Research Hot Topics From the Journal on Climate and Health

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The Medical Society Consortium on
CLIMATE & HEALTH

Role of participatory learning approaches in climate and health education and driving local action

Medical Society Consortium on
CLIMATE & HEALTH
February 2024

Dr. Ritu Parchure and Anuj Ghanekar

Prayas Health Group, Pune.

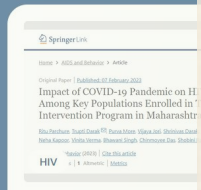
https://health.prayaspune.org/

Prayas (Health Group)

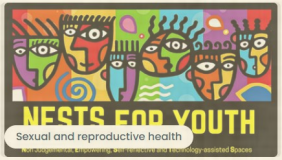
Integrating Climate Cha
Health System fr...

September 15, 2023

Reports



Prayas' Prevention of parent to child transmission of...



NESTS for Youth (Nestor care)

Techno-Peer intervention to improves sexual self-effi...

2018 | Completed

h cannot be achieved without people's capabilities, ...

Youth in Transit
study of tra...

Sexual and reprod

July 18, 2017

India is one of the yo
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Prayas Health Group

An NGO from Pune, India

Prayas (Health Group)

HIV

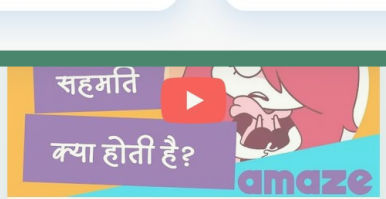
SEXUAL AND REPRODUCTIVE HEALTH

PREVENTIVE ONCOLOGY

CLIMATE CHANGE AND HEALTH

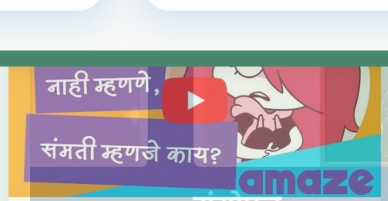
'बहुतेक' चा अर्थ 'हो' ...

April 19, 2023



हाँ या न, सहमति क्या होत...

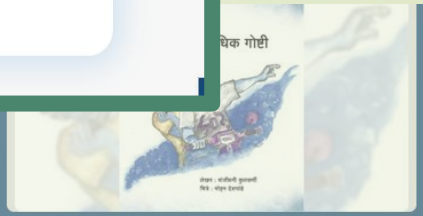
April 19, 2023



होय किंवा नाही म्हणणे, ...

April 19, 2023

Download



दोस्तीच्या अधि...

Download

Case study

How climate and health education can be leveraged to influence community-level processes for better health adaptation?

- Bhor Taluk, Pune, Maharashtra, India
- 9 villages (9000+ population) under one Primary Health Center

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Approach

Sharing learning dialogues

Use of classic PRA tools in Climate change & health context

Action oriented dialogues

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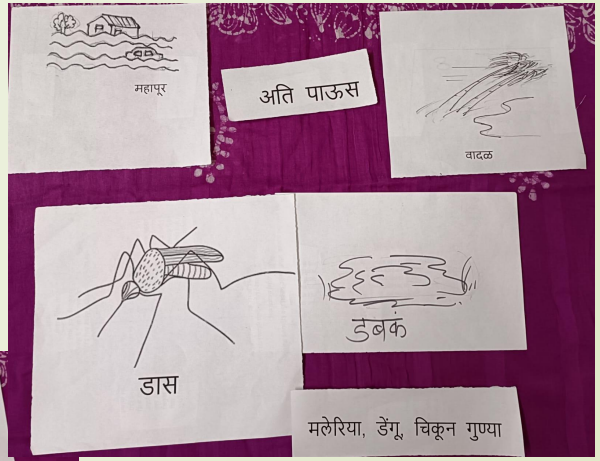
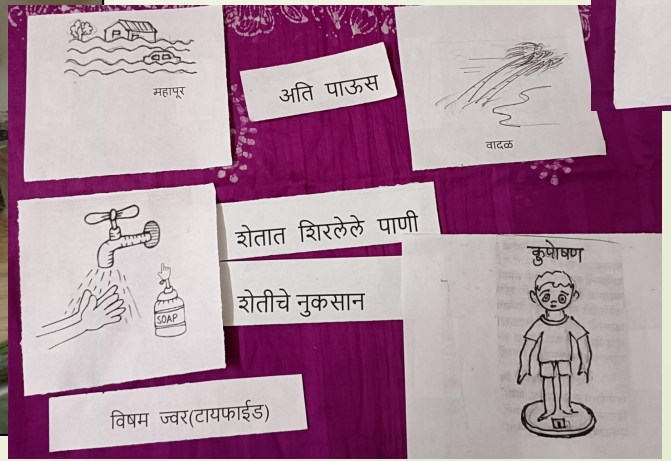
Adopting PRA tools to climate-health context

- Participatory Learning Using Pictorial Tools
- Case vignettes - to shift the understanding from general to specific and theory to action
- Timeline - to gain a temporal perspective of changes to weather, economic conditions, social changes, local disease patterns, etc.
- Listing and ranking - to prioritize climate and health concerns in the given context

Participatory Learning Using Pictorial Tools

'***Chitrakatha***'
A handmade presentation using a storytelling method





The *Chitrakatha* prompted people to share observations from various life domains and facilitated the discussion on local vulnerabilities and health linkages

Depleting water levels – dysfunctional water purification system – increasing diarrhea cases

Two cases of recent deaths during a hot summer week - Both in their early 60s, had diabetes and hypertension

Use of pesticides even during winter because of disrupted weather cycle – similarities drawn with VBDs

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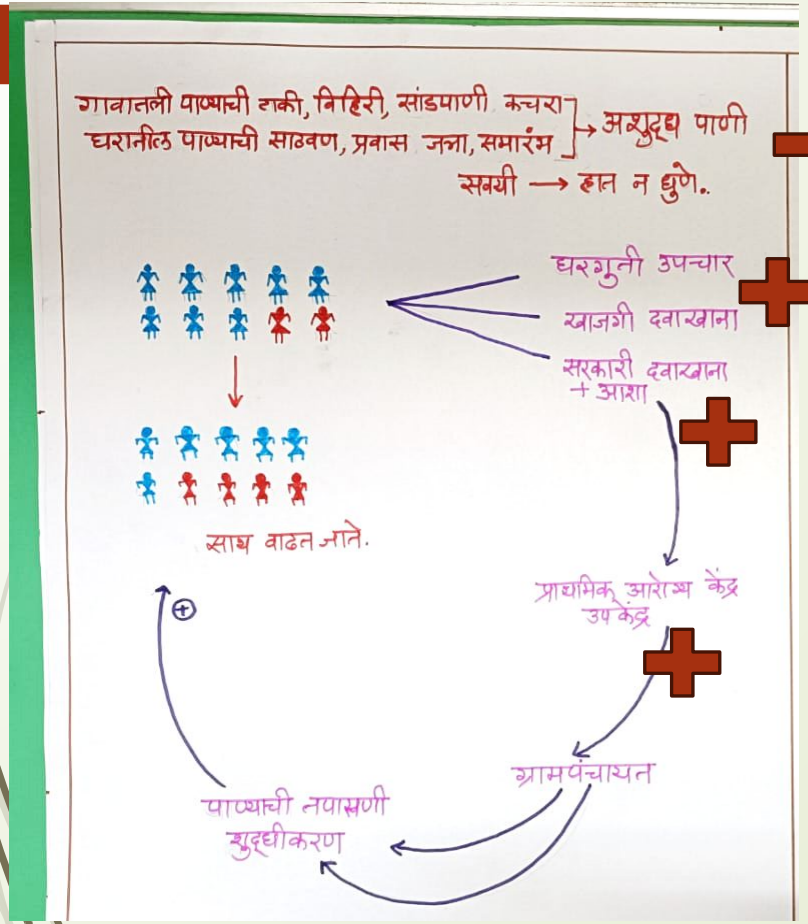
Case vignettes

A diarrhea outbreak happened during the project period. It was used to trigger discussions on

- Heightened risks due to climate change
- Existing individual and systems-level actions
- How these could be strengthened

We adopted Causal Loop Diagrams to highlight the issues



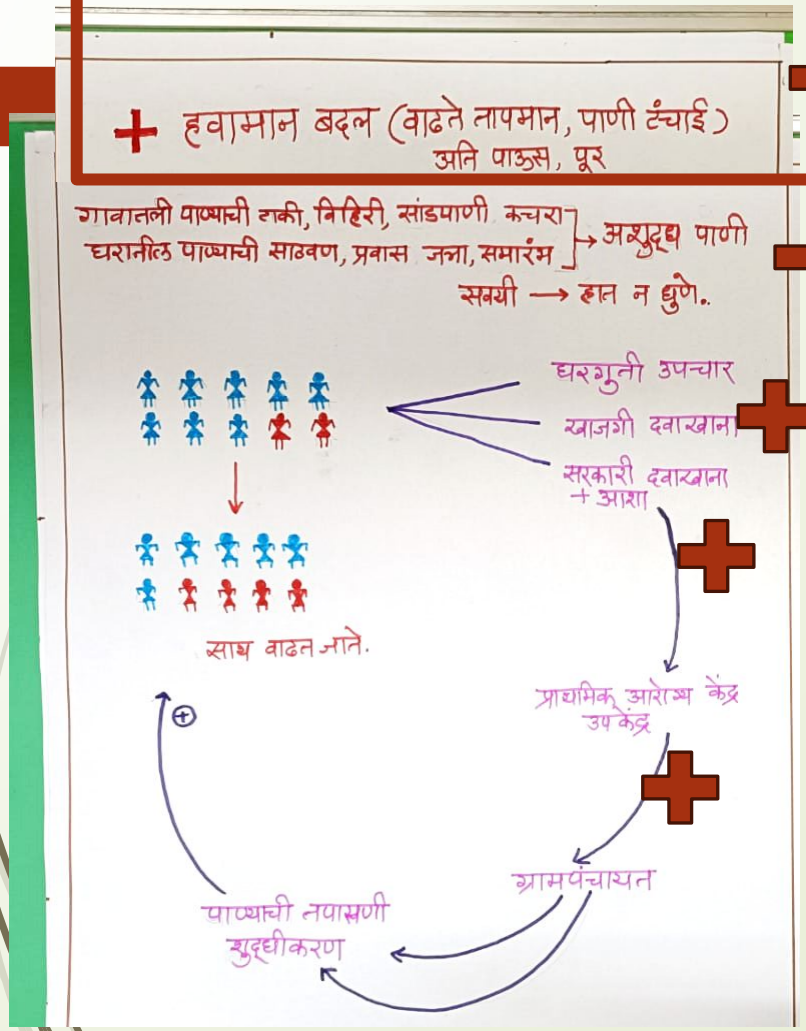
Risk factors for outbreaks of diarrhoea

Individual level treatment seeking

Reporting to health system by community health workers

Healthsystems-level actions for controlling the outbreak and prevention

Prayas (Health Group)



Why and how climate change can exacerbate the situation

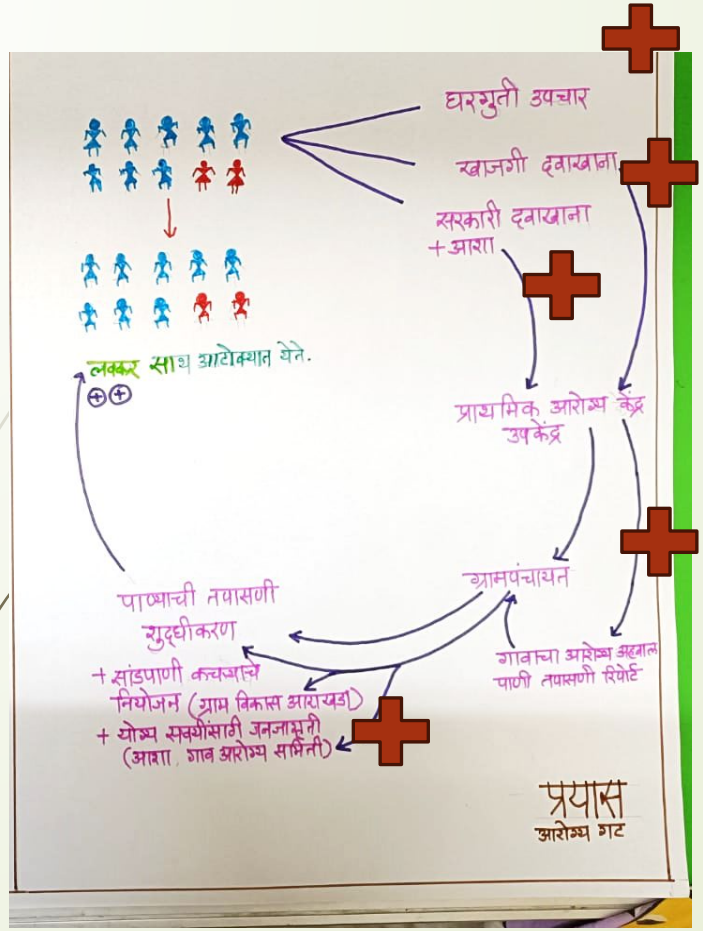
Risk factors for outbreaks of diarrhoea

Individual level treatment seeking

Reporting to health system by community health workers

Healthsystems-level actions for controlling the outbreak and prevention

Prayas (Health Group)



Preventive and promotive behaviours

Early reporting by private clinics

Early reporting by community health workers, village health committees

Regular feedback from health system to village panchayat on water quality assessments

Collective actions at village level

Role of different stakeholders in system strengthening

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Timeline: Temporal mapping of vulnerabilities

What was our village like?
Situation before …..Situation Now

- Weather events and disasters
- Demographic characteristics
- Social and Economic condition
- Housing amenities
- Village development (road, electricity, public transport etc)
- Disease patterns
- Access to safe water, sanitation
- Access to health-care

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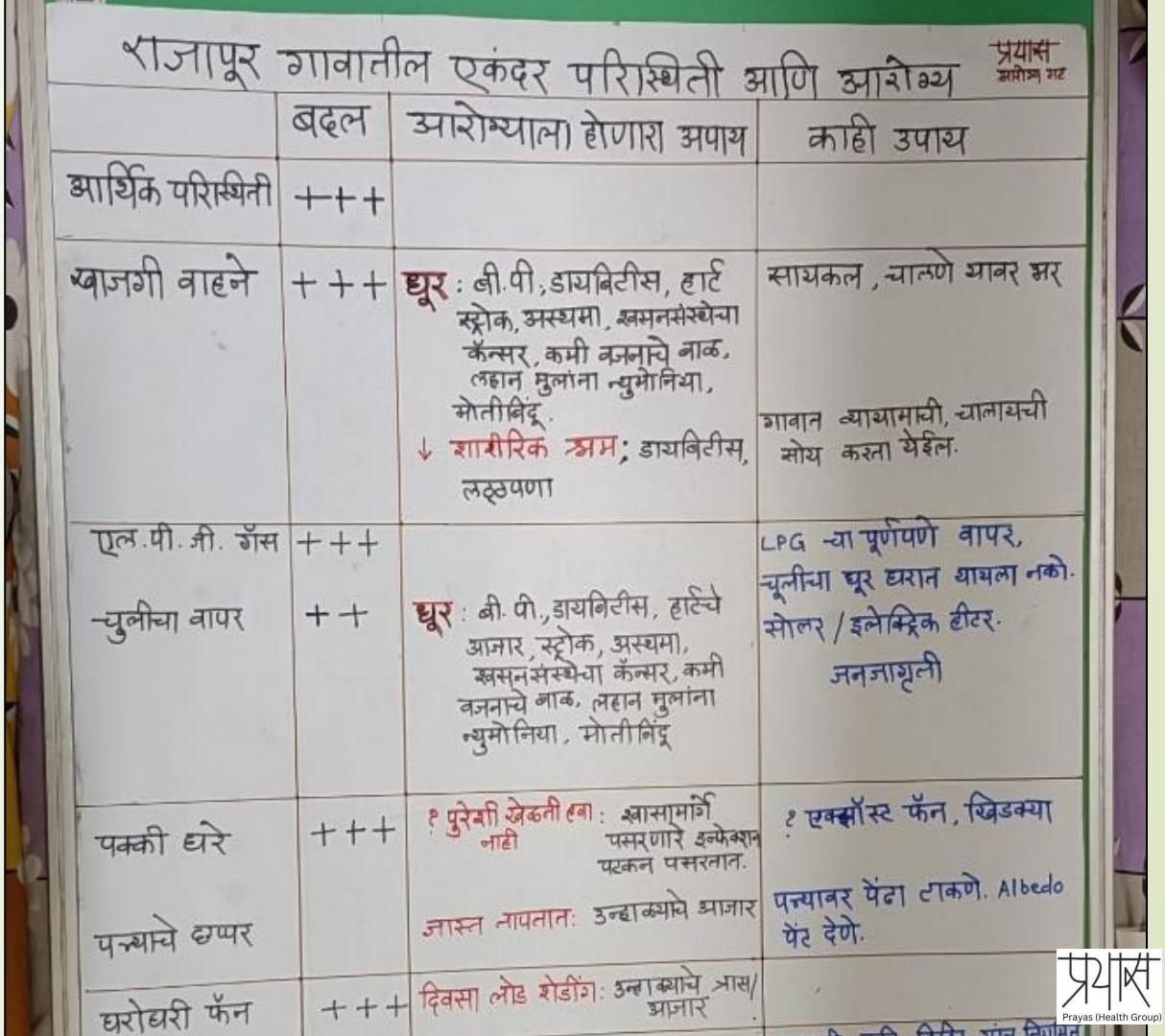
Changing contexts

Health risks

Potential health consequences

likely solutions at individual and collective levels

Decided to display the chart at GramPanchayat office



राजापूर गावातील एकंदर परिस्थिती आणि आरोग्य

प्रयास आरोग्य गट

	बदल	आरोग्याला होणारे अपाय	काही उपाय
आर्थिक परिस्थिती	+++		
खाजगी वाहने	+++	धूर : बी.पी., डायबिटीस, हार्ट स्ट्रोक, अस्थमा, श्वसनसंस्थेचा कॅन्सर, कमी वजनाचे बाळ, लहान मुलांना न्युमोनिया, मोतीबिंदू. ↓ शारीरिक श्रम; डायबिटीस, लठ्ठपणा	सायकल, चालणे गावर भर गावात व्यायामाची, चालायची सोय करता येईल.
एल.पी.जी. गॅस चुलीचा वापर	+++ ++	धूर : बी.पी., डायबिटीस, हार्टचे आजार, स्ट्रोक, अस्थमा, श्वसनसंस्थेचा कॅन्सर, कमी वजनाचे बाळ, लहान मुलांना न्युमोनिया, मोतीबिंदू	LPG चा पूर्णपणे वापर, चुलीचा धूर घरात थांबला नको. सोलर / इलेक्ट्रिक हीटर. जनजागृती
पक्की घरे पत्र्याचे छप्पर	+++	? पुरेशी खेळती हवा नाही : खासामार्गे पसरणारे इन्फेक्शन पटकन पसरतात. जास्त तापतात: उन्हाळ्याचे आजार	? एक्झॉस्ट फॅन, खिडक्या पत्र्यावर पेंढा टाकणे. Albedo पेंट देणे.
घरोघरी फॅन	+++	दिवसा लोड शेडींग: उन्हाळ्याचे त्रास/ आजार	

Listing and Ranking

- Created a profile of the village
  - Existing situation of social determinants of health (safe water, waste management, air pollution, access to electricity, cooling appliances) and health care access
- Ranking and prioritization
- Planning collective action

Action oriented dialogues

- Early warning dissemination (extreme heat) using Gram Panchayat Loudspeaker, *Gram Suraksha Yantrana, whatsapp groups*
- Protection from extreme heat - head-caps to farm-laborers
- Waste segregation - Installing dry/wet waste collection buckets in the village
- Safe water - A resolution to demand water quality report from PHC

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Learnings and Way forward

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Learnings

- People could **relate** to the science of climate-health connections; when grounded in their experiences.
- It improved **comprehension**
- **Contextual vulnerability** could be extracted through sharing learning sessions – an important step towards better health adaptation.
- The process initiated deliberations on climate-focused **micro-scale health adaptation** actions.

Learnings

- Information and appeals, when combined with action plans, can increase people's **confidence in their ability to act**.
- Crucial skill set in climate-health context, with dynamically evolving vulnerabilities and uncertainty of health impacts

Challenges

- Intersectionality issues – participation and power
  - Marginalized, migrant people
  - Gender
  - Changing demography
- Lack of immediate direct benefits reduced willingness and openness to participate in the dialogue

Way forward

- Continued engagement with different stakeholders over a longer period
  - Strategies for better outreach and engagement
- Integration within existing community engagement efforts

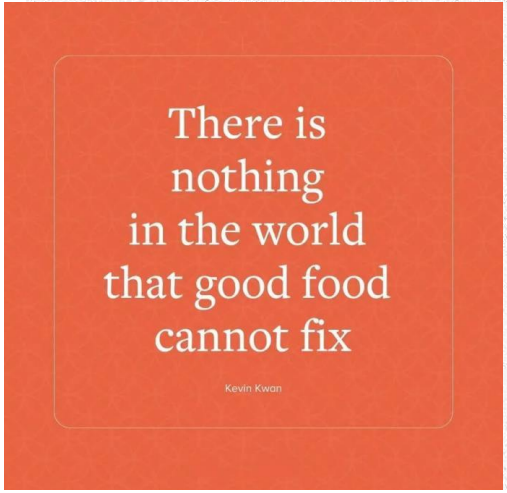
Thank you!

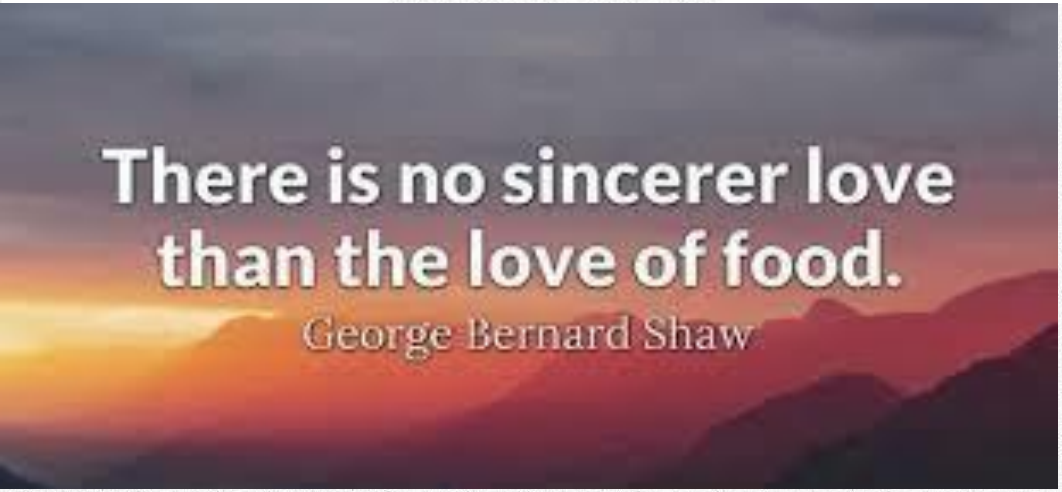
This work was possible because of the sincere efforts of my teammates - Vaishali Dongre, Ram Ombale, Anjana Salunke; funding support by Intox Pvt. Ltd; and the enthusiastic participation of people from Bhor Taluk.

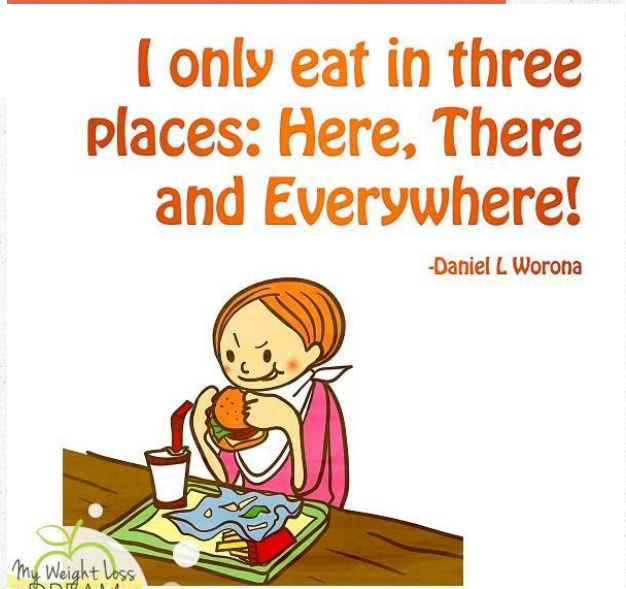
Contact ritu@payaspune.org for more information,

Climate Smart Agriculture

Dr Ratika Samtani
Assistant Professor
International Institute Of Health Management Research - IIHMR Delhi







Food Security and Nutrition in the World

Food Security

- **Climate change is projected to negatively impact the four pillars of food security**

KEY DRIVERS

Climate variability and extremes are a key force behind the recent continued rise in global hunger

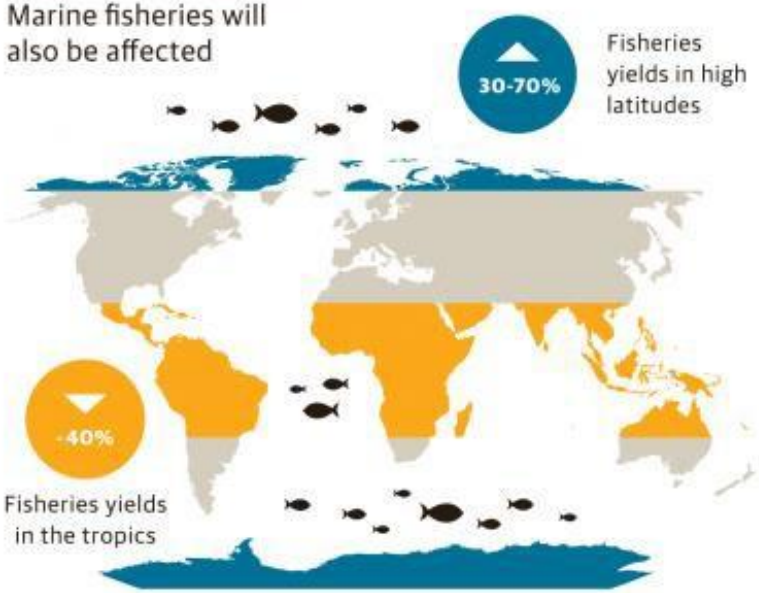
The future of food and farming: 2050s

By 2050, climatic impacts on food security will be unmistakable. There are likely to be 9 billion people on the planet, most people will live in cities and demand for food will increase significantly.

Widespread impacts on food and farming are highly likely

Average decline in yields for eight major crops across Africa and South Asia

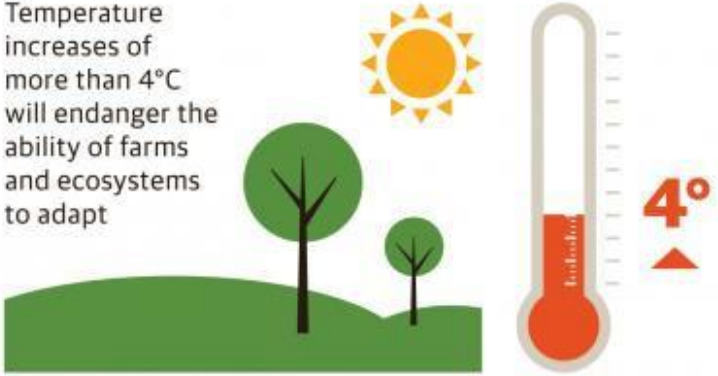
Marine fisheries will also be affected



The Future of Food and Farming:2050 (2/2)

Heat and water may pass critical thresholds

Temperature increases of more than 4°C will endanger the ability of farms and ecosystems to adapt



Water cycles will be very different and less predictable

Changes in the intensity, frequency and seasonality of precipitation

Sea level rises and melting glaciers

Changes in groundwater and river flows

We will need major innovations in how we eat and farm

To cope with climatic changes, we may need to consider:

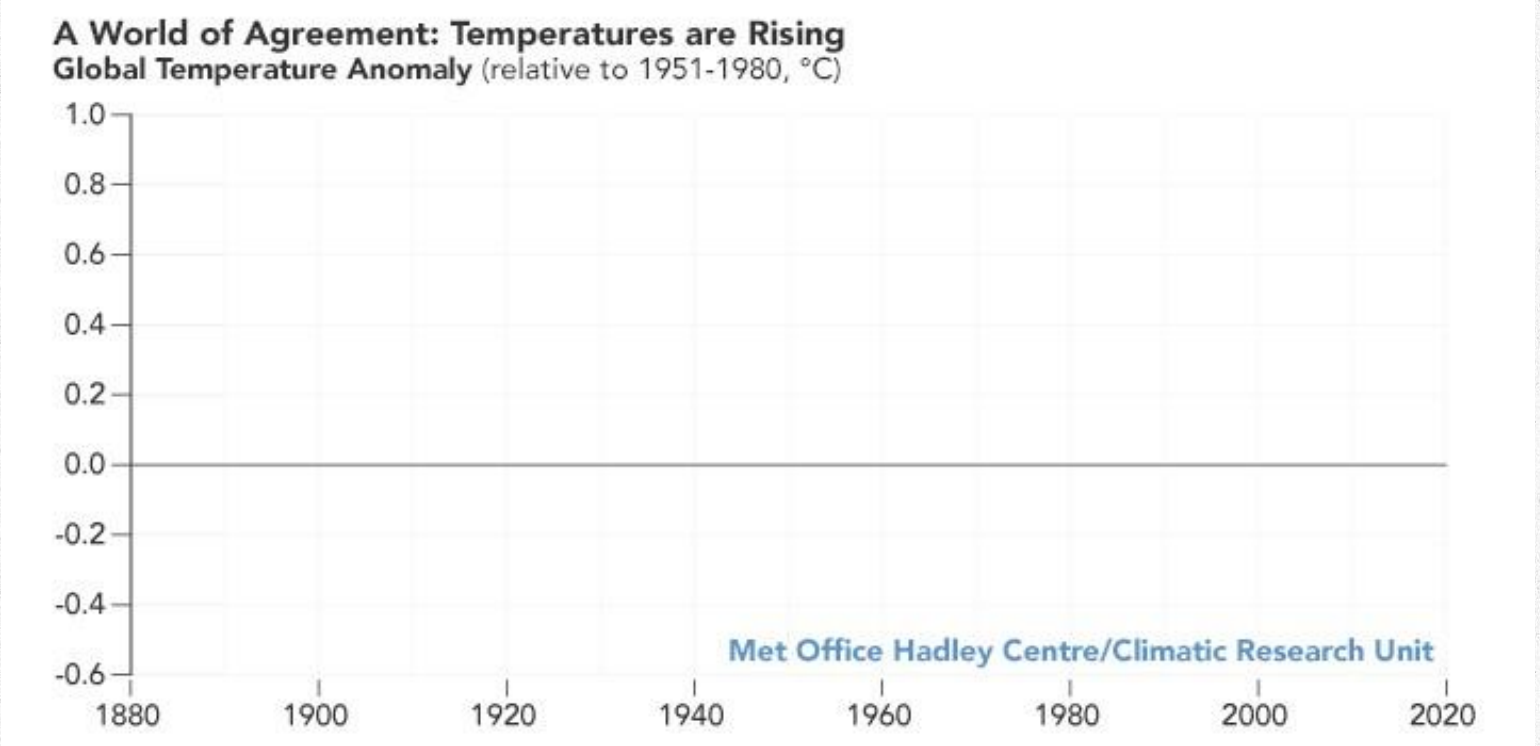
Completely different diets

Shifting production areas for familiar crops, livestock and fisheries

New approaches to managing waste, water and energy in food supply chains

Restoring degraded farmlands, wetlands and forests

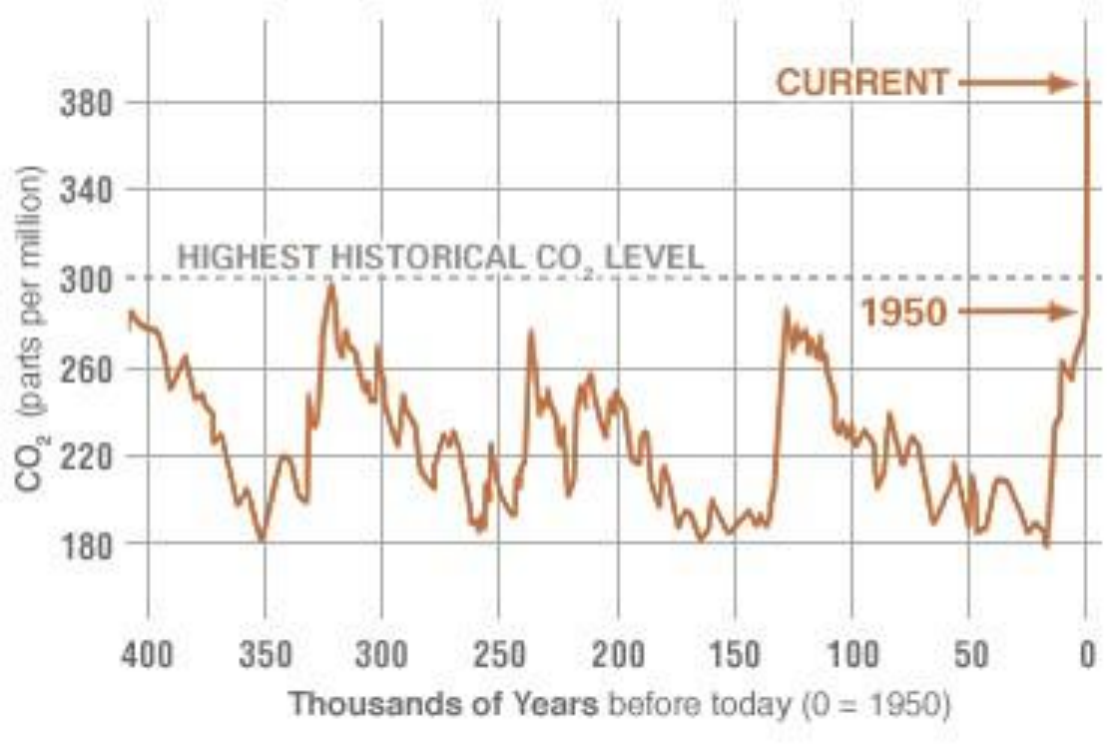
Rise in Global Temperature



According to NASA's Goddard Institute for Space Studies (GISS), the average global temperature on Earth has increased by at least 1.1° Celsius (1.9° Fahrenheit) since 1880.

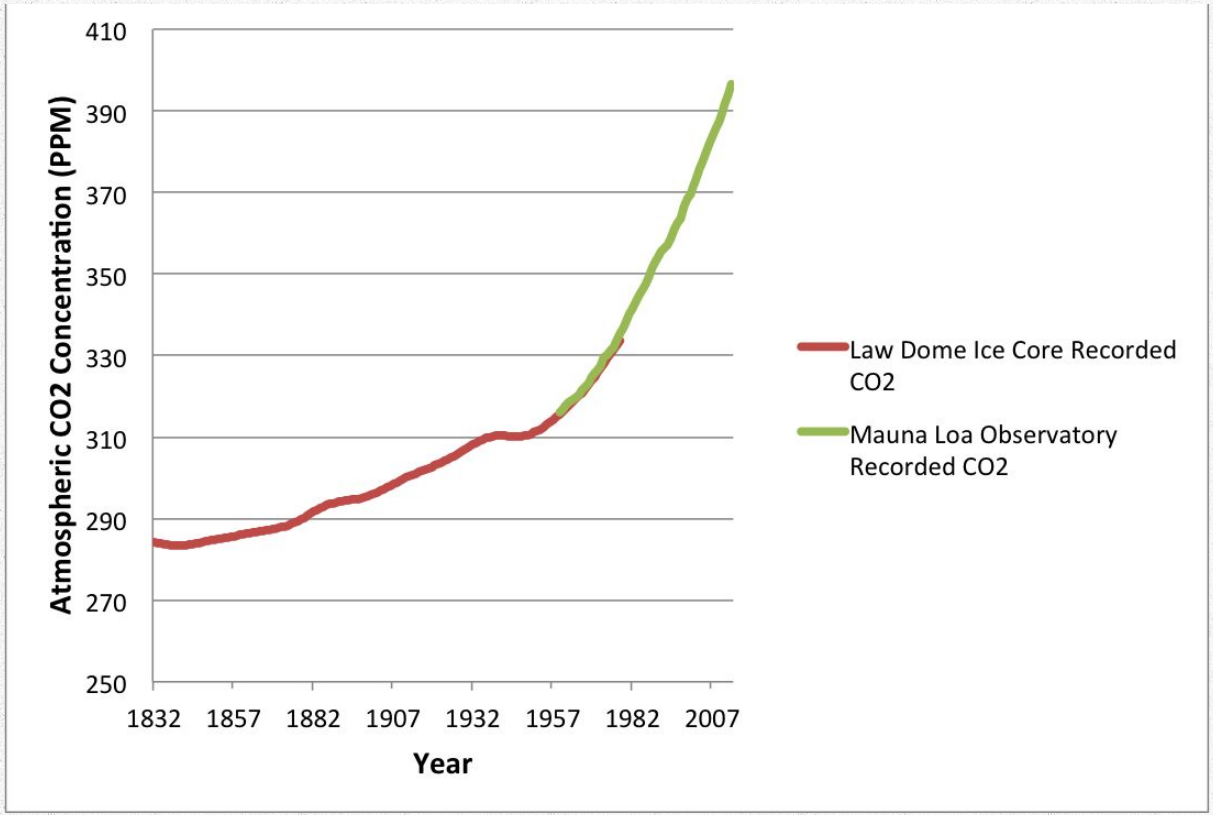
The majority of the warming has occurred since 1975, at a rate of roughly 0.15 to 0.20°C per decade.

CO_2 Data



There's more carbon dioxide in our atmosphere than at any time in human history

Historic Atmospheric CO2 Concentrations

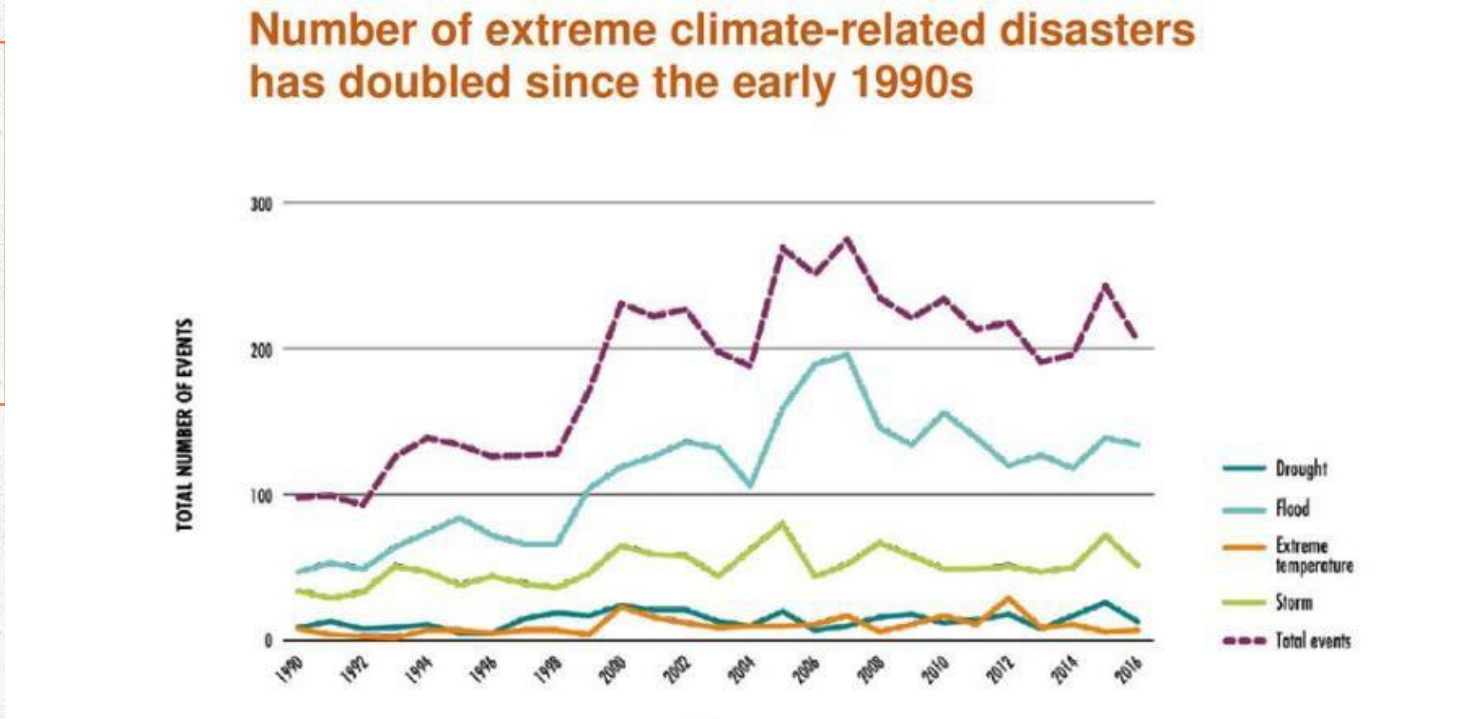


Sources:

-**Mauna Loa Observatory**, NOAA: ftp://aftp.cmdl.noaa.gov/products/trends/co2/co2_annmean_mlo.txt

-**Law Dome Ice Core, Carbon Dioxide Information Analysis Center**: http://cdiac.ornl.gov/ftp/trends/co2/lawdome.combined.dat

Extreme Weather Events



Climate change and extreme weather

Increased air temperatures and rainfall levels can affect soil. Crops can fail through drought and flooding.

Cyclones and hurricanes can cause damage to animals and crops.

Change in temperatures (higher or lower) can affect plant growing seasons and livestock may not survive.

Change in temperatures can also affect fish and other species. Some marine diseases have been linked with changing climate.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h.
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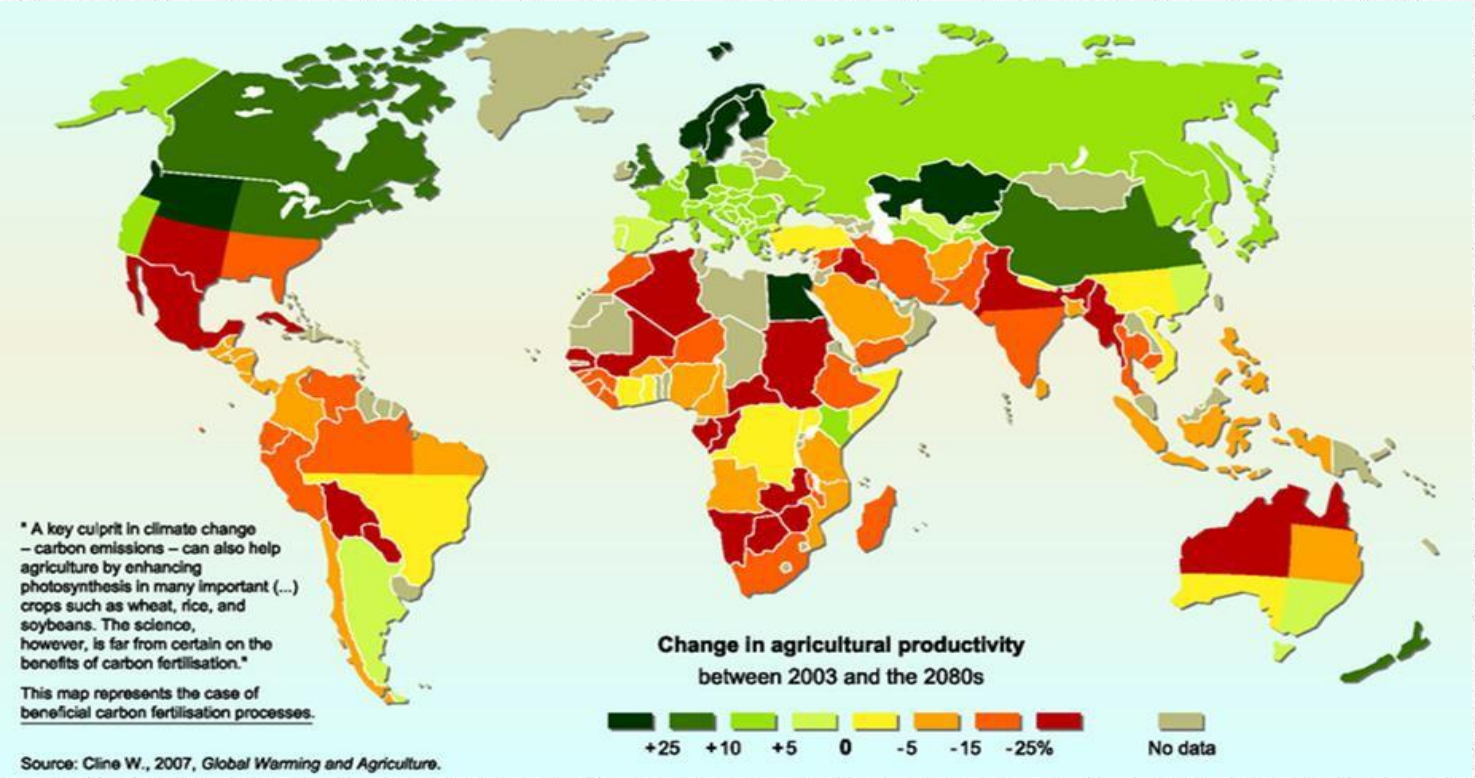
Do you think that all this is going to impact our food? What we eat? How?

IIHMR DELHI

Whose food security and nutrition is most affected by changing climate?

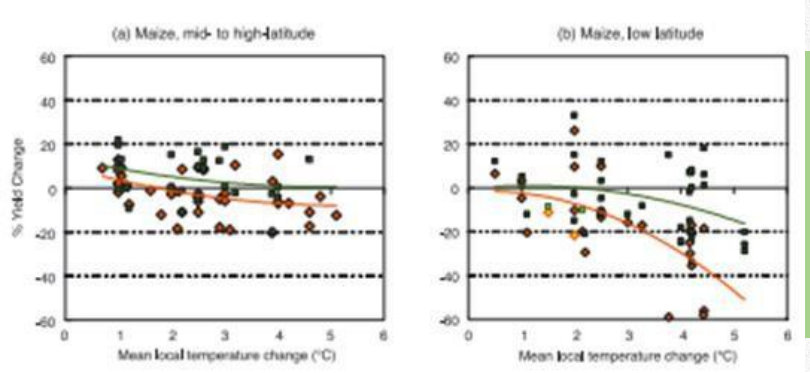
The world's 2.5 billion small-scale farmers, herders, fishers and forest-dependent communities, who derive their food and income from renewable natural resources

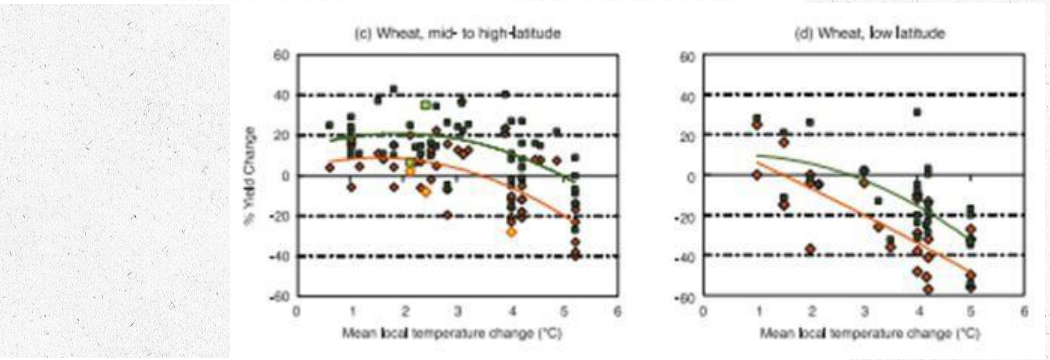
Projected Impact of Climate Change on Agriculture Yields

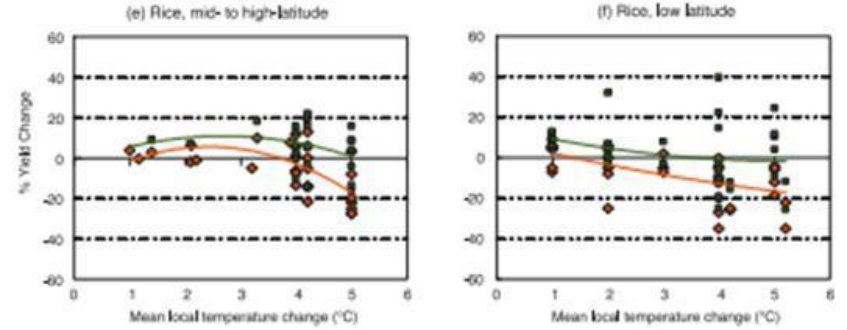


The impact of climate change will not be even across different food systems. Some regions are projected to have an increase in food production; however, generally the projected climate change is foreseen to have a negative impact on food security, especially in developing countries

Projected changes in yield for major cereal crops at different levels of global warming

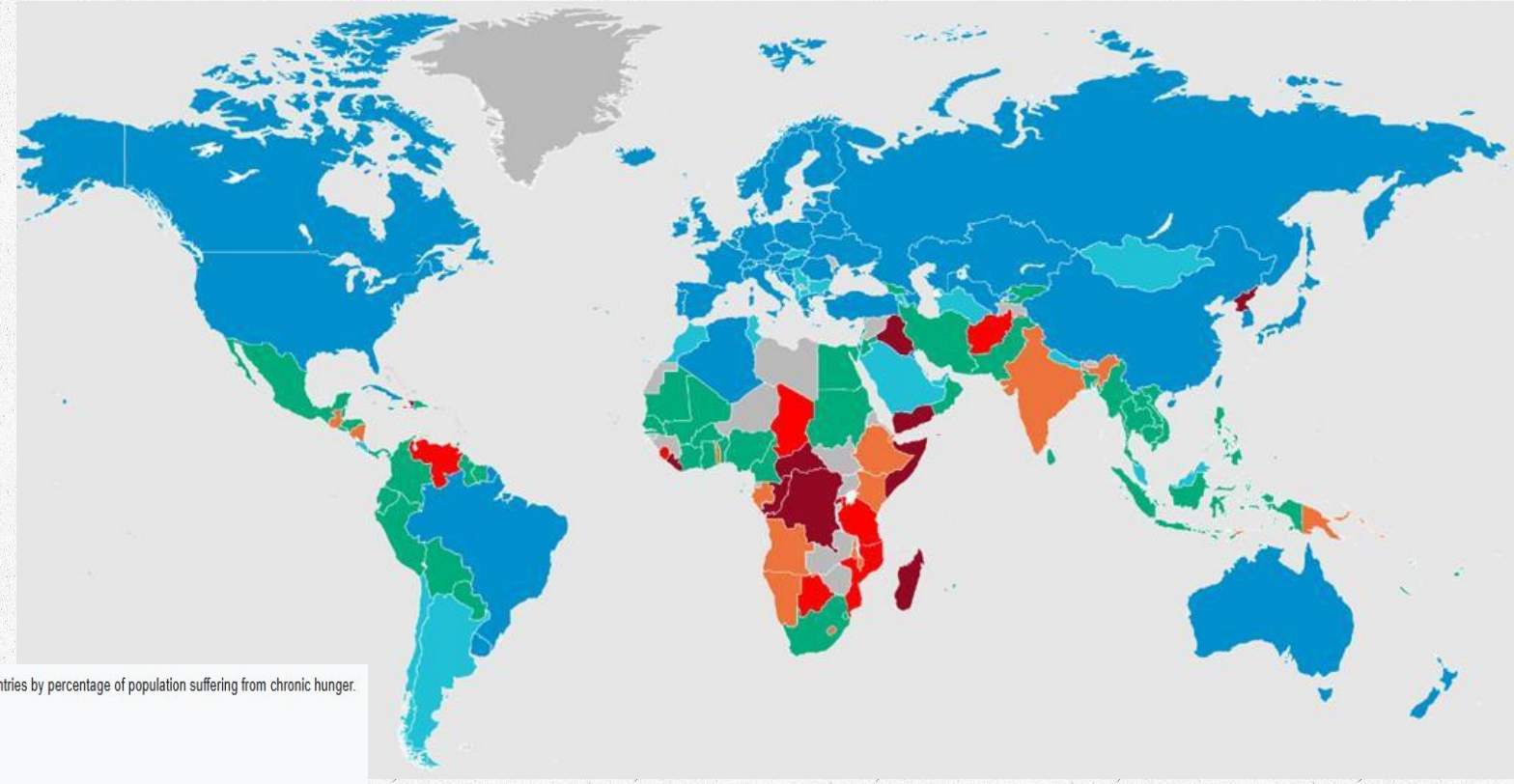






- Expected yield trends for rice wheat and maize at low altitude, derived from modelling over a range of temperatures and carbon dioxide concentrations, are shown in Figure.
- The orange markers indicate performance without adaptation and the green assume a variety of adaptations, including irrigation. The lighter coloured markers indicate rainfed crops with lower rainfall. The trends are predominantly downwards with outliers indicating more positive possible responses with adaptation. These are aggregated results, and more local variation is expected in specific conditions and locations

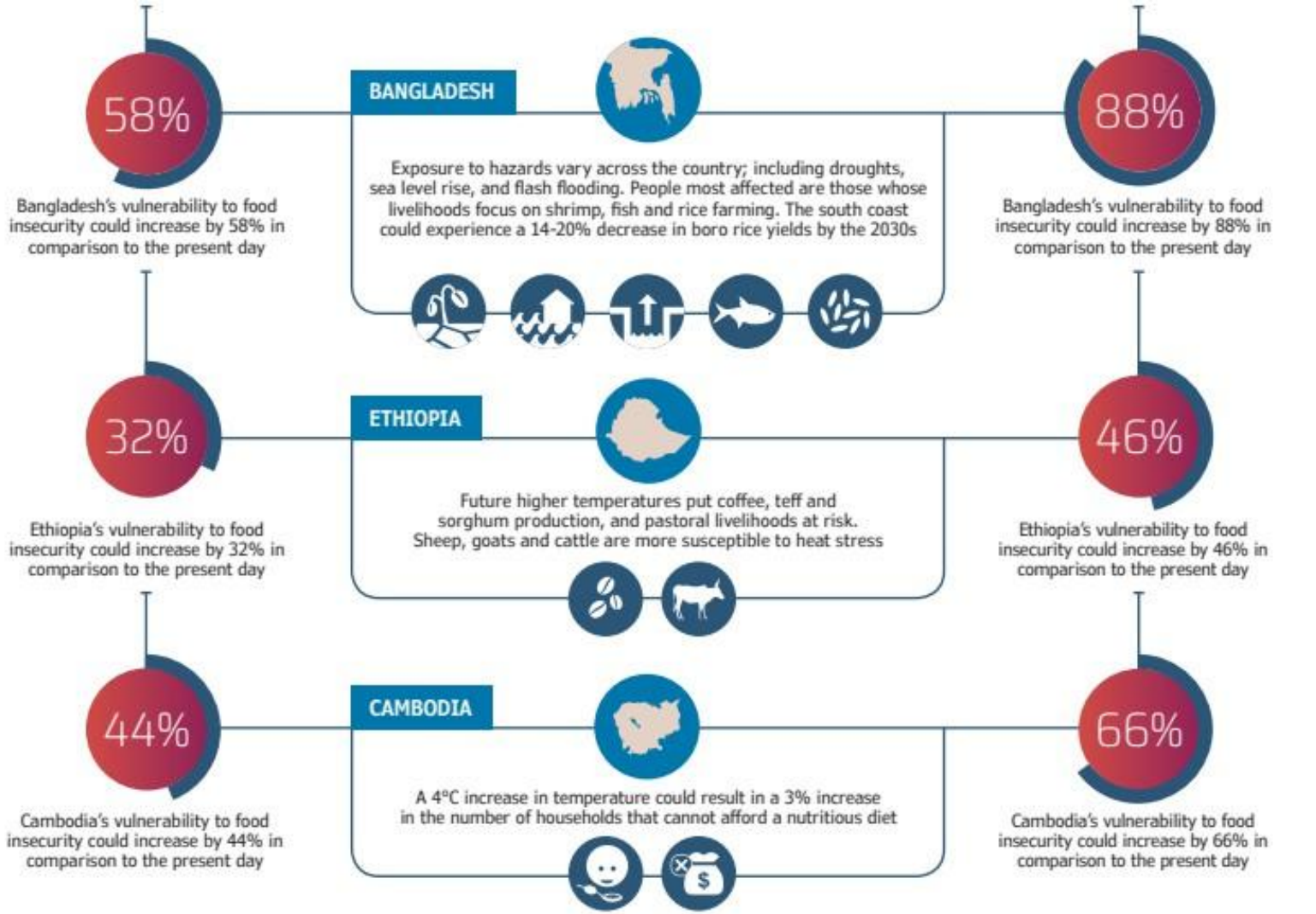
Hunger Map - World Food Programme



Description **English:** Map of countries by percentage of population suffering from chronic hunger.

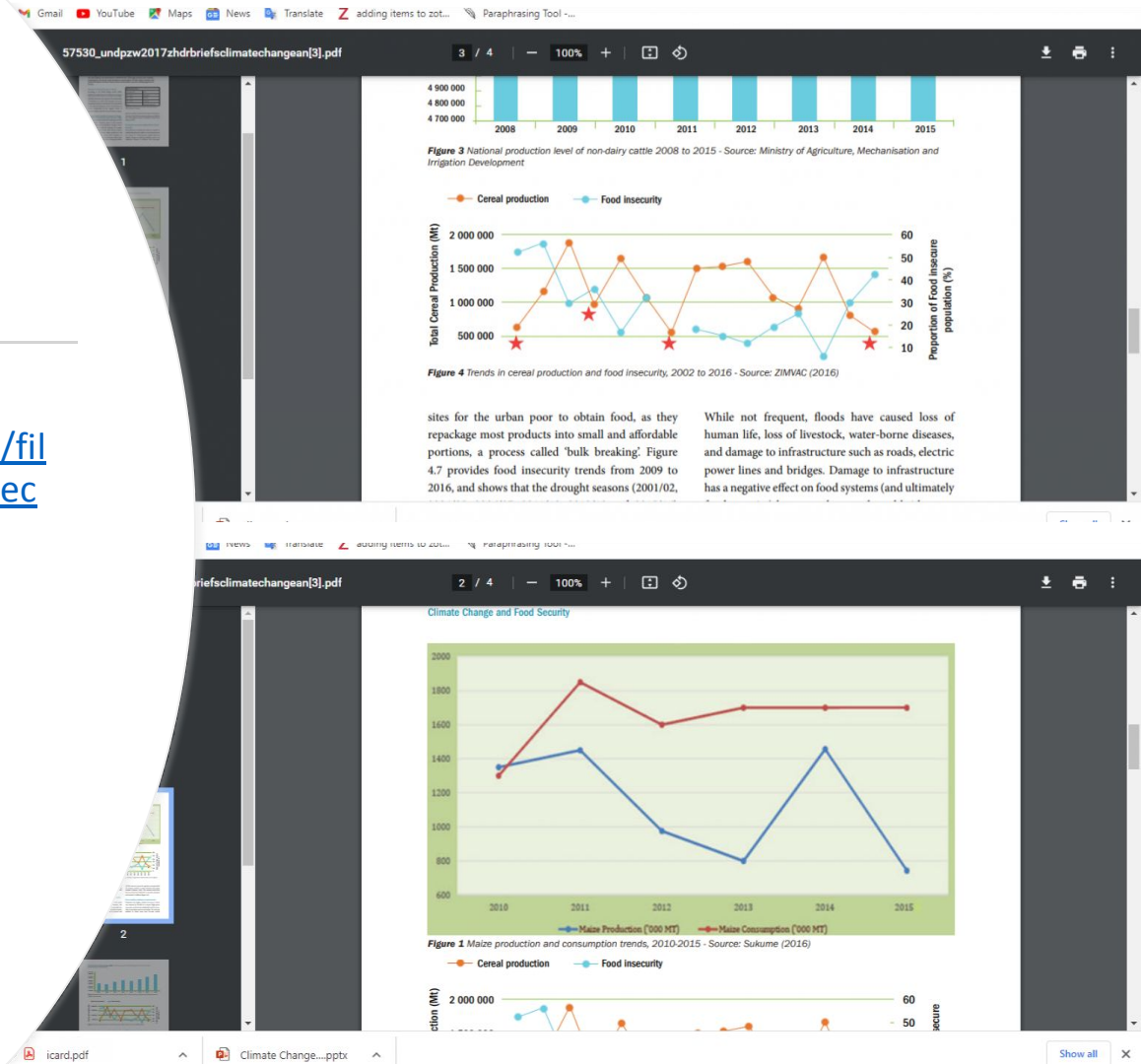
- < 2,5%
- 2,5–4,9%
- 5,0–14,9%
- 15,0–24,9%
- 25,0–34,9%
- > 35,0%
- No data

What a 2°C and 4°C warmer world could mean for global food insecurity.

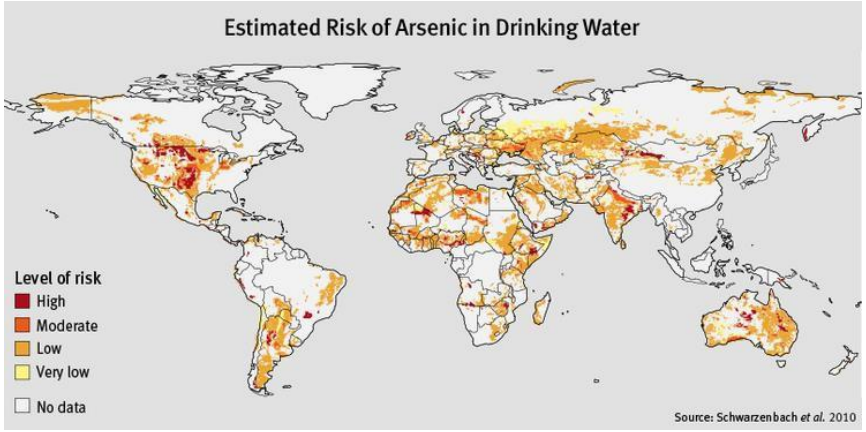

58%
Bangladesh's vulnerability to food insecurity could increase by 58% in comparison to the present day
BANGLADESH
Exposure to hazards vary across the country; including droughts, sea level rise, and flash flooding. People most affected are those whose livelihoods focus on shrimp, fish and rice farming. The south coast could experience a 14-20% decrease in boro rice yields by the 2030s
88%
Bangladesh's vulnerability to food insecurity could increase by 88% in comparison to the present day
32%
Ethiopia's vulnerability to food insecurity could increase by 32% in comparison to the present day
ETHIOPIA
Future higher temperatures put coffee, teff and sorghum production, and pastoral livelihoods at risk. Sheep, goats and cattle are more susceptible to heat stress
46%
Ethiopia's vulnerability to food insecurity could increase by 46% in comparison to the present day
44%
Cambodia's vulnerability to food insecurity could increase by 44% in comparison to the present day
CAMBODIA
A 4°C increase in temperature could result in a 3% increase in the number of households that cannot afford a nutritious diet
66%
Cambodia's vulnerability to food insecurity could increase by 66% in comparison to the present day

CLIMATE CHANGE AND FOOD SECURITY- A case study from Zimbabwe

- https://www.unisdr.org/preventionweb/files/57530_undpzw2017zhdrbriefsclimatecha ngean%5B3%5D.pdf



Case of Arsenic poisoning



Indigenous sustainable farming systems? Case Study from Africa

- Shifting cultivation
- Organic farming
- Agroforestry
- mixed cropping

Traditional Tribal Farming In Odisha

- Farmers of the Dongria Kondh tribe in the south-western parts of Odisha follow traditional practices that include a lot of diverse cropping.

- Crops like millets, leaves, legumes, tubers, vegetables, pulses, sorghum and rice are raised throughout the cropping season and are harvested one by one from October to the February end.

- This kind of practice keeps the farmer away from agrarian crisis because if one crop fails, they have many more to depend upon.


What brings you joy?
Sources of satisfaction and delight
Your climate action!
What are you good at?
Your skills, resources, and networks
What work needs doing?
Climate and justice solutions

Thank You!

A Systematic Review to Identify the Effectiveness of Greenhouse Gas Mitigation Interventions for Healthcare Systems in Low- and Middle-Income Countries

Dr Iris Martine Blom

Supervisors

Dr Sarah Whitmee

Prof Sir Andrew Haines

Advisors

Dr Fawzia Rasheed

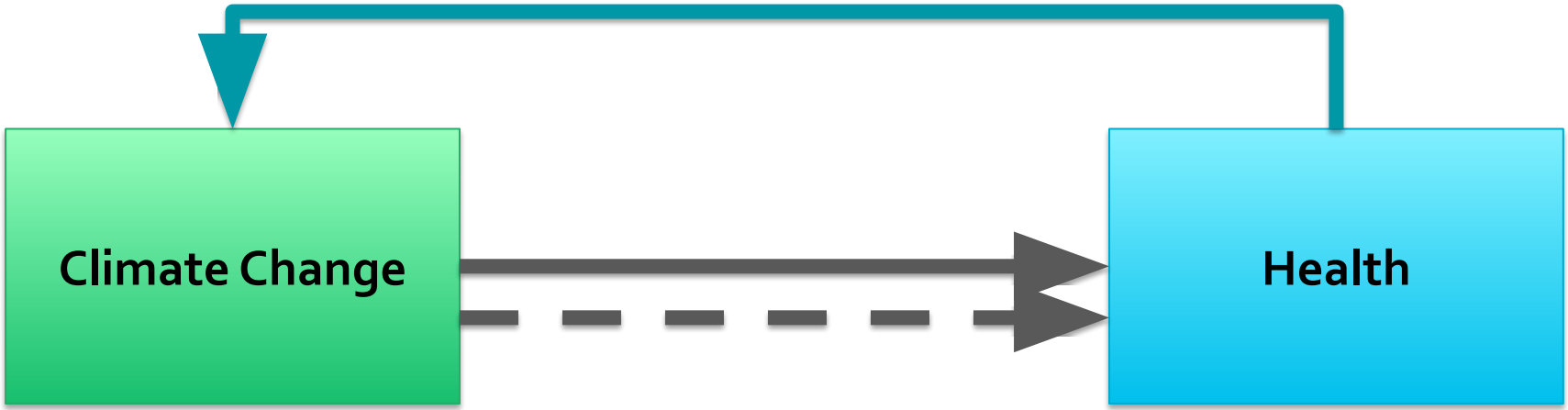
Ms Sandra Mounier-Jack

Dr Susannah Mayhew

LONDON SCHOOL of HYGIENE &TROPICAL MEDICINE

Introduction

Introduction

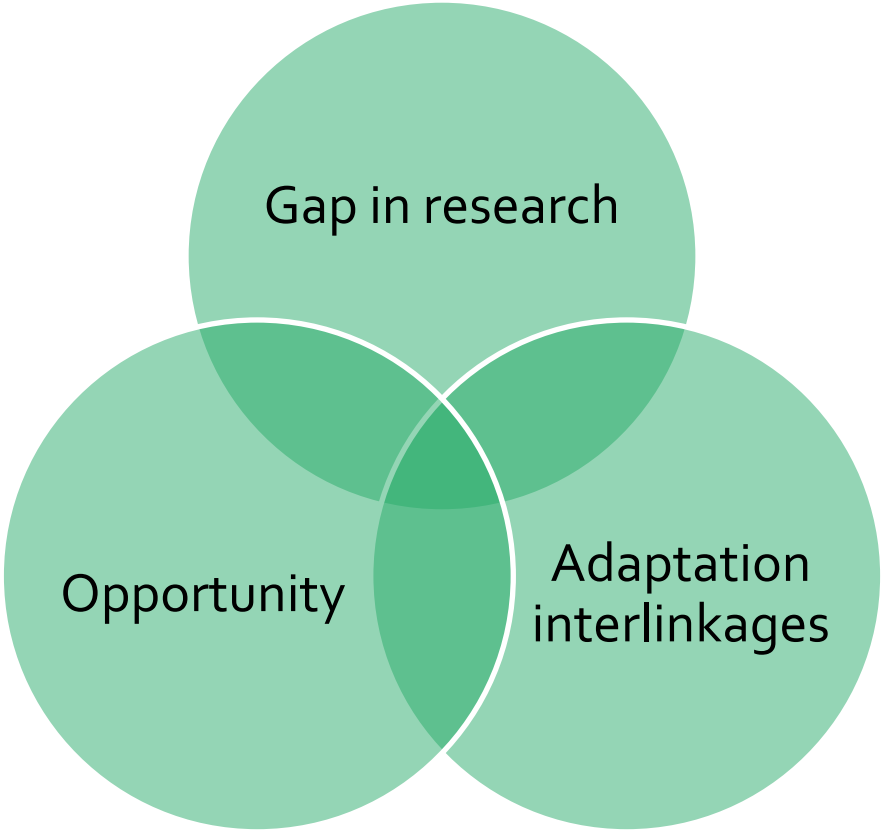


Health care impact on climate

Many components of scope 3 are "unmeasured" and are not fully captured in the 71% of total emissions. These are depicted in purple.

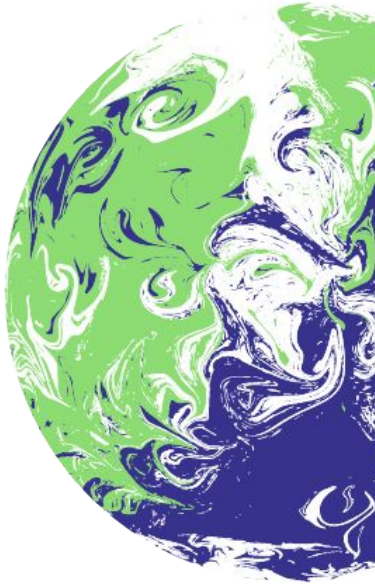
Source: Salas R N, Maibach E, Pencheon D, Watts N, Frumkin H. A pathway to net zero emissions for healthcare BMJ 2020; 371 :m3785 doi:10.1136/bmj.m3785

Low- and Middle-Income Setting



Recent developments

- UNFCCC COP26 Health Commitments
- 2022 World Health Day
- G7 Leader's Communique
- Call WHO for a healthy and sustainable COVID-19 recovery
- COP27 & COP28



Source: UKCOP26. 2021 [accessed 29/08/2022. Available at: link.

Methods

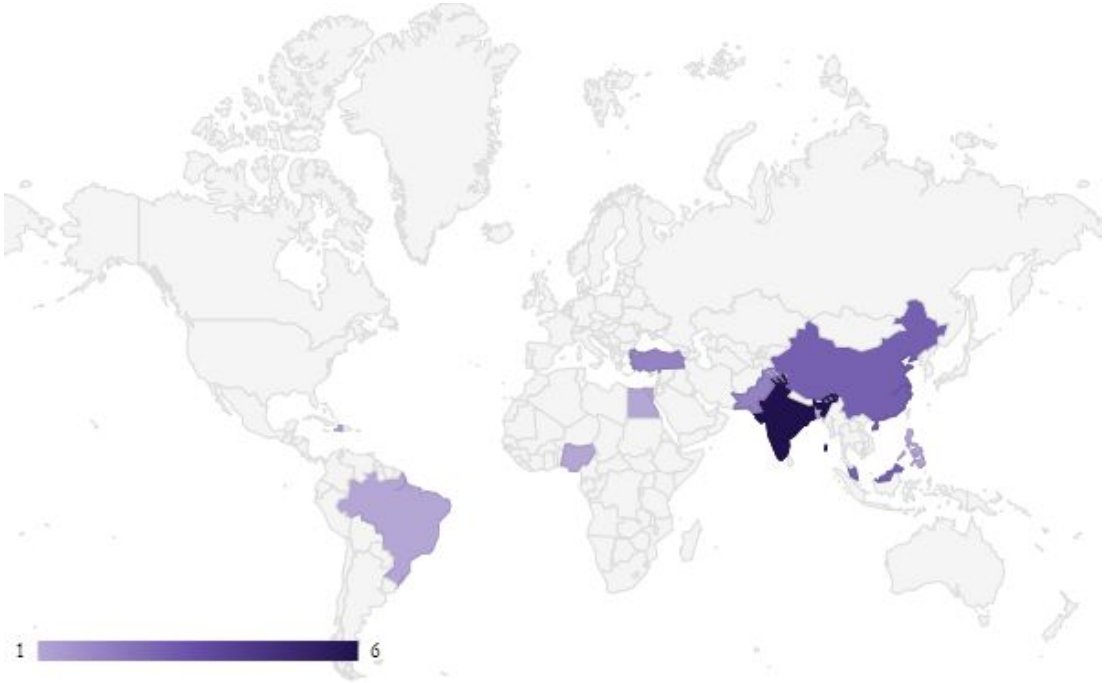
Identify all relevant peer-reviewed literature on GHG mitigation interventions in health care systems in LMICs to inform pathways towards net-zero health care systems.

- Systematic review:
  - Conceptual Framework: Theory of Change
  - Title, abstract and full-text screening against eligibility criteria by two screeners.
  - Following PRISMA guidelines.
  - Protocol is published.

Results

- Total yield: 25,570 records.
- Included articles: 22.
- 6 overarching topic areas across 11 countries.
  - Energy (n=10)
  - Waste (n=8)
  - Heating and cooling (n=1)
  - Operations and logistics (n=1)
  - Building design (n=1)
  - Anaesthetic gases (n=1)

Results continued



Overview of countries reported on in the 22 included articles, with the colour representing the number of times this country was reported with grey none, lightest purple 1, and darkest purple 6 articles.

Energy

Country	Description	Reduction CO_2(e) kg / year unless otherwise stated (% if known)
Bangladesh	A photovoltaic (PV)/Converter/Wind/Battery/Generator energy generation system for a temporary health centre	A: X (27%) B: X (25%)
India	A 5-kWp on-grid solar photovoltaic rooftop system for one urban hospital	11,287
Malaysia	A grid connected PV-fuel cell-battery system for energy and heating of one university hospital building	71,004 (74%)
Philippines	A solar PV panel energy system with (32.1) and without (32.2) grid-connection for a rural healthcare facility	32.1: 19,598 (59%) 32.2: 62,776 (72%)
India	A solar PV panel for a laboratory	13,860 (100%)[a]
Nigeria	Optimal hybrid renewable system configurations for electricity generation for six rural clinics from six different regions	20,113 (83%)
Turkey	Solar energy in combination with Aquifer Thermal Energy Storage (ATES) for electricity generation for heating and cooling for one university hospital	2,100,000
India	A solar PV tunnel dryer for surgical cotton for one city	A: 12,150 (100%) B: 6720 (100%)
Brazil	A hybrid polygeneration system for the provision of electricity to a Brazilian hospital under four legal scenarios.	38.1: 4,852,036 (63%) - 17,774,491 (233%)
India	A PV-diesel–battery energy system for energy generation for a remote healthcare centre	1813 (46%)

Waste

Country	Description	Reduction CO_2(e) kg / year unless otherwise stated (% if known)
Pakistan	An integrated system of hospital solid waste treatment and disposal consisting of composting, incineration, and material recycling is compared to the standard scenario of incineration and landfill (A) and to incineration only (B).	A: 2806 (62%) B: 2610 (47%)
Turkey	A regional healthcare waste management scenario of a centralised autoclave coupled with an incinerator is compared to an incinerator only (A) and decentralized autoclaving coupled with an incinerator (B).	A: 1,544,000 B: 1,767,000
Pakistan	A waste management scenario of segregation into medical waste and general waster, then 1) Medical waste: Incineration with transporting by motorbikes, then landfilling; 2) General waste: material recovery or composting, then landfilling; is compared to segregation with landfilling of general waste and incineration of medical waste, then landfilling (A), and incineration and then landfilling of all waste (B).	A: 538 per tonne of waste (114%) B: 1110 per tonne of waste (106%)
Malaysia	Segregation and recycling of waste of phacoemulsification surgery	0.139 per case
China	Plastic recycling of the healthcare system	868,700,000 (57%)
Haiti	Mainstreaming the use of cardboard sharps healthcare waste containers	-
Egypt	A newer incinerator including a high performance scrubber control system and good practice processes by an experienced operator	-
China	Medical waste management of a city through microwave sterilization with landfill medical waste disposal technology is compared to rotary kiln incineration (A), pyrolysis incineration (B), plasma melting (C), and steam sterilization with landfill (D)	30 (18%) – 551 (80%)

Other

Country	Area	Description	Reduction CO_2(e) kg / year unless otherwise stated (% if known)
Malaysia	Heating and cooling	An eight-row heat pipe heat exchanger system added to the air conditioning system in one orthopaedic ward in a university hospital	314 (147%)[b]
India	Anaesthetic gases	Induction dose only sevoflurane during paediatric ophthalmic examination for children aged 1-5	7700 (22%) per day of 10-12 procedures
China	Building design	The energy consumption of an outpatient hospital lobby building design of a lobby of 16 m2 with two exterior walls, south oriented at the same height as the rest of the hospital	186 - 1011[b]
India	Operations and logistics	Usage of multiuse pharmaceuticals, a short surgical duration and a quick turnaround time during cataract surgery	124 (95%) per case

Conclusion

- Momentum
- Promising interventions
- Sustainability & Scalability
- Limitations
- Integration adaptation
- Grey literature

The time is now.

Funding

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LONDON SCHOOL of HYGIENE &TROPICAL MEDICINE

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Costing

Ref, Country	Intervention	Costs ($)	Payback period	ROI	IRR
(25), Bangladesh	A photovoltaic (PV)/Converter/Wind/Battery/Generator energy generation system	NPC: 69,377,300	7 years	10%	13%
(28), India	A 5-kWp on-grid solar photovoltaic rooftop system	Initial capital: 3658	7.1 years		
(29), Malaysia	A grid connected PV-fuel cell-battery system	NPC: 98,318			
(32), Philippines	A solar PV panel energy system with (32.1) and without (32.2) grid-connection	NPC: 27.1: 87,139 27.2: 146,284	32.1: 9.7 years 32.2: 4.5 years	32.1: 6.10% 32.2: 15.90%	32.1: 9.00% 32.2: 20.80%
(34), India	A solar PV panel	Initial capital: 12,000	4 years		
(35), Nigeria	Optimal hybrid renewable system configurations for electricity generation	NPC: 71,210 - 108,920			
(37), India	A solar PV tunnel dryer for surgical cotton	NPC: 10,660	3.38 years		86-150%
(39), India	A PV-diesel–battery energy system	NPC: 13,523	9.9 years		

Considering adaptation

Type of interlinkage	Definition	Action	Primary objective	Interlinkage explained
Co-benefit	"When a plan, policy or measure that aims to enhance an adaptation (mitigation) objective leads simultaneously to the enhancement of mitigation (adaptation) objective"	Hospital-wide passive heating and cooling system	Mitigation	Cooling can also be used in warm months to adapt to high temperatures
Synergy	"An interaction between an adaptation and a mitigation plan, policy, strategy or practical measure that produces an effect greater than the constituent components"	Green hospital rooftops	Adaptation and mitigation	Increase in energy efficiency of the hospital and a decrease in water runoff
Conflict	"A plan, policy or measure that counteracts or undermines one or more planning goals between adaptation and mitigation"	Individual air conditioning in hospital rooms	Adaptation	Increased use of individual, unsustainable air condition units to adapt to increased heat cause increased emissions
Trade-off	"A situation that necessitates choosing (balancing) between one or more desirable, but sometimes conflicting, plans, policies or measures"	Medical supply chain	Adaptation or mitigation	Challenges to set priorities in the supply chain due to reducing and reusing (mitigation) versus increasing supplies in preparation for health emergencies (adaptation)

Adapt: Grafakos S, Trigg K, Dhakal S. Analytical framework to evaluate the level of integration of climate adaptation and mitigation in cities. Vol. 154, CLIMATIC CHANGE. 2019.

PRISMA Flowchar

CONFIDENTIAL

PRISMA Flow Diagram for the new systematic review on mitigation interventions across health care operations, energy and supply chains in the context LMICs as adjusted from Page MJ, McKenzie JE, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD, Shamseer L, Tetzlaff JM, Akl EA, Brennan SE, et al. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. BMJ [Internet]. 2021;372.

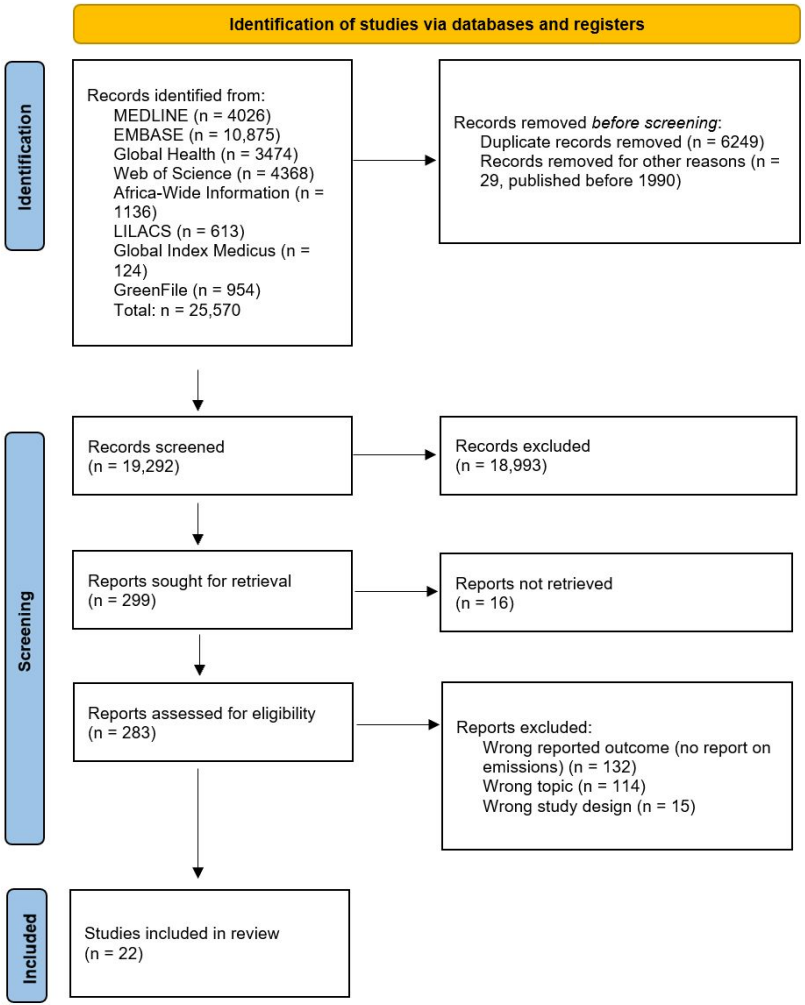

Figure 1 PRISMA Flow Diagram as adjusted from Page et al. (21)

Conceptual Framework

Problem Statement

Impact / Aim

Assumptions

Outcomes

Outputs

Potential risk and Barriers

Conceptual Framework

Problem Statement

- Impact of climate change on human health
- Impact of the health care system on climate change
- Synergies or co benefits with adaptation
- Paucity of evidence, particularly in Low- and Middle-Income Settings

Conceptual Framework

Impact / Aim

- Advance health care system through GHG mitigation
- Knock on effect: reduction of climate risk
- Indirect effect: catalytic effect on local and national climate goals

Conceptual Framework

Assumptions

- Delivery assumptions
- Impact assumptions
- Possible unintended consequences
- Theory of change process assumptions

Conceptual Framework

Outcomes

- A reduction of GHG emissions of health care operations (Scope 1)
- A reduction of GHG emissions of health care electricity (Scope 2)
- A reduction of GHG emissions of health care supply chains (Scope 3)
- A cobenefit or synergy of the mitigation intervention with actions contributing to climate change adaptation

Conceptual Framework

Outputs | Actions reducing GHG emissions and reducing loss of life or disability

- Scope 1
- Scope 2
- Scope 3
- Adaptation

Conceptual Framework

Potential risk and Barriers

- Financial barriers
- Lack of adequately trained health workforce
- Lack of access to technology
- Lack of support and awareness

Conceptual Framework

Problem Statement

Impact / Aim

Assumptions

Outcomes

Outputs

Potential risk and Barriers

CLIMATE CHANGE-RELATED VOTING RECORDS OF SKINPAC-SUPPORTED MEMBERS OF THE 117TH CONGRESS: A CROSS-SECTIONAL STUDY

VANDERBILT UNIVERSITY MEDICAL CENTER

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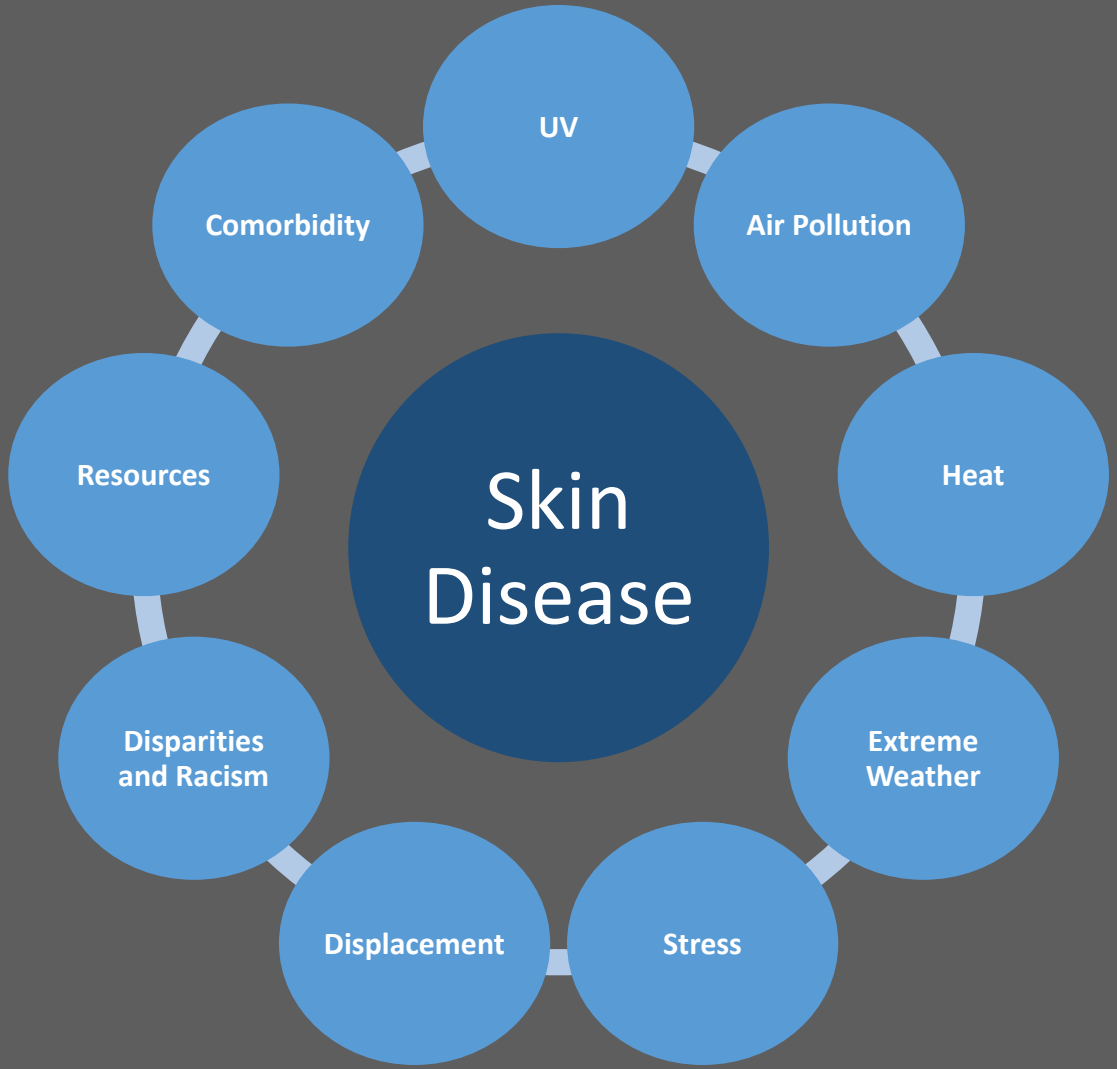
BACKGROUND

The Multifactorial Impact of Climate Change on Cutaneous Disease



Dermatologist beliefs on climate change

97%

believe that human behavior is contributing to climate change

96%

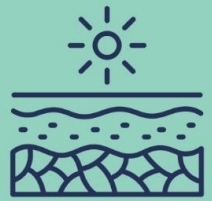
believe that climate change is occurring

94%

are concerned about climate change

89%

believe that climate change will impact the incidence of skin diseases in their areas



88%

believe that dermatologists should play an advocacy role in climate change-related health issues

86%

believe that climate change will affect their life

https://www.aad.org/dw/monthly/2021/december/facts-at-your-fingertips-climate-change

American Academy of Dermatology Association

Position Statement
On
Climate and Health
(Approved by the Board of Directors: July 28, 2018)

There is a strong consensus among professional societies of physicians that the health and well-being of Americans are being adversely affected by climate change, and that these health concerns will continue to worsen as climate changes advance. Moreover, it is apparent that the very young and very old, as well as those of low-income and minority communities, are and will continue to be disproportionately affected by climate change.

There are many dermatologic consequences of climate change that will increasingly affect our patients and challenge our membership. In recognition of the importance of climate change to the health and well-being of our patients, the American Academy of Dermatology resolves to:

- Raise awareness about the effects of climate change on skin health and skin disorders;
- Work with other medical societies in ongoing and future efforts to educate the public and to mitigate the effects of climate change on global health;
- Educate our patients about the effects of climate change on the health of their skin; and
- Support and facilitate efforts of our members to decrease the carbon footprint of their dermatology practices and medical organizations in a cost-effective (or cost-saving) manner.

POLITICAL ACTION COMMITTEES (PACS)

- Used by med societies as a lobbying tool
- SkinPAC = American Academy of Dermatology's (AAD) PAC
  - $1.48 million given in 2019-2020
- AAD Advocacy Mission:
  - "Adapt to the shifting healthcare landscape while contributing to policies that protect the quality of dermatologic care"
- Incongruence between PAC contributions and legislators' voting records with respect to positions on public health issues

skinpac.org/aboutus.aspx?

Schuur et al. JAMA Netw Open. 2019;2(2):e187831

Sharfstein et al. New England Journal of Medicine. 1994;330(1):32–7

STUDY DESIGN

- Cross-Sectional Analysis
- SkinPAC contributions to members of 117th U.S. Congress
  - January 3, 2021 to January 3, 2023
- Key environmental legislation selected from the League of Conservation Voters' scorecard (https://scorecard.lcv.org/)
- Voting records for these bills (www.congress.gov) and 2021-2022 SkinPAC contributions were compared (www.fec.gov/data/committee/C00359539/)
  - A vote for bill passage aligned with the AAD's position statement

LEGISLATION

- S.J. Res. 14 - Congressional Disapproval of Oil and Natural Gas Sector
  - House:Vote: 06/25/21 | Senate Vote: 04/28/21
- H.R. 803 - Protecting America's Wilderness and Public Lands Act
  - House Vote: 02/26/21
- H.R. 5376 - The Inflation Reduction Act
  - House Vote: 11/19/21 | Senate vote: 08/07/22
- Senate Treaty Doc. 117-1 - Amendment to the Montreal Protocol on Substances that Deplete the Ozone Layer
  - Senate Vote: 09/21/22

RESULTS

SkinPAC contributions during the 117th Congress:

- $841,500 total
- 185 congressional campaigns

CHAMBER	BILL OR RESOLUTION NAME (NUMBER)	DATE OF VOTE	CONTRIBUTIONS TO MEMBERS VOTING IN FAVOR			CONTRIBUTIONS TO MEMBERS VOTING AGAINST		
			Number of congressional members receiving contributions	Total contribution	Median (range) of contributions	Number of congressional members receiving contributions	Total contribution	Median (range) of contributions
House	Joint Resolution for Congressional Disapproval of Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources Review (S.J.Res.14)[a]	6/25/2021	91	$411,500	$3500 ($1000-$10,000)	65	$308,000	$4000 ($1000-$10,000)
	Protecting America's Wilderness and Public Lands Act (H.R.803)[b]	2/26/2021	91	$411,500	$3500 ($1000-$10,000)	66	$309,000	$3500 ($1000-$10,000)
	Inflation Reduction Act (H.R.5376)[c]	11/19/2021	92	$410,000	$3750 ($1000-$10,000)	67	$317,500	$3500 ($1000-$10,000)
Senate	Joint Resolution for Congressional Disapproval (S.J.Res.14)[a]	4/28/2021	12	$56,500	$5000 ($1000-$10,000)	11	$45,000	$5000 ($1000-$10,000)
	Inflation Reduction Act (H.R.5376)[c]	8/7/2022	12	$56,500	$5000 ($1000-$10,000)	12	$47,500	$5000 ($1000-$7500)
	Amendment to Montreal Protocol ("Kigali Amendment") (Treaty Document 117-1)[d]	9/21/2022	18	$86,000	$5000 ($1000-$10,000)	6	$18,000	$3000 ($1000-$5000)

CONCLUSIONS

- Other legislative priorities likely drive contributions, *NOT* position statements on public health issues
- Climate impacts are a threat multiplier for health, equity, and the health sector
- Tremendous opportunity for action
  - Prioritization of SkinPAC contributions to candidates with favorable voting records on environmental legislation
  - Track alignment between monetary political contributions and Congressional voting records regarding AAD positions on critical public health issues

If not us, WHO?

If not now, WHEN?

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Journal of Climate Change and Health Virtual Special Issue:

Climate and Health through a Health Specialty Focused Lens

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What is a Scoping Review?

- Protocol-driven literature review
  - Overview of what's been written in a field
    - Surveys large databases
      - Medical librarian
    - Primary research +/- reviews, other
    - "Grey literature"
      - Conference proceedings, policy papers
- May ask specific focused questions
- Assesses themes, gaps, "take-home lessons"

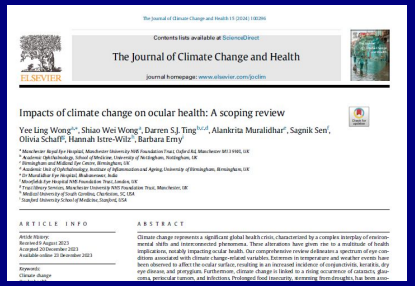
Journal of Climate Change and Health Virtual Special Issue:

Climate and Health through a Health Specialty Focused Lens

- **Invited Scoping Reviews from each specialty**
  - **What are the health impacts of climate change you are seeing in patients in your specialty?**
  - **Author teams**
    - **North America/Europe / HIC academic center**
    - **International / LMIC / under-represented partner**
    - **Trainee/junior faculty**
    - **Bigger teams and narrower question for larger specialties**
- **Preliminary findings presented at Climate & Health 2023 (NY, October 20-22, 2023) (climatehealth2023.com)**

Which Specialties?

- **Published**
  - *Surgery, Ophthalmology, Neurology*
- **Submitted**
  - *Palliative Care, Psychiatry/Psychology, Respiratory Care*
- **In process**
  - *Allergy/Immunology, Anesthesia, Cardiology, Dermatology, Emergency Medicine, Endocrinology, Forensic Pathology, Geriatrics, Infectious Disease, Nephrology, Oncology, Pediatrics, Physiatry, Primary Care, Rheumatology, Women's Health*



Examples of specific questions addressed in scoping reviews

- **How has climate change affected**
  - ***Risk of developing cancer?***
  - ***Outcomes for patients with cancer?***
  - ***Delivery of care for oncology patients?***
- **How has climate change affected**
  - ***Access to reproductive health services?***
  - ***Attitudes towards family size choices?***

Emerging Themes and Gaps

- Themes
  - Heat effects identified in nearly all specialties
  - Role of nutrition identified in several specialties
  - Connecting to vulnerable populations
  - Access to care
- Gaps
  - Lack of studies from the Global South
  - Variable disease groupings used in studies, for example CVD in aggregate or not.

Some Takeaways

- There were a lot of papers on climate change and health!
  - Numbers are increasing over time and geographically
  - Recognize challenges in some settings to perform studies
- Climate change can
  - promote conditions for agricultural pathogens that are carcinogenic
  - increase the incidence of cataracts and retinal detachment
  - impede access to basic surgical care

Conclusions

- **Virtual Special Issue on Specialties**
  - **Useful resource**
  - **Snapshot in time**
  - **Identifies gaps in research**
  - ***Can use for advocacy in your specialty and hospital***
- **REVIEWERS WELCOME!**
- **Stay tuned for new articles in this issue over upcoming weeks/months**

Thank you