bulletin and green nuggets section. A resource library with guidebooks and teaching material on climate change.



Climate and Development Knowledge Network (CDKN)

The Climate and Development Knowledge Network supports decision-makers in designing and delivering climate compatible development by combining research, advisory services and knowledge management in support of locally owned and managed policy processes. They work in partnership with decision-makers in the public, private and non-governmental sectors nationally, regionally and globally



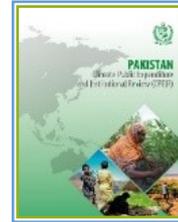
Reports & Publications



Pakistan Climate Change Financing Framework Policy Brief, 2017, UNDP



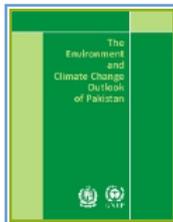
Why Khyber Pakhtunkhwa needs a Climate Change Financing Framework, 2017, UNDP



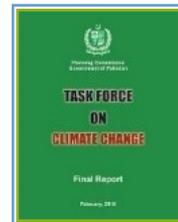
Pakistan Climate Public Expenditure and Institutional Review, 2015, UNDP



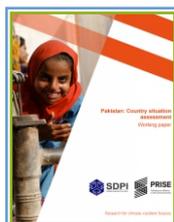
Framework for Implementation of Climate Change Policy, 2014, Climate Change Division, Government of Pakistan



The Environment and Climate Change Outlook of Pakistan, 2013, Government of Pakistan, UNEP



Planning Commission Task Force on Climate Change, 2010, Government of Pakistan



Pakistan: Country Assessment, 2015, SDPI, PRISE



Budgeting for Climate Change: How Governments Have Used National Budgets to Articulate a Response to Climate Change, 2015, UNDP Bangkok Regional Hub



Calendar of Events

January	February	March
	02 – World Wetlands Day	08 – International Women's Day 21 – World Forest Day 22 – World Water Day
April	May	June
22 – Earth Day	22 – International Biodiversity Day	05 – World Environment Day 08 – World Ocean Day 17 – World Day to Combat Desertification & Drought 25 – Day of the Seafarer
July	August	September
	19 – World Humanitarian Day	21 – International Day of Peace
October	November	December
16 – World Food Day International Day : 13 – For Disaster Reduction 15 – Of Rural Women 17 – For the Eradication of Poverty	04 - Anniversary of the Paris Agreement	05 – International Volunteer Day

Glossary of Terms

Adaptation

Adaptation is the action or process of reducing the impacts and exploiting the opportunities of climate change on human systems, such as companies or residential areas. The Intergovernmental Panel on Climate Change²¹ refers to three types of adaptation: adjustments made in anticipation of changes, adjustments that occur spontaneously because of changes, and adjustments made because of planned and deliberate policy decisions. The World Bank Estimates it will cost between \$70 billion and \$100 billion annually between 2010 and 2050 to adapt to climate change globally.

Adaptive Capacity

Refers to the ability of ecological, social or economic systems to adjust to climate change, variability and extremes, as well as moderate or offset potential damages, and take advantage of associated opportunities.

Additionality

Over the years, a variety of international agreements, including the Copenhagen Accord, called on developed countries to provide “new and additional resources” to developing countries to help them mitigate and adapt to climate change. Exactly what funds counted as additionality, and how much developed countries were expected to pay, remained ill-defined. The 2015 Paris Agreement did not clarify the term but rather removed it and encouraged developed countries to continue their existing obligations under the UNFCCC.

Confusingly, additionality has a separate meaning in the context of carbon emissions offsets. It refers to the amount of projected emissions reduced by a project compared to baseline assumptions. However, if the greenhouse gas reductions would have happened anyway, even without carbon investment such a project is not considered “additional.” This may be a source of controversy, given the difficulty of calculating additionality and the large financial incentive for projects deemed additional.

Auditing

Auditing is the process of examining and certifying an entity's performance or claims. While anything can be audited, the process is usually associated with finance or the treasury, in which an auditor checks the accuracy and completeness of a company's reports. Environmental auditors may evaluate the harm or risk of harm to the environment posed by an industrial process. A carbon audit measures the greenhouse gas emissions—or “carbon footprint”— of an organisation. Governments may use performance audits to assess progress toward emissions reduction goals.

Biodiversity

Is the variety of life of Earth, it includes all organisms, species, genes and populations.

Carbon Credits

A carbon credit is an emissions allowance equal to one tonne of carbon dioxide (or the polluting equivalent of another greenhouse gas) produced by a carbon offset. Carbon credit holders are allowed to emit greenhouse gases in excess of their quotas because each carbon credit is a certification that the emission has been offset elsewhere. Carbon credits can also be sold or traded, and entities can earn carbon credits by reducing emissions, such as by using renewable energy or preserving forests.

Carbon Permits

Permits to pollute (or 'emissions allowances') issued under cap and trade schemes. Unlike carbon credits, permits are issued in advance, in relation to a limit ('cap') that is set by government

Clean Development Mechanism (CDM)

The Kyoto Protocol established the CDM as a way to encourage developing countries to build sustainable infrastructure, such as renewable energy plants or transit systems. These projects earn, based on their additionality, a certified number of carbon offsets, which can be sold to developed countries to help them meet emissions reduction targets. As of June 2016, more than 7,700 projects were registered with the United Nations Framework Convention on Climate Change, which administers the CDM. Recently, the market for offsets has fallen because of the high number of projects and the unambitious targets set for developed countries. But the CDM has been called a failure for other reasons, including the potential for fraud or error in determining additionality. The World Bank's Independent Evaluation Group summarizes the problem: "The additionality screening process has been widely criticized as ponderous, costly, and ineffective. Environmentalists press for stricter screening, investors for more streamlined procedures. The current system may combine the worst of both worlds: high transaction cost with substantial non additionality.

Climate Bonds

There are various definitions of climate bonds, ranging from those covering any 'climate themed' activity (e.g. funding renewable energy infrastructure or public mass transit systems) through to the creation of specific financial instruments called 'climate bonds'.

Proponents of climate bonds have also proposed various means to guarantee investments, including governments or international financial institutions offering risk insurance (in effect, playing the role of monoline insurers).

Critics argue that climate bonds are another form of financialization, instrumentalizing climate change for the creation of new vehicles for financial speculation. Climate bonds could repeat many of the mistakes that led to the 2008 financial crisis, loading significant risks onto public institutions in the interest of new opportunities for private gain – thereby undermining the basis for long-term, sustainable public investment.

Climate Change Vulnerability Index (CCVI)

The new Climate Change Vulnerability Index (CCVI), released by global risks advisory firm Maplecroft, enables organisations to identify areas of risk within their operations, supply chains and investments. It evaluates 42 social, economic and environmental factors to assess national vulnerabilities across three core areas. These include: exposure to climate-related natural disasters and sea-level rise; human sensitivity, in terms of population patterns, development, natural resources, agricultural dependency and conflicts; thirdly, the index assesses future vulnerability by considering the adaptive capacity of a country's government and infrastructure to combat climate change.

The index rates 16 countries as 'extreme risk,' including nations that represent new Asian economic power and possess significant forecasted growth. Bangladesh (1), India (2), Philippines (6), Vietnam (13) and Pakistan (16) all feature in the highest risk category and are of particular importance as they are major contributors to the ongoing global economic recovery and are vital to the future expansion of Western businesses in particular.

Climate Risk Index

The Global Climate Risk Index 2017 analyses to what extent countries have been affected by the impacts of weather-related loss events (storms, floods, heat waves etc.).

Climate Finance

The need to mitigate and adapt to climate change, and the vast funds required to do so, has led to an array of financial flows known broadly as climate finance. A majority of funding as of 2016 was being used for mitigation activities, such as building renewable energy plants or public transport, as opposed to adaptation, such as flood resistance or water distribution. More narrowly, climate finance may refer to financial assistance from developed countries to developing countries that is “new and additional” beyond development aid that would have happened anyway.

Climate Funds

A climate fund is a pool of money used for climate finance. Funds can be multilateral (pulling money from a variety of public and/or private sources), bilateral (channeling money between one government and developing countries) or national (created and spent domestically). The largest fund by pledged dollars is the Green Climate Fund.

Climate Justice

Climate justice is a perspective that considers climate change and the world's response to it as an ethical issue and not a purely scientific or practical one. Poor and persecuted communities have less ability to adapt to climate change, and they hold far less blame for causing it. Developing countries argue that developed countries are therefore liable for the harm caused by greenhouse gas emissions and accordingly owe reparations in the form of money, development, and technology transfers.

Climate Public Expenditure and Institutional Review (CPEIR)

CPEIR is a systematic qualitative and quantitative analysis of a country's public expenditures and how they relate to climate change. It gives evidence on public expenditures across all ministries.

CPEIRs since 2011, have been conducted in many countries in Asia-Pacific, including Bangladesh, Cambodia, China, Fiji, Indonesia, Nepal, Pakistan, Philippines, Samoa, Thailand, and Vietnam. The analyses have been led by relevant government agencies, with UNDP and its partners. The review being a qualitative and quantitative analysis, presents important evidences on public expenditures across all ministries.

Foreign Direct Investment

Foreign direct investment (FDI) is expenditure by a corporation in a foreign country to build new facilities, purchase equipment or real estate. The money is either channeled to existing subsidiaries of that company, or used to buy an existing business. In this sense, it is different from “portfolio investment,” where the foreign corporation buys shares or bonds but is a “passive” investor without a directly trying to control the company bought or lent money.

FDI is usually encouraged, and treated as a positive sign that foreign capital is flowing into a country. This is not always the case, however. Capital outflows through the call back of intercompany loans or repatriation of earnings, sometimes exceed inward FDI flows, in particular once tax avoidance via the use of offshore secrecy jurisdictions is taken into account.

Green Climate Fund

The Green Climate Fund (GCF) is a new global fund created to support the efforts of developing countries to respond to the challenge of climate change. GCF helps developing countries limit or reduce their greenhouse gas (GHG) emissions and adapt to climate change. It seeks to promote a paradigm shift to low-emission and climate-resilient development, taking into account the needs of nations that are particularly vulnerable to climate change impacts.

It was set up by the 194 countries who are parties to the United Nations Framework Convention on Climate Change (UNFCCC) in 2010, as part of the Convention's financial mechanism. It aims to deliver equal amounts of funding to mitigation and adaptation, while being guided by the Convention's principles and provisions.

When the Paris Agreement was reached in 2015, the Green Climate Fund was given an important role in serving the agreement and supporting the goal of keeping climate change well below 2 degrees Celsius.

GCF's activities are aligned with the priorities of developing countries through the principle of country ownership, and the Fund has established a direct access modality so that national and sub-national organizations can receive funding directly, rather than only via international intermediaries.

The Fund's investments can be in the form of grants, loans, equity or guarantees.

More commonly known as the 'World Bank', the International Bank for Reconstruction and Development is one of five institutions that make up the World Bank Group. The World Bank provides loans, loan guarantees, risk management products and advice services. Most of its funds are obtained through the sale of bonds on international capital markets, including \$3.3 billion in green bonds (as of October 2012). It also has considerable derivatives investments, most notably in interest rate swaps (a financial technique pioneered by the bank in the early 1980s).

International Bank for Reconstruction & Development (IBRD)

The World Bank's climate finance portfolio includes the Climate Investment Funds (CIFs), with \$6.5 billion pledged towards 'clean' technology, renewable energy and forestry. These are jointly implemented with other international financial institutions, and were established on the understanding that they would be phased out once a new multilateral financing mechanism was in place. That has since emerged in the form of the Green Climate Fund, although there are no signs yet that the CIFs are winding down.

In addition to the CIFs, the Bank is responsible for 13 carbon funds and facilities, with involvement in 160 CDM and JI projects, from which it has contracts to purchase credits worth \$1.86 billion (as of December 2011).

International Development Finance Club (IDFC)

A group of nineteen national and regional development banks and agencies. Its members include the national development banks (or national development agencies) of Brazil, China, France, Germany and Japan.

International Finance Corporation (IFC)

The private sector arm of the World Bank Group. It provides loans, equity, and risk guarantees for private sector projects. Around 40 per cent of IFC investments are channeled through financial intermediaries. The vast majority of IFC funding is raised through issuing bonds on international capital markets. As of 2012, this includes a green bonds scheme worth around \$1 billion.

The IFC has a growing climate finance portfolio. It has offered loans and risk guarantees to over 340 renewable energy and energy efficiency projects since 2005, worth an estimated \$11.6 billion.

The largest of the IFC's carbon funds, the post-2012 Carbon Facility, attracted \$195 million in private investment (on top of \$22 million of IFC funds), but has since lost 75 per cent of its value due to a collapse in carbon credit prices. The IFC also manages a handful of other carbon funds. Climate change-related investments are also at the forefront of the IFC's private equity portfolio, with 12 climate-focused funds estimated to be worth \$225 million as of mid-2012.

Kyoto Protocol

The Kyoto Protocol is an international treaty adopted in 1997 that acknowledges the existence of climate change and the fact that man-made emissions caused it. Treaty members agreed to reduce greenhouse gas emissions below 5 percent of 1990 levels. It also established "flexibility mechanisms," such as the Clean Development Mechanism, and The Adaptation Fund, a climate fund dedicated to helping developing countries adapt to climate change. The Kyoto Protocol was in force between 2008 and 2012. A second commitment period has been adopted under the Doha Amendment, in which nations pledged to reduce emissions by 18 percent below 1990 levels between 2013 and 2020, but only 66 countries had ratified the amendment as of July 2016. The United States signed the Kyoto Protocol but the U.S. Congress never ratified it.

Mitigation

Mitigation refers to efforts to reduce greenhouse gas emissions and to enhance and preserve environmental features that absorb carbon, such as forests and oceans. Most of climate finance resources are currently put toward mitigation projects, which include building clean energy infrastructure, carbon sequestration, public transport and forestry.

Paris Agreement

The Paris Agreement is an international agreement under the framework of the United Nations Framework Convention on Climate Change, separate from the Kyoto Protocol, that establishes emissions reduction targets for 179 signatory states with the goal of restricting global warming to 1.5 degrees Celsius above pre-industrial levels. The agreement outlines goals for adaptation and an outline for financing for clean energy flowing from rich countries to poor countries, though the Paris Agreement does not lay out legally binding aid commitments. It will enter into effect in 2020 if a sufficient number of parties ratify the agreement.

REDD+

REDD+ is a mechanism that monetizes forests under the framework of the United Nations Framework Convention on Climate Change, with the goal of mitigating climate change through forest management and preservation. Originally known as REDD, the acronym stands for Reducing Emissions from Deforestation and Forest Degradation, with the plus added in 2007 to refer to sustainable management of forests, conservation of forest carbon stocks and enhancement of forest carbon stocks. While scientists agree such activities are necessary to mitigate global warming, REDD+ has proven difficult to implement in practice.

The United Nations Development Programme - Globally the United Nations Development Programme (UNDP) partners with people at all levels of society to help build nations that can withstand crisis, and drive and sustain growth that improves the quality of life for everyone. On the ground in more than 170 countries and territories, UNDP offers a global perspective, as well as local insights to help empower lives and build resilient nations.

UNDP

UNDP's support to countries on climate change and disaster resilience is shaped by the Paris Agreement on Climate Change, the Sendai Framework on Disaster Risk Reduction, and the 2030 Agenda for Sustainable Development. UNDP works with countries to help them reduce greenhouse gases and advance a long-term goal of zero-carbon development. At the same time, UNDP works with partners to adapt to the impacts of climate change, enhance access to clean energy, reduce the risk of disasters and, where needed, support resilient disaster recovery. Taken all together, these efforts are the path towards sustainable development that is risk-informed, zero-carbon and resilient.

For more information on UNDP visit www.undp.org and for information on UNDP in Pakistan please visit www.pk.undp.org "

United Nations Framework Convention on Climate Change (UNFCCC)

The UNFCCC is an international treaty agreed in 1992 which aims to "prevent dangerous anthropogenic interference in the climate system" by curbing greenhouse gas concentrations in the atmosphere. The Paris Agreement, adopted in 2015 under the framework of the UNFCCC, seeks to curb global warming to 1.5 degrees Celsius above pre-industrial levels. Virtually every country ratified the convention, and its governing body, the Conference of Parties (COP) has met annually since 1995 to review progress and set policy. In 1997, the COP agreed to binding emissions reduction targets and established "flexibility mechanisms," a prominent feature of climate finance which allows countries to release more greenhouse gases by funding offsets, or emissions reductions, elsewhere.



*We are the first generation to be able to **end poverty**, and the last generation that can **take steps** to avoid the worst impacts of **climate change**. Future generations will judge us harshly if we fail to uphold our **moral and historical** responsibilities.*

Ban Ki-Moon, ex-Secretary-General, United Nations



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