



# Climate related disasters Nexus with Mental Illness (including SUDs)



# Intended Audience

## Mental health professionals, socio health workers, disaster responders, climate experts, policy and academia

### Description

- Is it likely that increase in climate related disasters may fuel upsurge of mental illnesses

### Learning Outcomes

- Establish the linkage
- Inclusion mental health interventions in climate change response

# OUTLINE



- Preamble
- Introduction
- Current Situation
- Climate Change and Mental Health Nexus
- Conclusion

- The United Nations in 2015, as a universal call to action to end poverty, protect the planet, and ensure that by 2030 all people enjoy peace and prosperity .
- Action in one area will affect outcomes in others, and that development must balance **social, economic** and **environmental** sustainability
- Therefore Sustainable Development Goals –cascaded by countries to inform policy
- Understanding the connections between climate and international development is a critical



# SUSTAINABLE DEVELOPMENT GOALS



- Good health is essential to sustainable development and the 2030 Agenda
- It takes into account widening economic and social inequalities, rapid urbanization, **threats to the climate and the environment**, the continuing burden of **HIV and other infectious diseases**, and **emerging challenges** such as non-communicable diseases including UHC ending poverty and reducing inequalities

# 13 CLIMATE ACTION



- Strengthen **resilience** and **adaptive capacity to climate-related hazards** and **natural disasters**
- Integrate climate change measures into national policies, strategies and planning
- **Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning**
- Mobilize resources
- Promote mechanisms for raising capacity – **inclusive** for effective climate change-related planning and management

# INTRODUCTION

- Weather is the state of the atmosphere with respect to heat or cold, wetness or dryness, calm or storm, clearness or cloudiness (**the day-to-day state of the atmosphere**)
- Climate is the **long term observations of the atmospheric** conditions at any location like humidity, temperature, the sunshine, wind, etc...  
Climate the long-term averages
- Climate change is the long-term **alteration of temperature and typical weather patterns** in a place



# CAUSES OF CLIMATE CHANGE

- The primary cause of climate change is the burning of fossil fuels, such as oil and coal, which emits greenhouse gases into the atmosphere—primarily carbon dioxide
- Other human activities, such as agriculture and deforestation, also contribute to the proliferation of greenhouse gases that cause climate change





# GREENHOUSE EFFECT

- Greenhouse gases include **water vapour, carbon dioxide, methane, nitrous oxide, ozone** and some artificial chemicals such as chlorofluorocarbons (CFCs)
- Have property to **absorb infrared radiation** (net heat energy) emitted from the earth's surface and re-radiate it back to the earth's surface
- Greenhouse gases act like a blanket, trapping the sun's warmth near the earth's surface, and affecting the planet's climate system
- The absorbed energy warms the atmosphere and the surface of the Earth
- The warming of climate that results when the atmosphere traps heat radiating from Earth toward space

# EVIDENCES OF CLIMATE CHANGE

 **UN Peacekeeping**  
@UNPeacekeeping

As global temperatures rise, conflicts due to drought, desertification, water scarcity & food insecurity are increasing. In view of this existential threat, @UNPOL has a role to play.

More on UNPOL's #ClimateAction  
[ow.ly/zqLH50Gc1DE](https://ow.ly/zqLH50Gc1DE).  
@LuisCarrilhoPC #UNGA 



 **Citizen TV Kenya**  
@citizentvkenya

**Mafuriko Turkana:**

Mamia ya abiria walazimika kukatiza safari kuelekea na kutoka Lodwar. Barabara ya Lodwar-Lokichar ilifurika kutokana na mvua kali eneo hilo.

Wasafiri wakitaka mhandishi anayekarabati daraja kujibidiisha zaidi #NipasheWikendi



7:26 PM - Sep 19, 2021 - Twitter Media Studio - LiveCut

Some may still **deny** the **overwhelming** judgment of science, but **none** can avoid the devastating impact of raging **fires** and crippling **drought** and more powerful **storms**.

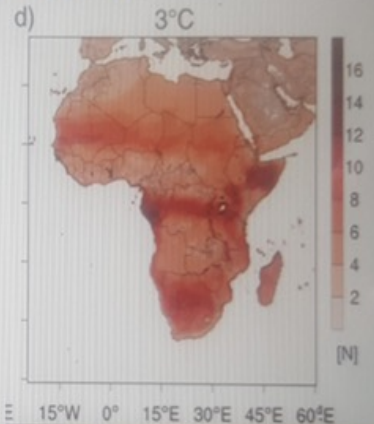
Barack Obama

More science quotes at today in Science History [todayinsci.com](http://todayinsci.com)

- Global warming is causing long-lasting changes to our climate system, which threatens **irreversible consequences** if we do not act
- Extreme climate events are more frequent and extreme
- It is affecting the length of seasons affecting agriculture practices e.g. planting and harvesting periods
- EA the duration of the seasons is getting shorter – notable changing rain patterns
- Increase in temperature shows trends of heatwaves posing increased health risks of extreme heat
- Climate change and loss of biodiversity also increase the risk of future pandemics by endangering the fragility of the world's ecosystems
- The annual average economic losses from climate-related disasters are in the **hundreds of billions of dollars**

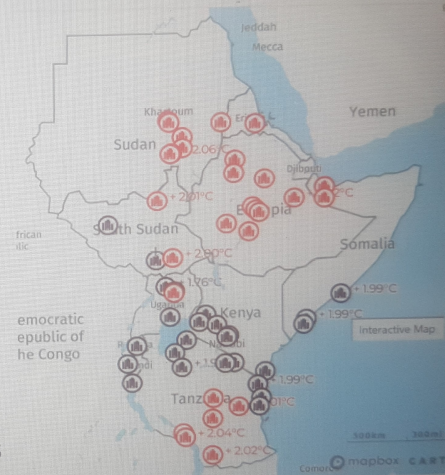
## Since the 1950s, heatwaves have become longer, more frequent, and hotter

- Because heatwaves are not routinely monitored in sub-Saharan Africa, heat-related deaths are also constantly underreported.
- Under current climate projections, the fast-growing population of East Africa will face increased health risks due to extreme heat.



## Major cities in East Africa have seen temperatures rise far greater than the global average (1.2) since 1860

- Addis Ababa (Ethiopia) has warmed by 2.2°C
- Khartoum (Sudan) by 2.09°C
- Dar es Salaam (Tanzania) by 1.9°C
- Mogadishu (Somalia) by 1.9°C
- Nairobi (Kenya) by 1.9°C
- The ice cover of Mount Kilimanjaro decreased 85% between 1912 and 2007. The snow could disappear in less than 20 years and ice as soon as 2022.



# IMPACTS OF CLIMATE CHANGE

- Increased frequency and intensity of droughts, flooding, insect outbreaks, heat, wildfires
- Declining water supplies
- Reduced agricultural yields
- Health impacts in cities due to heat and polluted air
- Flooding and erosion in coastal areas
- Humans and wild animals face new challenges for survival because of climate change



# MENTAL HEALTH

- Health as a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity (WHO, 2020)
- Mental health includes our emotional, psychological, and social well-being
- It affects how we think, feel, and act
- It also helps determine how we handle stress, relate to others, and make choices, therefore inform individual/society growth
- Mental health is important at every stage of life, from childhood and adolescence through adulthood

- Mental illness, also called mental **health disorders**, refers to a wide range of mental health conditions — **disorders that affect ones thinking, mood and behavior**
- Research informs that there are likely combinations of causes – biological, **psycho-social**, **socio-cultural** and **environmental**
- Global reports indicate that approx. 450 million people suffer from mental disorders globally, Kenya was place 9<sup>th</sup> globally and 4<sup>th</sup> in Africa and in terms of prevalence of mental disorders
- For example 1.9 million in Kenya suffer depression



- 10% of globally population have one or more mental disorder
- Globally 264 million people are affected by depression, prevalence is 5.1% among female and 3.6% males, Kenya ranks 9 globally and 4<sup>th</sup> in Africa in terms of depression– cuts across ages but peaking more in older adulthood
- According to WHO people with mental disorders die 10–20 years earlier than general population
- Mental disorders are also the leading cause of years lived with disability globally.
- 60% of suicides are due to depressive disorders and schizophrenia
- Poverty is creating stress that triggers mental disorder and costs of treatment lead to deeper into poverty (World Bank Group, 2016)
- Discrimination & stigma – individuals, families and communities is high – leading to worry, emotional burden, diversion of resources towards treatment





# CAUSES OF MENTAL DISORDERS

There are various underlying issues – brain imbalances, childhood experiences, heredity, illness, prenatal exposure and stress

- Abuse at childhood, trauma or neglect
- Loneliness or social isolation
- Experiencing or exposure to danger/disaster/conflicts
- Long term physical illness/condition e.g NCDs/Infectious disease
- Unemployment or loss of livelihoods
- Perception of social disadvantage, poverty or lack of resource
- Loss and grief over life and or property
- Severe or long-term stress/distress

# RECOGNISING MENTAL DISORDERS

- Mental Health **experts** identify abnormal **thoughts, feelings** or **behaviours** as signs or symptoms of mental health disorders
- **Diagnostic and Statistical Manual of Mental Disorders(DSM)** covers all categories of mental health disorders for both adults and children
- Has five DSM "axes" or dimensions to ensure that all **factors—psychological, biological, and environmental**—were considered when making a mental health diagnosis
- It includes the full spectrum of essential, quality health services, from **health promotion to prevention, treatment, rehabilitation, and palliative care** across the life course

# WARNING SIGNS OF MENTAL ILLNESSES/DISORDERS

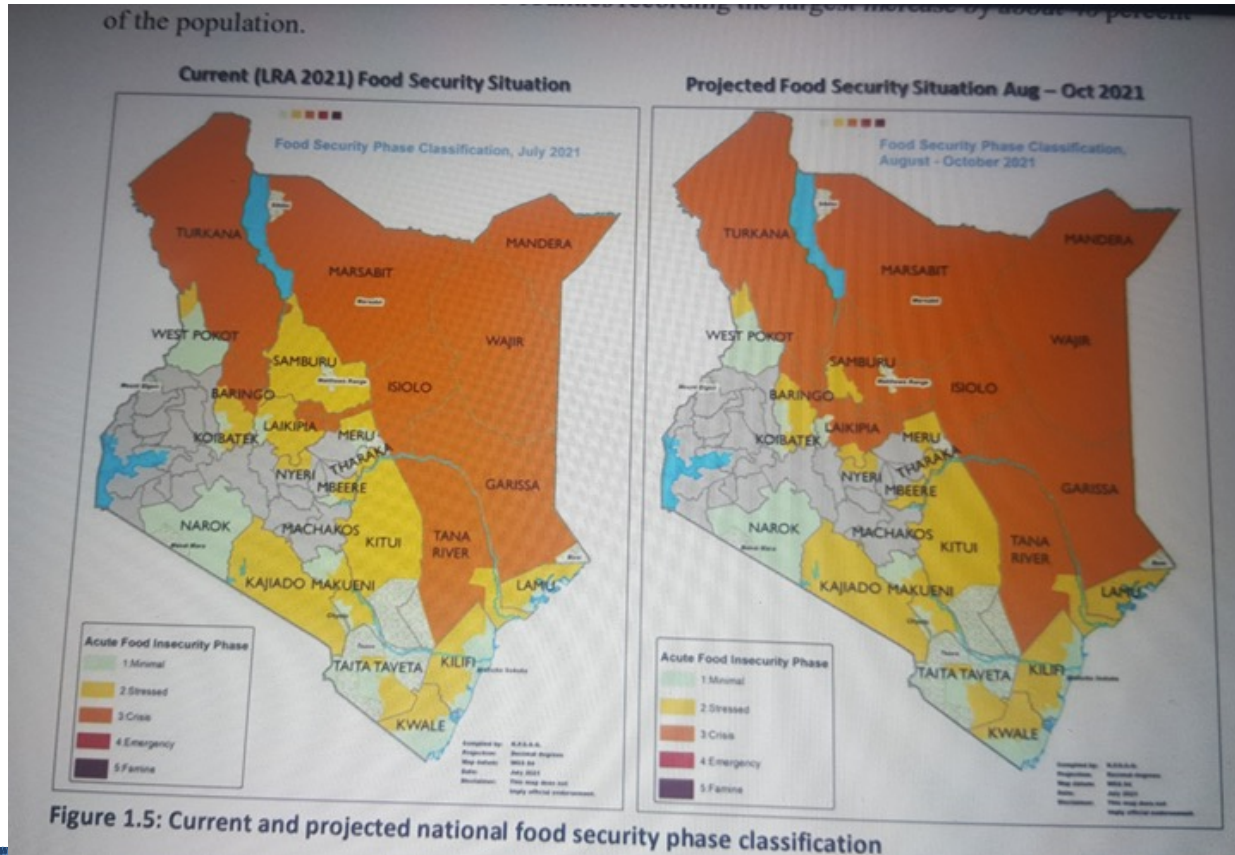
- Excessive paranoia, worry, or anxiety
- Long-lasting sadness or irritability
- Extreme changes in moods
- Social withdrawal
- Dramatic changes in eating or sleeping pattern



# Example

## The 2021 Long Rains Season Assessment Report

by  
Kenya Food Security Steering Group



## EXAMPLE

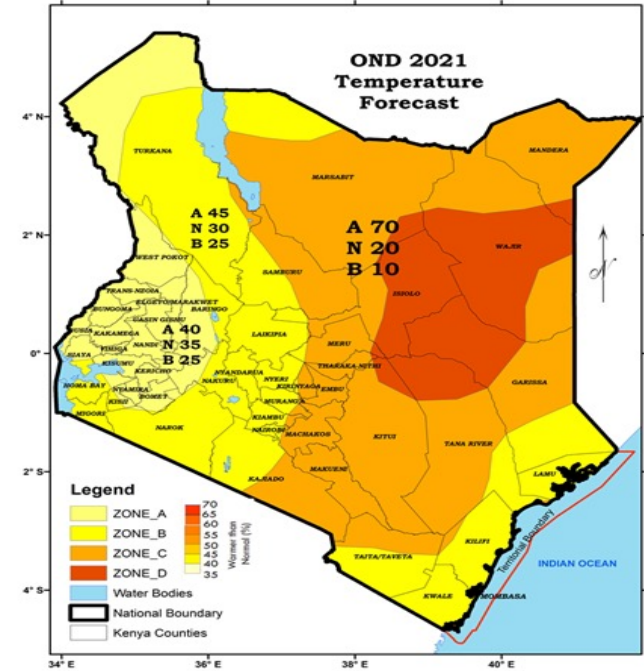
# National Meteorological and Hydrological Services



- KMD downscales the regional (ICPAC) forecast for the country seasonally – MAM, JJA, OND
- Seasonal forecasts need to be used with **caution** for planning purposes because of the uncertainty inherent in seasonal forecasting
- It is crucial for users to update and adjust plans with monthly, weekly daily forecasts as well as climate monitoring products issued by NMHSs
- NMHSs prepare products for sectors depending on impacts

# WEATHER OUT-LOOK FOR THE OCTOBER- NOVEMBER-DECEMBER 2021

- The KMD forecast – most parts of the country will experience **depressed** (below average) rainfall that will be **poorly** distributed in both **time** and **space**
- Isolated **incidences** of **storms** that could cause flash floods are still likely to occur despite the expected depressed rains
- Most parts of the country are likely to have a **late** onset and an **early** cessation



# POTENTIAL IMPACTS OF THE OND 2021 RAINS

- Analysis of the rainfall performance for the past seasons MAM and JJA indicates that most parts of the country especially the eastern and northern Kenya have experienced rainfall **deficit**
- The forecasted **depressed** rainfall during the month of October to December indicates a likelihood of drought conditions that may worsen as the period progresses over most of the arid and semi-arid regions of northern and eastern Kenya



- ASALs, where depressed rainfall is expected, **lack of pasture** and **water for domestic** use and livestock are likely to exacerbate the dry conditions experienced in the months of June, July and August 2021, coupled with the dry conditions expected in September 2021 and below average rainfall expected during the OND short rains season
- Human-wildlife and inter-community **conflicts** over the limited resources are likely to escalate in these areas, where cases of **malnutrition** and food shortage are also expected to increase

# HEALTH SECTOR

- Diseases associated with lack of proper nutrition and poor hygiene due to scarcity of food and water are likely to increase over the northwestern, northeastern and parts of southeastern lowlands
- Water scarcity may lead to water washed and water related diseases
- The northern and eastern parts are likely to be susceptible to dust storms, which may lead to an increase in respiratory tract diseases

# CLIMATE DISASTERS IMPACTS NEXUS WITH MENTAL HEALTH

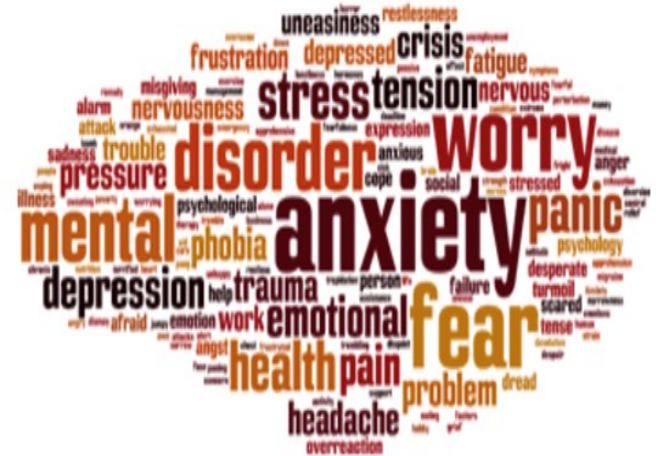
- Damage to infrastructure
- Damage to crops
- Outdoor work could become unbearable
- Higher electric bills and more blackouts
- More allergies and other health risks
- Food will be more expensive
- Water quality could suffer

Helplessness  
Anger  
Shame  
Anxiety  
Irritability  
Denial  
fear  
Withdraw  
Denial  
pain  
Hopelessness



## ● MASLOW HIERARCHY OF NEEDS

1. Human beings have basic needs (Biological and physiological) which include air, food, drink, shelter, warmth, sex, sleep etc
2. They graduate to safety needs – protection in terms of security, order, law, stability and freedom from fear
3. Then there is need for love and belonging needs that include friendship, intimacy, trust, acceptance, family, society etc
4. The esteem needs such as dignity, mastery, status, prestige etc
5. Actualization – need for meaning in life



# MILESTONES IN MENTAL HEALTH MANAGEMENT

- Constitution of Kenya, in article 43.(1)(a') every person a the right to the highest attainable standard of health, which includes the right to healthcare services
- Kenya Mental Health Action Plan 2021–2025– a framework on interventions for securing mental health systems reforms in Kenya
- Kenya Mental Health Policy 2015–2030 –Towards attainment of the highest standards of mental health
- Performance Contracts of MDAs
- Mental Health ( Amendment )Bill, 2020 – published in the Kenya Gazette Supplement No. 221of 30<sup>th</sup> November, 2020, and passed by the Senate, with amendments, on 15<sup>th</sup> September, 2021



## Limitations

- Demystifying of mental illnesses
- Stigma towards mental illnesses
- Availability of professionals and facilities
- Uptake of mental health services

## Opportunities

- Connectedness of the society
- Advocacy – New frontier
- ( resource, research & document )

# CONCLUSION

- I submit that there is no single solution to every cause and effects of global climate change – thus collective significance inclusive environment and social efforts are needed to preserve the planet and protect the future
- Environmental awareness is an incredibly important part of our lives
- For sustainable development sustainability of the planet is everyone's role ( including meaningful involvement of the socio-scientists )
- Advocacy is key to create awareness on this '**emerging**' perspective of populations **wellbeing – Holistic health impacts**
- There is no health without mental health
- Integration on mental health in disaster response is vital

# Causes and Effects of Climate Change

## Causes

- Rapid industrialization
- Energy use
- Agricultural practices
- Deforestation
- Consumer practices
- Livestock
- Transport
- Resource extraction
- Pollution



## Effects

- Rising temperatures
- Rising sea levels
- Unpredictable weather patterns
- Increase in extreme weather events
- Land degradation
- Loss of wildlife and biodiversity

## What are the social impacts of climate change?

Displaced people. Poverty. Loss of livelihood. Hunger. Malnutrition. Increased risk of diseases. Global food and water shortages.



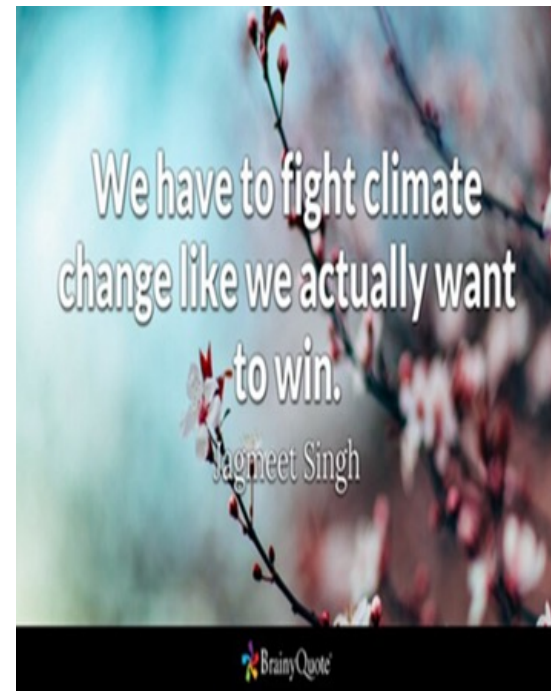
# GLOBAL ACTIONS



- Strategy – integrate disaster risk measures, sustainable natural resource management, and human security into national development strategies
- Strong political will, increased investment, and use existing technology, to limit the increase in global mean temperature
- Requires urgent and ambitious collective action– strengthen institutions – ensure inclusivity cognizant of the gender dimensions
- Upcoming 26th Conference of the Parties (**COP26**) scheduled for 1–12 Nov **2021** in Glasgow – focus on countries increasing the ambition of their commitments to tackle the climate emergency

## Petteri Taalas, Secretary General, WMO

“As the international community becomes increasingly aware of the interconnections between climate change and sustainable development, more **interdisciplinary partnerships** for change can happen, resulting in more sustainable behavior and consumption. It is hoped that this report can serve as a basis for more interdisciplinary research and collaboration, improved policy development and stronger commitment to both the SDGs and climate action. Our future depends on it,”



# QUESTIONS?



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KENYA chapter 

**Thank you!**