



Department of Science and Technology - Philippine Council for Health Research and Development
University of the Philippines Manila Disaster Risk Reduction and Management for Health Program

National Health Research Agenda in Disaster Risk Reduction and Climate Change Adaptation **2023-2028**



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Acronyms

BARMM	Bangsamoro Autonomous Region in Muslim Mindanao
BHW	Barangay Health Worker
BNS	Barangay Nutrition Scholar
CALABARZON	Cavite, Laguna, Batangas, Rizal and Quezon
CAR	Cordillera Administrative Region
CCA	Climate Change Adaptation
ChatGPT-4	Chat Generative Pre-trained Transformer 4
DOH	Department of Health
DOST	Department of Science and Technology
DRR	Disaster Risk Reduction
DRRM-H	Disaster Risk Reduction and Management for Health
EMR	Electronic Medical Records
GIDA	Geographically Isolated and Disadvantaged Area
GHSF	Green and Safe Health Facilities
HIV	Human Immunodeficiency Virus
IP	Indigenous People
IEC	Information, Education and Communication
LGU	Local Government Unit
MIMAROPA	Mindoro Occidental, Mindoro Oriental, Marinduque, Romblon, and Palawan
NCR	National Capital Region
NGO	Non-Government Organization
NIEM	Nutrition in Emergencies
NHFR	National Health Facility Registry
NUHRA	National Unified Health Research Agenda
PNHRS	Philippine National Health Research System
PSA	Philippine Statistics Authority
PWD	Persons with Disability
RHU	Rural Health Unit
RUTF	Ready-to-Use Therapeutic Food
SO	Sanitary Officer
SOCCSKSARGEN	South Cotabato, Cotabato, Sultan Kudarat, Sarangani, and General Santos
UHC	Universal Health Care
URTI	Upper Respiratory Tract Infections



Executive Summary

The convergence of geographical vulnerability, socio-economic disparities, and the escalating impacts of climate change in the Philippines has rendered the nation particularly susceptible to a myriad of disasters and health-related crises. From devastating typhoons to volcanic eruptions and disease outbreaks, the Filipino population faces recurrent challenges that demand the need for a research agenda that not only identifies current gaps and challenges but also paves the way for innovative solutions and evidence-based interventions.

Aligned with the National Unified Health Research Agenda (NUHRA) 2023-2028, the Development of the Disaster Risk Reduction (DRR) and Climate Change Adaptation (CCA) in Health Research Agenda 2023-2028 aims to formulate a research agenda for DRR, CCA, and health for the Philippines.

The methodology for the development of the research agenda was adopted from the NUHRA of the Philippine National Health Research System (PNHRS). This focused on the identification, prioritization, and achievement of a general agreement among stakeholders. The process is based on the Kingdon Model which aims to provide a platform for stakeholder participants and government interaction, by facilitating a combination of a bottom-up and top-down approach. The combined use of the two approaches facilitated consultation and collaboration between research-generating institutions and research end-product users to address information gaps for more effective DRR and CCA in health.

The results from the four consultative meetings in the 17 regions in the Philippines generated regional priorities in DRR and CCA in health which are specific and contextualized to the respective geographic, economic, and cultural situations of each region. The 121 research topics from all regions were synthesized into 7 themes with corresponding subthemes making up the National Health Research Agenda in DRR and CCA 2023-2028.

This research agenda would serve as a guiding framework to harness the collective expertise of DRR and CCA researchers, policymakers, healthcare practitioners, and community stakeholders in addressing the multifaceted dimensions of DRR and CCA within the realm of public health.

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About the Agenda

Foundations and Frontiers: Pioneering the First Health Research Agenda in DRR and CCA in the Philippines

The 2023 World Risk Index ranked the Philippines first in the countries most vulnerable to disasters, yet the number of research and publications about the integration of emergencies, disasters, and climate change on the health and lives of Filipinos remains lacking. The disparity of disaster research output per capita in the Philippines is one of the major concerns in the country's overall strategy to reduce the negative health consequences of disasters (Handmer et al., 2019).

In view of the above concerns, this National Health Research Agenda in DRR and CCA 2023-2028 identifies priorities and direction of research efforts to generate research initiatives that will address the need for information on how the country can better address and minimize the impacts of climate change, disasters, and emergencies on human lives and health.

The first research agenda for DRR and CCA in health in the Philippines, this takes into account the experience gained from implementing the Sendai Framework for DRR 2015-2030. In order to achieve the desired result and goal, local, regional, national, global levels must take targeted actions in the following four priority areas both within and across sectors:

Priority 1

Understanding disaster risk

Priority 2

Strengthening disaster risk governance to manage disaster risk

Priority 3

Investing in DRR for resilience

Priority 4

Enhancing disaster preparedness for effective response and to "Build Back Better" in recovery, rehabilitation and reconstruction

The agenda explores potential mechanisms of research collaboration between the academe, policy makers, practitioners, and other stakeholders to understand disaster risk and strengthen DRR and CCA in health.


An investment in DRR for resilience, this agenda is also a guide to fund research projects that tackle more localized problems and response issues related to health due to disaster and climate change that will be more relevant and useful for local communities. At the national level, this enhances disaster management for more effective and efficient implementation of preparedness and response strategies which is crucial for a country vulnerable to these types of events like the Philippines.




The NUHRA 2023-2028 identified “**Health Security, Emergency, and Disaster Risk Management**” as one of the main themes.

The theme was described as “The study and implementation of strategies to prepare for, respond to, and recover from health emergencies and disasters. This applies the concept of One Health, which is a focus on crises that may originate in the interface between humans, animals, and the environments in which they interact”.


DRR and CCA of Health Systems




Capacity assessment to deliver health services during and after disasters or climate-related events



Identification of disaster and climate change risks per region and tailoring health systems strategies and measures to these risks



Research on improving health infrastructure adaptation



Enhancement of health worker capacity to respond to emergencies



Figure 1. NUHRA 2023-2028

Environmental Health and Sanitation



The impact of specific environmental factors on health (air and water quality, waste management, exposure to hazardous substances) and developing strategies to mitigate these impacts



Evaluating the effectiveness of current sanitation practices in preventing diseases and developing new practices based on identified gaps



Characteristics of the Agenda

The National Health Research Agenda in DRR and CCA 2023-2028 intends to be inclusive, multi-disciplinary, and relevant.

- **Inclusive.** The agenda included perspectives from different sectors of society such as the academe, government agencies, hospitals, local government units (LGUs), non-government organizations (NGOs), and private sectors concerned with DRR, CCA, and health.
- **Multi-disciplinary.** The consultations were composed of stakeholders with different branches of expertise such as health, disaster response, environment, geosciences, social development, and economics. The research priorities identified also need collaboration from different disciplines to respond to the research questions.
- **Relevant.** The research priorities included in the agenda aligns with the long-term goals and objectives for better health system and disaster management.



The Agenda Setting Process

The methodology for the project was adopted from the NUHRA 2023-2028. This focuses on the identification, prioritization, and achievement of a general agreement among stakeholders. The process is based on the Kingdon model which aims to provide a platform for stakeholder participants and government interaction, by facilitating a combination of a bottom-up and top-down approaches. The combined use of the two approaches will help facilitate consultation and collaboration between research-generating institutions and research end-product users to address information gaps for more effective disaster preparedness and response.

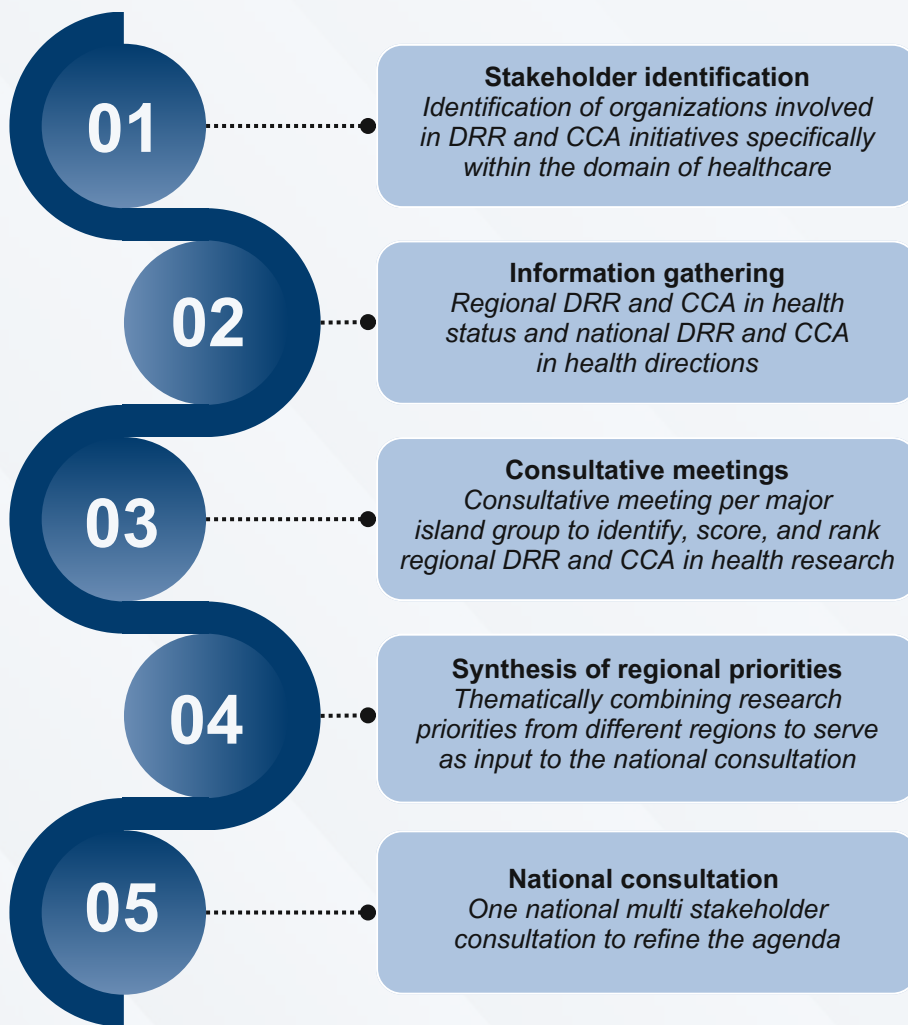


Figure 2. Agenda setting methodology

The first step in conducting the agenda-setting was stakeholder identification. This process involved comprehensive research, data collection, and analysis to map out the diverse range of organizations, including governmental agencies, NGOs, academic institutions, and international bodies, that are dedicated to promoting resilience and safeguarding public health in the face of disasters and climate change. Active involvement from the identified organizations created a “sense of ownership” on the research agenda. Only three to 11 participants could be accommodated per region given available resources. Specifically, the following are the sectors that participated per cluster:

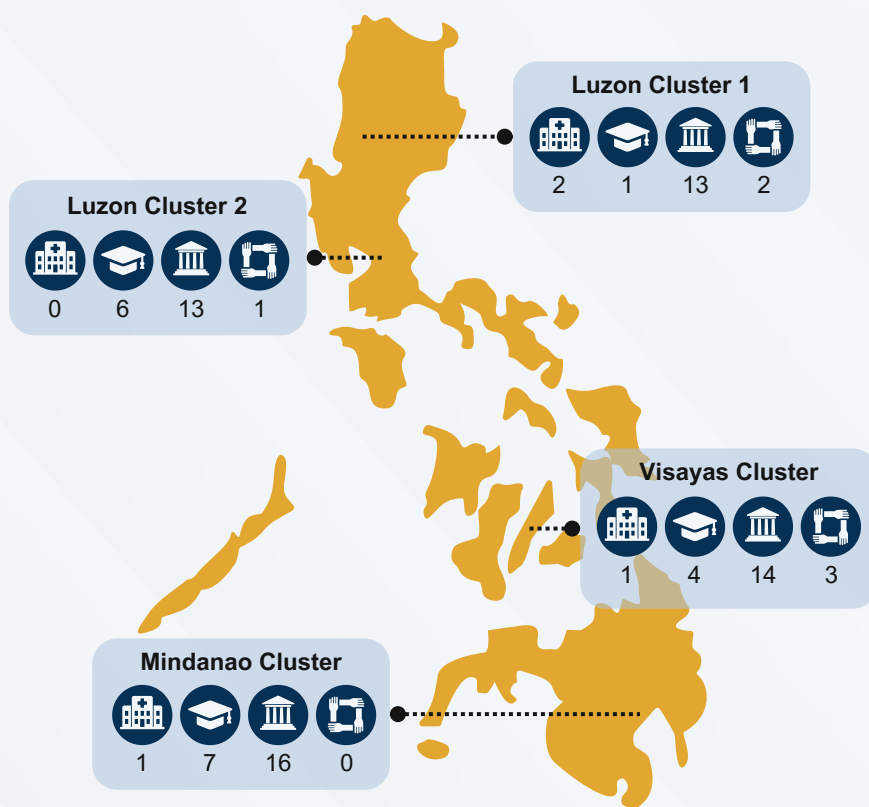


Figure 3. Participating organizations/institutions per cluster

Hospital Academe Government NGO

As a country situated in a geographically hazardous region, the Philippines is susceptible to multiple hazards including but not limited to: typhoons, earthquakes, floods, landslides, and volcanic eruptions. The country also has a history of armed conflict, especially in the Mindanao region. Lastly, the country is also susceptible to outbreaks of diseases such as malaria, dengue, and most recently COVID-19. All these factors are reflected in the fact that the Philippines ranked first in the 2023 World Risk Index of the most disaster prone countries in the world.

The most recurrent hazards and disasters the country faces are extreme weather events, specifically typhoons, which typically make up 70-80% of the major natural disasters experienced by the country. They are also ranked first in the top five risks in the Philippines in the next two years according to the World Economic Forum's Global Risks Report 2024. Biological hazards such as endemics and pandemics also greatly impact the country, with COVID-19 being a recent and prominent example. Apart from COVID-19, the country also suffered from outbreaks of measles, polio, and dengue in 2019. Another recurrent hazard is El Niño and its effects. Though it affects the country as a whole, the CAR and Regions I, III, IV-A, IV-B, and V are more susceptible to its effects. The resulting effects of heat stroke, heat stress, contamination of water sources, and drought are progressively increasing as a result of climate change, with this year's El Niño being the worst the country has experienced. Climate change can also lead to increased frequency and intensity of typhoons. Lastly, parts of the country are also exposed to recurrent armed conflict, especially Regions IX, X, and Bangsamoro Autonomous Region in Muslim Mindanao (BARMM). The Marawi Siege affected these regions and they are still being continuously exposed as encounters are still being reported in these areas.

As part of the project's review of secondary data, various points of information pertaining to DRR and CCA were gathered with an emphasis on health. This secondary data review was done for each region (see Annex D) for each sector prior to the consultative meetings. The information was also presented to the participants of the consultative meetings prior to the breakout sessions.

The information gathered included the following:

- Regional disaster statistics
- Regional population data
- Available health resources per region
- Allotted Department of Health (DOH) budget per region
- Morbidity and mortality statistics
- Regional vulnerability ratings
- Regional coping capacity ratings
- DRR and management for health (DRRM-H) capacities at a regional level
- Existing research at a regional level

Sources used in the gathering of secondary data were as follows:

- **Philippine Statistics Authority (PSA)**, Compendium of Philippine Environment Statistics Component 4: Extreme Events and Disasters
- **PSA**, 2020 Census of Population and Housing Population Counts
- **National Health Facility Registry (NHFR)**, Facility List
- **NHFR**, Regional facility details
- **Official Gazette of the Republic of the Philippines**, General Appropriations Act
- **DOH**, COVID-19 Tracker
- **Regional DOH website**, Field Health Service Information System Technical Report

With an intent to be inclusive, multi-disciplinary, and relevant, the project gathered experts and members of different sectors through consultative meetings. Representatives of each region shared, discussed, and ranked DRR and CCA in health research topics during breakout discussions facilitated by the project team. These consultative meetings were held in four different locations across the Philippines with the 17 regions grouped into four clusters, gathering a total of 104 regional participants and generating a total of 121 regional priorities (see Annex E).

The Luzon Cluster 1

The Luzon Cluster 1 consultative meeting was conducted in Baguio City, 21 February 2024. With a total of 26 participants from Regions I (Ilocos Region), II (Cagayan Valley), III (Central Luzon), and the Cordillera Administrative Region (CAR), the cluster's consultative meeting was able to come up with 29 DRR and CCA in health research priorities. Region I put forward six topics, Region II with nine, and Region III and CAR with seven research topics each.

The Luzon Cluster 2

The Luzon Cluster 2 gathered in the City of Manila, 6 March 2024. Generating a total of 27 DRR and CCA in health research priorities, the cluster successfully gathered 26 representatives from Regions IV-A (Cavite, Laguna, Batangas, Rizal and Quezon or CALABARZON), IV-B (Mindoro Occidental, Mindoro Oriental, Marinduque, Romblon, and Palawan or MIMAROPA), V (Bicol Region), and the National Capital Region (NCR). Six topics were generated by Region IV-A, five by Region IV-B, seven by Region V, and nine research topics by the NCR.

The Visayas Cluster

The Visayas Cluster held its consultative meeting at Cebu City on 31 January 2024. Composed of Regions VI (Western Visayas), VII (Central Visayas), and VIII (Eastern Visayas), the cluster's meeting successfully gathered a total of 23 participants. A total of 19 DRR and CCA in health research priorities were consolidated, wherein, Regions VI and VIII forwarded six topics each while Region VII presented seven topics.

The Mindanao Cluster

The Mindanao Cluster held its meeting in Davao City, 4 April 2024. With 29 participants from Regions IX (Zamboanga Peninsula), X (Northern Mindanao), XI (Davao Region), XII (South Cotabato, Cotabato, Sultan Kudarat, Sarangani, and General Santos or SOCCSKSARGEN), XIII (Caraga), and BARMM, the cluster generated a total of 46 research priorities, wherein Regions XI and XII forwarded six research topics, Region X with seven, BARMM with eight, Region XIII with nine, and Region IX with 10 research topics.

In order to effectively employ the breakout discussion, participants were provided a breakout discussion guide prior to the meeting (see Annex A) and were grouped according to their regions during the actual discussions. The following steps were closely followed during each session:

- Brainstorming and writing of research topics on metacards
- Presentation of proposed research topic
- Discussion of proposed research topics.
- Scoring of research topics through the scoring sheets provided following a set of criteria (see Annex B)
- Inputting of each stakeholder's scores for each topic on a Google Sheet where ranks are generated according to the average score
- Discussion and finalization of research priorities to be presented on the plenary

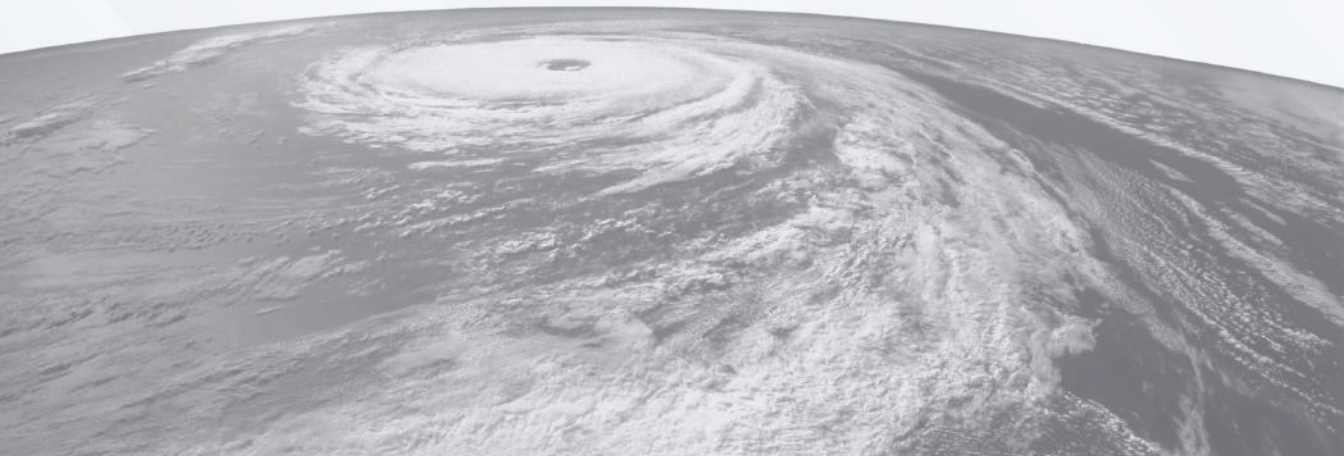
As regional research priorities were presented during the plenary, the project team and the participants provided insights and suggestions for the refinement of the regional research priorities. Regional research priorities were edited in real time except for the Mindanao Cluster where regions are given additional time after the plenary to refine their topics according to the comments received.

In order to synthesize the regional priorities and generate the national DRR and CCA in health research priorities, the project team utilized thematic analysis to determine the common themes present in the regional priorities. In which, the regional priorities were first processed using Chat Generative Pre-trained Transformer 4 (ChatGPT-4) to generate themes and subthemes.

1. The 121 regional priorities were imported to ChatGPT-4.
2. ChatGPT-4 was given the command to generate 10 themes and a corresponding three subthemes for each, relevant to the regional priorities.
3. The 10 themes and their corresponding subthemes were analyzed and edited by the project team to ensure the appropriateness of each theme and its subthemes, eliminating possible biases and redundancies produced by the software.

Further, the same set of regional priorities were also imported to the qualitative data analysis software, NVivo 14, to autocode and group the themes and visualize their frequencies through a hierarchy chart and a word cloud (see Annex F). The results were used to aid the analysis and editing of the generated themes and subthemes from ChatGPT-4.

The themes and subthemes were further refined during the National Consultation wherein the proposed national health research priorities in DRR and CCA were presented by the project team.



A national stakeholder meeting was conducted in the City of Manila on 17 April 2024 to consult and refine the proposed national health research priorities in DRR and CCA. The draft document containing the list of regional priorities and proposed national priorities was sent to the stakeholders prior to the consultation to give them ample time to review and give comments. A total of 56 national stakeholders were convened with 37 participants from government agencies, 8 from the academe, and 11 from NGOs and bilateral organizations. Before the discussion, the project team presented the project overview, methodology, and milestones to further orient the participants about the project.

Research themes and subthemes identified and synthesized from the four regional consultative meetings were reviewed. The discussion was done with the aid of Slido, a question and answer and polling platform. The first part of the discussion focused on assessing the length, scope, and comprehensiveness of the document. The results of the poll (see Annex G) were elaborated by expounding the choices of some participants from each parameter. Furthermore, additional topics (see Annex H) were also raised in the second part of the discussion to ensure that the DRR and CCA in health research agenda remains relevant to the national setting. The input from the national consultation was incorporated to develop the National Health Research Agenda in DRR and CCA 2023-2028.





National Health Research Agenda in Disaster Risk Reduction and Climate Change Adaptation **2023-2028**

Themes and Topics

The **National Health Research Agenda in DRR and CCA 2023-2028** encompasses seven themes and 23 subthemes aimed at addressing the multifaceted challenges posed by climate change, disasters, and their impact on public health.

The agenda emphasizes community resilience and engagement, highlighting the pivotal role of local communities in proactively addressing climate-related hazards. It underscores the importance of community-driven approaches, capacity building initiatives, and understanding local perceptions to build resilience and adapt to changing environmental conditions. Additionally, the agenda explores the relationship between climate change and human health, focusing on ecosystem disruptions, vulnerable populations, and the health consequences of climate-induced disasters. It also emphasizes the need for comprehensive approaches to mitigate risks and promote sustainable development in the face of a changing climate. Furthermore, the agenda covers surveillance, data management, and technological innovation to enhance disaster preparedness, response, and recovery efforts. It emphasizes the utilization of modern tools and techniques, including emerging technologies and space-based technology, to monitor, assess, and address health implications. Moreover, the agenda addresses crucial aspects of food security and nutrition in disasters and emergencies, governance, policies, and health service delivery, including post-disaster mental health management.

The identified national health research priorities for DRR and CCA 2023-2028 align with the subthemes under “Health Security, Emergency, and Disaster Risk Management” (see page 07).

Overall, the agenda underscores the importance of interdisciplinary collaboration, evidence-based decision-making, and innovative solutions to safeguard public health in the face of disasters and climate change.



Community Resilience, Engagement, and Participation in Health Emergencies and Disasters



This theme emphasizes the central role of communities in proactively addressing the challenges posed by climate change and disasters. It highlights the importance of community-driven approaches, capacity building initiatives, and understanding local perceptions to build resilience and adapt to changing environmental conditions.

- **Subtheme 1:** Community-driven approaches for climate-smart disaster risk management
 - This subtheme focuses on methodologies and strategies that actively involve local communities in identifying, assessing, and addressing climate-related hazards and vulnerabilities in their areas. This also includes defining the crucial roles of community volunteers in addressing health emergencies.
- **Subtheme 2:** Capacity building activities and policies for DRR
 - This subtheme encompasses activities and policies aimed at fostering resilience by strengthening knowledge, skills, resources, and infrastructure at various levels, from local communities to national governments through strategies such as information, education, and communication (IEC) strategies in health for disaster preparedness.
- **Subtheme 3:** Community perception and response to disaster and climate change health impacts
 - This subtheme involves understanding how communities perceive and react to health impacts from environmental disasters and climate change. It focuses on assessing local knowledge and attitudes, including cultural adaptation to DRR and climate change in health and the impact of re-emerging diseases on disaster-affected communities.

Climate Change Adaptation, Prevention, and Mitigation



This theme explores the relationship between climate change, ecosystem disruptions, and their profound impacts on human health across various dimensions, ranging from air quality and disease spread to the resilience of vulnerable populations and the necessity for innovative solutions in water management and sanitation. It underscores the need for comprehensive approaches that acknowledge the interconnectedness of environmental and public health challenges in the face of a rapidly changing climate.

- **Subtheme 1:** Effects of ecosystem changes on health outcomes
 - This subtheme focuses on how shifts in environmental conditions, biodiversity, and ecological processes influence disease prevalence, nutrition, and overall well-being. This includes the impact of climate change on air pollution, species extinction on health and environment, and energy crisis on health as well as the integration of the One Health approach amidst changing climate.
- **Subtheme 2:** Impact of climate change on vulnerable populations' health
 - This subtheme focuses on the disproportionate adverse effects that environmental shifts, driven by climate change, have on communities facing socio-economic, geographic, or health-related vulnerabilities. This includes studies on the impact of climate change on indigenous people.
- **Subtheme 3:** Assessment of health consequences of climate-induced disasters and emergencies
 - This subtheme focuses on the examination and analysis of the physical, mental, and societal health impacts resulting from natural calamities exacerbated by climate change, aiming to understand and mitigate their effects on populations and healthcare systems.
- **Subtheme 4:** Water, sanitation and hygiene (WASH) as CCA
 - This subtheme focuses on interventions on water resources, sanitation infrastructure, and hygiene practices to build resilience, mitigate risks, and promote sustainable development in the face of changing climatic conditions. It includes technologies for climate-resilient water systems that need to be implemented in areas endemic for water-borne diseases such as cholera.

Surveillance, Data Management, and Technology



This theme encompasses the utilization of data management, cyber measures, emerging technologies, and space-based technology to address challenges in DRR, CCA, post-disaster loss and damages, prediction and response, as well as monitoring health impacts and tackling issues like antimicrobial resistance. It highlights the importance of leveraging modern tools and techniques to build resilience and enhance response capabilities in the face of increasingly complex and interconnected challenges.

- **Subtheme 1:** Challenges and best practices in data management for DRR and CCA
 - This subtheme focuses on the systematic organization, processing, storage, and utilization of data, as well as the identification of challenges and best practices in collecting, analyzing, and disseminating relevant data to mitigate disaster risks and adapt to climate variability. It includes cyber measures to mitigate cyber threats.
- **Subtheme 2:** Loss and damages post-disasters and emergencies
 - This subtheme focuses on loss and damages post-disasters and emergencies, both tangible and intangible, suffered by individuals, communities, infrastructure, and ecosystems following natural or man-made calamities. This covers the physical destruction of property, loss of lives, displacement of populations, as well as the emotional, social, and economic repercussions endured in the aftermath of such events.
- **Subtheme 3:** Use of emerging technologies in disaster prediction and response and climate change adaptation
 - This subtheme focuses on emerging technologies such as artificial intelligence, machine learning, remote sensing, and internet of things devices to enhance our ability to forecast, mitigate, and respond to natural disasters and the impacts of climate change. This includes mapping of vulnerable sectors and the development of early warning systems.
- **Subtheme 4:** Utilization of space-based technology for health impacts of hazards and climate change
 - This subtheme focuses on leveraging satellite systems, remote sensing technologies, and geospatial data to monitor, assess, and address the health implications of natural hazards and shifts in climate patterns, including data on environmental conditions, air and water quality, disease vectors, and antimicrobial resistance surveillance with access to better near real time data for timely and relevant data analytics.



Food Security and Nutrition



This theme encompasses the critical aspects of ensuring adequate nutrition and food security in disasters and emergencies, including bridging the gender nutrition gap, implementing effective breastfeeding and therapeutic food programs, and enhancing the acceptability of food commodities among vulnerable populations.

- **Subtheme 1:** Nutrition needs and food security in disasters and emergencies
 - This subtheme focuses on specialized strategies and interventions aimed at mitigating food shortages, preventing malnutrition, and promoting resilience within communities in times of disasters and emergencies, with particular attention to the differential gender nutritional needs and vulnerabilities.
- **Subtheme 2:** Implementation of breastfeeding and ready-to-use therapeutic food (RUTF) in disasters
 - This subtheme focuses on the systematic integration of strategies and resources aimed at supporting and promoting breastfeeding practices, as well as ensuring access to RUTF for infants and young children in emergency situations.
- **Subtheme 3:** Acceptability of food commodities among vulnerable populations
 - This subtheme focuses on food provided that meets the cultural, dietary, and sensory preferences of vulnerable populations in disasters and emergencies. This emphasizes respecting the dignity and autonomy of affected individuals through food choices acceptable and appropriate within their socio-cultural context, promoting food security and well-being in times of crisis.

Governance and Policies in DRR and CCA in Health



This theme centers on the regulatory frameworks, institutional structures, and policy mechanisms governing DRR and CCA in Health. It covers the examination of existing policies, their alignment with international frameworks and standards, and the identification of opportunities to improve the healthcare system. This theme aims to facilitate evidence-based decision-making and effective coordination among stakeholders to mitigate the health impacts of disasters and climate-related events.

- **Subtheme 1: Policy review for DRR and CCA in health**
 - This subtheme focuses on the assessment of existing policies related to DRR and CCA in the health sector. It covers analyzing the effectiveness, gaps, and areas for improvement in policies aimed at enhancing resilience and preparedness in healthcare systems. It includes looking at the accessibility of health services as well as taking a transdisciplinary approach to addressing health in disasters and emergencies
- **Subtheme 2: Issues in implementing DRR in healthcare**
 - This subtheme focuses on the practical challenges and barriers encountered in implementing DRR measures in healthcare. It explores factors such as resource constraints, institutional frameworks, and stakeholder coordination that impact the integration of DRR practices into healthcare delivery. These include gaps and best practices in coordination between the private and public sector as well as between LGUs and DRRM-H responders in disasters.

Health Service Delivery



This theme covers the provision of essential healthcare services before, during, and after disasters and emergencies. It emphasizes the importance of ensuring continuity of care in emergencies, adapting service delivery models to emergency contexts, and addressing the specific health needs of affected populations. By examining strategies for optimizing health service delivery in crisis situations, resilience can be enhanced and morbidity and mortality associated with disasters and emergencies can be reduced.

- **Subtheme 1: WASH in disasters and emergencies**
 - This subtheme focuses on WASH interventions in disaster and emergency situations. It explores strategies for ensuring access to clean water, and adequate sanitation facilities as well as preventing the spread of diseases in the context of disasters and emergencies. These include water security issues and innovations in sanitation for health as well as healthcare waste management in emergencies.
- **Subtheme 2: Infectious disease management in emergencies**
 - This subtheme addresses the management of infectious diseases in emergency situations, including surveillance, outbreak response, and infection control measures. It examines protocols and practices for identifying, containing, and treating infectious diseases to minimize their impact on affected populations. These include vulnerability assessments on infectious diseases in emergencies and its impact on health service delivery for infectious diseases.
- **Subtheme 3: Reproductive health services**
 - This subtheme emphasizes the importance of maintaining access to reproductive health services before, during, and after disasters and emergencies. It covers various aspects such as family planning, maternal and neonatal care, and sexual health education, with a focus on ensuring continuity of care and addressing the specific needs of vulnerable groups.
- **Subtheme 4: Logistic management**
 - This subtheme explores logistical challenges and solutions in delivering healthcare services in disasters and emergencies. It includes aspects such as supply chain management, transportation of medical supplies and personnel, facility readiness, and coordination mechanisms to ensure timely and effective response efforts.

Mental Health and Psychosocial Services



This theme focuses on addressing the psychological and psychosocial impacts of disasters on individuals, responders, and communities. This theme explores the mental health needs of those affected by disasters, including the provision of psychosocial support, counseling, and trauma-informed care. It also aims to mitigate the long-term psychological effects of disasters and enhance the overall well-being communities affected by disasters.

- **Subtheme 1:** Mental health of responders and communities affected by disasters
 - This subtheme explores the psychological impact of disasters on both responders and affected communities. It explores factors contributing to mental health challenges, such as trauma, and stress. It also identifies strategies for promoting resilience and supporting psychological well-being in the aftermath of disasters.
- **Subtheme 2:** Psychosocial interventions for vulnerable communities after disasters
 - This subtheme focuses on interventions aimed at addressing the psychosocial needs of vulnerable populations (such as children and elderly) following disasters. It includes approaches such as counseling, community support programs, and trauma-informed care designed to promote coping, recovery, and social cohesion among those affected.
- **Subtheme 3:** Cultural influences of disaster on health-seeking behavior and mental health
 - This subtheme considers the role of cultural beliefs, norms, and practices in shaping health-seeking behavior and mental health outcomes in the aftermath of disasters. It explores culturally sensitive approaches to mental health support and intervention delivery, recognizing the diversity of experiences and perspectives within affected communities.

Health Research Priorities of Region VIII

The Eastern Visayas Health Research and Development Consortium (EVHRDC) is an inter-institutional collaboration of government institutions, academic professional organizations, hospitals, and other stakeholders that are engaged in health research in Region VIII. The Consortium aims to develop and/or enhance health research and development activities, establish a system of collaboration and resource sharing in undertaking health research, and promote the utilization of health research findings in the region.

To serve as a guide in addressing the health system needs of the region in the next six years, from 2023 to 2028, the Consortium has identified priority regional health problems for research through consultations with the EVHRDC stakeholders.

Indicated below are the research priorities for the Eastern Visayas Region, which comprises 21 themes with each theme having corresponding specific research topics.

Emerging and Reemerging Diseases

- a. Cholera
- b. Sexually Transmitted Infections
- c. Gastrointestinal diseases (stomach and urinary problems)
- d. Gastrointestinal diseases among children
- e. Dengue Fever
- f. Malaria

Disaster Risk Reduction and Climate Change Mitigation

- a. Effects and risk of climate change to all ages
- b. Assessment of climate change adaptation (CCA) strategies
- c. Preparedness in emergencies
- d. Integrated community assessment on health emergency management
- e. Disaster risk reduction assessment on health emergency management (preparedness, response, etc.)
- f. Disaster risk reduction assessment on health emergency management (preparedness, response, etc.)

Health System

Service Delivery

- a. Rehabilitation or palliative care
- b. Social Innovation - Innovations in service delivery

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Annexes

Annex A. Breakout session guide

BREAKOUT SESSION GUIDE			
SESSION OBJECTIVE This activity aims to identify, score, and rank regional disaster risk reduction (DRR) in health or climate change adaptation (CCA) in health research.			
DURATION 2 hours and 30 minutes			
AGENDA OVERVIEW			
Table 1. Agenda overview.			
Agenda item	Timeframe	Materials	Person/s-in-charge
Introduction and breakout to groups per region	20 minutes	Laptop, presentation slides, projector, tables, chairs	Dr. Ofelia Sanieel, participants, and facilitators
Identification and prioritization of DRR in health or CCA in health research topics and specific research questions	1 hour 40 minutes	Metacards, pens, whiteboard, tape, scissors, scoring sheets, tables, chairs	Participants and facilitators
Finalization of regional DRR in health or CCA in health research priorities	30 minutes	Session output template, laptop, tables, chairs	Participants
SESSION GUIDE			
1. Introduction			
a. Overview of the purpose and objectives of the breakout session			
b. Instructions and discussion guide			
2. Regional Breakout Discussions			
a. Grouping of participants by region			
b. Identification of research topics Participants will discuss and identify DRR in health or CCA in health research topics specific to their region. There will be two rounds of sharing and discussion. The following information may be used as guide during the breakout session:			
COMMON WAYS TO CLASSIFY HEALTH RESEARCH			
WHO defines health research if the research covers any of the five generic areas of activity:			
1. Measures the magnitude and distribution of the health problem			
2. Contributes to the understanding of the diverse causes or the determinants of the problem, whether they are due to biological, behavioral, social, or environmental factors			
3. Assists in developing solutions or designing interventions that will help to prevent or mitigate the problem			
4. Supports the implementation or delivery of solutions through policies and programs			
5. Evaluates the impact of these interventions on the magnitude and scope of the problem			
Health research can also be classified according to potential application or purpose:			
1. Etiology (biologic, endogenous, psychological, social, economic)			
2. Disease prevention and promotion of well-being (e.g., interventions to modify behavior, promote well-being, or alter physical, biological, or environmental risks)			
3. Detection, screening, and diagnosis (all phases – from development to evaluation – of markers and technologies)			
1 of 8			

Figure 4. Breakout session guide

Annexes

Annex A. Breakout session guide

4. Development of treatments and therapeutic interventions (pharmaceutical, medical devices, psychological, behavioral, physical)
5. Evaluation of treatment and therapeutic interventions
6. Management of diseases and conditions (individual care; end-of-life care; management and decision-making)
7. Health and social care services (organization and delivery of services, health economics, policy, ethics and governance; resources and infrastructure; research design and methodologies)

Types of epidemiologic research:

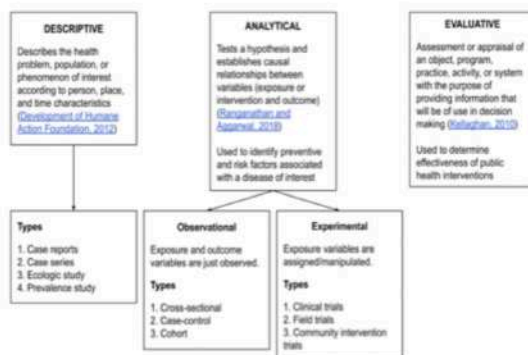


Figure 1. Types of research approaches and designs.

DISASTER RISK REDUCTION FRAMEWORKS



Figure 2. Public health services and the phases of emergency management ([Centers for Disease Control and Prevention \(CDC\), 2014](#)).

Figure 5. Breakout session guide

Annexes

Annex A. Breakout session guide

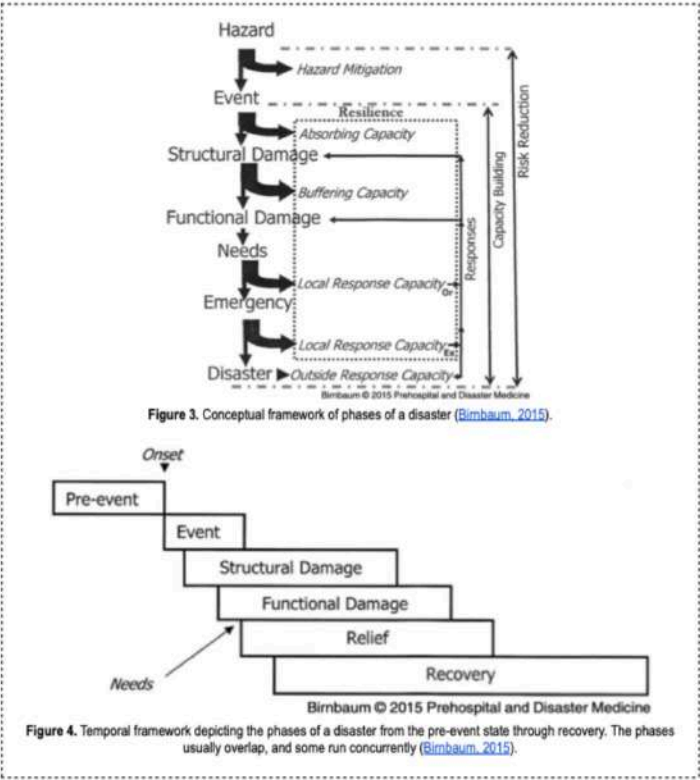


Figure 6. Breakout session guide

Annexes

Annex A. Breakout session guide

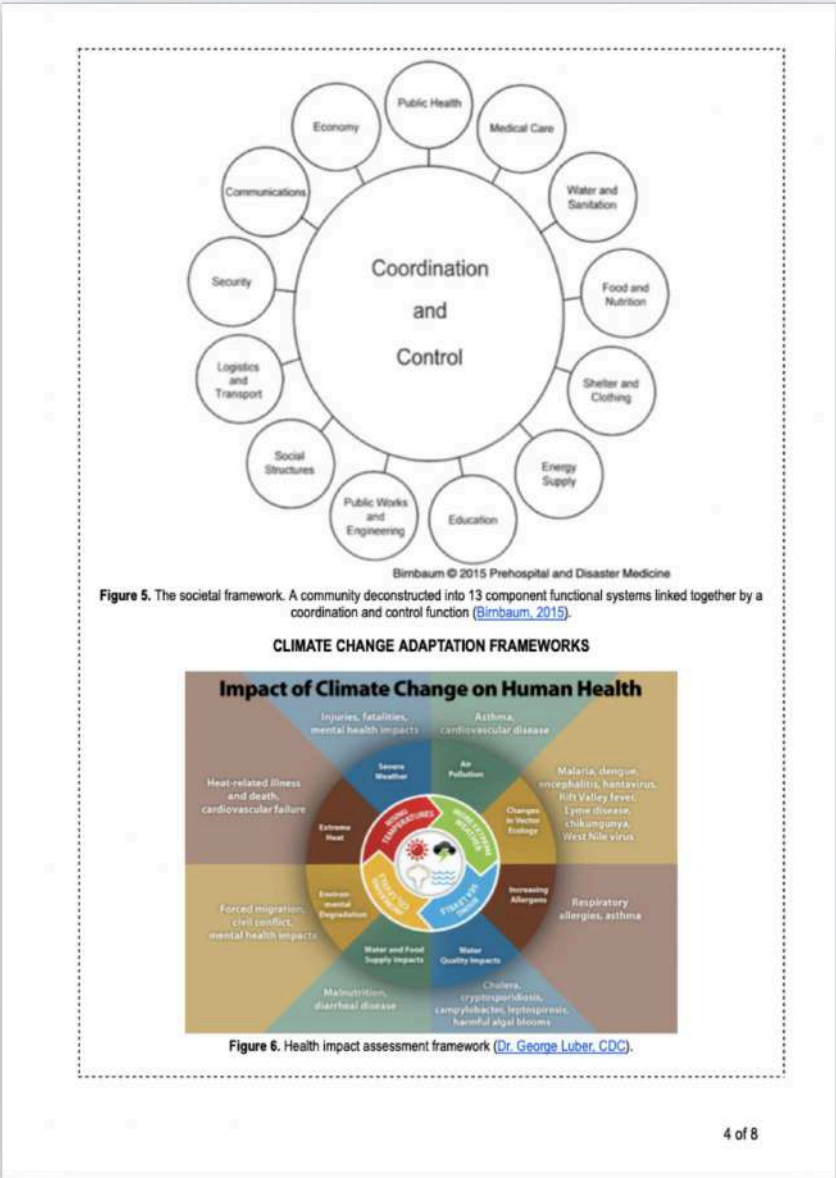


Figure 7. Breakout session guide

Annexes

Annex A. Breakout session guide

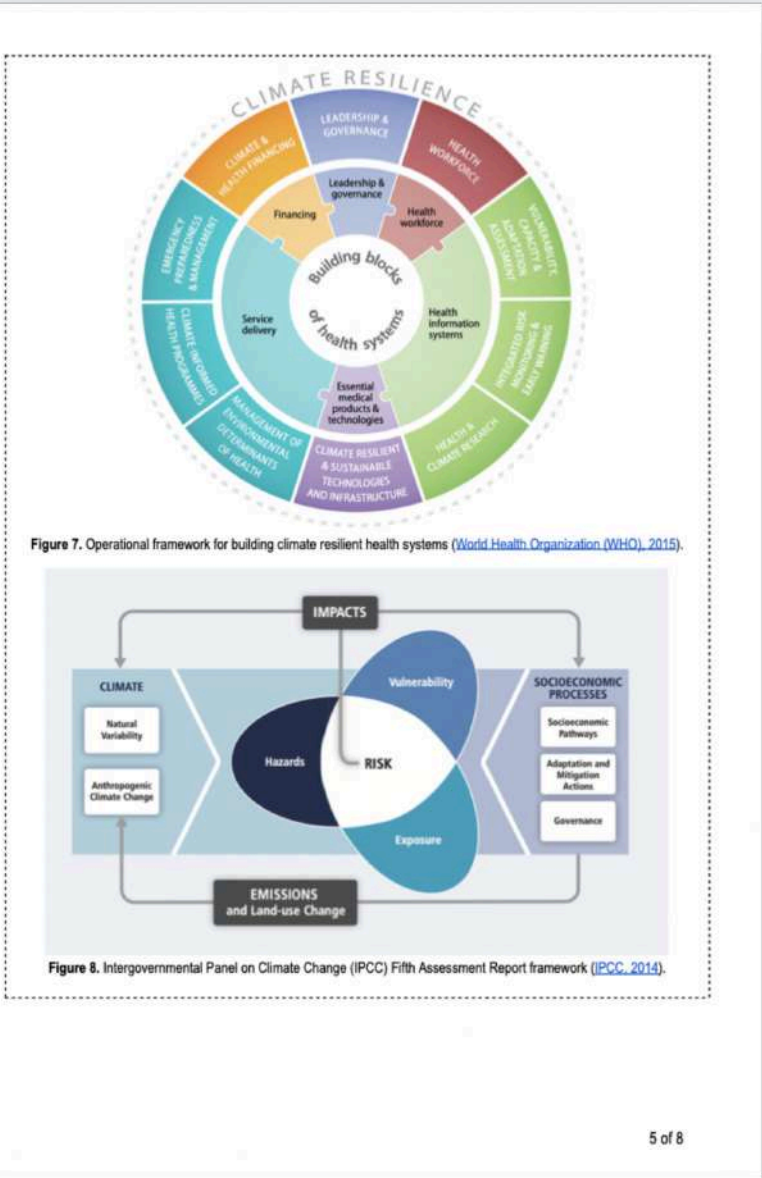
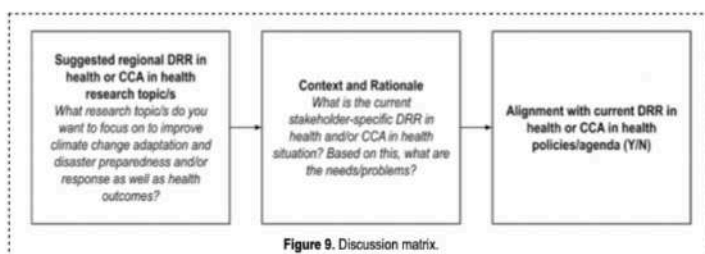


Figure 8. Breakout session guide

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Annex A. Breakout session guide



- a. After the first round of discussion, each stakeholder will score the identified topics, labeled as A, B, C, and so on, using the scoring matrix below.

Table 2. Scoring matrix.

Topic	Magnitude of the problem	Urgency	Capacity and feasibility	Equity	Impact	Total Score Highest possible score = 25
A						
B						
C						

Note:

1 - Very low, 2 - Low, 3 - Moderate, 4 - High, 5 - Very high

Magnitude of the problem - Refers to mortality, morbidity, prevalence, population coverage of problem

Urgency - Degree of whether the problem has current or potential severe effect

Capacity and feasibility - Refers to adequacy of human and physical resources and affordability of funding requirements to pursue research

Equity - Degree of how proposed research will provide inputs to policy development and enhancement and improve health care systems/programs in relation to DRR in health or CCA in health

Impact - Refers to social, economic and health benefits that can be yielded from pursuit of research

(National Unified Health Research Agenda 2006-2010)

- b. To establish the overall rank of DRR in health or CCA in health research topics in round 1, total scores from each stakeholder will be collected, averaged, and ranked using the matrix below.

Table 3. Decision matrix.

Topic	Stakeholder 1	Stakeholder 2	Stakeholder 3	Average	Rank
Topic A					
Topic B					
Topic C					

The top three (3) topics from round 1 will be included into the regional group output. The group will then proceed with the second round of sharing and discussion. Topics from round 1 that did not make it to the top 3 may be reintroduced in round 2.

There will be another round of scoring, and prioritization (ranking) during the second round. The top 3 topics from round 2 will be included in the regional group output.

Figure 9. Breakout session guide

Annexes

Annex A. Breakout session guide

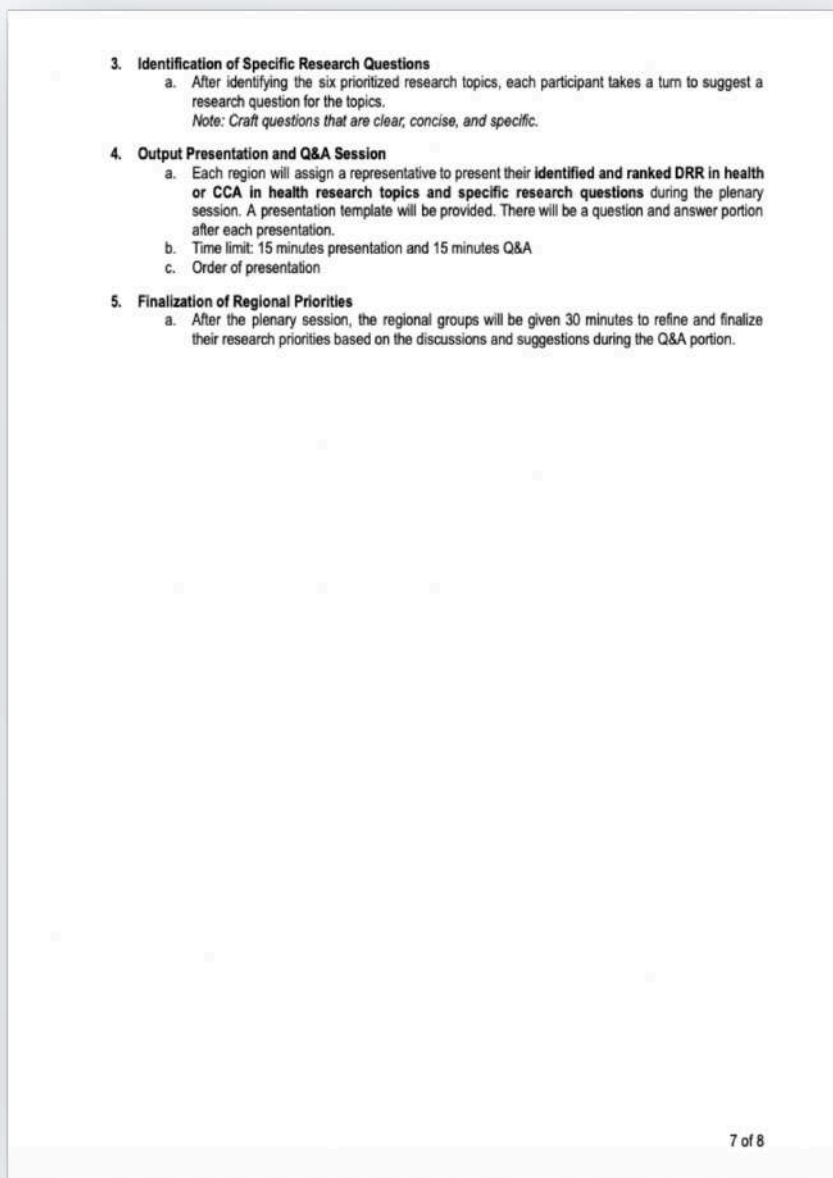


Figure 10. Breakout session guide

Annexes

Annex A. Breakout session guide

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Figure 11. Breakout session guide

Annexes

Annex B. Criteria used for prioritization during the consultative meetings

Scoring

1 - Very low, 2 - Low, 3 - Moderate, 4 - High, 5 - Very high

Criteria

- **Magnitude of the problem** - Refers to mortality, morbidity, prevalence, population coverage of problem
- **Urgency** - Degree of whether there is current or potential severe effect or addresses an immediate need
- **Capacity and feasibility** - Refers to adequacy of human and physical resources and affordability of funding requirements to pursue research
- **Equity** - Degree of how proposed research will provide inputs to policy development and enhancement and improve health care systems/programs in relation to DRR in health or CCA in health
- **Impact** - Refers to social, economic and health benefits that can be yielded from pursuit of research

(Adopted from NUHRA, 2006-2010)

Annexes

Annex C. List of consultative meetings held

Table 1. List of consultative meetings held

Date	Venue	Regions
January 31, 2024	Cebu City	VI, VII, VIII
February 21, 2024	Baguio City	I, II, III, CAR
March 6, 2024	City of Manila	IV-A, IV-B, V, NCR
April 4, 2024	Davao City	IX, X, XI, XII, XIII, BARMM

Annexes

Annex D. Tabled overview of DRR and CCA in health in the Philippines

Table 2. Summary of DRR in health and CCA in health situation in the Luzon Cluster 1

	Region I	Region II	Region III	CAR
Number of major disasters recorded from 2012-2022	65	54	63	56
Population	5,301,139	3,685,744	12,422,172	1,797,660
Population density	409 inhabitants per square km	124 inhabitants per square km	567 inhabitants per square km	91 inhabitants per square km
Poverty rate	11%	12%	8%	7%
% of GIDA households	16%	34%	7%	48%
% of households with poor housing materials	5%	6%	4%	3%
% of households with sanitation facility access	94%	48%	82%	91%
% of households with safe drinking water access	94%	61%	90%	95%
Level of malnutrition (wasted)	1.1%	1.5%	0.8%	0.8%
Number of hospitals	82	66	203	29
Health facilities per 10,000 population	4.8	5.7	2.5	6.2
Doctors per 20,000 population	4.4	6.3	4.4	19.7
Nurses per 10,000 population	8.2	9.2	5.6	15.1
Midwives per 5,000 population	1.4	2	0.9	2.9
2020 DOH Regional Office budget (Php)	2,554,888,000	2,329,360,000	3,363,033,000	1,769,624,000
DRRM Plan %	63%	29%	9%	95%
Health emergency commodities/ capacities %	62%	29%	11%	95%
Hospital emergency response team %	62%	29%	7%	95%
Functional emergency operations center %	62%	29%	7%	95%
Seal of Good Governance %	42.19%	36.08%	45.26%	15.66%

Annexes

Annex D. Tabled overview of DRR and CCA in health in the Philippines

Table 3. Summary of DRR in health and CCA in health situation in the Luzon Cluster 2

	Region IV-A	Region IV-B	Region V	NCR
Number of major disasters recorded from 2012-2022	58	69	54	31
Population	16,195,042	3,228,558	6,082,165	13,484,462
Population density	977 inhabitants per square km	109 inhabitants per square km	336 inhabitants per square km	21,765 inhabitants per square km
Poverty rate	7%	15%	22%	2%
% of GIDA households	9%	32%	35%	0%
% of households with poor housing materials	4%	31%	32%	1%
% of households with sanitation facility access	73%	73%	72%	88%
% of households with safe drinking water access	76%	74%	81%	93%
Level of malnutrition (wasted)	0.2%	1%	1.5%	0.3%
Number of hospitals	233	32	59	157
Health facilities per 10,000 population	2.3	4.3	4.8	0.8
Doctors per 20,000 population	4.1	2.3	2.9	15.7
Nurses per 10,000 population	5.2	3.5	5.3	11.8
Midwives per 5,000 population	0.4	1.1	1.2	1.1
2020 DOH Regional Office budget (Php)	2,329,360,000	653,204,000	2,081,151,000	66,869,600,000
DRRM Plan %	40%	13%	26%	100%
Health emergency commodities/ capacities %	99%	12%	26%	100%
Hospital emergency response team %	95%	37%	26%	100%
Functional emergency operations center %	99%	40%	26%	100%
Seal of Good Governance %	8.84%	7.69%	7.44%	29.41%

Annexes

Annex D. Tabled overview of DRR and CCA in health in the Philippines

Table 4. Summary of DRR in health and CCA in health situation in the Visayas Cluster

	Region VI	Region VII	Region VIII
Number of major disasters recorded from 2012-2022	49	35	50
Population	7,954,723	8,081,988	4,547,150
Population density	383 inhabitants per square km	509 inhabitants per square km	196 inhabitants per square km
Poverty rate	14%	22%	22%
% of GIDA households	25%	21%	26%
% of households with poor housing materials	14%	10%	18%
% of households with sanitation facility access	87%	48%	73%
% of households with safe drinking water access	94%	82%	77%
Level of malnutrition (wasted)	1.4%	2.2%	1.8%
Number of hospitals	69	59	49
Health facilities per 10,000 population	3.4	3.7	3
Doctors per 20,000 population	5.5	4.7	4
Nurses per 10,000 population	5.1	7.7	6
Midwives per 5,000 population	1.1	0.9	1.5
2020 DOH Regional Office budget (Php)	5,032,651,000	2,118,611,000	1,195,905,000
DRRM Plan %	27%	24%	47%
Health emergency commodities/ capacities %	27%	29%	47%
Hospital emergency response team %	27%	53%	47%
Functional emergency operations center %	27%	24%	47%
Seal of Good Governance %	19.42%	4.41%	10.07%

Annexes

Annex D. Tabled overview of DRR and CCA in health in the Philippines

Table 5. Summary of DRR in health and CCA in health situation in the Mindanao Cluster

	Region IX	Region X	Region XI	Region XII	Region XIII	BARMM
Number of major disasters recorded from 2012-2022	23	31	34	24	41	22
Population	3,875,576	5,022,768	5,243,536	4,901,486	2,804,788	4,404,288
Population density	229 inhabitants per square km	246 inhabitants per square km	257 inhabitants per square km	215 inhabitants per square km	133 inhabitants per square km	120 inhabitants per square km
Poverty rate	23%	19%	12%	21%	26%	30%
% of GIDA households	57%	38%	40%	48%	31%	34%
% of households with poor housing materials	31%	11%	14%	20%	30%	29%
% of households with sanitation facility access	69%	70%	89%	65%	89%	35%
% of households with safe drinking water access	79%	98%	90%	70%	95%	60%
Level of malnutrition (wasted)	0.8%	1.1%	1.7%	0.3%	1.9%	0.4%
Number of hospitals	43	74	62	77	24	39
Health facilities per 10,000 population	3	3.5	3	3.3	4.3	3
Doctors per 20,000 population	3.2	3.7	4.3	2.4	2.8	1.2
Nurses per 10,000 population	5.9	7.2	5.9	6.1	4.1	1.7
Midwives per 5,000 population	1.2	1.3	0.9	1.5	1.4	0.5
2020 DOH Regional Office budget (Php)	2,274,623,000	2,412,610,000	3,649,547,000	1,066,747,000	912,562,000	N/A

Annexes

Annex D. Tabled overview of DRR and CCA in health in the Philippines

Table 5 (Cont.). Summary of DRR in health and CCA in health situation in the Mindanao Cluster

	Region IX	Region X	Region XI	Region XII	Region XIII	BARMM
DRRM Plan %	72%	47%	6%	19%	37%	4%
Health emergency commodities/ capacities %	72%	47%	6%	19%	37%	2%
Hospital emergency response team %	72%	47%	6%	19%	37%	1%
Functional emergency operations center %	72%	47%	6%	19%	37%	3%
Seal of Good Governance %	8.11%	26.53%	27.78%	24.53%	21.79%	11.11%

Annexes

Annex E. List of regional DRR and CCA in health research priorities



Regional Health Research Agenda in Disaster Risk Reduction and Climate Change Adaptation **2023-2028**

Topics and Research Questions



National Health Research Agenda
in Disaster Risk Reduction
and Climate Change Adaptation
2023-2028

Regional Health Research Agenda for Disaster Risk Reduction and Climate Change Adaptation 2023-2028

The 2023 World Risk Index ranked the Philippines first in the countries most vulnerable to disasters, yet the number of research and publications about the integration of emergencies, disasters, and climate change on the health and lives of Filipinos remains lacking. The disparity of disaster research output per capita in the Philippines is one of the major concerns in the country's overall strategy to reduce the negative health consequences of disasters (Handmer et al., 2019).

In view of the above concerns, this National Health Research Agenda in DRR and CCA 2023-2028 identifies priorities and direction of research efforts to generate research initiatives that will address the need for information on how the country can better address and minimize the impacts of climate change, disasters, and emergencies on human lives and health.

The agenda explores potential mechanisms of research collaboration between the academe, policy makers, practitioners, and other stakeholders to understand disaster risk and strengthen disaster risk reduction and climate change adaptation in health.

An investment in disaster risk reduction for resilience, this agenda is also a guide to fund research projects that tackle more localized problems and response issues related to health due to disaster and climate change that will be more relevant and useful for local communities. At the national level, this enhances disaster management for more effective and efficient implementation of preparedness and response strategies which is crucial for a country vulnerable to these types of events like the Philippines.



REGION I

Ilocos Region



National Health Research Agenda
in Disaster Risk Reduction
and Climate Change Adaptation
2023-2028

Consultative Meeting (Luzon Cluster 1)

The Regional Health Research Agenda for DRR and CCA 2023-2028 was identified through the conduct of consultative meetings in the Luzon, NCR, Visayas, and Mindanao clusters. The consultative meeting for the Luzon Cluster 1 was held on 21 February 2024 in Baguio City. The meeting was facilitated by the University of the Philippines Manila Disaster Risk Reduction and Management for Health Program in collaboration with the Department of Science and Technology Philippine Council for Health Research and Development. 26 participants attended the meeting, with five representing Region I.

The research priorities were identified through regional breakout discussions, wherein research topics were prioritized using the following criteria: magnitude of the problem, urgency, capacity and feasibility, equity, and impact. DRR and CCA frameworks, along with information on health research and a situationer defining the national and regional status of DRR and CCA in health, were utilized in formulating the regional priorities.

Regional Health Research Priorities for DRR and CCA



1. Gap analysis in disaster management

- What are the competency and training needs of the region?
- What are the human and non-human resources available for disaster response?



2. Nutrition in emergency disaster

- How can the region ensure nutritional adequacy during disasters such as the utilization of nutrition commodities, healthier complementary food such as food packs, and promotion of exclusive breastfeeding?



3. Disaster governance through mechanisms and programs to raise the capacities of communities in multi-hazard scenarios

- What are the good practices including anticipatory actions, and prevention/mitigation issues from individuals, families, communities, and vulnerable populations during disasters?
- How do functions and accountability of focal persons be enhanced to improve disaster governance?



4. Vehicular crash response time, behavior, and protocol review

- What are the gaps and limitations on the response time, behavior, and protocols for vehicular crashes?



5. Challenges and best practices in data management for DRRM-H

- What are the factors affecting data management practices for DRRM-H?
- How does the establishment of disaster knowledge management including training, data storage, and analysis be used for health system improvement?



6. Use of emerging technologies in red tide prediction

- How can emerging technologies be used in data modeling and predicting the occurrence of red tide in the region?

REGION II

Cagayan Valley



National Health Research Agenda
in Disaster Risk Reduction
and Climate Change Adaptation
2023-2028

Consultative Meeting (Luzon Cluster 1)

The Regional Health Research Agenda for DRR and CCA 2023-2028 was identified through the conduct of consultative meetings in the Luzon, NCR, Visayas, and Mindanao clusters. The consultative meeting for the Luzon Cluster 1 was held on 21 February 2024 in Baguio City. The meeting was facilitated by the University of the Philippines Manila Disaster Risk Reduction and Management for Health Program in collaboration with the Department of Science and Technology Philippine Council for Health Research and Development. 26 participants attended the meeting, with six representing Region II.

The research priorities were identified through regional breakout discussions, wherein research topics were prioritized using the following criteria: magnitude of the problem, urgency, capacity and feasibility, equity, and impact. DRR and CCA frameworks, along with information on health research and a situationer defining the national and regional status of DRR and CCA in health, were utilized in formulating the regional priorities.

Regional Health Research Priorities for DRR and CCA



1. Health of vulnerable populations in geographically isolated and disadvantaged areas (GIDAs) during disasters and climate change

- How does the accessibility and quality of water sources change during disasters?
- How effective are current water treatment and purification methods used by communities in Region II ensuring safe drinking water during and after disasters?



2. Cultural adaptation to DRRM and CCA in health of the indigenous populations in Region II

- How do existing cultural beliefs, practices, and social structures in Region II influence individual and community responses to disasters and climate change-related health risks?
- How can local knowledge and traditional practices be integrated with scientific approaches to create more sustainable and culturally relevant DRR and CCA solutions in Region II?



3. Post-disaster risk assessment of community in vector-borne diseases

- What is the incidence of snake bites, leptospirosis, and dengue post-disaster?
- What is the capability of Region II to respond to the aforementioned health events?



4. Technology and innovation for DRR and CCA for health

- How can early warning systems for disaster and emerging diseases be effectively coupled with public health interventions, such as evacuation planning and disease outbreak prevention, to minimize health risks during disasters?
- How can existing and emerging technologies (e.g., artificial intelligence-powered weather forecasting, internet of things sensor networks, drone surveillance) be integrated into the data generation, planning/monitoring and decision making Region II to improve accuracy, lead time, and targeted delivery of warnings?

REGION II



National Health Research Agenda
in Disaster Risk Reduction
and Climate Change Adaptation
2023-2028

Regional Health Research Priorities for DRR and CCA



5. Mental health, behavior, and coping skills of healthcare workers, the vulnerable population, and affected communities during and after disasters

- What are the risk factors and profile of patients affecting the increase of suicide in Region II?
- What is the stress index, burnout, and depression scale for healthcare workers during and after a disaster?
- What is the impact of disasters on the mental health of the vulnerable, and affected population?



6. Health human resource for DRRM-H service

- What is the ratio of health emergency response teams to population?
- How adequate is the current ratio in delivering DRRM-H services?



7. Mapping of policies and ordinances implemented for preemptive evacuation of animals/domestic livestock of residents

- How many policies or ordinances have been implemented for preemptive evacuation of animals/domestic livestock of residents?
- How are the policies or ordinances implemented?
 - What are the activities and outputs conducted and achieved in line with these policies and ordinances?
 - What are the current outcomes of their implementation?



8. Effectiveness of capacity building activities and policies on DRRM-H

- What is the effectiveness of DRRM-H training, capacity building activities, and policies?



9. Response capabilities during territorial conflicts

- What are the response capabilities of Region II when territorial conflicts arise?

REGION III

Central Luzon



National Health Research Agenda
in Disaster Risk Reduction
and Climate Change Adaptation
2023-2028

Consultative Meeting (Luzon Cluster 1)

The Regional Health Research Agenda for DRR and CCA 2023-2028 was identified through the conduct of consultative meetings in the Luzon, NCR, Visayas, and Mindanao clusters. The consultative meeting for the Luzon Cluster 1 was held on 21 February 2024 in Baguio City. The meeting was facilitated by the University of the Philippines Manila Disaster Risk Reduction and Management for Health Program in collaboration with the Department of Science and Technology Philippine Council for Health Research and Development. 26 participants attended the meeting, with four representing Region III.

The research priorities were identified through regional breakout discussions, wherein research topics were prioritized using the following criteria: magnitude of the problem, urgency, capacity and feasibility, equity, and impact. DRR and CCA frameworks, along with information on health research and a situationer defining the national and regional status of DRR and CCA in health, were utilized in formulating the regional priorities.

Regional Health Research Priorities for DRR and CCA



1. One health Central Luzon: Expansion of the coordination mechanism of agencies in DRRM

- What existing technologies and innovations for disasters are being used/applied by the current regional DRRM council? How effective is the current regional DRRM council in utilizing technology & innovation?
- How technologies contribute in identification, priority intervention, and stakeholders participation



2. Examining the role of mental health services in CCA

- What are the mental health services available in Central Luzon for supporting individuals and the community?
- What are the mental health effects on displaced & affected populations?



3. Mapping of organo-phosphate poisoning in Central Luzon

- Who is the affected population in terms of organo-phosphate usage?
- Are there effective and existing monitoring systems in place in terms of organo-phos poisoning?



4. Correlation of air particulate matter in urban center in relation to increasing upper respiratory tract infections (URTIs)

- Are there significant differences in the prevalence of URTIs in areas of high air particulate matter as compared to areas of low air particulate matter?
- What is the association between air particulate matter concentration and the frequency and prevalence of URTIs?



REGION III

Regional Health Research Priorities for DRR and CCA



National Health Research Agenda
in Disaster Risk Reduction
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5. Exploring community engagement and participation in climate resilience and universal health care (UHC)

- How do communities engage with and participate in climate resilience and UHC?
- How do communities utilize resources and collaborate in order to promote climate resilience and UHC?
- What are the most effective strategies employed by communities in enhancing climate resilience and promoting UHC?
- What factors are promoting and/or preventing community involvement in advocating for UHC policies and enhanced climate resilience?



6. Assessing the Green and Safe Health Facilities (GHSF) Manual Tool in terms of preparedness

- How prepared is Central Luzon with the use of the GHSF Manual Tool?



7. Heavy metal contamination affecting the water system of surrounding areas near Mt. Pinatubo

- How extensive is the heavy metal contamination in ground water of areas near Mt. Pinatubo?

CAR

Cordillera Administrative Region



National Health Research Agenda
in Disaster Risk Reduction
and Climate Change Adaptation
2023-2028

Consultative Meeting (Luzon Cluster 1)

The Regional Health Research Agenda for DRR and CCA 2023-2028 was identified through the conduct of consultative meetings in the Luzon, NCR, Visayas, and Mindanao clusters. The consultative meeting for the Luzon Cluster 1 was held on 21 February 2024 in Baguio City. The meeting was facilitated by the University of the Philippines Manila Disaster Risk Reduction and Management for Health Program in collaboration with the Department of Science and Technology Philippine Council for Health Research and Development. 26 participants attended the meeting, with 11 representing CAR.

The research priorities were identified through regional breakout discussions, wherein research topics were prioritized using the following criteria: magnitude of the problem, urgency, capacity and feasibility, equity, and impact. DRR and CCA frameworks, along with information on health research and a situationer defining the national and regional status of DRR and CCA in health, were utilized in formulating the regional priorities.

Regional Health Research Priorities for DRR and CCA



1. Describing adequacy and preparedness of human resources in addressing emerging and re-emerging biological threats

- How adequate and prepared is the healthcare workforce in addressing emerging and re-emerging biological threats related to disasters and emergencies?



2. Documentation of the commonly encountered problems in implementing the DRRM-H plan in CAR

- What are the commonly encountered problems in implementing the DRRM-H plan in CAR?



3. Monitoring the implementation and evaluating the acceptability (or appropriateness) and the effectiveness of the DRRM-H plan

- How well is the monitoring and implementation of the DRRM-H plan in CAR?
- How acceptable (or appropriate) and effective is the DRRM-H plan in CAR?



4. Quality and timeliness of reporting of road incidents

- What is the quality of reporting of road crashes?
 - How does the current disaster/emergency response time in CAR compare to the ideal response time?



5. Inventory of the different data sources (e.g., for non-communicable diseases) to identify specific variables collected by each data source

- What are the different sources of data on diseases in CAR?
- What are the variables collected by sources of disease data in CAR?



6. Documentation of selected community indigenous practices related to responding to disasters, especially problems related to mental health

- What are the indigenous practices, especially regarding mental health, related to disaster response among communities in CAR?



7. Identifying endemic and climate-resilient plants in CAR

- What are the endemic and climate-resilient plants in CAR?
 - How do different environmental factors affect the growth of climate-resilient plants in CAR?

REGION IV-A

CALABARZON



National Health Research Agenda
in Disaster Risk Reduction
and Climate Change Adaptation
2023-2028

Consultative Meeting (Luzon Cluster 2)

The Regional Health Research Agenda for DRR and CCA 2023-2028 was identified through the conduct of consultative meetings in the Luzon, NCR, Visayas, and Mindanao clusters. The consultative meeting for the Luzon Cluster 2 was held on 6 March 2024 in the City of Manila. The meeting was facilitated by the University of the Philippines Manila Disaster Risk Reduction and Management for Health Program in collaboration with the Department of Science and Technology Philippine Council for Health Research and Development. 26 participants attended the meeting, with seven representing Region IV-A.

The research priorities were identified through regional breakout discussions, wherein research topics were prioritized using the following criteria: magnitude of the problem, urgency, capacity and feasibility, equity, and impact. DRR and CCA frameworks, along with information on health research and a situationer defining the national and regional status of DRR and CCA in health, were utilized in formulating the regional priorities.

Regional Health Research Priorities for DRR and CCA



1. Zoonoses in DRR-CCA in health: Rabies, leptospirosis, and dengue public health threats

- What is the influence of a changing climate in the incidence of the emerging and re-emerging zoonoses (rabies, leptospirosis, and dengue) in CALABARZON?
- What are the DRR-CCA actions that can be done to mitigate the occurrence of emerging and re-emerging zoonoses (rabies, leptospirosis, and dengue) in CALABARZON?



2. Effectiveness on implementation of DRRM-H institutionalization

- How effective is the implementation of DRRM-H institutionalization in terms of cost-effectiveness and stakeholder engagement?
- What are the gaps in the implementation of the institutionalized DRRM-H plan?



3. Region-wide service continuity and contingency plan for DRR and CCA in health: CALABARZON

- How resilient is the current health system (in terms of the six building blocks) in responding to disasters and climate-related emergencies?



4. Climate change and health canonical correlation analysis: Temperature and rainfall climate change stimuli to health in CALABARZON

- How are increasing temperature and changing rainfall patterns in climate change stimuli affecting health?



5. Community perception on the impact of disaster and climate change on human health

- What are the perceptions of the community on the impact of disaster and climate change on human health?



6. Integrating mental health support into disaster response efforts

- How can mental health and psychosocial support be implemented before, during, and after different disasters?

REGION IV-B

MIMAROPA



National Health Research Agenda
in Disaster Risk Reduction
and Climate Change Adaptation
2023-2028

Consultative Meeting (Luzon Cluster 2)

The Regional Health Research Agenda for DRR and CCA 2023-2028 was identified through the conduct of consultative meetings in the Luzon, NCR, Visayas, and Mindanao clusters. The consultative meeting for the Luzon Cluster 2 was held on 6 March 2024 in the City of Manila. The meeting was facilitated by the University of the Philippines Manila Disaster Risk Reduction and Management for Health Program in collaboration with the Department of Science and Technology Philippine Council for Health Research and Development. 26 participants attended the meeting, with five representing Region IV-B.

The research priorities were identified through regional breakout discussions, wherein research topics were prioritized using the following criteria: magnitude of the problem, urgency, capacity and feasibility, equity, and impact. DRR and CCA frameworks, along with information on health research and a situationer defining the national and regional status of DRR and CCA in health, were utilized in formulating the regional priorities.

Regional Health Research Priorities for DRR and CCA



1. Health system resilience

- How do mechanisms in service delivery among MIMAROPA contribute to health system resilience?
 - What is the level of health system resilience in terms of service delivery in MIMAROPA provinces?
 - Identify the parameters of health resilience



2. Assessment of status on infectious diseases in MIMAROPA

- How do management strategies impact controlling infectious diseases during disasters in MIMAROPA?
 - What are the management strategies implemented to control infectious diseases during disasters?
 - Identify infectious diseases (respiratory-related tuberculosis) for scoping



3. Weather-induced consequences/ effects on nutritional status of indigenous populations in MIMAROPA and DRRM-H initiatives

- How do DRR initiatives address weather-induced effects on the health and nutritional status of indigenous populations in MIMAROPA?



4. Implementation of DRRM-H in selected LGUs in MIMAROPA in accordance with UHC Act

- How effective is the implementation of DRRM-H in selected LGUs in MIMAROPA in relation to the UHC Act?



5. Exploring the impact of CCA strategies employed by MIMAROPA LGUs to public health

- What are the CCA strategies employed by MIMAROPA LGUs?
 - What are the impacts of CCA strategies on public health?

REGION V

Bicol Region



National Health Research Agenda
in Disaster Risk Reduction
and Climate Change Adaptation
2023-2028

Consultative Meeting (Luzon Cluster 2)

The Regional Health Research Agenda for DRR and CCA 2023-2028 was identified through the conduct of consultative meetings in the Luzon, NCR, Visayas, and Mindanao clusters. The consultative meeting for the Luzon Cluster 2 was held on 6 March 2024 in the City of Manila. The meeting was facilitated by the University of the Philippines Manila Disaster Risk Reduction and Management for Health Program in collaboration with the Department of Science and Technology Philippine Council for Health Research and Development. 26 participants attended the meeting, with six representing Region V.

The research priorities were identified through regional breakout discussions, wherein research topics were prioritized using the following criteria: magnitude of the problem, urgency, capacity and feasibility, equity, and impact. DRR and CCA frameworks, along with information on health research and a situationer defining the national and regional status of DRR and CCA in health, were utilized in formulating the regional priorities.

Regional Health Research Priorities for DRR and CCA



1. Evaluation of health impacts of disaster-affected communities with institutionalized DRRM-H

- How does DRRM-H institutionalization affect the delivery of healthcare services in disaster-affected communities?



2. Best practices of various government levels for pandemic response

- What are the good and replicable practices of various LGUs in pandemic response?



3. Emerging, re-emerging, and waterborne diseases in evacuation centers

- How effective are the existing interventions in the communities to address emerging, re-emerging, and waterborne diseases in evacuation centers?
- What are the indigenous practices/strategies employed to prevent emerging, re-emerging, and waterborne diseases in evacuation centers?



4. Health policy governance during emergencies and disasters

- How do health policy governance structures influence the emergency response and disaster management outcomes of the region?
- What lessons can be learned from past public health emergencies and disasters regarding the role of health policy governance in mitigating risks and ensuring effective response?



5. Human well-being and psychosocial intervention in vulnerable communities

- What is the state of mental health and psychological support among displaced and affected populations due to emergencies and disasters in Region V?



6. Food security during emergencies and disasters

- What are the existing, emerging, and novel risk patterns that affect food and nutrition security during emergencies and disasters?



7. Non-communicable and lifestyle diseases among farmers and fisherfolk

- How do climate change and natural hazards influence non-communicable and lifestyle diseases of farmers and fisherfolk?

NCR

National Capital Region



National Health Research Agenda
in Disaster Risk Reduction
and Climate Change Adaptation
2023-2028

Consultative Meeting (Luzon Cluster 2)

The Regional Health Research Agenda for DRR and CCA 2023-2028 was identified through the conduct of consultative meetings in the Luzon, NCR, Visayas, and Mindanao clusters. The consultative meeting for the Luzon Cluster 2 was held on 6 March 2024 in the City of Manila. The meeting was facilitated by the University of the Philippines Manila Disaster Risk Reduction and Management for Health Program in collaboration with the Department of Science and Technology Philippine Council for Health Research and Development. 26 participants attended the meeting, with eight representing NCR.

The research priorities were identified through regional breakout discussions, wherein research topics were prioritized using the following criteria: magnitude of the problem, urgency, capacity and feasibility, equity, and impact. DRR and CCA frameworks, along with information on health research and a situationer defining the national and regional status of DRR and CCA in health, were utilized in formulating the regional priorities.

Regional Health Research Priorities for DRR and CCA



1. Measurement of the readiness of health workers in terms of quantity and competency concerning public health emergencies and disaster preparedness and response

- How is the readiness of health workers in terms of quantity and competency related to preparing and responding to public health emergencies and disasters?
- What is the level of knowledge and acceptance of the incident command system among health workers?



2. Health consequences post disasters and emergencies

- What are the common health consequences in NCR post disasters and emergencies?



3. Assessment of the mental health resilience of frontliners responding to public health disasters and emergencies

- What is the mental health status of frontliners during disasters and emergencies?



4. Knowledge, attitudes, and practices of DRRM officers in addressing/supporting the needs related to DRRM-H

- What are the knowledge, attitudes, and practices of DRRM officers related to addressing/supporting the needs during disasters and emergencies?

NCR



National Health Research Agenda
in Disaster Risk Reduction
and Climate Change Adaptation
2023-2028

Regional Health Research Priorities for DRR and CCA



5. Relationships, level of coordination, and alignment of practices of DRRM offices and city health offices with respect to disaster preparedness and response

- How can activities on disaster preparedness and response be harmonized among DRRM offices and city health offices?



6. Health needs of persons with disability (PWDs) and other vulnerable groups related to disasters and emergencies

- What are the health needs of PWDs related to disasters and emergencies and possible interventions?



7. Challenges and best practices related to the coordination of DRRM and health emergency operation centers

- What are the problems and best practices in coordination between the DRRM and health emergency operation centers?



8. Feasibility and cost effectiveness of mobile water treatment and purification systems for use during and post disasters in NCR

- What are the different options or approaches that can be used to address the lack of potable (or clean) water which is exacerbated by emergencies and disasters?



9. Nutritional needs of children less than 2 years old in evacuation centers during disasters and emergencies

- Are the nutritional needs of children aged 6-23 months in evacuation centers met during disasters and emergencies?



REGION VI

Western Visayas



National Health Research Agenda
in Disaster Risk Reduction
and Climate Change Adaptation
2023-2028

Consultative Meeting (Visayas Cluster)

The Regional Health Research Agenda for DRR and CCA 2023-2028 was identified through the conduct of consultative meetings in the Luzon, NCR, Visayas, and Mindanao clusters. The consultative meeting for the Visayas Cluster was held on 31 January 2024 in Cebu City. The meeting was facilitated by the University of the Philippines Manila Disaster Risk Reduction and Management for Health Program in collaboration with the Department of Science and Technology Philippine Council for Health Research and Development. 23 participants attended the meeting, with seven representing Region VI.

The research priorities were identified through regional breakout discussions, wherein research topics were prioritized using the following criteria: magnitude of the problem, urgency, capacity and feasibility, equity, and impact. DRR and CCA frameworks, along with information on health research and a situationer defining the national and regional status of DRR and CCA in health, were utilized in formulating the regional priorities.

Regional Health Research Priorities for DRR and CCA



1. Community-driven climate-smart disaster risk management pathways for primary healthcare and well-being

- How can climate change considerations be included in indigenous practices and innovations for primary healthcare and well-being?



2. Water security issues and innovations in sanitation and health in small island contexts

- What are the water security issues and innovations in sanitation and health in small island contexts?



3. Effects of ecosystem changes on health

- How are the ecosystems in Western Visayas changing?
- How do the changes in the ecosystem affect the elements in the health system?



4. Disaster and climate change management in health in GIDAs

- How is health being managed in GIDAs during disasters and climate change?



5. Identifying health indicators and health outcomes in post-pandemic livable communities

- What are the new health outcomes in post-pandemic livable communities?
- What are the new health indicators for a city to be livable?
- What are the post-pandemic inclusive approaches towards the development of new health outcomes and indicators?



6. Capacity-building innovations for disaster and climate-challenged (isolated) communities

- What are the capacity-building innovations for disaster and climate-challenged (isolated) communities?
- Are the capacity-building activities responsive to the needs of the climate-challenged (isolated) communities?

REGION VII

Central Visayas



National Health Research Agenda
in Disaster Risk Reduction
and Climate Change Adaptation
2023-2028

Consultative Meeting (Visayas Cluster)

The Regional Health Research Agenda for DRR and CCA 2023-2028 was identified through the conduct of consultative meetings in the Luzon, NCR, Visayas, and Mindanao clusters. The consultative meeting for the Visayas Cluster was held on 31 January 2024 in Cebu City. The meeting was facilitated by the University of the Philippines Manila Disaster Risk Reduction and Management for Health Program in collaboration with the Department of Science and Technology Philippine Council for Health Research and Development. 23 participants attended the meeting, with seven representing Region VII.

The research priorities were identified through regional breakout discussions, wherein research topics were prioritized using the following criteria: magnitude of the problem, urgency, capacity and feasibility, equity, and impact. DRR and CCA frameworks, along with information on health research and a situationer defining the national and regional status of DRR and CCA in health, were utilized in formulating the regional priorities.

Regional Health Research Priorities for DRR and CCA



1. Knowledge, attitudes, and practices on emergency preparedness and the response of health professionals

- What are the knowledge, attitudes, and practices of health professionals in CAR in terms of emergency preparedness and response?



2. Assessment of the needs of senior citizens during disasters and emergencies

- What are the needs of senior citizens in Central Visayas during disasters and emergencies?



3. Functionality of the 'e-referral system' in health facilities in Central Visayas

- How is the functionality of the 'e-referral system' in health facilities in Central Visayas?



4. Compliance with the GSHF Manual among DOH-retained facilities

- Are DOH-retained facilities in Central Visayas compliant with the DOH GSHF Manual?



5. Assessment of the conduct of simulation exercises, tabletops, and drills for all hazards among LGUs in Central Visayas

- How are the conduct of simulation exercises, tabletops, and drills for all hazards among LGUs in Central Visayas?



6. Defining the roles of community volunteers (barangay health workers (BHWs), barangay nutrition scholars (BNSs), sanitary officers (SOs), etc.) in emergencies

- What are the roles of community volunteers (BHWs, BNSs, SOs, etc.) in emergencies?



7. Compilation of the best practices for managing domestic animals/livestock

- What are the best practices for managing domestic animals/livestock in Central Visayas?

REGION VIII

Eastern Visayas



National Health Research Agenda
in Disaster Risk Reduction
and Climate Change Adaptation
2023-2028

Consultative Meeting (Visayas Cluster)

The Regional Health Research Agenda for DRR and CCA 2023-2028 was identified through the conduct of consultative meetings in the Luzon, NCR, Visayas, and Mindanao clusters. The consultative meeting for the Visayas Cluster was held on 31 January 2024 in Cebu City. The meeting was facilitated by the University of the Philippines Manila Disaster Risk Reduction and Management for Health Program in collaboration with the Department of Science and Technology Philippine Council for Health Research and Development. 23 participants attended the meeting, with eight representing Region VIII.

The research priorities were identified through regional breakout discussions, wherein research topics were prioritized using the following criteria: magnitude of the problem, urgency, capacity and feasibility, equity, and impact. DRR and CCA frameworks, along with information on health research and a situationer defining the national and regional status of DRR and CCA in health, were utilized in formulating the regional priorities.

Regional Health Research Priorities for DRR and CCA



1. Allocation, distribution, and utilization of local DRRM fund for DRRM-Health across LGUs in Eastern Visayas

- What is the percentage of the DRRM fund allocated to DRRM-H in different LGUs?
- How are DRRM-H funds utilized in different LGUs?



2. Assessment of the consequences of health service discontinuity during emergencies and disasters

- What are the effects of health service discontinuity on the health and nutrition of affected populations during disasters and emergencies?



3. Actual disaster response among LGUs with institutionalized DRRM-H

- What are the challenges and best practices during disaster response from identified LGUs with institutionalized DRRM-H?



4. Effects and risk of climate change across all ages and vulnerable sectors

- What are the health and nutrition effects of climate change across all ages and vulnerable sectors?



5. Effectiveness of multi-sectoral collaboration, coordination, and information exchange on DRR-CCA in health

- What is the effectiveness of collaboration, multisectoral information exchange on DRR-CCA in health?



6. Utilization of the different layers of space-based technology and modeling to project impacts of natural hazards (meteorological, biological, etc.)

- How can space-based technology and modeling be utilized to project the health impacts of natural hazards?

REGION IX

Zamboanga Peninsula



National Health Research Agenda
in Disaster Risk Reduction
and Climate Change Adaptation
2023-2028

Consultative Meeting (Mindanao Cluster)

The Regional Health Research Agenda for DRR and CCA 2023-2028 was identified through the conduct of consultative meetings in the Luzon, NCR, Visayas, and Mindanao clusters. The consultative meeting for the Mindanao Cluster was held on 4 April 2024 in Davao City. The meeting was facilitated by the University of the Philippines Manila Disaster Risk Reduction and Management for Health Program in collaboration with the Department of Science and Technology Philippine Council for Health Research and Development. 29 participants attended the meeting, with four representing Region IX.

The research priorities were identified through regional breakout discussions, wherein research topics were prioritized using the following criteria: magnitude of the problem, urgency, capacity and feasibility, equity, and impact. DRR and CCA frameworks, along with information on health research and a situationer defining the national and regional status of DRR and CCA in health, were utilized in formulating the regional priorities.

Regional Health Research Priorities for DRR and CCA



1. Governance issues in the implementation of DRRM-H

- What are the issues concerning structure, enabling policy, and stakeholders' impact on the implementation of DRRM-H?



2. Health assessment brought by flooding in Zamboanga Peninsula

- What are the health hazards, exposure, risk, occurrence, health consequences, and response of the region during flooding with a focus on the rapid intensification of localized weather events?



3. Funding allocation

- How do local governments develop the local investment plan for health hazards?



4. Health assessment brought by drought

- What are the health hazards, exposure, risk, occurrence, health consequences, and response of the region brought by drought?



5. Assessing surge and coping capacity of the health system during disasters

- What are the public health services and clinical services of the region during disasters?



6. Dengue

- How effective are dengue control programs during disasters in Zamboanga Peninsula?



7. Diarrhea

- How effective are WASH programs during disasters in Zamboanga Peninsula?



8. Hepatitis A and human immunodeficiency virus (HIV)

- How does the disruption brought by disasters affect the control programs for chronic diseases in Zamboanga Peninsula?



9. Data needs for DRRM-H

- What are the data requirements and procedures for setting up the surveillance system for DRR and management in health?



10. Mental health after disasters

- What are the mental health issues in the region after a disaster?

REGION X

Northern Mindanao



National Health Research Agenda
in Disaster Risk Reduction
and Climate Change Adaptation
2023-2028

Consultative Meeting (Mindanao Cluster)

The Regional Health Research Agenda for DRR and CCA 2023-2028 was identified through the conduct of consultative meetings in the Luzon, NCR, Visayas, and Mindanao clusters. The consultative meeting for the Mindanao Cluster was held on 4 April 2024 in Davao City. The meeting was facilitated by the University of the Philippines Manila Disaster Risk Reduction and Management for Health Program in collaboration with the Department of Science and Technology Philippine Council for Health Research and Development. 29 participants attended the meeting, with three representing the Region X.

The research priorities were identified through regional breakout discussions, wherein research topics were prioritized using the following criteria: magnitude of the problem, urgency, capacity and feasibility, equity, and impact. DRR and CCA frameworks, along with information on health research and a situationer defining the national and regional status of DRR and CCA in health, were utilized in formulating the regional priorities.

Regional Health Research Priorities for DRR and CCA



1. Mental health post-disaster

- What is the capacity of the general population to identify warning signs of mental health problems after a disaster?



2. National policy in the implementation of electronic medical records (EMRs) in DRR Management

- What are the policies to strengthen the interoperability of EMRs towards the implementation of DRR management?



3. Capacitating communities at the barangay level

- What are the pre and post-disaster mental health preparedness programs among BHWs?
- How is the upskilling of BHWs effective in terms of disaster preparedness and response?



4. Rural health unit (RHU) capacity and incidence of diseases after flooding

- What is the incidence of diseases in evacuation centers among the vulnerable population?
- What are the identified strategies to strengthen RHU resources in identified flood-prone areas?
- What is the level of effectiveness of RHU preparedness in attaining barangay resiliency?



5. Food-related problems in camp management

- What is the nutritional level among vulnerable internally displaced people affected by disasters?



6. Re-emerging diseases during disasters

- What is the impact of emerging diseases to re-emerging diseases during disasters?



7. Access to communication during disasters

- How efficient and effective is access to communication in the health care delivery during a disaster?

REGION XI

Davao Region



National Health Research Agenda
in Disaster Risk Reduction
and Climate Change Adaptation
2023-2028

Consultative Meeting (Mindanao Cluster)

The Regional Health Research Agenda for DRR and CCA 2023-2028 was identified through the conduct of consultative meetings in the Luzon, NCR, Visayas, and Mindanao clusters. The consultative meeting for the Mindanao Cluster was held on 4 April 2024 in Davao City. The meeting was facilitated by the University of the Philippines Manila Disaster Risk Reduction and Management for Health Program in collaboration with the Department of Science and Technology Philippine Council for Health Research and Development. 29 participants attended the meeting, with 10 representing Region XI.

The research priorities were identified through regional breakout discussions, wherein research topics were prioritized using the following criteria: magnitude of the problem, urgency, capacity and feasibility, equity, and impact. DRR and CCA frameworks, along with information on health research and a situationer defining the national and regional status of DRR and CCA in health, were utilized in formulating the regional priorities.

Regional Health Research Priorities for DRR and CCA



1. Community and culture (socio-anthropological theme) in DRR-CCA in health

- What is the knowledge and perception of the communities in the Davao Region on the DRR CCA as a basis for basic interventions?



2. Emerging and re-emerging diseases during disasters and post-disasters

- What surveillance data can be utilized/are relevant data according to weather patterns to predict weather-sensitive diseases?



3. Governance and legislation in DRR-CCA in health

- What are the barriers to the city-wide and province-wide implementation of DRRM and CCA in health in the Davao Region?
- What are the barriers to increasing the funding for health research in the context of DRRM-H? What are the alternative mechanisms to increase the health research fund specific for the Davao Region?



4. WASH-education interventions

- What are the water and sanitation programs existing in the Davao region and their impact on the implementation of WASH programs during disasters?



5. Environmental impact of/on healthcare delivery

- What is the impact of environmental hazards on disease burden?
- What is the impact of healthcare service delivery on the environment?



6. Emergency care systems

- What is the current understanding of different DRRM-H personnel of emergency care systems?
- How to integrate emergency care systems in the DRRM-H framework?

REGION XII

SOCCSKSARGEN



National Health Research Agenda
in Disaster Risk Reduction
and Climate Change Adaptation
2023-2028

Consultative Meeting (Mindanao Cluster)

The Regional Health Research Agenda for DRR and CCA 2023-2028 was identified through the conduct of consultative meetings in the Luzon, NCR, Visayas, and Mindanao clusters. The consultative meeting for the Mindanao Cluster was held on 4 April 2024 in Davao City. The meeting was facilitated by the University of the Philippines Manila Disaster Risk Reduction and Management for Health Program in collaboration with the Department of Science and Technology Philippine Council for Health Research and Development. 29 participants attended the meeting, with three representing Region XII.

The research priorities were identified through regional breakout discussions, wherein research topics were prioritized using the following criteria: magnitude of the problem, urgency, capacity and feasibility, equity, and impact. DRR and CCA frameworks, along with information on health research and a situationer defining the national and regional status of DRR and CCA in health, were utilized in formulating the regional priorities.

Regional Health Research Priorities for DRR and CCA



1. Development of standardized metrics to determine the cost-efficiency and effectiveness of resource allocation for DRRM-H/Nutrition in Emergencies (NiEM) Plan

- What are the factors to consider in identifying the budgetary requirements for DRRM-H/NiEM in an LGU or barangay?
 - Regular budget allocation for DRRM-H/NiEM
 - Regular budget allocation specific for the prepositioning of resources for health and nutrition
 - Budget allocation for human resources for health, health promotion, and emergency preparedness
- What are the current means of determining the efficiency and effectiveness of the budget allocation in relation to the services provided?
- What are the possible fund sources for DRRM-H/NiEM?
- What is the status of the organization and level of functionality in the DRRM-H/nutrition cluster?



2. Improving the dissemination and implementation of existing health and nutrition policies on emergency and resilience

- What are the existing policies implemented in LGUs related to DRRM-H and nutrition in emergency policy?
- How is the implementation of existing policies on DRRM-H/NiEM Plan monitored and evaluated?
- What is the budget allotted for the implementation and monitoring of the DRRM-H/NiEM policies?
- How are the results of monitoring and evaluation processes, analyzed, disseminated, and utilized for planning and program development?



3. Impact of WASH on emergency management and resiliency

- What is the impact of WASH on emergency management in Region XII?
- How can the WASH practices of Region XII improve?
- How can we mobilize the households of Region XII with poor access to water and sanitation?

REGION XII

Regional Health Research Priorities for DRR and CCA



National Health Research Agenda
in Disaster Risk Reduction
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4. Medicine and vaccination hesitancy and resistance for basic vaccine-preventable diseases (measles, mumps and rubella, oral polio vaccine, dengue) and COVID-19, and the re-emergence of polio

- What are the factors affecting vaccination or medicine hesitancy among the cultural groups?
- What are the factors influencing the digitalization or centralization in archiving vaccine information?
- How can the LGU influence the local leaders to promote and be receptive with public health advisories?



5. Cultural influences on the health-seeking behavior, access to basic services, and risks associated with teenage pregnancy

- How can teenage pregnant women be encouraged to avail the health and nutrition services?
- How can the knowledge on the prevention and risks of teenage pregnancy increase?
- How can the practices to engage in early marriage/pregnancy be prevented?
- What are the cultural factors influencing teenage pregnancy and health seeking behavior before, during, and after disasters?



6. Usability of reporting and surveillance information through horizontal and vertical means

- How can effective, accurate, and timely information exchange during times of crisis and disasters be developed?



REGION XIII

Caraga



National Health Research Agenda
in Disaster Risk Reduction
and Climate Change Adaptation
2023-2028

Consultative Meeting (Mindanao Cluster)

The Regional Health Research Agenda for DRR and CCA 2023-2028 was identified through the conduct of consultative meetings in the Luzon, NCR, Visayas, and Mindanao clusters. The consultative meeting for the Mindanao Cluster was held on 4 April 2024 in Davao City. The meeting was facilitated by the University of the Philippines Manila Disaster Risk Reduction and Management for Health Program in collaboration with the Department of Science and Technology Philippine Council for Health Research and Development. 29 participants attended the meeting, with six representing Region XIII.

The research priorities were identified through regional breakout discussions, wherein research topics were prioritized using the following criteria: magnitude of the problem, urgency, capacity and feasibility, equity, and impact. DRR and CCA frameworks, along with information on health research and a situationer defining the national and regional status of DRR and CCA in health, were utilized in formulating the regional priorities.

Regional Health Research Priorities for DRR and CCA



1. Food security (vulnerability) of households in island barangays

- What are the primary factors affecting food security in terms of availability, accessibility, affordability, and utilization of food among households in island communities in Caraga?



2. Emerging and re-emerging diseases after typhoons/flooding and other climate change events in Caraga

- What is the epidemiological trend of emerging and re-emerging diseases in Caraga for the past 10 years?



3. Assessing the impact of climate change on water sufficiency in island communities in Caraga

- What is the level of water sufficiency in island communities in Caraga?
- What are the effects of climate change on water sufficiency in island communities in Caraga?
- What are the alternative sources for areas with poor access to potable water?



4. Healthcare waste management

- What is the level of implementation of healthcare waste (solid and hazardous) management guidelines among health facilities in Caraga?
- What are the practices being implemented by the health care facilities about health care waste management?



5. Health and well-being among flood-prone communities and/or armed conflict communities in Caraga

- What are the prevalent health issues among flood-prone communities/or armed conflict communities in Caraga region?
- How is the well-being of people in flood-prone/armed conflict communities in Caraga in terms of psychological, physical, social, and material dimensions?

REGION XIII

Regional Health Research Priorities for DRR and CCA



National Health Research Agenda
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6. Acceptability of food commodities among indigenous people (IP)

- What are the factors that affect the acceptability of health and nutrition services/packages among IP before, during, and after disasters?



7. Implementation of breastfeeding as the only reliable food during emergencies

- What is the level of implementation and compliance of breastfeeding policies during emergencies?
- What are the factors that influence the implementation and compliance of breastfeeding policies?



8. Development of a much “likable” or “acceptable” RUTF for children during disasters

- What is the acceptability of the current RUTF?
- What is the preference for RUTF of children in terms of color, taste, aroma, texture, and flavor?



9. Coordination among different stakeholders during disaster response

- What are the existing coordination systems being implemented during disaster response?
- What are the gaps (ex., data) in implementing coordination systems during disaster response?

BARMM

Bangsamoro Autonomous Region in Muslim Mindanao



National Health Research Agenda
in Disaster Risk Reduction
and Climate Change Adaptation
2023-2028

Consultative Meeting (Mindanao Cluster)

The Regional Health Research Agenda for DRR and CCA 2023-2028 was identified through the conduct of consultative meetings in the Luzon, NCR, Visayas, and Mindanao clusters. The consultative meeting for the Mindanao Cluster was held on 4 April 2024 in Davao City. The meeting was facilitated by the University of the Philippines Manila Disaster Risk Reduction and Management for Health Program in collaboration with the Department of Science and Technology Philippine Council for Health Research and Development. 29 participants attended the meeting, with three representing BARMM.

The research priorities were identified through regional breakout discussions, wherein research topics were prioritized using the following criteria: magnitude of the problem, urgency, capacity and feasibility, equity, and impact. DRR and CCA frameworks, along with information on health research and a situationer defining the national and regional status of DRR and CCA in health, were utilized in formulating the regional priorities.

Regional Health Research Priorities for DRR and CCA



1. Benchmarking access to healthcare in GIDAs affected by disaster

- What is the present situation in BARMM in terms of health service delivery?
- What are the practices adopted by GIDA communities affected by disasters in accessing/delivering health care?



2. Health risk assessment of vulnerable communities affected by drought and flooding

- What are the most common diseases during drought and flooding?
- What are the strategies to be used to prevent disease outbreaks during drought and flooding?



3. Strengthening WASH in emergencies in evacuation centers

- What are the problems in implementing WASH during emergencies in evacuation centers?
- How can WASH strategies be sustained during emergencies in evacuation centers?



4. IEC/early warning system at the community level to reduce risks of DRR-CCA in health

- What are the gaps in the present early warning system?
- How to improve the IEC/early warning system at the barangay level to reduce risks of disaster and climate change impact?
- How to harmonize data and information systems of public health care facilities with the DRR-CCA sector?

BARMM

Regional Health Research Priorities for DRR and CCA



National Health Research Agenda
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5. Transcending cultural practices to increase acceptance of health solutions during disaster

- What are the Indigenous practices of DRR-CCA in health?
- What are the enabling factors affecting the acceptance of health solutions in indigenous communities during disasters?



6. Human and infrastructure capacity for DRR-CCA in health prevention and mitigation

- What is the current human and infrastructure capacity for prevention and mitigation of health impacts brought by disasters and climate change?
- How do we improve human and infrastructure capacity in preventing and mitigating risks in DRR-CCA in health?



7. Impact on mental health of communities affected by armed conflict

- What is the incidence of mental health among communities affected by armed conflict?
- What are the coping mechanisms adapted by communities to address mental health issues during armed conflicts?



8. Innovations for sufficient water supply in highland and island communities

- What are the current water sources of highland and island communities?
- How can local governments access technology and financing to produce sufficient water supply?



Annexes

Annex F. NVivo hierarchy chart and word cloud



Figure 12. NVivo hierarchy chart



Figure 13. NVivo word cloud

Annexes

Annex G. Slido poll results

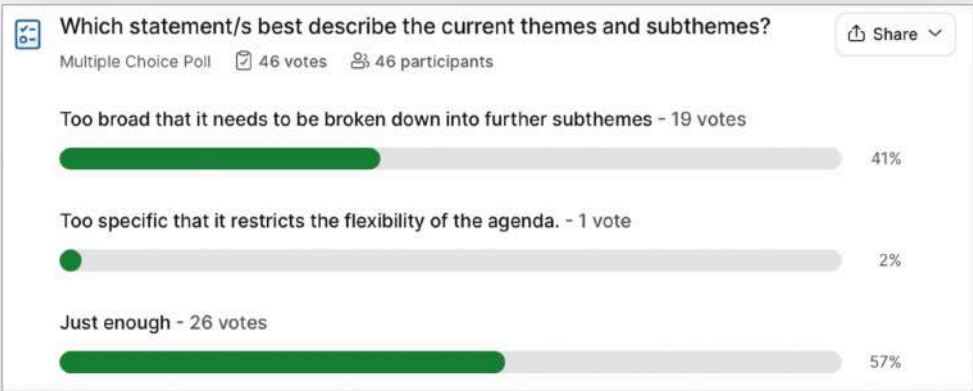


Figure 14. Slido poll results (Question 1)

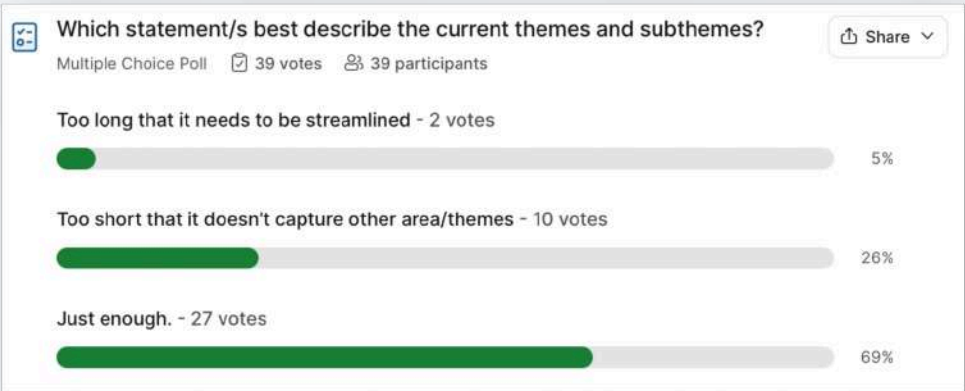


Figure 15. Slido poll results (Question 2)

Annexes

Annex H. Additional topics suggested during the National Consultation

- Factors influencing why malaria is still present in Palawan
- Impact of climate change on indigenous people
- Function of governance in DRRM at the LGU level
- The national/international commitments of the Philippines in terms of DRR and CCA in health and the country's level of commitment to these targets
- Care for the carers
- Transdisciplinary approach in addressing health in disasters/emergencies
- WASH as climate change adaptation (e.g. sanitation infrastructures to deal with climate-induced sanitation issues)
- Technologies for climate resilient water systems that are needed to implement in areas endemic for water-borne diseases such as cholera
- Intersection of climate change to DRR (climate-induced disasters/emergencies) and the effects of DRR on health
- Impact of specie extinction (e.g., plasmodium) on the environment in the long run
- Finance and budget allocations in the country in terms of DRR and CCA in health as a part of the National Adaptation Plan
- Basic reproductive health services in the context of disasters
- Loss and damages in health (morbidity and mortality)
- Logistic management in health services
- Cyber measures to mitigate cyber threats
- Chemical, biological, radiological, nuclear, explosive preparedness in LGUs
- Infrastructure review on demand of changing population and landscape
- Effects of climate change on food security
- Cultural practices affected by flooding/disasters
- Gender nutrition gap such as with women in times of disasters
- Assessment on the capability to meet the demands of the growing population and changing landscape of the country
- Development of an early warning system
- Gaps in coordination between private and public sector in delivering response during disasters
- Analysis of health impact of existing policies related to DRR-CCA in health (e.g. policies on black carbon)
- Impact of climate change on air pollution
- Surveillance on preparedness and response to emergencies and disasters

Annexes

Annex H. Additional topics suggested during the National Consultation

- Surveillance, data management, and technology
- Energy crisis impacts on health
- Care for the responders, medically and psychologically
- Readiness in terms of resources (e.g. life-saving equipment)
- Research on adaptive and shock responsive social protection relative to health
- Nature based solutions
- Innovations in DRR-CCA in health
- Mapping of vulnerable sectors
- Research recognizing the interconnectedness of humans, animals, and the environment to provide more comprehensive answers to health questions (One Health) with full perspective of a changing climate
- Antimicrobial resistance surveillance with access to better near real time data for timely and relevant data analytics
- One Health and antimicrobial resistance surveillance in a watershed, in line with the flagship programs of the University of the Philippines to co-create knowledge with state universities and colleges/higher education institutes and LGUs
- Research on the possible measures to increase fully immunized children to 95% from the current data of 71%
- Research on the possible measures to decrease stunting or undernutrition by 50% over the next 5 years (Current prevalence of stunting is 27%.)
- Research on the possible measures to decrease maternal mortality below 100 per 100,000 live births from the current data of 144 per 100,000 with teenage pregnancy as the biggest contributor
- Research on the possible measures to achieve the goal of zero deaths from tuberculosis
- Research on the possible measures to efficiently test HIV in high risk populations and provide treatment
- Research on how to decrease deaths from motorized ten wheelers by 50% (road safety)
- Research on the capacity building, evaluation activities, and policies for DRR of non-teaching personnel in schools
- Impact of climate change on the health of vulnerable populations particularly on the young learners and instructors nearing retirement age
- Human resource during emergencies in lieu of the shortage of health personnels in schools
- Restoration of class opening and its impact on student's learning
- Students' post-mental debriefing following a disaster
- Effects of the "Gulayan sa Paaralan" Program on communal food sustainability in schools

Annexes

Annex I. List of participating agencies

Consultative Meetings

Region I (Ilocos Region)

- Department of Health - Ilocos Region Center for Health Development
- Ilocos Center for Research, Empowerment, and Development, Inc.
- Mariano Marcos Memorial Hospital and Medical Center
- National Nutrition Council Region I
- Office of Civil Defense Region I

Region II (Cagayan Valley)

- Cagayan Valley Health Research and Development Consortium
- City Disaster Risk Reduction and Management Office
- Department of Health - Cagayan Valley Center for Health Development

Region III (Central Luzon)

- Central Luzon Health Research and Development Consortium
- Department of Health - Central Luzon Center for Health Development
- Olongapo City DRRM Office

Cordillera Administrative Region

- Baguio City Health Services Office
- Baguio General Hospital and Medical Center
- Community Health Education, Services and Training in the Cordillera Region
- Cordillera Disaster Response and Development Services
- Department of Health - Cordillera Center for Health Development
- Office of Civil Defense CAR
- University of Baguio

Region IV-A (CALABARZON)

- Department of Interior and Local Government Region IV-A
- Department of Health - Center for Health Development CALABARZON
- School of Environmental Science and Management, University of the Philippines Los Baños
- University of the Philippines Open University

Annexes

Annex I. List of participating agencies

Region IV-B (MIMAROPA)

- Department of Health - Center for Health Development Region MIMAROPA
- National Economic and Development Authority Region IV-B
- National Nutrition Council Region IV-B
- Office of Civil Defense Region IV-B
- Palawan State University
- Romblon State University

Region V (Bicol Region)

- Central Bicol State University of Agriculture
- Department of Science and Technology Region V
- Department of Social Welfare and Development Region V
- Department of Health - Bicol Center for Health Development
- Local Association of DRRMOs of Albay

NCR

- Ateneo de Manila University School of Medicine and Public Health
- Department of Health - Metro Manila Center for Health Development
- Manila Health Department
- Navotas City DRRM Office
- National Nutrition Council NCR

Region VI (Western Visayas)

- Capiz State University
- Department of Social Welfare and Development Region VI
- National Economic and Development Authority Region VI
- Office of Civil Defense
- University of the Philippines Visayas
- Western Visayas Network of NGOs
- West Visayas State University

Annexes

Annex I. List of participating agencies

Region VII (Central Visayas)

- Central Visayas Consortium for Health Research and Development
- Central Visayas Network of NGOs
- Department of Health - Cebu South Medical Center
- Department of Health - Central Visayas Center for Health Development
- Department of Social Welfare and Development Region VII
- Negros Oriental Local DRRM Division
- Office of Civil Defense Region VII
- Tagbilaran City DRRM Office

Region VIII (Eastern Visayas)

- City Government of Ormoc
- Department of Health - Eastern Visayas Center for Health Development
- Eastern Visayas Network of NGOs and POs
- Eastern Visayas State University - Carigara Campus
- Mines and Geosciences Bureau Region VIII
- National Nutrition Council Region VIII
- Provincial Health Office of Biliran

Region IX (Zamboanga Peninsula)

- Ateneo de Zamboanga University
- Bukidnon State University
- Department of Science and Technology Region IX
- Isabela City Government
- Office of Civil Defense Region IX

Region X (Northern Mindanao)

- Department of Health - Northern Mindanao Center for Health Development
- Northern Mindanao Consortium for Health Research and Development
- University of Science and Technology of Southern Philippines Cagayan de Oro

Annexes

Annex I. List of participating agencies

Region XI (Davao Region)

- Davao City DRRM Office
- Department of Health - Davao Center for Health Development
- Mines and Geosciences Bureau Region XI
- Mindanao Center for Disease Watch and Analytics, University of the Philippines Mindanao
- National Nutrition Council Region XI
- Southern Philippines Medical Center

Region XII (SOCCSKSARGEN)

- National Nutrition Council Region XII
- University of Southern Mindanao

Region XIII (Caraga)

- Caraga State University
- Department of Health - Caraga Center for Health Development
- Department of Social Welfare and Development Region XIII
- Mines and Geosciences Bureau Region XIII
- National Nutrition Council Region XIII

BARMM

- Basilan Provincial DRRM Office
- Mindanao State University - Maguindanao
- Ministry of Environment Natural Resources and Energy - Mines and Geosciences Services

Annexes

Annex I. List of participating agencies

National Consultation

Government Agencies/Offices

- Bureau of Fire Protection - National Headquarters - Special Operations Division
- Climate Change Commission Philippines
- Commission on Higher Education - Office of Planning, Research & Knowledge Management
- Department of Education - Olongapo City
- Department of Environment and Natural Resources - Climate Change Service
- Department of Environment and Natural Resources - Mines and Geosciences Bureau
- Department of Health - Health Emergency Management Bureau
- Department of Health - Health Policy Development and Planning Bureau
- Department of Information and Communications Technology - Government Emergency Communications System
- Department of Interior and Local Government
- Department of Interior and Local Government - Central Office Disaster Information Coordinating Center
- Department of Science and Technology - Disaster Risk Reduction and Climate Change Unit, Office of the Secretary
- Department of Science and Technology - Philippine Council for Health Research and Development
- Department of Science and Technology - Philippine Institute of Volcanology and Seismology
- Department of Social Welfare and Development - Disaster Response Management Bureau
- National Center for Mental Health
- Office of Civil Defense
- Office of the Presidential Adviser on Peace, Reconciliation and Unity
- Philippine Coast Guard
- Philippine Coast Guard Medical Services
- Philippine National Police - Health Service
- Philippine National Police - Police Community Affairs and Development Group

Annexes

Annex I. List of participating agencies

Non-Government Organizations

- Alliance for Improving Health Outcomes
- Asia Pacific Alliance for Disaster Management Philippines
- HOPE Worldwide Philippines Inc.
- World Wide Fund for Nature - Asia Pacific
- Philippine Red Cross - Disaster Management Services
- Philippine Red Cross - Health Services

Bilateral Organization

- World Health Organization Philippines

Academe

- De La Salle University Manila
- Philippine Academic Society for Climate and Disaster Resilience
- Philippine Public Safety College
- University of the Philippines Diliman



National Health Research Agenda in DRR and CCA 2023-2028 Committee

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