# Getting started: climate change and health vulnerability & adaptation assessments

24th April 2024

9:30 - 11:00

15:00 - 16:30







**AM session: French and Arabic PM session: French and Spanish** 



## To activate interpretations (in English):

- Click on the interpretation icon.
- 2. Select "English"
- **3. Optional :** mute original audio

## Pour activer les interprétations (en français):

- Cliquez sur l'icône d'interpretation
- 2. Sélectionnez "Français"
- 3. Facultatif: couper le son d'origine

## Para activar interpretación (en español)

- 1. Haga clic en el icono de interpretación.
- 2. Seleccionar "Español"
- Opcional: silenciar el audio original

لتفعيل التفاسير باللغة العربية

- اضغط على أيقونة .1 التفسير.
  - اختر "العربية" 2.
  - اختياري: كتم .3. الصوت الأصلي



Time	Agenda item	Speaker
9:30 – 9:35	Opening remarks	Dr Diarmid Campbell-Lendrum, Unit Head, Climate Change and Health Unit, WHO
9:35 – 10:05	Getting started: climate change and health vulnerability & adaptation (V&A) assessments	Dr Carlos Corvalan, Consultant, Climate Change and Health Unit, WHO
10:05 – 10:15	Country experience: planning a climate change and health V&A assessment	Dr Perdinan, PhD, PIAREA Environment and Technology - WHO Consultant for VAA, Indonesia
10:15 - 10:40	Interactive activity – Planning the V&A	
10:40 – 10:55	Feedback	Dr Carlos Corvalan
10:55 – 11:00	Summary and webinar close	Dr Carlos Corvalan Dr Amy Savage, Technical Officer, Climate Change and Health Unit, WHO



Time	Agenda item	Speaker
15:00 – 15:05	Opening remarks	Dr Diarmid Campbell-Lendrum, Unit Head, Climate Change and Health Unit, WHO
15:05 – 15:35	Getting started: climate change and health vulnerability & adaptation (V&A) assessments	Dr Carlos Corvalan, Consultant, Climate Change and Health Unit, WHO
15:35 – 15:45	Country experience: planning a V&A assessment	Dr. John Bosco Isunju (PhD) Disease Control & Environmental Health Dep't Makerere University School of Public Health, Kampala, Uganda
15:45 - 16:10	Interactive activity – Planning the V&A	
16:10 - 16:25	Feedback	Dr Carlos Corvalan
16:25 - 16:30	Summary and webinar close	Dr Carlos Corvalan Dr Amy Savage, Technical Officer, Climate Change and Health Unit, WHO





Getting started: climate change and health vulnerability & adaptation assessments







## By the end of this training module learners will be able to:



Frame and scope the V&A according to their context



Understand the WHO V&A process and methods



Identify the appropriate information sources and data collection methods for their V&A



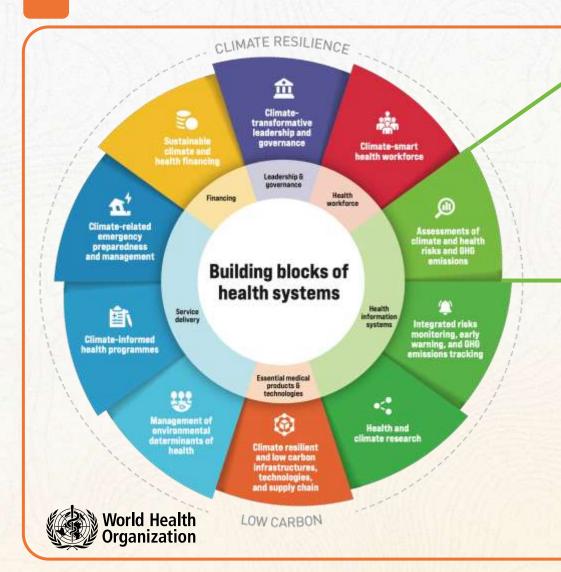
Understand the importance of V&As for building climate resilient health systems



Apply the 6 steps of the V&A



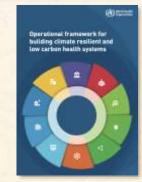
## **Operational Framework**



## Vulnerability and adaptation assessment

#### Objective:

To provide basic and flexible guidance on conducting a national or subnational vulnerability and adaptation assessment of current and future vulnerability to the health risks of climate variability and change, and the policies, programmes, and capacities of health systems that could increase resilience, taking into account the multiple determinants of climate-sensitive health outcomes.



## **Vulnerability factors**



Based on Gamble JL, Balbus J, Berger M, et al. Populations of concern. In: The impacts of climate change on human health in the United States: a scientific assessment. Washington, DC: U.S. Global Change Research Program; 2016; and Quality criteria for health national adaptation plans. Geneva: World Health Organization; 2021.

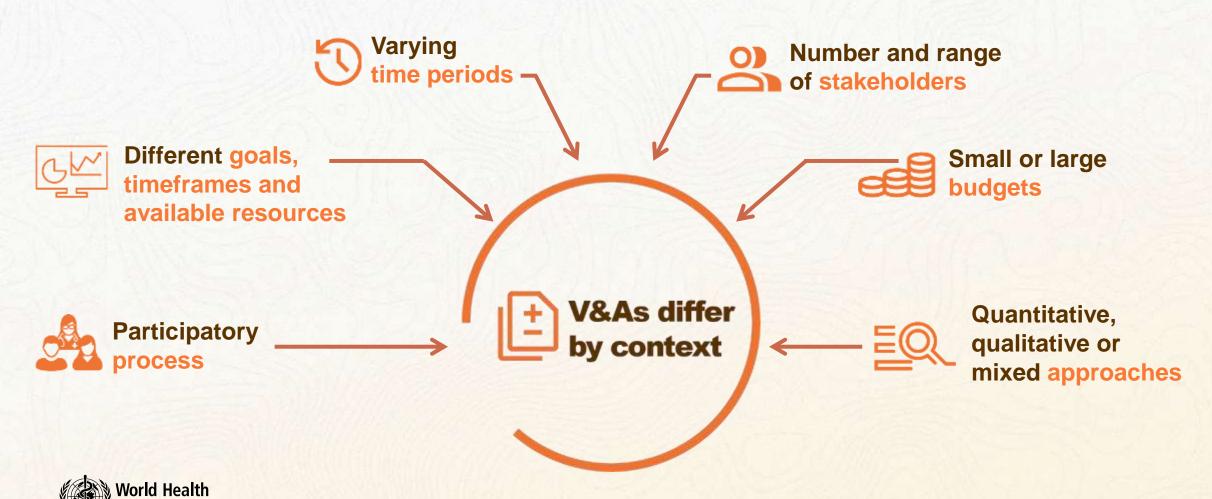


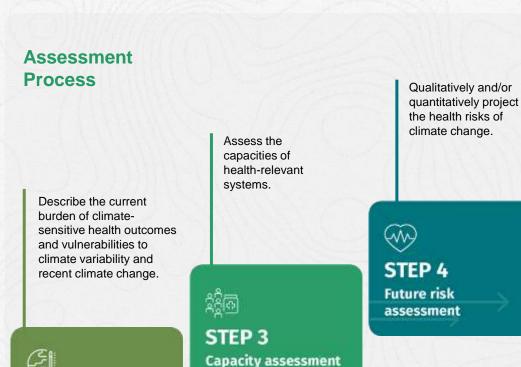
Kari

/Anna

WHO

## Adapt the process to the local context





Identify and prioritize policies, programmes and actions to address current and projected health risks.



Adaptation assessment

STEP 6
Synthesis

Synthesize the assessment as input into a health adaptation plan (and other relevant climate change and health policies, plans, and reporting mechanisms).

Iterative process for managing and monitoring the health risks of climate change.





Establish a project team and management plan, including representatives from other departments and ministries.

#### Step 1B

Identify the questions to be addressed and the policy context.

#### Step 1C

Define the health risks, outcomes, geographical region and time period that will be the focus of the assessment.

#### Step 1D

Establish a stakeholder process, including populations that could be affected by climate change.

#### Step 1E

Identify information and data to inform the assessment.

#### Step 1F

Develop a communication plan.







Establish a project team and management plan, including representatives from other departments and ministries.

### Step 1B

Identify the questions to be addressed and the policy context.

### Step 1C

Define the health risks, outcomes, geographical region and time period that will be the focus of the assessment.

## Step 1D

Establish a stakeholder process, including populations that could be affected by climate change.

## Step 1E

Identify information and data to inform the assessment.

### Step 1F

Develop a communication plan.





Establish a project team and management plan, including representatives from other departments and ministries.

Step 1B Step 1C

Step 1D

Step 1E

Step 1F

#### **Should include:**

Timeline

Roles

Responsibilities

Budget



Ministry of Health (MoH) is recommended



Management Plan

#### Will define:



Scope



Goals



Specific experts to include in the project team



Core members of the Project Team

### How to establish the project team:

Experienced experts, people from various MoH departments, and other institutions or.

**For example:** if the focus is on vector-borne diseases, include entomologists, public health specialists, representatives of the health care system, meteorologists, and officials in related areas.





Step 1B

Identify the questions to be addressed and the policy context.

Step 1C

Step 1D

Step 1E

Step 1F

Set goals of the assessment

## Choose appropriate questions

Ministry of Health (MoH) is recommended

#### How to set goals:

- 1. Understand MoH priorities
- 2. Collaborate with stakeholders
- 3. Determine human and financial resources available, capacity levels, and strategic goals

Determine the information needed to help reduce health risks from current climate variability and prepare for future climate change

### For example:

- Which regions and populations are most vulnerable?
- Current burden and distribution of climate-sensitive health outcomes?
- Which other factors determine vulnerability?
- Estimated costs & benefits of proposed policy changes?





Step 1B

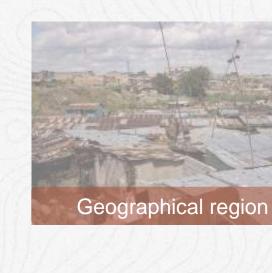
Step 1C

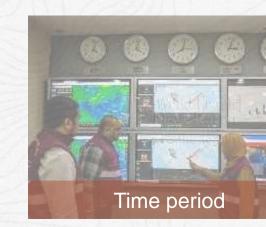
Step 1D

Step 1E

Step 1F

Define the health risks, outcomes, geographical region and time period that will be the focus of the assessment.











Health risks & outcomes

Step 1B

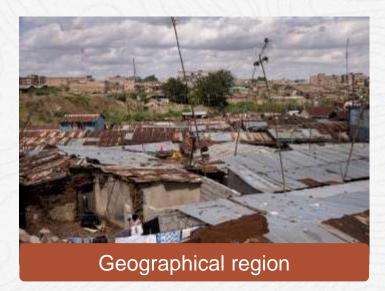
Step 1C

Step 1D

Step 1E

Step 1F

Define the health risks, outcomes, geographical region and time period that will be the focus of the assessment.









Step 1B

Step 1C

the assessment.

Define the health risks,

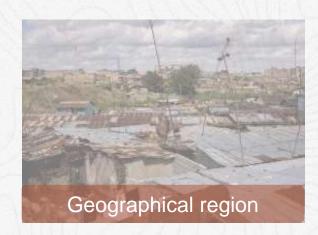
outcomes, geographical region and time period that will be the focus of

Step 1D

Step 1E

Step 1F











Step 1A Step 1B

Step 1C

the assessment.

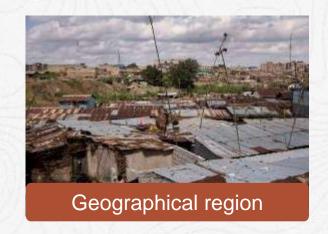
Define the health risks, outcomes, geographical region and time period that will be the focus of

Step 1D

Step 1E

Step 1F









Consider other factors that affect vulnerability





Step 1B

Step 1C

Step 1D

Establish a stakeholder process, including populations that could be affected by climate change.

Step 1E

Step 1F

### **Engagement process**

- Initially in the framing and scope of the assessment
- Throughout the assessment

Establish a process for gathering and incorporating stakeholder input

## Stakeholder representation could include:

Health programmes

- Organisations and institutions knowledgeable about climate change and development
- Policy-makers at national and sub-national levels
- Communities and vulnerable groups that will be affected by climate change and policies



Step 1A Step 1B

Step 1C

Step 1D

Step 1E

Identify information and data to inform the assessment.

Step 1F

## PEER REVIEWED LITERATURE

Sensitivity analyses, projections

#### **GREY LITERATURE**

Burden of climate-sensitive health outcomes and management approaches

#### **HEALTH DATA**

The prevalence of climatesensitive diseases and the causes of morbidity and mortality

### **COMMUNITY REPORTS**

Key vulnerability factors ethnographic and anthropological documents

#### **CLIMATE DATA**

Historical climate data, trends in temperatures, occurrence and intensity of extreme weather events

## VULNERABILITY FACTOR DATA

Levels of population exposure factors, sensitivity, coping capacity





Step 1B

Step 1C

Step 1D

Step 1E

Step 1F

Develop a communication plan.

## VARIETY OF FORMATS:

- Executive summaries
- Infographics
- · Decision-maker briefs
- Presentations

- Podcasts
- Newsletters
- Social media
- · Visual digital media



Develop it at the start of the V&A assessment

Use the communication plan to:



Share results



Engage and inform project progress to stakeholders



Give credibility and legitimacy

#### **COMMUNICATION PLAN INCLUDES:**

- · Summary of the assessment process
- · List of target audiences and information needs
- Planned communications products
- · Mechanisms for delivery

- · A timeline for execution
- Stakeholder participation
- A summary of high-priority policies and programmes recommended.

#### **SEE MORE:**

UNFCCC Strategic plan for stakeholder engagement, communications and resource mobilization.



## THANK YOU!

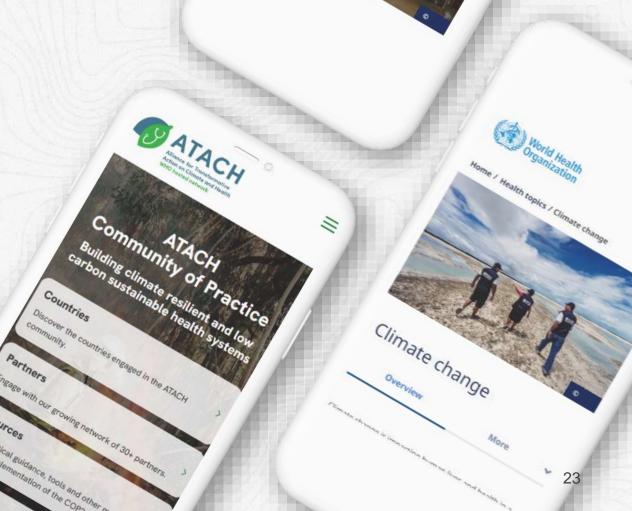
### **Environment, Climate Change and Health**

https://www.who.int/teams/environment-climate-changeand-health

### **Climate Change**

https://www.who.int/teams/environment-climate-changeand-health/climate-change-and-health

Email: healthclimate@who.int





## Indonesia experience: planning a climate change and health V&A assessment

Dr Perdinan, PhD
PIAREA Environment and Technology - WHO
Consultant for VAA, Indonesia



## Uganda experience: planning a climate change and health V&A assessment

## Dr. John Bosco Isunju (PhD)

Disease Control & Environmental Health Dep't Makerere University School of Public Health, Kampala, Uganda







## French and Arabic interpretation only in the main room Interprétation française et arabe uniquement dans la salle principale الترجمة الفورية للفرنسية والعربية متوفرة فقط في الغرفة الرئيسية

#### **Breakout rooms**

Main room (stay here):

Stakeholders & communication plans

(English, French and Arabic)

**Breakout room 1:** 

Project team & stakeholders

(English only)

**Breakout room 2:** 

Aims, questions, and policy context

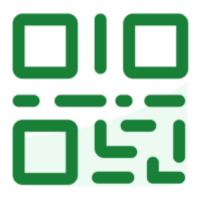
(English only)

**Breakout room 3:** 

Health risks, geographical scope, and data sources (English only)



## slido



## Join at slido.com #WHOCCH

## slido



## What are your key takeaways from this session?

## WHO Technical Webinar Series



https://www.who.int/news-room/events/detail/2024/04/24/defaul t-calendar/who-technical-webinar-series-on-climate-change-and-health



Date & time (CEST)	Topic*
24 <sup>th</sup> April 2024	Getting started: climate change and health vulnerability & adaptation assessments
30 <sup>th</sup> April 2024	WHO as an Accredited Implementing Entity of the Adaptation Fund; Accessing AF funding for Climate Change and Health
12 <sup>th</sup> June 2024	Developing a Health National Adaptation Plan: Introduction
19 <sup>th</sup> June 2024	GIS and risk mapping in climate change and health vulnerability & adaptation assessments
10 <sup>th</sup> July 2024	Climate resilient and environmentally sustainable health care facilities
17 <sup>th</sup> July 2024	Quantitative approaches for Vulnerability & Adaptation assessments: sensitivity analyses and projecting future health risks of climate change
18 <sup>th</sup> Sept 2024	Integrating health in NDCs and LT-LEDS
25 <sup>th</sup> Sept 2024	Developing a Health National Adaptation Plan: Quality criteria for HNAPs
16 <sup>th</sup> Oct 2024	Conducting a gender analysis for climate change and health vulnerability & adaptation assessments



# Indonesia Vulnerability and Adaptation Assessment (VAA)

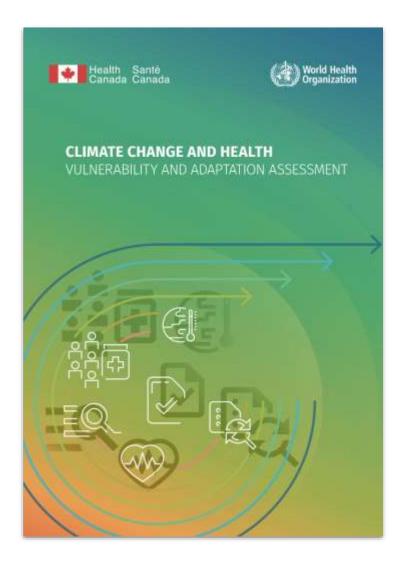
Presented in WHO Webinar on 24 April 2024

(Getting started: climate change and health vulnerability & adaptation assessments)

## All data and information presented is the result of activity analysis

"Development of Health Adaptation Strategy through Vulnerability and Adaptation Assessment (VAA) in 2022 - 2023"

The Process of VAA Indonesia using the WHO Guidelines



## **Objectives of VAA Indonesia**

## The purpose of Vulnerability and Adaptation Assessment (VAA) in Indonesia is to:

- 1.Enhance the evidence and understanding of the current relationship between weather/climate and health outcomes;
- **2.Provide information to health officials, stakeholders, and the public** about the magnitude and patterns of current and future health risks associated with climate variability and change, including populations most vulnerable to these risks;
- **3.Identify opportunities to integrate climate change issues into existing policies and programs** designed to manage weather and climate-related health risks and to develop new programs as needed to prevent and reduce the severity of future risks;
- **4.Serve as a foundational analysis for monitoring** future changes in risks, policies, and programs that can be assessed; and
- **5.Foster collaboration with other related sectors** such as water and infrastructure to further promote activities to improve population health in a changing climate.

## **Methodology**

#### **Plan the Assessment**

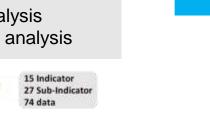
- Kick-off
- Desk review and initial analysis
- Data identification, compilation, and analysis
- Focus group discussion

## Vulnerability Assessment

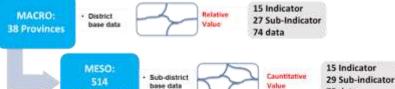
- Desk review
- Focus group discussion
- Baseline analysis
- Vulnerability analysis

Village

base data



75 data



MICRO:

4,096 villages

Districts/City

E: Exposure; S: Sensitivity C: Adaptive Capacity; R: Risk

Source: Minister of Environment and Forestry No. 7 (2018)

Tiered Analysis

15 Indicator 27 Sub-Indicator 82 data

## Capacity Assessment

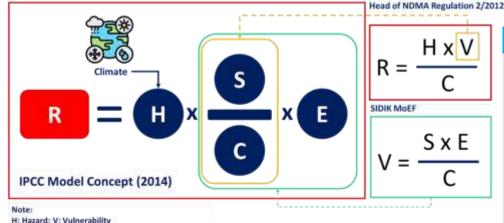
- Focus group discussion
- Capacity analysis: current health system capacity to address health-climate risks



## **Synthesize Assessment**

- In-depth analysis
- Focus group discussion

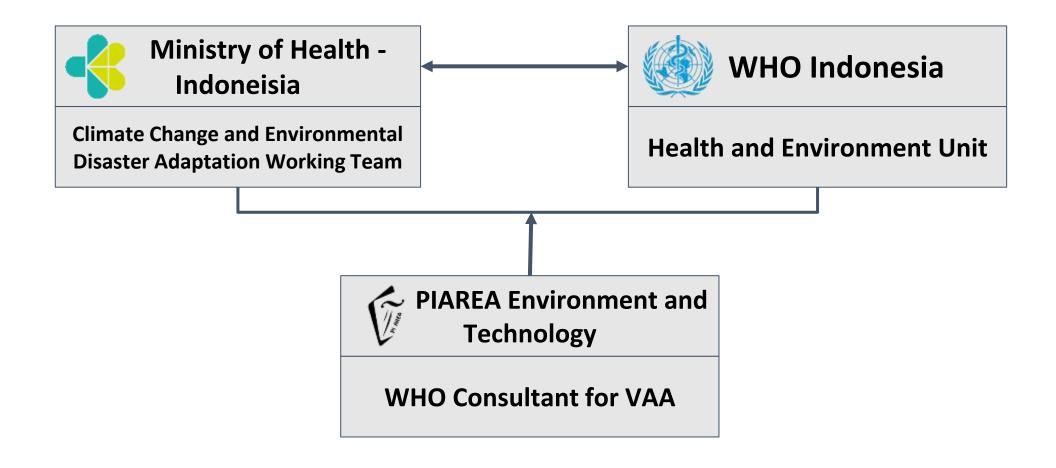




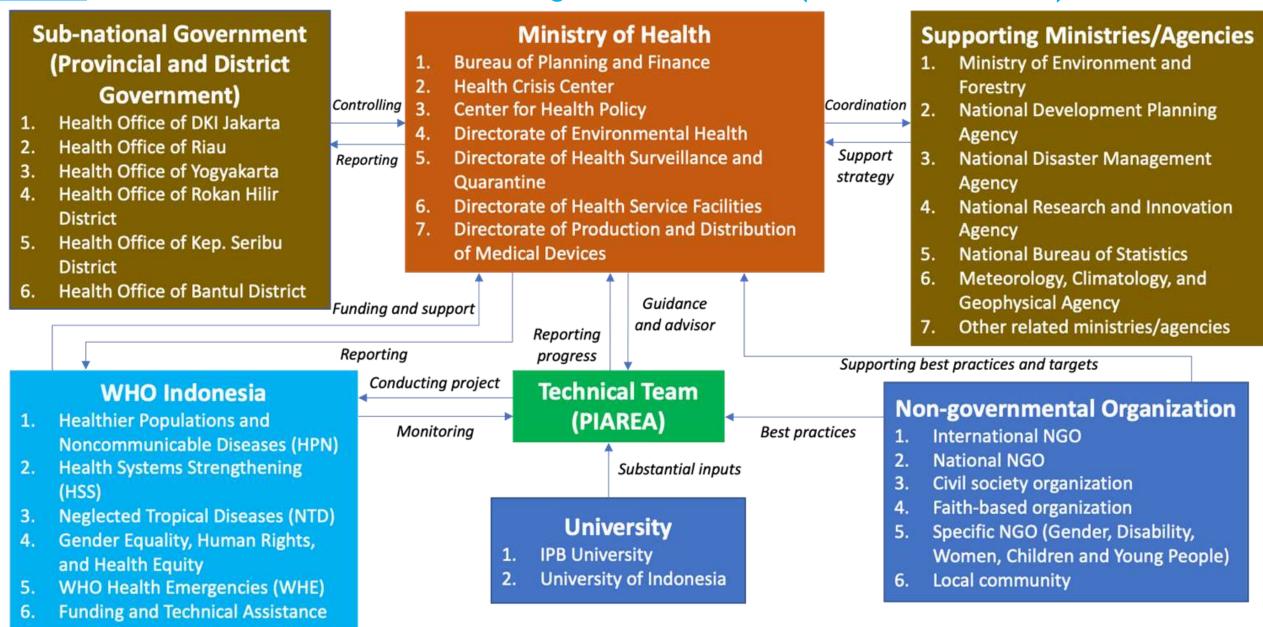
### **Future Risk Assessment**

- Current and future climate risk of health sector
- The development of the approach: risk, vulnerability, hazard, and exposure

## Plan the Assessment - Forming the VAA Team (Core Team)

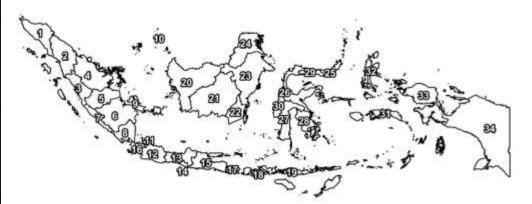


## **Plan the Assessment - Forming the VAA Team (Multistakeholder)**



## Plan the Assessment - Establish the Context, Coverage and Period

Key Question	Response
Health Risks And Outcomes Sensitive To Weather And Climate	Health sector has been incorporated into the national climate resilient development policies as a priority area (such as dengue and malaria diseases).
The Current Burden Of Climate- Sensitive Health Outcomes	Climate change poses health risks, straining insurance, disrupting healthcare, and adversely impacting indigenous communities, especially in remote areas.
Other Factors Determine Vulnerability Of Populations And Health Systems	Decreased immune system, Clean water facilities, water channel, demographics, Unclean living behavior, Poor sanitation, low water quality, the volume of waste is excessive and piling up.
The Burden Of Climate-Sensitive Health Outcomes Changes Upcoming Decades	increasing the number of patients converted to the influence of GDP.
Health Impacts Of Climate Change Over Upcoming Decades And Longer Term	Expansion of prone areas to vector-related diseases, increased disease due to extreme weather, and longer dry seasons which also have implications for food security (connection to malnutrition due to rising food prices).
Additional Public Health Interventions Needed For Effective Risk Management	Community empowerment as a preventive effort to respond to future climate risks and Early warning systems based on local context



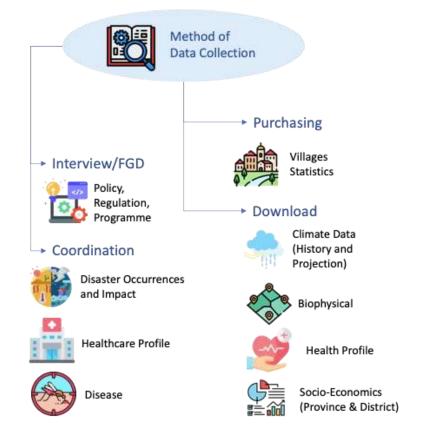
Map of Indonesia based on provincial level. Note: Number is ID of provincial

Developing the VAA follows WHO 2021 standards, scheduled for November 2022 to October 2023 (12 months). The analysis focused on central-level examination, assessing hazards, vulnerabilities, and risks in 34 provinces, 514 districts/cities, and 84,096 villages.

Indonesia on climate change already has guidance on climate change risk and impact assessment adopted based on the **2014 IPCC** framework. The guidelines have been formalized in the form of **MoEF** ministerial regulation No. 7/2018. The guideline stipulates that the scope of analysis has 3 layers including National (macro), Province-District (meso), and Village (site).

#### Plan the Assessment - Data and Information

Component	Indicators	Source of Data	
Sensitivity	Health Status and Biological Factors	BPS, MoH	
	Regional Geographic Factors	MoEF, BNPB, BPS	
	Disaster	BNPB	
	Socioeconomic Factors	BPS	
	Environmental Quality	BPS	
	Lifestyle Behavior	MoH, BPS	
Adaptive Capacity	Resources for Anticipating Disasters and the Impact of Climate Change	BPS	
	Health Workers	MoH, BPS	
	Medical Facility	MoH, BPS	
	Environmental Health Program	MoH, BPS, MoEF	
	Household WASH	BPS	
Exposure	Demographic Factors	BPS, AMAN	
	Vulnerable Groups	BPS	
Hazard	Climate	NASA (AR6), BMKG	
	Biophysical	BIG, MoEF	



- BPS: Badan Pusat Statistik (National Bureau of Statistics)
- MoH: Ministry of Health
- MoEF: Ministry of Environmental and Forestry
- BMKG: Badan Meteorologi, Klimatologi, dan Geofisika (Meteorological, Climatological, and Geophysical Agency)
- BIG: Badan Informasi Geospasial (National Geospatial Agency)
- AMAN: *Aliansi Masyarakat Adat Nusantara* (Indigenous Peoples Alliance of the Archipelago)

### Plan the Assessment - Communication Design

Activities	Audience	Involved Project Team	Goals	Schedule	Format	Media
Kick-Off Meeting	All project stakeholders (WHO, PIAREA, MoH, Ministries, Agencies, Provincial Boards, NGO,	Adviser, Operational Team, Technical Team	Introduce the project to stakeholders, manage expectations and set goals	One time event (done)	Meeting, project charter document, presentation	Slide presentation
Consultative Meeting	WHO: Country Office, Regional Office, and HQ Office), PIAREA, MoH	Adviser, Operational Team, Technical Team	Review status, manage performance, clear issues	Bi-weekly	Meeting	Slide presentation, the raw data, and visualization
FGD dan Workshop	All project stakeholders as required  Government: Related Ministries/ Agencies  Non-Government: NGO, CSO, Private Sector, University	Adviser, Operational Team, Technical Team, Key Contributor	Discuss current activities and solve the problem	Following the general timeline for each phase	Meeting, breakout room discussion, presentation	Slide presentation and the key question form
Expert Consultation	Technical/core team (PIAREA, WHO, MoH)	Adviser, Operational Team, Technical Team	Review status, manage performance, clear issues	Tentative, based on needs	Meeting	Slide presentation, the raw data, and visualization

### **THANK YOU**

For more information, please contact:

perdinan@apps.ipb.ac.id

abbasits@who.int







# WHO Climate Change and Health Technical Webinar Series 2024

## Country experience: planning a climate change and health V&A assessment [UGANDA]

#### The Team

Dr. John Bosco Isunju (PI) isunju@musph.ac.ug

Makerere University School of Public Health (MaKSPH)

Dr. Justine Bukenya; Mr. Tonny Ssekamatte; Dr. Victoria Masembe; Dr. Chrispas Mayora; Dr. Philip Nyenje (MaKSPH)

Dr. Herbert Nabaasa; Mr. Didas B. Namanya (MoH) Dr. Suraj Shrestha (WHO)





# Selection of health risks, outcomes, and geographical locations



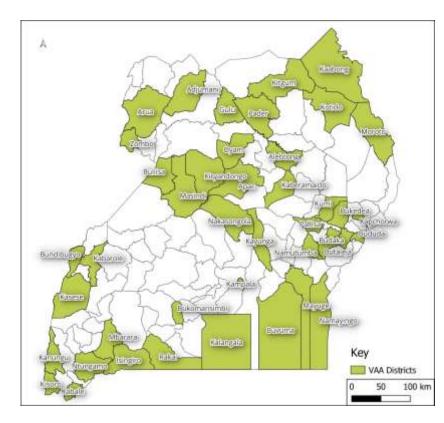
#### **Geographic location:**

• Districts selected based on the climate-related extreme events history such as

landslides, droughts, floods, storms and water level rise.

#### **Health risks and outcomes:**

- Injury and mortality from extreme weather events
- Water-borne diseases
- Non-communicable diseases
- Respiratory illnesses
- Malnutrition and food-borne diseases
- Zoonoses
- Vector-borne diseases
- Mental and psychosocial health









#### Core VAA project team

#### **Team composition**

- Public Health Specialist
- Environmental Health
- Medical doctor
- Health Policy & systems expert
- Health economist
- Health Geographer
- Hydrometeorologist

#### **Key stakeholders**

- Environmental Health
   Department, Ministry of Health
- Makerere University School of Public Health (MakSPH)
- Rockefeller Foundation
- World Health Organization



### Other key Stakeholders in the VAA process Makerere University School of Economics; Center for Climate Change Research and Innovation (MUCCRI)

Climate Change Department, Ministry of Water and Environment (MWE)

State Actors	

Academia

Uganda Management Institute (UMI)

Ministries, Departments, and Agencies (MDAs e.g., Agriculture, Lands and urban development, Gender and social development, Education and Sports, Transport and communications, Energy, etc.)

**Implementing** 

partners

Uganda National Institute Of Public HealthLocal Government and Urban Authorities

Uganda National Meteorological Authority (UNMA)

National Planning Authority (NPA)

Office of the Prime Minister (OPM)

UNICEF Uganda
Food and Agriculture Organization (FAO)

NGOs and CSOs

Regenerate Africa Palladium Group Amref Health Africa Dunia Nzuri Climate Outreach **Living Goods New Horizons WEC** Seed Global Health PATH/Transforming Communities Reproductive Health Uganda Youth and Adolescents Development Network (YADNET) UG Clinton Health Access Initiative (CHAI) Tree Adoption Uganda Thinkwell Global Womens Climate Center International **Terredes Hommes Netherlands** Climate Action Network Uganda Teda Farmer Infectious Diseases Institute (IDI) Chan ActionAid International Uganda Care International **Uganda Red Cross** 

## Data types, sources, challenges with access and how to overcome the challenges



#### **Primary data & sources**

- Quantitative (43 districts, 726 health facilities) and Qualitative assessment
  - Vulnerability to several climate change hazards including floods, storms, rising water levels, drought, heat waves and others
  - For each priority climate change hazard, the following dimensions were assessed.
    - Health Workforce
    - Water, sanitation and health care waste
    - Energy
    - Infrastructure, technology, products and processes

#### **Challenges with access**

- Accessibility; due to floods, bad road
- Heavy routine workload of respondents
- Waiting longer for people with information to be available
- Very long tools given the many hazards

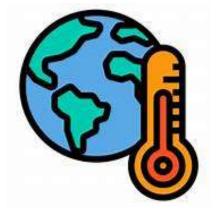
#### How to overcome access challenges

- Prior mobilization of participants
- Conducting <u>interviews centrally</u> at the district headquarters and <u>visiting sites for</u> <u>observations</u>
- Interviewing respondents in groups of 3-4 people to reduce fatigue





## Data types, sources, challenges with access and how to overcome the challenges



#### Secondary data & sources

- Climate-related health outcomes
  - Ministry of Health (MoH) DHIS2
- National Disaster Risk and Vulnerability Atlas
  - Office of the Prime Minister (OPM)
- Climate Risk Country Profile
  - Climate Change Knowledge Portal World Bank
- Uganda National Health Facility Atlas
  - MoH

#### **Challenges with access**

- Bureaucracies in access to data
- Data may not be updated
- Incompleteness of the data

#### How to overcome access challenges

- Identify the get-keepers and engage them
- Make use of pre-existing collaboration fora



### **Communication plan**

- Weekly update meetings key implementing partners
- Frequency of the meetings: weekly Zoom meeting within the core team
- Robust Core team with specified roles and coordination
- Modes of communication (physical meeting, online meeting, Emails, WhatsApp Group platforms, phone)







#### **Lessons learned**

- Mixed methods approach yielding complementary information for HNAP development
- In-depth relevant literature review and secondary data mining
- Ethical approval for the VAA, and publishing the findings in openaccess peer-reviewed journals enhance the credibility, access, and utilization of the findings.
- Engaging a broad range of stakeholders (government, academia, NGOs, UN agencies, CSOs etc.) fostered collaboration and ensured consideration of diverse perspectives.





### What would be helpful to other countries embarking on VAA? Where do they start? Who should they consider including and how?

- ✓ Develop a VAA and HNAP technical proposal detailing the methods/approach, timeframe and cost;
- ✓ Ensure availability of funds either from government or development partner or private sector;
- ✓ Identify the right consultant/institution to do the job;
- ✓ MoH should take a keen interest in all steps e.g., fieldwork for VAA, consultative workshops, reviewing the drafts of the reports and H-NAP
- ✓ Ensure all State and Non-State actors interested in Climate & Health are involved for ownership and support.
- ✓ Ensure all processes are aligned with the national development frameworks









#### Thank you!

isunju@musph.ac.ug

#### **Makerere University College of Health Sciences School of Public Health**

P.O.Box 7072 Kampala, Uganda

Tel: 256-414-543872

Email: dean@musph.ac.ug









https://sph.mak.ac.ug/

