2014-2016 National Climate Change Adaptation in Health (CCAH) Strategic Plan

Acronyms and Abbreviations

ADB	Asian Development Bank
AIDS	Acquired Immune Deficiency Syndrome
AO	Administrative Order
AOP	Annual Operational Plan
ARMM	Autonomous Region for Muslim Mindanao
BHERTs	Barangay Health Emergency and Response Teams
BHS	Barangay Health Station
BHW	Barangay Health Worker
BIHC	Bureau of International Health Cooperation
BLS	Basic Life Support
^{o} C	Degree Centigrade
CBDSS	Community-Based Disease Surveillance System
CC	Climate Change
CCA	Climate Change Adaptation
CCAH	Climate Change Adaptation in Health
CCVI	Climate Change Vulnerability Index
CESM	Community Earth System Model
CESU	City Epidemiology and Surveillance Unit
CFL	Compact Fluorescent Light
CHD	Center for Health and Development
CHO	City Health Office
CHT	Community Health Team
CIPH	City-Wide Investment Plan for Health
CRED	Centre for Research on the Epidemiology of Disasters
CVD	Cardio-Vascular Disease
DA	Department of Agriculture
DAP	Development Academy of the Philippines
DC	Department Circular
DDO	Degenerative Disease Office
DENR	Department of Environment and Resources
DepEd	Department of Education
DILG	Department of Interior and Local Government
DOH	Department of Health
DRRM	Disaster Risk Reduction and Management
EMB	Environmental Management Bureau
EOHO	Environmental and Occupational Health Office
FHSIS	Field Health Service Information System
GAR	Global Assessment Report
GOP	Government of the Philippines
GTZ	*Gesellschaft für Technische Zusammenarbeit*
HEARS	Health Emergency and Reporting System

HEMS	Health Emergency Management Staff
HEPO	Health Education and Promotion Officer
HERO	Health Emergency Response Operations
HFEP	Health Facility Enhancement Program
HIV	Human Immunodeficiency Virus
HPDPB	Health Policy Development and Planning Bureau
HPN	Hypertension
HSRA	Health Sector Reform Agenda
IACC	Inter-Agency Committee on Climate Change
IACEH	Inter-Agency Committee on Environmental Health
IDO	Infectious Disease Office
IEC	Information, Education and Communication
IHPDS	Institute for Health Policy and Development Studies
ILHZ	Inter-Local Health Zone
IRR	Implementing Rules and Regulations
IYCF	Infant and Young Child Feeding
JICA	Japan International Cooperating Agency
JTWC	Joint Typhoon Warning Centre
KP	*Kalusugan Pangkalahatan*
KRA	Key Result Area
LCE	Local Chief Executive
LED	Lead Emitting Diode
LGU	Local Government Unit
LHB	Local Health Board
ME3	Monitoring and Evaluation for Efficiency and Effectiveness
M and E	Monitoring and Evaluation
MDGF	Millennium Development Goal Fund
MESU	Municipal Epidemiology and Surveillance Unit
MHO	Municipal Health Office
MIPH	Municipal-Wide Investment Plan for Health
MMLDC	Meralco Management and Leadership Development Center
MMWR	Morbidity and Mortality Weekly Report
MTPDP	Medium Term Philippine Development Plan
NCCC	National Communications for Climate Change
NCDPC	National Center for Disease Prevention and Control
NCDs	Non-Communicable Diseases
NCFHD	National Center for Facilities and Health Development
NCR	National Capital Region
NDRRMC	National Disaster and Risk Reduction and Management Council
NEC	National Epidemiology Center
NEDA	National Economic and Development Authority
NFPP	National Framework for Physical Planning
NHTSPR	National Household Targeting System for Poverty Reduction
NIEHS	National Institute of Environmental Health Sciences

NIH	National Institute for Health
NWRB	National Water Resources Board
ONEISS	Online National Electronic Injury Surveillance System
PAGASA	Philippine Atmospheric Geophysical and Astronomical Services Administration
PCHRD	Philippine Council for Health Research and Development
PESU	Provincial Epidemiology and Surveillance Unit
PHEMAP	Public Health and Emergency Management in Asia and the Pacific
PHILHEALTH	Philippine Health Insurance Corporation
PHO	Provincial Health Office
PIDSR	Philippines Integrated Disease Surveillance and Response
PIPH	Province-Wide Investment Plan for Health
PPA	Programs, Projects and Activities
PPP	Public Private Partnership
PWDs	People With Disabilities
RA	Republic Act
REAPs	Re-Entry Action Plans
RHU	Rural Health Units
RIACEH	Regional Inter-Agency Committee on Environmental Health
SMS	Short Messaging System
SPEED	Surveillance in Post- Extreme Emergencies and Disasters
TWG	Technical Working Group
UN	United Nations
UNCED	United Nations Conference on Environment and Development
UNFCCC	United Nations Framework Convention on Climate Change
UP	University of the Philippines
WASH	Water, Sanitation and Hygiene
WHO	World Health Organization

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Executive Summary

The unrelenting pressure on human health due to climate change, highlighted by the devastation brought by Super Typhoon 'Yolanda' underscore the essentiality of a strategic plan on climate change adaptation for health (CCAH). This document will compass the overall direction of the country's efforts towards a comprehensive climate change adaptation in the health sector.

The development of the 2014-2016 CCAH Strategic Plan is anchored on previous frameworks, policies and guidelines issued by the Philippine Government the Department of Health (DOH). A comprehensive assessment of the on-going CCAH initiatives being implemented was also performed. Extensive consultations from the members of the DOH-CCAH Technical Working Group representing various DOH offices and programs, development partners, Climate Change Commission (CCC) and other national government agencies in a series of meetings comprised the planning stages. Inputs from the selected regional and local levels were obtained through field validation visits. Information from all these activities was synthesized in two planning workshops: the first held last October 2013 among national representatives and the second one on February 2014 attended regional CCAH Coordinators.

The assessment generated a list of strong points propelling the CCAH initiatives in the health sector in the past 5 years but also identified major gaps to be addressed. Despite the strong policy environment on which to support CCAH initiatives, concrete guidelines and tools to operationalize the policies and strategies need to be developed. Orientation and training conducted among national, regional, and, to some extent, LGU level health sector staff (through the MDGF assistance from 2009 to 2012) on CCAH are insufficient to sustain CCAH projects and initiatives. A comprehensive CCAH Promotion Plan was also developed including several IEC materials. The plan remained unimplemented due to lack of resources for its implementation, and that the IEC materials supported by the project haven not been followed through with another set from the DOH. The DOH integrated the CCAH under the DOH-Environmental and Occupational Health Office with a designated program coordinator and assisted by 3 to 4 part-time NCDPC staff. A CCAH TWG was established in response to the MDGF project. The group has not been reconvened after the MDGF assistance for CCAH ended. Several CCAH vulnerability assessment tools developed remain unutilized at the local levels. A complete listing of the strengths and gaps are fully discussed the main document.

The assessment report lists the following recommendations in the identified areas of concern:

(A) Policy formulation, planning, networking and resource mobilization,

(1) Operationalize the framework, policies and strategies to the level that these are actionable and implementable by those concerned

(2) Undertake a systematic review of all health programs and assess how these existing program policies, standards and plans could incorporate CCAH.

(3) Thoroughly map out/inventory potential partners, their scope of work, potential contributions in CCAH and establish links;

(4) Create supportive environment at the local level for the adaptation of CC on Health (e.g. local resolution to include CCAH initiatives / activities)

(5) Include policy on ground water depletion – contamination of drinking water (DENR/National Water Resources Board (NWRB).

(6) Intensify mobilization of resources within DOH, development partners and other national agencies as CCAH interventions are cascaded down to the LGUs.

(B) Service provision, capacity and infrastructure enhancement,

(7) Develop alternative service delivery models/mechanisms appropriate for high risk/hazard prone areas to ensure continuity of service provision.

(8) Review functions expected of concerned DOH offices at the national and sub-national levels on CCAH including the expected roles of the LGUs in order to design and implement responsive training programs (beyond Basic CC Orientation) to equip them perform their tasks.

(9) In addition to the training program, there is a need to design/develop tools that would guide LGUs how to mainstream CCAH into their plans (e.g. vulnerability assessment tool, risk communication planning, data analysis, etc.)

(10) Continue to assess safety of hospitals and consider expanding the vulnerability assessment to other critical health care facilities.

(C) Health promotion, research, surveillance and monitoring

(11) Revisit the communication plan developed in 2010 and enhance as needed with parallel effort in mobilizing resources to finance the actions proposed. Continue to intensify advocacy and promotion of both adaptation and mitigation measures;

(12) Development, production and distribution of IEC materials should include other high/ risk areas to cover a nationwide CC information dissemination;

(13) Explore more funding sources to implement health promotion and communication initiatives.

(14) There must be a deliberate and thorough review of researches and studies to be undertaken on CCAH and incorporate these as part of the annual health research agenda being consolidated by HPDPB.

(15) Strengthen the functionality of the disease surveillance system especially in the identified high-risk/hazard prone areas on climate-sensitive diseases and equally give attention to vector surveillance with the intent to correlate these data with the climate change parameters.

(16) Develop the Monitoring and Evaluation Framework on CCAH (once the strategic plan has been completed) with the define set of indicators to be measured, the data sources, data collection mechanisms and frequency of obtaining them.

(D) Organizational structure Strengthening at all levels of governance.

(17) Consider CCAH as one of the programs of the DOH – EOHO. A Program Manager/Coordinator will be designated and the necessary budget for its operations and implementation will be primarily drawn from the EOHO annual budget allocation.

(18) Revive the TWG on CCAH, assess its composition and further define its functions vis-a-vis the CC Unit, the implementing DOH offices and the IACEH.

(20) Clarify points of coordination between the national and sub-national level focal persons on CCAH vis-a-vis the HEMS Coordinators and LGUs with supportive coordination mechanisms such as joint program review and planning, joint monitoring, consultative meetings, reporting, etc.

The 3-year Strategic Plan envisioned *a climate-risk resilient Philippines with healthy, safe and self-reliant communities."* The overall policy directions for 2014-2016 are:

- to focus efforts and resources on designing and implementing responsive adaptation interventions and measures in the country's health care delivery system,
- to operationalize the policies and frameworks into guidelines easily understood and adapted by the regions and LGUs,
- to support mitigation measures as long as these are within the purview of the DOH (national and regional) and local health facilities to implement, and
- to focus the assistance to the to the identified 20 high risk provinces based on combined climate and weather related risks.

In the next three years, the strategic plan's goal is to "*protect the health of Filipinos with priority given to those living in vulnerable areas from the impact of climate change." S*pecifically, it aims to achieve the following:

Objective 1. Improve the adaptive capacity of the health care delivery system

Objective 2. Enhance support mechanisms to adaptation and mitigation efforts on climate change in the health sector

Objective 3. Empower communities to manage health impacts of climate change

The plan outlines 7 strategies to be pursued and established 14 key result areas to be generated. These are summarized as follows:

Strategy	Key Result Area
Strategy 1. *Develop/modify policy instruments and package of interventions responsive to health impacts of climate change*	**KRA 1.1***. Program policies, guidelines and standards developed/modified and adopted for CCAH*
	KRA 1.2 *Package of interventions and alternative health care delivery schemes developed, tested and implemented in priority areas*
Strategy 2. *Build-up the capacity of the network of health care providers and*	**KRA 2.1** *Health vulnerability assessment and planning capacity in place at local level (province/municipality/city/ barangay)*

facilities to be climate change-responsive	**KRA 2.2** *Health care providers (facilities and staff) complying with climate change -responsive standards*
Strategy 3. *Strengthen CCAH Monitoring and Evaluation (M and E)*	**KRA 3.1** *CCAH monitoring and evaluation system developed and functional*
	KRA 3.2 *CCAH research management system in place and functional*
	KRA 3.3 *Disease surveillance system in vulnerable areas functional*
Strategy 4. *Establish financing mechanisms to support CCAH initiatives*	**KRA 4.1** *Financing scheme for CCAH Strategic Plan implementation developed and packaged*
	KRA 4.2 *Funding support from various stakeholders mobilized and accessed for CCAH initiatives*
Strategy 5. *Strengthen multi-sector coordination of CCAH efforts at all levels*	**KRA 5.1** *Coordination mechanism within DOH in place and functional at all levels*
	KRA 5.2 *Partnership with other national government agencies and other groups of stakeholders established and functional*

Strategy	Key Result Area
Strategy 6*. Improve awareness of communities on the impact of CC and their readiness to respond to health risks brought about by CC*	**KRA 6.1** *Key decision makers supporting CCAH initiatives implementation*
	KRA 6.2*. Health care providers capacitated to undertake health risk communication and promotion strategies in response to impact of CC*
	KRA 6.3 *Communities in vulnerable areas informed, educated, and practiced desired behaviour in accessing health services related to CCAH*
Strategy 7. *Ensure availability of resources to protect community from the health impacts of CC*	**KRA 7.1** *Community-based support system to prepare and respond to health impacts of climate change in place*
	KRA 7.2 *Poor households and other vulnerable groups availing of financial and other forms of assistance*

The plan estimated about Php 378.0 million for its implementation and the roles and responsibilities of concerned DOH offices and other partners in its implementation are described in the main text and annexes. A total of 14 CHDs also developed their 2014-2016 Action Plans for CCAH.

Part 1. Introduction

I. Challenges of Climate Change

The Philippine Government is highly cognizant of the devastating impact of climate change (CC) on the lives of its people, on its economic growth and development, and on its security and stability as a nation. Every inch gained in our development effort as a whole is gravely undermined if not altogether negated by the debilitating effects of calamities and disasters which our country experienced – the most recent of which is Yolanda (Haiyan), classified as Category 5-equivalent super typhoon on the Saffir-Simpson hurricane wind scale by the Joint Typhoon Warning Centre (JTWC).[1]

The Philippines is considered as one of the most vulnerable countries in the world due to its archipelagic make-up and location. According to the World Disaster Report in 2012, the country ranked first as most vulnerable to tropical cyclone occurrences and ranked third as to the people exposed to these seasonal events worldwide. It hosts an average of 20 typhoons yearly and faces increasing disaster risks with geologic/seismic dangers closely interacting with meteorological hazards. In 2010, the global risk advisory issued by Maplecroft, the Philippines ranked 6th as most extremely vulnerable country to climate change using the Climate Change Vulnerability Index (CCVI) among 170 countries covered worldwide.

Disasters in the country have long weakened the ability of its communities and the local government units' (LGUs) to meet their respective development goals, notwithstanding their toll on the national government's capacity to cope. They have also increased the gravity of damages to properties, destroyed the base for livelihood and sustenance, and increased the susceptibility of people to diseases resulting to significant rise in morbidities and deaths. The Centre for Research on the Epidemiology of Disasters (CRED) reported that the Philippines had the greatest number of disaster-related deaths in 2012, with 2,360 fatalities. In 2013, Typhoon Yolanda claimed more than 6,500 lives and brought damages to properties and infrastructures amounting to Php 36.7 billion as announced by the National Disaster Risk Reduction and Management Council (NDRRMC).[2]

Moreover, the Global Assessment Report (GAR) on Disaster Risk Reduction in 2013 stated that the Philippines like other countries that have experienced intensive disasters may never recover lost growth in the medium- or long-term and would experience lower gross domestic product. The 7.8% growth in the Philippines in the first quarter of 2012 could have been higher if losses from the recent disasters were reduced. The United Nations has also estimated that the Philippines may lose as much as 19% of its total urban produced capital in an earthquake that comes every 250 years and loses more than $9 billion equivalent to about 27% of the country's state revenues if it gets hit by an earthquake. All of these have compromised the pool of the country's human resources and the workforce that is expected to fuel its productivity and development. Indeed, climate change has placed a heavy burden on our government's limited resources amidst being the 12th most populous country in the world (2010), with national poverty incidence at 19.7% (2012) and large inequity in people's access to basic services.

[1] Typhoon Haiyan, Wikepedia The Free Encyclopedia
[2] Philippine News Agency, December 23, 2013

II. Climate Change in the Philippines

Climate change resulting from human activities is largely driven by energy use, transport, land use and forestry, agriculture and water management. If earth's warming due to anthropogenic greenhouse gas emissions remain unchecked, is likely to result in continuing and more severe climate change in the country. Climate change is manifested by: (i) increase in temperature; (ii) changing rainfall patterns, (iii) sea level rise, and (iv) extreme weather events. These, in turn, are expected to impact on the vulnerabilities in the country's food and water security, environmental and ecological stability, energy use and infrastructure, and human security.

The high variability in the trends of climactic parameters recorded by the Philippine Atmospheric Geophysical and Astronomical Services Administration (PAGASA) over the past decades attest to the occurrence of climate change in the country. Droughts during El Nino episodes and floods during La Nina are one example. Spikes in temperature and warming are noted in the northern and southern parts of the country with experiences of hotter nights and days. Forest fires are occurring more frequently. Precipitation trends in other parts of the country were highest at 10% in the 20th century. Extreme weather events such as fatal typhoons, flash floods, landslides are have become the new normal. Typhoon Ondoy in 2009 devastated Metro Manila with 334mm of rains flooding the National Capital Region (NCR) in just six hours compared to the 1967 typhoon that brought the same area 334 mm of rain in 24 hours. PAGASA projected the following climate change scenarios in the Philippines for 2020 and 2050, summarized as follows:

Table 1. Projected Levels of Climate Change Parameters

CC Parameters	Current Levels (1951 to 2010)	Projected Levels		Remarks
		2020	2050	
Average annual mean temperature	0.64^0C increase or an average of 0.010 per year increase	0.9^0 C-2.2^0 C	1.8^0 C to 3.0^0 C	Higher temperatures to be experienced across 17 regions with Mindanao where warming is worst.
Annual mean rainfall	Reduction in rainfall in most parts of the country during summer months (March-May); and an increase during monsoon season from June-August until the transition months of Sep-Nov)	-0.5 to 17.4%	-2.4 to 16.4%	Increase in rainfall evident in Luzon and Visayas while Mindanao will undergo a drying trend.
Sea Level Rise		1 meter sea level rise		1 meter rise is equivalent to a land loss of 129,114 hectares.
Extreme events	It is very likely that hot extremes, heat waves, and heavy precipitation events will continue to become more frequent. Based on a range of models, it is likely that future typhoons (typhoons and hurricanes) will become more intense, with larger peak wind speeds and heavier precipitation			

III. Climate Change and Health

Climate change increases the threats to human security as people compete for natural resources and influence their decision to move elsewhere for greater economic activity. A growing number of people become displaced or forced to migrate as a result of slow-onset bio-physical (e.g. rise in sea level, land erosion), ecological (e.g. depletion of fishing grounds), or social disruptions (e.g. internal conflict or wars). Others become victims of humanitarian disasters due to the occurrence of extreme climate events such as flooding, typhoons, and storm surges.

The World Health Organization (WHO) regards climate change as a significant and emerging threat to public health. WHO considers that these climatic changes over the past decades have already affected health outcomes worldwide and have already contributed to the burden of disease globally. The WHO Report in 2002 estimated that climate change was a big factor for approximately 2.4% of worldwide diarrheal cases, and 6% of malaria in some middle-income countries.

Climate change affects human health and well-being through a variety of mechanisms. The health effects of climate change may range from temperature-related illness and death, extreme weather-related health effects, air pollution-related health effects, water-borne and food-borne diseases, vector-borne and rodent-borne diseases, effects of food and water shortages, mental and nutritional diseases.

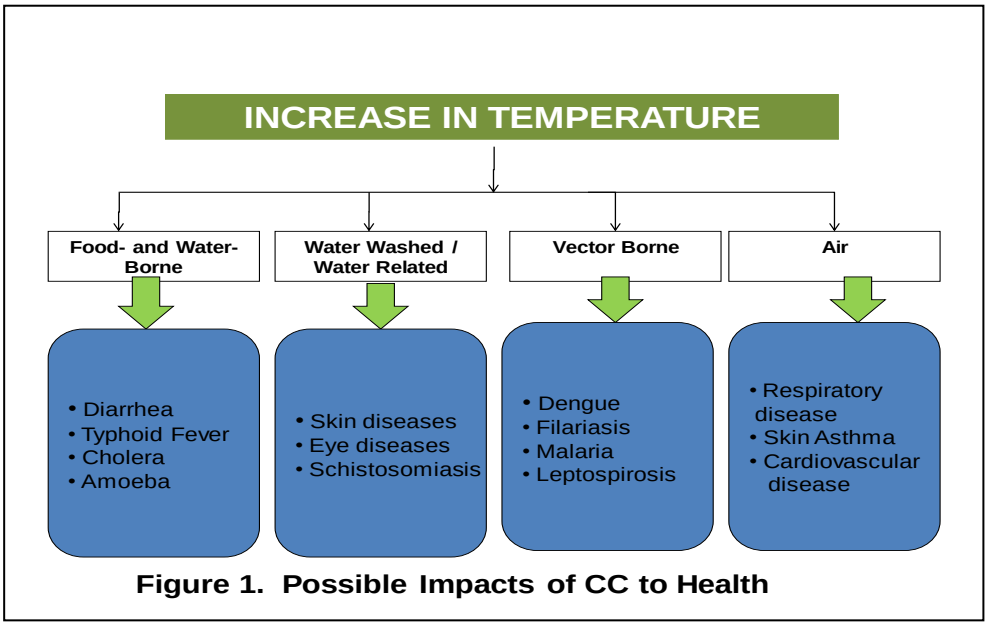


Figure 1. Possible Impacts of CC to Health

The WHO Report on Climate Change and Health in 2003 categorized the pathways between climatic conditions with health into three, described as follows:

(1) *impacts directly related to weather/climate:* These are often referred to as climate-sensitive diseases resulting from changes in the frequency and intensity of thermal extremes and extreme weather events that directly affect population health as well as an increased production of certain air pollutants and aeroallergens. Climate-sensitive diseases include heat-related diseases, water-borne diseases, diseases from urban air pollution, and diseases related to extreme weathers such as flood, typhoons, droughts, etc.).

(2) *impacts resulting from environmental changes that occur in response to climatic change:* These less direct mechanisms include those that affect the transmission of many infectious diseases especially water-, food- and vector-borne diseases and regional food productivity. Various physical (temperature, precipitation, humidity, surface water and wind) and biotic factors (vegetation, host species, predators, competitors, parasites and human interventions) affect the distribution and abundance of vector organisms and intermediate hosts. Further, temperature related changes in the life-cycle dynamics of both the vector species and the pathogenic organisms (flukes, protozoa, bacteria and viruses) would increase the potential transmission of many vector-borne diseases such as malaria (mosquito), dengue fever (mosquito), and schistosomiasis (water snail) may undergo a net decrease in response to climate change. Many of the major causes of death are highly climate-sensitive, especially in relation to temperature and rainfall, including cholera and the diarrheal diseases, as well as diseases including malaria, dengue, and other infections that are vector-borne. Refer to Annex 1.a for the list of health impacts correlated with climate change parameters.

(3) impacts resulting from consequences of climate-induced economic dislocation, environmental decline, and conflict: These are in the longer term and with considerable variation between populations as a function of geography and vulnerability which are likely to have greater magnitude than the more direct effects. The health of a people reflects the combined impacts of climate change on the physical environment and ecosystems, and on the economic environment and society. It can adversely impact the availability of fresh water supplies, the efficiency of local sewerage systems and also likely to affect food security.

On the other hand, the population's vulnerability depends on several factors (e.g. population density, level of economic development, food availability, income level and distribution, local environmental conditions, pre-existing health status and the quality and availability of public health care). In particular, densely populated urban areas – especially in low- and middle-income countries – are vulnerable to the effects of climate change. The effects of climate change can impact to a large numbers of people and their economies especially where there are dense concentrations of households and economic activities. Please refer to Annex 1.b on the specific impacts of climate change on urban areas.

IV. The Philippine Health Care Delivery System

The Philippines has a decentralized health care delivery system managed by the Department of Health (DOH) and implemented by the LGUs as mandated in the 1991 Local Government Code. The country's health care delivery system is characterized by a network of health facilities at various levels of operations that offer clinical care and public health services with the private sector dominating the market. In 2005, 62.0% of all hospitals were privately owned and 59.0% of total health financing came from private sources. Tertiary level of health care are provided for by medical centers owned and managed by the private sector and those maintained and managed by the DOH through its Centers for Health and Development (CHDs). The provincial governments and some municipalities/cities also run and operate their own hospitals but the latter are mainly responsible for public health service delivery through the Rural Health Units (RHUs) or health centers. At the community level, Barangay Health Stations (BHS) exist manned by a midwife and supported by a network of

Barangay Health Workers (BHWs). Private clinics also abound and provide various types of clinical and public health care services to their respective clientele. The referral system that links all these health care facilities in ensuring continuum of health care to the catchment population are at varying stages of their establishment and functionality.

A decade after the local government code was passed, the DOH launched the health sector reform agenda (HSRA) which pushed for 4-pronged pillars of reforms in the area of health service delivery, health governance, health financing and health regulations. The pillars were later expanded to 6 which included reforms in health information management system and health human resource and development. A major reform was the establishment of inter-local health zones (ILHZs) among contiguous municipalities with the local chief executives as governing board and the local health officials as the technical committees with a membership of an identified core referral hospital. Public health programs were enhanced and service coverage expanded. Licensing of health care facilities, establishment of quality assurance system and other regulatory measures (e.g. passage of national laws, policies and guidelines) are currently being pursued. Systems and guides for investment planning for health were introduced as a mechanism to rationalize and systematize national technical and financial assistance vis-à-vis that of the LGUs. Philippine Helath Insurance Corporation (PhilHealth) benefit packages, accreditation and enrolment were expanded while varying financing schemes for health were explored and operated by the LGUs.

The country's health care delivery system is supported by the different disease surveillance and response units established at all level of operations that manage and operate the Philippines Integrated Disease Surveillance and Response (PIDSR). Other disease surveillance systems (e.g. HIV/AIDS surveillance systems) in selected sites continue to be operated as well as the routine Notifiable Disease Reports and Field Health Service Information System (FHSIS) nationwide. The DOH also instituted the Health Emergency Management Staff (HEMS) that reports directly to the Office of the Secretary of DOH to take the lead in the preparation, actual mobilization during and post-operations in disasters and other health emergencies. Each CHD has its own HEMS Coordinator and at the local level.

Under the Aquino Administration, the DOH launched the *Kalusugan Pangkalahatan (KP)* towards attaining universal health care through a three-pronged approach: (i) Health Facility Enhancement Program (HFEP) which supports the construction/repair of hospitals and other health care facilities, strengthening of Philippine Health Insurance Corporation (PhilHealth) financing by enrolling all identified poorest families, accreditation of health facilities, scaling-up of no balance billing among DOH-retained hospitals, and mobilization of community health teams (CHTs) to educate

and mobilize these poor households to avail of services. Budget allocation for health significantly increased under the new administration and could further increase with the implementation of the Sin Tax Law.

While several reforms in the health sector have been attained, many challenges remain relative to the equitable access of population to health care and services. This issue becomes more complex as we anticipate the impacts of climate change to our existing health care delivery system and to the health of our population especially in the high-risk areas and the poor. Indeed, the capacity and resiliency of the Philippine health care delivery system to climate change needs to be further strengthened.

V. Climate Change Adaptation Initiatives in the Philippines

The Philippines more than 2 decades ago began to undertake steps to address the effects of climate change. The impetus towards climate change adaptation was spearheaded by the international community starting with the passage of the United Nations Framework Convention on Climate Change (UNFCC) in 1992. This was followed by the Kyoto Protocol on Climate Change in 1997. The Philippines became signatory to these declarations which triggered the intensified efforts of the Philippine government confronting the impacts of climate change in the country. Though the health sector was not originally identified in the initial Philippine Climate Change Strategy, the CC Adaptation in the health sector was eventually given emphasis. Table 2 outlines the Climate Change adaptation (CCA) and mitigation initiatives undertaken by the Philippine government and in particular the CCA initiatives for Health. The list also includes relevant issuances made by the United Nations body in support to CCAH.

Table 2. Milestones in the CC Adaptation in the Philippines

Year	Milestone
1991	**Inter-Agency Committee on Climate Change (IACCC) under EMB-DENR created to promptly address CC-related issues ***
1992	**UNFCCC or an international environmental treaty was negotiated at the United Nations Conference on Environment and Development (UNCED), informally known as the Earth Summit, held in Rio de Janeiro***
1992	**The Philippines became a signatory together with other nations to the UNFCCC ♥**
1997	**Kyoto Protocol to the UN Framework Convention on Climate Change ♥**
2000	**First National Communications for Climate Change (NCCC) which indicated the need for adaptation measures ***
2001	**2001-2030 National Framework for Physical Planning (NFPP) developed which provided guidance in the mitigation of natural disasters***
2003	**2004-2010 Medium Term Philippine Development Plan (MTPDP) developed which articulated several measures contained in the first NCCC***
2006	**Second NCCC (2007-2009) developed ***
2007	**Regional Framework for Action to Protect Human Health from Effects of CC ♥**
2006-2008	**ADB Study on Strengthening the Epidemiological Surveillance and Response for Communicable Diseases was conducted covering the Philippines, Malaysia and Indonesia ♣**
2008	**61st WHO Assembly (WHA61.19) Climate Change and Health ♥**
2008	**WHO-Western Pacific Region Resolution on Protecting Health from Effects of Climate Change ♥**
2008	**Community Earth System Model (CESM) Study for Climate Change and Policy in the Philippines, Japan International Cooperating Agency (JICA)***

2009	**RA No. 9729 on Climate Change: (i) mainstreaming CC in government policy formulations, (ii) creation of Climate Change Commission replacing IACCC; (iii) allocation of budget for CC***
2009	**Health Sector Strategy on Climate Change Adaptation 2009: Health Sector Strategy on Climate Change Adaptation ♣**
2010-2012	**Implementation of the Millennium Development Goal Fund (MDGF) Project of Assistance for CC Adaptation for Health ♣**
2010	**2010 RA No. 10121 (Philippine Disaster Risk Reduction and Management (DRRM) Act**
2010	**DOH Administrative Order (AO) No. 2010-01 – Implementing Rules and Regulations (IRR) of Climate Change Act of 2009***
2010	**Adaptation for CC Framework for Health issued ♣**
2010	**Creation of Technical Committee for CC and Health ♣**
2010	**Department of Interior and Local Government (DILG) Memo Circular 201223 issued mandating local governments to take steps in improving their disaster risk reduction and mitigation programs***
2010	**Study on Adaptation to CC and Conservation of Biodiversity in the Philippines, Gesellschaft für Technische Zusammenarbeit (GTZ)***
2010	**2010-2022 National Framework Strategy on Climate Change as roadmap for CC adaptation in next 20 years, Climate Change Commission (CCC)***
2010	**Philippine Strategy on Climate Change Adaptation for the Health Sector ♣**
2011	**National Greening Program***
2011	**Creation of CC Unit ♣**
2012	**2011-2028 National Climate Change Action Plan was developed***
2012	**National Policy on Climate Change Adaptation for the Health Sector ♣**
2012	**AO 2012-0005 "National Policy on CCA for the Health Sector" Operational Guidelines ♣**

Note: ♣ - CCA Initiatives in the Health Sector
* - CCA Initiatives by the Philippine Government in General
♥ - Issuances by United Nations (UN) on CCA for the Health Sector

Part 2. Assessment of Philippines CCAH Initiatives

I. Objectives

Some assessments have already been made on the climate change adaptation in the health sector as an initial step in the formulation of Philippine Strategy on Climate Change Adaptation in the Health Sector and as part of the subsequent issuances of the National Policy on CCA for the Health Sector. Correlations of climate change on climate-sensitive diseases have also been documented in the National 2010-2012 Framework Strategy, the National CC Action Plan and several other technical documents in the regional and global arena including particularly the Regional Framework for Action to protect Human Health from the Effects of Climate Change and Climate Change WHO Framework on CCA in Health, the Kyoto Framework and other studies undertaken in the international arena.

The purpose of this assessment is to look at the proposed strategies and actions outlined in the DOH issuances in the past 4 years and determine to which extent these have been implemented. These issuances include the following:

- Adaptation of Climate Change Framework for Health, DOH Department Circular (DC) No. 2010-0187.
- Philippine Strategy on Climate Change Adaptation in the Health Sector
- National Policy on Climate Change Adaptation for the Health Sector, DOH Department Order (DO) No. 005 s.2012
- Operational Guidelines of the National Policy on Climate Change Adaptation for the Health Sector, DOH AO No. 2012-0018

Specifically, the assessment aims to:

(1) establish the status of implementation of planned CCAH adaptation strategies and activities as contained in the 2010-2012 National Strategy for CC Adaptation for Health and other policy and guidelines issuances thereafter;

(2) identify the factors that contributed the progress of implementation and the constraints encountered;

(3) validate and further clarify roles and functions of concerned DOH offices and other national agencies involved in the management and implementation of CCAH initiatives;

(4) outline key recommendations (both in previous documents and a result of this assessment) to guide the formulation of the 2014-2016 Strategic Plan on CCAH.

II. Assessment Methodology

The assessment entailed a mix of data collection methodologies comprising desk review of previous assessments/reports, policies and guides generated by the DOH over the past 5 years, series of consultation meetings with concerned DOH offices, development partners and national government agencies and a field validation visit to Region 5, particularly the CHD 5 and Legaspi City. The assessment was guided by the goal, objectives and strategies outlined in the National Framework Strategy on Climate Change, the Adaptation of CC Framework for Health and the Philippine

Strategy on Climate Change Adaptation in the Health Sector issued in June, 2010 (DOH DC No. 2010-0187) as the primary reference:

Table 3. Goals, Objectives, and Strategies on CCAH in the Philippines

<table>
<tr><td colspan="3">National Framework Strategy on Climate Change 2010-2012</td></tr>
<tr><td>Vision</td><td colspan="2">A climate change risk-resilient Philippines with healthy, safe, prosperous and self-reliant communities, and thriving and productive ecosystems</td></tr>
<tr><td>Goal</td><td colspan="2">To build the adaptive capacity of communities and increase the resilience of natural ecosystems to climate change, and optimize mitigation opportunities towards sustainable development</td></tr>
<tr><td>Objective</td><td colspan="2">Manage health risks brought about by climate change</td></tr>
<tr><td>Strategic Priorities</td><td colspan="2">1. Assessment of the vulnerability of the health sector to climate change
2. Improvement of climate sensitivity and increase responsiveness of public health system and service delivery mechanisms to climate change
3. Establishment of mechanisms to identify, monitor and control diseases brought about by climate change, and improve surveillance and emergency response to communicable diseases, especially sensitive water-borne and vector diseases.</td></tr>
<tr><td colspan="3">Adaptation of Climate Change Framework for Health (DC 2010-0187)</td></tr>
<tr><td>Objectives</td><td colspan="2">(1) Develop and implement national action plans for health sector on adaptation and mitigation to climate change;
(2) Systematically integrate the concept of climate change and health linkage into policy-relevant instruments;
(3) Strengthen public health systems and disaster preparedness and response activities particularly surveillance and monitoring systems;
(4) Provide early warning systems to reduce the current and projected burden of climate-sensitive diseases; and
(5) Implement adaptation measures specific to local health determinants and outcome concerns, and facilitate community-based resource management.</td></tr>
<tr><td colspan="3">Philippine Strategy on Climate Change Adaptation for the Health Sector
Annex: DOH National Framework for Climate Change and Health</td></tr>
<tr><td>Goal</td><td colspan="2">Protecting the health of Filipinos from the Effects of Climate Change</td></tr>
<tr><td>Objectives</td><td colspan="2">(1) have better health outcomes from more responsive health systems, in consideration of climate change impacts on health (Service Delivery)
(2) institute (public) health adaptation mechanisms towards climate change (Governance)
(3) establish more equitable (focused on poor and marginalized) healthcare financing as support (Financing)
(4) strengthen health regulatory mechanism to link CC and Human Health Initiatives (Regulation)</td></tr>
<tr><td>Strategies</td><td colspan="2">(1) Integrated CC and Health Systems development
(2) Partnerships Building
(3) Adaptation: Identification/ Improvement of Health Technologies</td></tr>
<tr><td>Integrated CC and Health Systems development
• Financing (inclusion in social health insurance); ensuring program resources for the poor
• DOH policy and guidelines review/assessment and development
• Review facility and minimum basic</td><td>Partnerships Building
• Multi-stakeholder initiatives and projects (with other government agencies (e.g. agriculture, environmental, shelter, etc.), and stakeholders with alternative energy</td><td>Adaptation: Identification/ Improvement of Health Technologies
• Health and climate change tools development
• Health Information Systems</td></tr>
</table>

services package standards • Integration with existing programs, projects, and services (drugs/logistics planning and distribution) • Health promotion and advocacy/ (Information, Education and Communication (IEC, quadric-media, orientations) • Monitoring and evaluation (surveillance, indicators for policy development/ enhancement) • Research and development of CCAH (operations, geographical research, impact studies, health modelling)	sources (e.g. solar, wind, etc.), private sector, civil society- GOP and donor funding resource mobilization, outsourcing • Public-private partnerships (PPP) for Health and CC at the national level • Operational local PPP on Health and CC through ILHZ and local health boards (LHBs)	• Local-level adaptation (LGU planning, policy development and implementation, PIPH, CIPH, MIPH) • Setting of competency standards requirements • Capacity development (DOH and CHDs)

National Policy on Climate Change Adaptation for the Health Sector AO No.005s. 2012	
Strategies	
A. Policy, Plan and Partnership	1. *Health Policy Plans and Partnerships*: Develop appropriate implementing instruments for local adaptation of the national climate change and health response initiatives 2. *Standards and Regulations*: Ensure effective and efficient intervention measures, such as but not limited to preparedness and response to health emergencies, appropriate standards, regulations and accreditation mechanisms 3. *Resource Mobilization/Financing*: Develop mechanisms to generate resources optimize its allocation and guarantee equitable distribution; encourage investment for the development of CCAH technologies 4. *Networking and Partnership Building*: Undertake inter-sectoral response and community participation, collaborative efforts for advocating and implementing CCAH
B. Service Provision, Capacity and Infrastructure Enhancement	1. *Service Delivery:* Provides appropriate adaptation response and services related to but not limited to managing health effects of CC 2. *Capability Building:* CCAH human resource development 3. *Facility Enhancement*: Upgrading of hospitals and other health facilities to make them CC-proof, in adherence to infrastructural and service standards
C. Health Promotion, Research, Surveillance and Monitoring	1. *Health promotion and Advocacy*: Develop communication interventions to influence societal and community actions towards CC adaptation and health 2. *Research and Development:* Utilize high quality studies for evidence-based decision-making with emphasis on establishing links connecting CC and adverse health 3. *Information Management System and Surveillance*: Generate reliable, relevant, up to date information in response to negative health effects of CC; develop surveillance system for CC-sensitive diseases 4. *Monitoring and Evaluation:* Document events and progress in implementation, lessons learned and sharing of good practices
D. Strengthening Organizational structure for CC at different levels of governance	1. *Mainstreaming CCAH in the Health System*: All health programs, offices and facilities to adopt and mainstream CCAH in the health system 2. *Designation of CC focal person*: CC Focal Person shall be designated in all health offices and facilities 3. *Establishment of organizational structure, delineation of roles/functions and establishment of coordination mechanism:* Organizational structure shall be established with delineations of roles and responsibilities and identification of areas for coordination and collaboration among all health stakeholders for CCA activities.

III. Findings

A. Strategy 1. Policy, Plan and Partnership

A.1 Policy, Guidelines and Plans

The National Strategy on CCAH stipulated the need to develop appropriate implementing instruments for local adaptation of the national climate change and health response initiatives. The past 5 years saw the development and issuances of supportive policies and guides for the adoption and implementation of CCAH initiatives in the health sector in collaboration with other agencies and development partners. These policy frameworks and plans set the overall direction of the CCAH and provided the road map for its implementation.

Strengths	Gaps
• The Philippines has enacted laws and formulated several policies and guides that serve as stable framework on which the CCAH directions and measures were founded. Two landmark legislations were passed, namely, Republic Act (RA) No. 9729 on Climate Change and RA No. 10121 on the Philippine Disaster Risk Reduction and Management (DRRM) that paved way for the adaptation of CC in the various sectors in the country including the health sector; • 2010-2022 National Framework Strategy on CC 2010-2022 of the country provided the roadmap for CC adaptation in the next 20 years and further operationalized through the 2011-2028 National Climate Change Action Plan recently developed and issued in 2012; • DOH developed the Adaptation of Climate Change Framework for Health (DC No. 2010-0187) with the attached Philippine Strategy on CCA for the Health Sector containing a DOH Action Plan for 2011; • National Policy on Climate Change Adaptation for the Health Sector was subsequently formulated and issued on March, 2012 and its Implementing Guidelines on CCAH was prepared and issued on October, 2012; • Other legislations that support CCAH include RA No. 9003 Providing for an Ecological Solid Waste Management Program (2001), RA No. 9512 Environmental Awareness and Education (2008) and RA No. 8749 Providing for a Comprehensive Air Pollution Control Policy (1999) and RA No. 9275 the *Philippine* Clean Water Act (2004); • The DOH-CC Unit Plan for CCAH was incorporated into the DOH-National Objectives for Health for 2011-2016	• Current version of the CCAH Framework and policies are too broadly stated that the Technical Working Group (TWG) members on CCAH cannot readily translate them into actionable measures; • While the first document on the CCAH Framework adopted the health sector reform agenda in setting the goal and key strategies to be pursued, subsequent issuances like the National Policy on CCAH Adaptation for the Health Sector followed a different set of objectives and key strategies to be pursued; • Though the abovementioned framework/policies were officially issued, no orientation and in-depth discussion of its directives and provisions were conducted. Thus, concerned DOH officials and staff outside the members of the CCAH TWG barely heard said issuances. Neither were these policies and guides disseminated to the sub-national and local levels as reference; • To date, these policies and guides have not been mainstreamed into the existing policies and guides of the individual health programs of DOH • No policy exists on financing CCAH initiatives • Lack of guidelines on how LGU can adopt the policy to local situation • No strategic plan has been prepared to translate the above frameworks and policies into actionable measures (only a DOH Action Plan for 2011). The plan to integrated CCAH initiatives into the LGUs' Provincial/City/Municipal Investment Plan for Health (P/C/MIPH) has not materialized.

A.2 Standards and Regulations

The National Policy on CCAH stipulated the need to ensure effective and efficient intervention measures, such as but not limited to preparedness and response to health emergencies, appropriate standards, regulations and accreditation mechanisms.

Strengths	Gaps
• Through the efforts of HEMS and other DOH offices, several health protocols and standards have been established in response to health emergencies and disasters (e.g. standards on nutrition during emergencies, the provision of breastfeeding corner and provision of WASH in evacuation sites, solid waste management, etc.); • DOH is one of the signatories of the policies and protocols developed in establishing evacuation/camp sites during disasters and emergencies to ensure the health of the displaced population • DOH also revised the licensing standards for hospitals and other health care facilities to support mitigation measures (e.g. fluorescent lamps have been changed to compact fluorescent light (CFL) and computers using lead emitting diodes (LED), non-mercurial instruments, etc.), adoption of proper segregation of health care waste generated by hospitals and other health care facilities, and climate-change proofing of health facilities. These standards were also included in PhilHealth accreditation benchbook for hospitals	• There remain a number of public health programs whose standards still need to be modified/improved to adapt to the impacts of climate change; • No system has been put in place to allow and prompt concerned DOH offices to review/assess and modify their existing protocols and standards in preparation for the eventual impact of climate change.

A.3 Networking and Partnership Building

The National Policy on CCAH stipulated the need to undertake inter-sectoral response and community participation, collaborative efforts for advocating and implementing CCAH. It is highly recognized that while the CCAH is the primary responsibility of the DOH to address, it cannot do so without the assistance and collaborative partnership of the other sectors. There is a need to establish a multi-sectoral response to address the challenges which climate change brings to the health of the population as a whole.

Strengths	Gaps
• DOH has harnessed the participation of the other national government agencies particularly the Climate Change Commission, National Economic Development Authority (NEDA), PAGASA, DENR, etc. in the formulation of its CCAH strategy framework, policies and guidelines and in advocating the adoption of CCAH initiatives; • Several non-government organizations (e.g. MMLDC, Development Academy of the Philippines (DAP), Save the Children, Plan International) and the academe (University of the Philippines (UP) have mounted their own programs and activities in support to	• Awareness about CCAH and ownership or uptake of its policies and programs remain low among national, sub-national and local stakeholders • The participation and involvement of LGUs, especially the community on CCAH still need to be further defined and guided. At present, the involvement of the LGUs and the community has been mostly prominent during health emergencies and disasters; their involvement in support to CCAH initiatives prior to emergencies and disasters needs further clarification

CCAH in their respective project sites, some of which were done in collaboration with the DOH; • Existing guide on Public-Private Partnership (PPP) can be used as reference for CCAH partnership building. • In the past 5 years, the DOH has coordinated with the different LGUs, particularly the cities in NCR and municipalities in Albay-Region 5 for the piloting of some CCAH initiatives. CCAH design could be a Model on Building Partnership • DOH through the CC Unit has participated in conferences and consultation meetings organized by the other sectors to bring on the table the agenda and concerns of the health sector on climate change	• Several development partners, local and international development partners are implementing and supporting CCAH measures in their respective project areas. However, there is no mechanism established yet for DOH to be able to capture these initiatives and participate in such endeavors; • Some mechanisms exist e.g. the Inter-Agency Committee on Environmental Health (IACEH) Committee on environmental health chaired by the DOH secretary to address environmental health-related issues but this has not been maximized for CCAH concerns; • No inventory of government and non-government partners on CCAH design and implementation at the national level and sub-national levels exist, more so at the local level and their potential contributions to CCAH;

A.4 Resource Mobilization/Financing

The National Policy on CCAH stipulated the need to develop mechanisms to generate resources, optimize its allocation, ensure equitable distribution and to encourage investment for the development of CCAH technologies. The financing requirement for the design and implementation of CCAH initiatives is gargantuan. There is a need to develop mechanisms to generate resources, optimize their use and encourage investment for the development of CCAH technologies.

Strengths	Gaps
• DOH has mobilized the support of development partners (WHO, GTZ, MDGF, etc.) in the piloting of CCAH initiatives in selected sites in the country. This financial support helped the DOH propelled its efforts towards CCAH. External support started as early as 2007 upon the launching of the CCAH initiatives in the health sector. The following summarizes these financial resources received from various donors and development partners. See Table 4 • DOH provided funding for CCAH initiatives in the past 4 years in the amount of Php 5.6 million. See Table 5 • A line item to support HEMS has been established in the DOH budget. It also continues to receive assistance from development partners; • DOH through the *Kalusugan Pangkalahatan* (*KP*) is strengthening social protection/financial security of the population especially among the poorest through PhilHealth enrolment of households identified in the National Households	• To date, DOH budget for the implementation of CCAH initiatives remains uncertain as its allocation largely depends on the overall budget made available to the Environmental and Occupational Health Office (EOHO). One of the sustainability measures to sustain the CCAH Program after the MDGF assistance ended to establish line item budget for CCAH within the DOH budget has not been achieved; • There are DOH- Programs, Projects and Activities (PPAs) utilizing budget for CCAH but not accounted as funds supporting to CCAH; • While the DOH-CC Unit has incorporated a 2011-2016 Work and Financial Plan in the DOH – NOH, only the 2011-2013 has merited certain budget allocation. The rest of the planned activities for 2014 to 2016 still to be mobilized from within the DOH and its development partners;

Targeting System for Poverty Reduction (NHTS-PR) which is foreseen to be beneficial especially during extreme events and disasters. • DOH has Bureau of International Health Cooperation (BIHC) that can coordinate with Development Partners to mobilize international experts and financial resources for CCAH.	• Though there exist some potential sources of funds for CCAH initiatives at the local level, no mechanism has been put in place how the LGUs can access these resources (e.g. Comprehensive Land Use Plan, calamity fund, etc.). • The proposed action for the LGUs to incorporate CCAH initiatives into the provincial/city investment plans for health (PIPH/CIPH) over and above their need for emergency and disaster response has not materialized. The DOH is yet to develop a set of guidelines to help LGUs identify what to plan and budget for in response to climate change impacts in health; • No work has been noted in the plan to strengthen PhilHealth benefit package to address CC-related diseases.

Table 4. Summary of Financial Assistance Received by DOH for CCAH

Project	Partners	Amount	Purpose
MDGF CC in Health	Spanish Government through WHO	U$ 500,000	Piloting Community-Based Disease Surveillance System (CBDSS) Safe Hospital Training Health Promotion Health Workforce CCAH Capability building Documentation of good practices
MDGF-CC	Spanish Government through NEDA	P 2.5 million	Development of the CCAC Implementing Guidelines and training manuals for V/A and M/E
-	WHO	-	Operational Guidelines Consultations
Note: Other funds made available for CC Adaptation in the Health Sector could not be established as no unit in DOH has been monitoring said resources.			

Table 5. DOH Budget/Funding for CCAH

Purpose	2010	2011	2012	2013
Policy Formulation				1.20M
Capacity Building			4.80M	2.43M
Research				2.00M
Advocacy	1.0M	0.50M	0.50M	
Total	**1.0M**	**0.50M**	**5.30M**	**5.63M**

B. Strategy 2. Service Provision, Capacity and Infrastructure Enhancement

B.1 Service Delivery

The National Policy on CCAH stipulated the need to provide appropriate adaptation response and services related to but not limited to managing health effects of CC. The existing public health programs of DOH are believed to be the same set of services that are to be delivered in response to CC effects on health. The main difference though is how the delivery of these services are to be carried out in areas and population considered most prone to disasters and extreme events caused by climate change and how the current technologies and standards are to be modified to suit their peculiar needs in contrast during normal situations and in non-disaster prone/high risk areas.

Strengths	Gaps
• several laws enacted and policies and guides formulated serving as framework and basis of CC directions/measures in the health sector - RA No. 9729 on CC - RA No. 10121 on Philippine DRRM - 2010-2022 CC National Framework Strategy - 2011-2028 National CC Action Plan - Adaptation of CC Framework for Health (DC No. 2010-0187) - Philippine Strategy on CCA for the Health Sector with DOH Action Plan for 2011 - National Policy on CCAH issued on March, 2012 with Implementing Guidelines - RA No. 9003 Ecological Solid Waste Management Program (2001) - RA No. 9512 Environmental Awareness and Education (2008) - RA No. 8749 Comprehensive Air Pollution Control Policy (1999) - RA No. 9275 Philippine Clean Water Act (2004)	• Current CCAH framework and policy versions not translated into concrete measures and plans • Frameworks and policies provided varying set of objectives/strategies to be pursued • no orientation and in-depth discussion of policy directives and provisions • DOH officials/staff outside CCAH TWG members barely aware of their provisions • policies and guides not disseminated to sub-national and local levels • No CCAH policies/guides mainstreamed into individual DOH health program policies • Lack of guidelines on how LGU can adopt the policy to local situation

B.2 Facility Enhancement

The National Policy on CCAH stipulated the need to upgrade hospitals and other health facilities to make them CC-proof, in adherence to infrastructural and service standards. One of the major concerns in CCAH is to ensure that the health care delivery system remains ready and functional in the event that climate change brings its toll on the health of the population. The hospitals, as major providers of healthcare services, including other health services need to be fortified for these events.

Strengths	Gaps
• Safe Hospital Policy developed under HEMS as part of overall Safe Hospital Program prior to DOH adoption of CCAH • Hospitals' vulnerability to impact of CC assessed using the vulnerability assessment tool spearheaded by HEMS and NCFHD; • DOH-retained hospitals on Hospital Safety	• non-attendance of key hospital decision makers in the training limited opportunity for making concrete decisions on the identified gaps to be addressed and support needed to implement the action plans. • some parts of the Training Program needed enhancement (e.g. more in-depth

in Emergency trained including 43 hospitals in NCR and 18 hospitals in Albay under MDGF assistance; • training resulted to development of action plans to address gaps identified using the vulnerability assessment tool; monitoring conducted showed several hospitals already implementing action plans • DOH-HEMS developed Manual of Indicators on Safe Hospitals, and already disseminated to NCR and Albay hospitals and rest of the country • KP's strategic thrusts on HFEP supported construction/renovation of hospitals and other health facilities believed to be compliant to DOH standards incorporating criteria for a safe hospital	discussion of technical matters relative to disasters and emergencies, additional topics in disaster measures; more focus on safe hospital concerns rather than showcasing other hospital programs; need for experts and practitioners from structural engineers' association in the training team); • no mechanism has been defined mto generate the best results or take advantage of any contravening political influence relative to implementing health infrastructure projects, • Risk Assessment Tool requires further review and revision considering that in every batch of training, the participants had difficulty accomplishing it; some were quite confused in filling up the checklist.

B.3 Capability Building - CCAH Human Resource Development

The National Policy on CCAH specified one of its sub-strategies the development of CCAH human resource. As discussed below, capability building of CCAH Human Resource Development shall encompass the (i) design and implementation of training programs and other learning methodologies to raise the awareness of DOH (national and regional) officials and staff including local health managers on CCAH in general, (ii) series of capability building sessions provided by HEMS to equip the health workforce on disaster preparedness and management; and (iii) the development of the vulnerability assessment tool to help localities identify areas of enhancement in response to the impacts of climate change in health.

B.3.1 On Awareness and Appreciation of CCAH

Strengths	Gaps
• Series orientations on CC undertaken among DOH officials/staff at national and regional levels as early as 2009 • Training Course for Public Health Workers on Mitigating the Health Effects of Climate Change developed with 65 EOHO staff/program managers, sanitary engineers and training officers from other regions trained as trainors • 89 health care providers and local staff in 11 cities and municipalities in Metro Manila and Albay with regional and provincial health office counterparts trained with implementation of Re-Entry Action Plans • CHDs received grants - Php 300,000 each to cascade orientations on CCAH to LGUs • Some DOH national/regional officers and staff attended international conferences while some NCR and CHD 5 health officials and staff participated in local observation tours	• Several misconceptions exist among program managers/technical staff (e.g. CC loosely used and frequently equated with extreme events, confusion between climate and weather, between mitigation and adaptation approaches, etc.) • CCAH Capability-building efforts limited mainly on orientating on the basics of CC; no capability enhancement program how to implement or approach CCAH • baseline assessment conducted among DOH attendees to a CCAH orientation showed only one third (34.2%) had clear understanding of CC concepts, definitions and parameters, causes and impact • Post-Training monitoring showed partial implementation of the REAPS for varied reasons (e.g. lack of resources, no support from local officials, lack of appreciation and understanding, absence of IEC materials and policy guides, etc.)

Table 6. Pre-test Results Among NCDPC Officials and Staff on Their Understanding What is Climate Change in Health

No. of Correct Answers	Respondents	
	No.	%
36 - 40 (≥91%)	2	4.9
30 - 35 (76-90%)	12	29.3
20 - 29 (51-75%)	25	60.97
< 20 (< 50%)	2	4.9
Total	**41**	100.0

B.3.2 Equipping the Health Human Workforce on Disaster Preparedness and Management

Strengths	Gaps
• series of training to capacitate national/regional/ local health managers/staff and other partners on disaster preparedness and response by HEMs - Basic Life Support (BLS) - Standard First Aid - Nutrition in Emergencies - WASH in Emergencies - Risk Communication in Emergencies, - Emergency Medical Technician Training - Mental health and psychosocial support services with DepEd) and other agencies • Hospital personnel training: Safe Hospitals in Emergencies, Chemical Incident Response, Essential Surgical Skills, etc. • Other training programs include Health Emergency Response Operations (HERO), Public Health and Emergency Management in Asia and the Pacific (PHEMAP), and roll-out of Surveillance in Post-Extreme Emergencies and Disasters (SPEED)	• Fast turnover of personnel requires the need to train additional and new staff • Hospital health emergency and response teams felt the need to integrate health emergencies and disaster preparedness early on (pre-service training) into the medical and nursing curriculum and other medical allied courses to widen equipped/skilled health professional volunteers during emergencies.

B.3.3 Vulnerability Assessment Tool

The development and application of a vulnerability assessment tool is key to preparing the national and local health system cope and prepare for the impacts of climate change. This tool is expected to be used by the LGUs in assessing their readiness for CC in health adaptation.

Strengths	Gaps
• set of vulnerability assessment tools developed by the UP- National Institute for Health (NIH) - IHPDS with MDGF assistance through NEDA integrating the initial vulnerability assessment tool designed and pilot-tested in 2011 in Albay and Marikina • Cascading the tool to the local levels contracted by DOH to UP-College of Public Health (CPH; • Commission on Climate Change also conducted vulnerability assessment in selected areas in the country which	• several versions of CCAH vulnerability assessment tools exist which confusing LGUs who are the primary users of the tool; • Concerns raised on the ease and practicality of the 5-set tool developed by UP-NIH and whether these complement the other sectors' vulnerability assessment tools; • though tool may be useful in identifying areas to be strengthened/enhanced in terms of readiness/ preparedness of the health sector to respond to climate change impacts on health, there is no guaranteed financing that can be offered for the LGUs to tap.

covered CCAH vulnerability	

C. Strategy 3. Health Promotion, Research, Surveillance and Monitoring

C.1 Health Promotion and Advocacy

The National Policy on CCAH stipulated the need to develop communication interventions to influence societal and community actions towards CCAH.

Strengths	Gaps
• DOH Health Promotion Program Plan on CCAH developed in 2010 with strategies/activities to create a supportive policy environment and community action • 5 types of IEC materials developed comprising of 6 posters (an Omnibus poster on CC and 5 on climate sensitive diseases: dengue, typhoid fever, cholera, measles and leptospirosis, flyers, desk and wall calendars with advocacy kit for service providers and another advocacy kit for LCEs • Info campaign at local level include orientation on Mitigating the Impacts of CCAH among local health staff and other LGU staff (MPDO, social welfare and development office, local environmental office, and integration of CC orientation during flag ceremonies and routine health education activities; • Other promotion activities undertaken include: - CCAH articles published in DOH Health Beat issue - uploading of some CCAH articles in DOH website; - tree planting activity in support to mitigation efforts against CC spearheaded by DOH-CC Unit • CCAH Forum organized in 2013 attended by 45 NCDPC officials and staff	• Majority of proposed activities in the 2010 Health Promotion Program Plan on CCAH not implemented • Low uptake of CCAH Policies and Guidelines among concerned DOH offices • IEC materials produced under MDGF were very limited only to project sites with very few quantities • some posters not strategically located

C.2 Research and Development

The National Policy on CCAH specified the need to identify, conduct and utilize high quality studies for evidence-based decision-making with emphasis on establishing links connecting CC and its health effects.

Strengths	Gaps
• international research studies that correlates climate change with incidence of climate sensitive diseases exist which could be used as reference in re-orienting/modifying program policies and guidelines • few local studies were/are being undertaken to look into the effects of climate change parameters on incidence of diseases (e.g. Dengue Study by DOH and Philippine Council for Health Research and Development (PCHRD and another dengue study currently undertaken by NIH in collaboration with DOH-NEC and the	• Research studies on CCAH not systematically identified and calendared as part of DOH Health Research Agenda; • No local counterpart studies have been undertaken to establish correlations of climate parameters with disease incidence as done in other countries; • Correlation study between disease incidence and selected CC parameters limited using only secondary data • Inability to correlate PAGASA data on CC parameters with disease incidence reports/ data collected by DOH as cases from the disease surveillance system cannot be

University of Australia;	disaggregated based on origins of cases • No coordination established to monitor and keep track of CC-related researches

C.3 Information Management System and Surveillance

The National Policy on CCAH stipulated the need to generate reliable, relevant, up-to-date, and accessible information in response to negative health effects of CC and to enhance surveillance system for CC-sensitive diseases

Strengths	Gaps
• DOH capacity on disease surveillance significantly improved with PIDSR - epidemiology and surveillance units established at various levels - significant increase in reporting units (public and private) - more systematic process in case investigation, reporting and response • mechanisms to enhance surveillance at community in place in some areas (e.g. use of SMS in reporting fever cases real time (e.g. Cebu City), contracting additional nurses to validate cases on a weekly basis (CHD 10); submission of fever cases daily by BHWs to CESU (Legaspi City) • SPEED installed and activated in several parts of the country. • High uptake of the use of technology on information management system at regional/local levels	• No CC knowledge management established to generate data and allow correlation analysis of diseases incidence with CC parameters. • challenges remain re establishment and operations of disease surveillance system: (i) not all provinces/cities/municipalities have functional ESUs; (ii) community-based surveillance system difficult to sustain; • availability and improvement in technology does not equate well in information management system; • vector surveillance (e.g. malaria, dengue) undertaken by some CHDs and LGUs but coverage and frequency of surveillance varied largely across regions and LGUs. As such, there is also minimal analysis done between vector and disease surveillance data;

C.4 Monitoring and Evaluation

The National Policy on CCAH stipulated the need to document events and progress in implementation, lessons learned and sharing of good practices relative to CCAH.

Strengths	Gaps
• occurrence of extreme events (declared by PAGASA) is being tracked daily by HEMS as a risk assessment tool for staff and is reported likewise to DOH management on a daily basis • CCAH initiatives documented with MDGF assistance • Initial list of indicators on CCAH prepared by CC Unit	• CCAH Strategy/Program lacks a corresponding monitoring and evaluation framework with set of clearly defined indicators as well as with identified sources of data, schemes and frequency of data collection • No unit in DOH is monitoring funds (budget) for CCAH • Minimal monitoring undertaken on sustainability of CCAH initiatives after the MDGF assistance

D. Strategy 4. Strengthening Organizational Structure for CC at Different levels of Governance

As provided for in the National Policy on CCAH, all health programs, offices and facilities are to adopt and mainstream CCAH in the health system. It also planned to designate staff as CC Focal Person in all health offices and facilities. Moreover, it was that organizational structure shall be established with delineations of roles and responsibilities and identification of areas for coordination and collaboration among all health stakeholders for CCA activities.

Strengths	Gaps
• CCAH TWG created in 2009 composed of representatives from DOH offices to anchor and guide the implementation of MDGF • Regional Sanitation Engineer or HEMS Coordinator serves as CCAH focal person • IACN as another coordinating body on environmental health in which CCAH concerns can be discussed • Roles and functions of each DOH office defined and stipulated as part of the National Policy on CCAH • Coordination with other national agencies (e.g. CC Commission, DENR, DA,, etc.) done by CC Unit • Potential mechanism in mainstreaming CCAH in local budget through CLUP	• CCAH TWG project-bound and stopped functioning once MDGF assistance ended • Link of CC Unit with sub-national and local counterparts not clear vis-a-vis coordination already existing between HEMS with regional and local counterparts; • CCAH initiatives found thriving in some localities but not systematically known by CC Unit and undocumented • coordination with LGUs and development partners remain unexplored • Common CC adaptation measures (e.g. vulnerability assessment across all sectors) not cohesively implemented down to LGUs • Planning in response to results to vulnerability assessment not yet in place

E. Summary of Recommendations

In response to the results and findings of the assessment, the following are the recommended areas for enhancement:

<u>On Policies, Plans, Networking and Resource Mobilization</u>

(1) Operationalize the framework, policies and strategies to the level that these are actionable and implementable by those concerned

(2) Undertake a systematic review of all health programs and assess how these existing program policies, standards and plans could incorporate CCAH.

(3) Thoroughly map out/inventory potential partners, their scope of work, potential contributions in CCAH and establish links;

(4) Create supportive environment at the local level for the adaptation of CC on Health (e.g. local resolution to include CCAH initiatives / activities)

(5) Include policy on ground water depletion – contamination of drinking water (DENR/National Water Resources Board (NWRB).

(6) Intensify mobilization of resources within DOH, development partners and other national agencies as CCAH interventions are cascaded down to the LGUs.

On Service Provision, Capacity and Infrastructure Enhancement

(7) Develop alternative service delivery models/mechanisms appropriate for high risk/hazard prone areas to ensure continuity of service provision.

(8) Review functions expected of concerned DOH offices at the national and sub-national levels on CCAH including the expected roles of the LGUs in order to design and implement responsive training programs (beyond Basic CC Orientation) to equip them perform their tasks.

(9) In addition to the training program, there is a need to design/develop tools that would guide LGUs how to mainstream CCAH into their plans (e.g. vulnerability assessment tool, risk communication planning, data analysis, etc.)

(10) Continue to assess safety of hospitals and consider expanding the vulnerability assessment to other critical health care facilities.

On Health Promotion, Research, Surveillance and Monitoring

(11) Revisit the communication plan developed in 2010 and enhance as needed with parallel effort in mobilizing resources to finance the actions proposed. Continue to intensify advocacy and promotion of both adaptation and mitigation measures;

(12) Development, production and distribution of IEC materials should include other high/ risk areas to cover a nationwide CC information dissemination;

(13) Explore more funding sources to implement health promotion and communication initiatives.

(14) There must be a deliberate and thorough review of researches and studies to be undertaken on CCAH and incorporate these as part of the annual health research agenda being consolidated by HPDPB.

(15) Strengthen the functionality of the disease surveillance system especially in the identified high-risk/hazard prone areas on climate-sensitive diseases and equally give attention to vector surveillance with the intent to correlate these data with the climate change parameters.

(16) Develop the Monitoring and Evaluation Framework on CCAH (once the strategic plan has been completed) with the define set of indicators to be measured, the data sources, data collection mechanisms and frequency of obtaining them.

On Strengthening Organizational Structure for CC at Different Levels of Governance

(17) Consider CCAH as one of the programs of the DOH – EOHO. A Program Manager/Coordinator will be designated and the necessary budget for its operations and implementation will be primarily drawn from the EOHO annual budget allocation.

(18) Revive the TWG on CCAH, assess its composition and further define its functions vis-a-vis the CC Unit, the implementing DOH offices and the IACEH.

(20) Clarify points of coordination between the national and sub-national level focal persons on CCAH vis-a-vis the HEMS Coordinators and LGUs with supportive coordination mechanisms such as joint program review and planning, joint monitoring, consultative meetings, reporting, etc.

Part 3. The 2014-2016 Climate Change Adaptation in Health (CCAH) Strategic Plan

I. Principles in the Formulation of the 2014-2016 CCAH Strategic Plan

The formulation of the CCAH Strategic Plan shall be guided by the following principles and considerations:

(1)The CCAH Strategic Plan shall contribute to the achievement of the overall goal of *Kalusugan Pangkalahatan (KP)* towards universal access to quality health care;

(2) It shall take into account the directions set forth in the Philippines National Framework for CC Change and in the 2012-2028 CC Action Plan;

(3) The CCAH Strategic Plan is seen to benefit as well from the global/international directions relative to climate change particularly in health and the experiences of other countries particularly on interventions already proven effective;

(4) It shall take off from the assessment undertaken since the inception of CCAH in the DOH (2009-2013), drawing lessons from the past program implementation by continuing and expanding those that worked well locally and to address identified gaps and bottlenecks;

(5) It recognizes the inputs and contributions of the different groups of stakeholders at various levels of administration, those within and outside the health arena and from those both in public and private sector;

(6) The CCAH Strategic Plan shall adopt community-based approaches, multi-sectoral-supported and evidenced-based interventions and measures;

(7) It is cognizant to build-in sustainability measures to ensure continuous implementation of the program at various levels of operations.

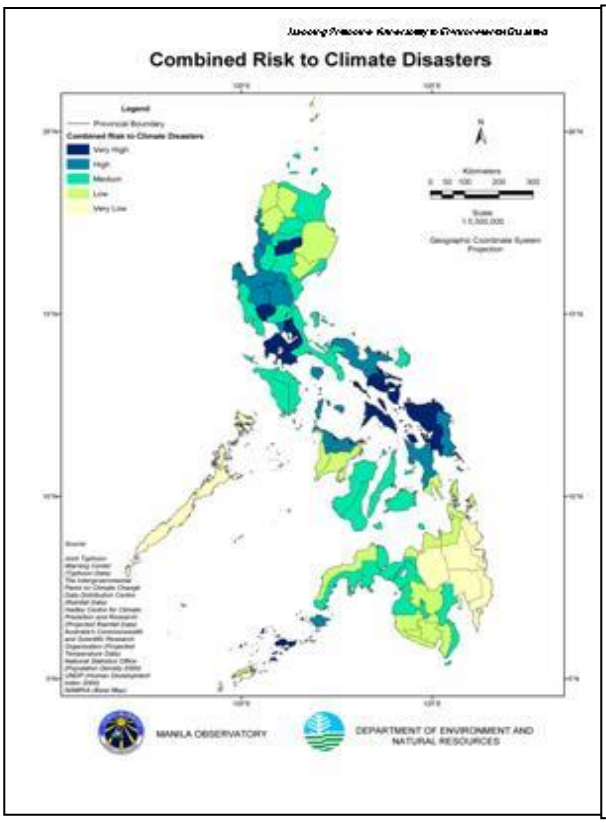
II. Policy Direction

As stipulated in the *Philippine Strategy on Climate Change* and *the National Strategy on Climate Change Adaptation in Health (CCAH)*, the overall policy direction of the 2014-2016 CCAH Strategic Plan is to pursue *"climate change adaptation*" as the strategic approach in responding to the impacts of climate change in health in the whole country. In this regard, the CCAH efforts and resources in the next 3 years will be focused on designing and implementing responsive adaptation interventions and measures in the country's health care delivery system to make it ready and CC-resilient.

Secondly, while the assessment showed that the past 5 years have been spent on crafting and issuing frameworks, policies and guides, the next 3 years should see the operationalization and implementation of said issuances.

Thirdly, the CCAH Strategic Plan shall continue to support mitigation measures as long as these are within the purview of the DOH-national and regional and local health offices and facilities to implement.

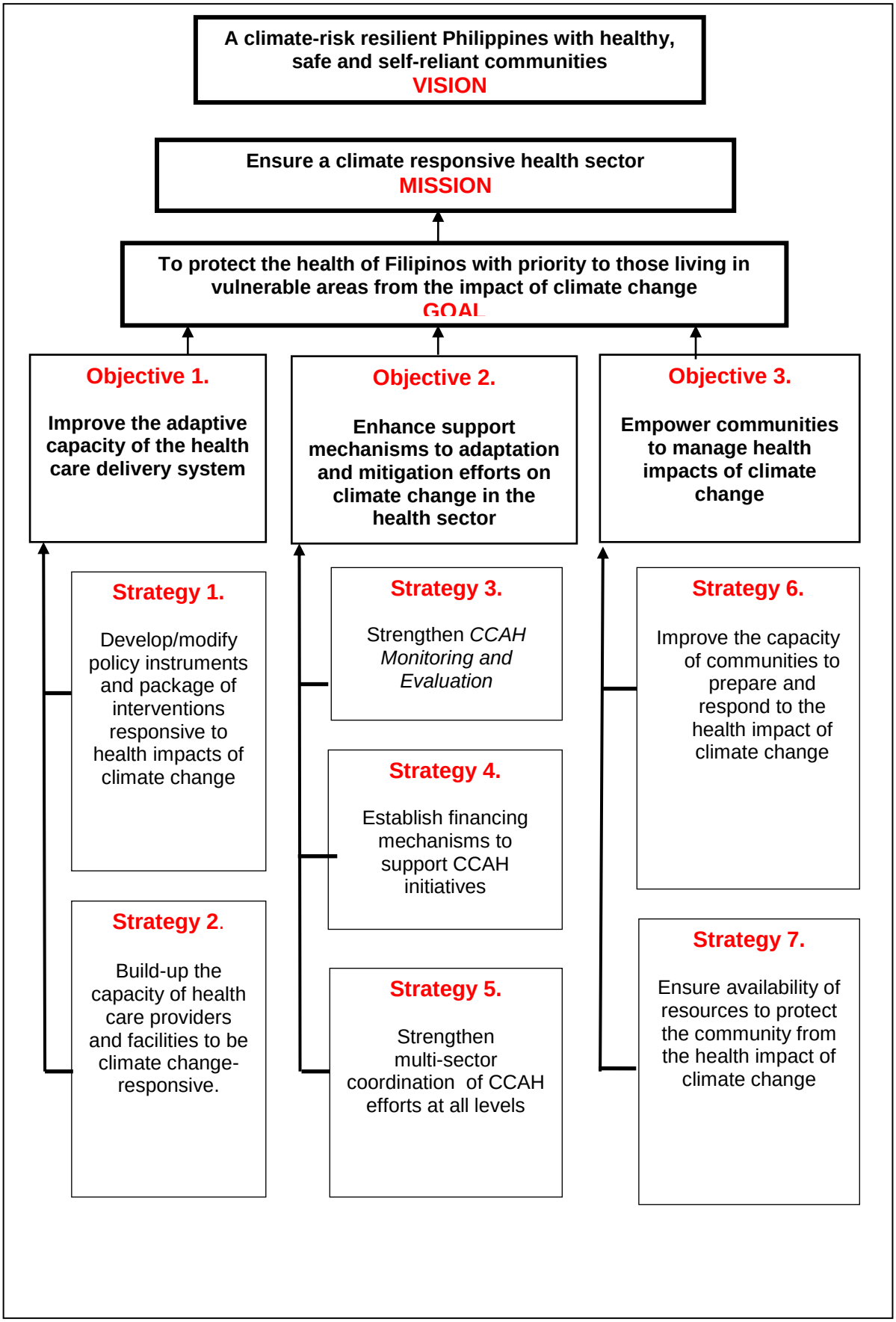
Fourthly, the 2014-2016 Strategic Plan will provide attention and assistance to the identified 20 high-risk provinces identified based on combined climate- and weather-related risks. The risk computation considered the risk to: (i) projected rainfall change, (ii) projected temperature increase, (iii) risk to typhoons and (iv) risk to El Nino-induced drought. The top 20 provinces at risk include the following:



Region	Province
CAR	1. Ifugao
Region I	2. Pangasinan
	3. La Union
Region III	4. Pampanga
	5. Nueva Ecija
	6. Tarlac
NCR	7. MetroManila
Region IV-A	8. Rizal
	9. Cavite
	10. Laguna
	11. Batangas
Region V	12. Albay
	13. Sorsogon
	14. Masbate
	15. Camarines Sur
Region VIII	16. Biliran
	17. Northern Samar
	18. Western Samar
ARMM	19. Sulu
	20. Basilan

(taken from: Center for Environmental Geomatics - Manila Observatory, 2005. Mapping Philippine Vulnerability to Environmental Disasters. Available: http://vm.observatory.ph/cw_maps.html)

III. Vision, Mission, Goal, Objectives and Key Strategies



IV. Strategies, Key Result Areas and Activities

Strategy 1. *Develop/modify policy instruments, plans and package of interventions responsive to health impacts of climate change*

Enhancing the adaptive capacity of the health care delivery system to the health impacts of climate change encompasses the development or modification of existing health program policies and guides and the packaging of appropriate interventions that address CC's potential health outcomes. Strategy 1 calls for a systematic review of existing program policies and guidelines and identify specific components that need to be modified in order to become CC-responsive, be it during disasters or emergencies or in anticipation of extreme events that may occur especially in high risk or hazard-prone localities. It also requires the mapping and identification of high-risk/hazard-prone areas where the intervention/s will be applied or implemented. Package of interventions and alternative technologies or health care delivery schemes need to be pretested or piloted before these are scaled up to other vulnerable areas. It is equally important for these modified policies/guides and package of interventions to be widely disseminated among those concerned and for compliance to be monitored at appropriate levels of implementation.

Key Result Area 1.1	***Program policies and plans, guidelines and standards developed/modified and adopted for CCAH***
Year	**Indicator/Target**
2014	• ***3 program policies/guides (EOHO, IDO and FHO) enhanced/ developed, disseminated and adopted in priority regions and vulnerable provinces***
2015	• ***Another 3 program policies/guides enhanced/developed, disseminated and adopted in priority regions and vulnerable provinces***
2016	• ***Another 3 program policies/guides enhanced/developed, disseminated and adopted in priority regions and vulnerable provinces***

Action Point	**Office/Staff Responsible**	**Schedule**		
		2014	**2015**	**2016**
1. Enhance/develop CC-oriented program policies/guides		**3**	**3**	**3**
1.1 Preparatory Work: Inventory of existing policies/guidelines; review and summary of findings, drafting	**Program in-Charge**	**/**	**/**	**/**
1.2 Validation/ Enhancement Workshop/s	**Program in-Charge**	**/**	**/**	**/**
1.3 Multi-sector consultation: LGUs, development partners, other concerned agencies	**Program in-Charge**	**/**	**/**	**/**
2. Disseminate/orient concerned managers and implementers on the enhanced or newly-developed policies/guidelines in high vulnerable areas	**Program in-Charge and CHDs concerned**	**/**	**/**	**/**
3. Adopt/implement the enhanced or newly-developed policies/guidelines in high vulnerable areas	**High vulnerable provinces**	**/**	**/**	**/**
4. Formulate CCAH Strategic Plans	**EOHO-CC**	**-**	**-**	**/**

Key Result Area 1.2	***Package of interventions and alternative health care delivery schemes developed, tested and implemented in priority areas***
Year	**Indicator/Target**
2014	• ***3 CC-oriented intervention packages and health delivery schemes* (EOHO, IDO, FHO) *modified/designed, pre-tested/piloted and implemented***
2015	• ***another 3 CC-oriented intervention packages and health delivery schemes modified/designed, pre-tested/piloted and implemented***
2016	• ***another 3 CC-oriented intervention packages and health delivery schemes modified/designed, pre-tested/piloted and implemented***
	• ***1 Regional Health Emergency System in place in priority regions***

Action Point	Office/Staff Responsible	Schedule		
		2014	2015	2016
1. Modify/Develop CC-oriented service/ intervention packages		**3**	**3**	**3**
1.1 Review, modify or design CC - oriented service packages	**Program in Charge**	**/**	**/**	**/**
1.2 Pilot test service package/s	**Program in Charge**	**/**	**/**	**/**
1.3 Implement in 10 priority areas	**Program in Charge**	**-**	**/**	**/**
2. Establish Regional Health Emergency System in 3 priority regions	**BLHD, HEMS, and concerned CHDs and LGUs**	**/**	**/**	**/**
3. Enhance health facilities in Yolanda-stricken areas e.g. elevated solid concrete health center walls/roof, solar paners for electricity or lighting, etc.	**NCHFHD**	**/**	**/**	**/**

Strategy 2. *Build-up the capacity of the network of health care providers and facilities to be climate change-responsive*

Strategy 2 requires strengthening the capacity of the network of health care providers (both health staff and facilities) to implement the modified or newly-developed policies/guides, intervention packages or alternative health delivery schemes. Capacity building would entail series of orientations and training of health care providers on these revised policies/guidelines, intervention packages and alternative health delivery schemes. It would also necessitate equipping the health staff with the necessary tools which they can use as they prepare for and respond to health impacts of climate change. On the other hand, health facilities had to be retro-fitted if necessary or provided with the necessary equipment or systems to make them CC-resilient.

Key Result Area 2.1	***Health vulnerability assessment and planning capacity in place at local level (province/municipality/city/barangay)***
Year	**Indicator/Target**
2014	• ***Health Vulnerability Assessment Tools harmonized***

2015	• ***10 vulnerable provinces completed health vulnerable assessment with corresponding enhancement action plans***
2016	• ***another 10 remaining vulnerable provinces completed health vulnerable assessment with corresponding enhancement action plans***

Action Point	**Office/Staff Responsible**	**Schedule**		
		2014	**2015**	**2016**
1. Enhance/harmonize health vulnerability assessment tools	**CCAH Program**			
1.1 Review and enhance VA Tool	**CCAH Program /TWG**	**/**		
1.2 Revise/enhance Training Module for Vulnerability Assessors	**CCAH Program/TWG**	**/**		
1.3 Conduct TOT for national/ regional CCAH Coordinators	**CCAH Program/TWG**	**/**		
1.4 Cascade training to provincial and city/ municipal vulnerability assessors	**TWG/Regional CCAH Coordinators**	**/**	**/**	
1.5 Cascade training to barangay vulnerability assessors	**Prov/Mun CCAH Coordinators**		**/**	**/**
2. Conduct vulnerability assessment in high vulnerable provinces down to the barangay level	**PHO/CHO/ MHO in high vulnerable areas (PHO)**		**/ (10)**	**/ (10)**
3. Planning for CCAH in the assessed provinces with participation of the municipal/city CCAH point persons	**PHO/CHO/ MHO in vulnerable areas**		**/**	**/**

Key Result Area 2.2	***Health care providers (facilities and staff) complying with climate change -responsive standards***
Year	**Indicator 1 /Target**
2014	• ***DOH Licensing and PhilHealth Accreditation standards include CC-proof standards***
2015	• ***100% of health facilities (hospitals/RHUs as applicable) in the 10 high vulnerable areas complying with CC-proof licensing and accreditation standards***
2016	• ***100% of health facilities (hospitals/RHUs as applicable) in the other 10 high vulnerable areas complying with CC-proof licensing and accreditation standards***

Action Point	**Office/Staff Responsible**	**Schedule**		
		2014	**2015**	**2016**
1. Review and integrate CC-oriented standards in DOH licensing and PhilHealth accreditation standards				
1.1 Preparatory works: Review licensing and accreditation standards if already CC-responsive	**CCAH Program/ TWG/NCFHD Licensing Office and PhilHealth**	**/**		
1.2 Integrate CC-responsivestandards in licensing and accreditation requirements	**DOH Licensing/ PhilHealth**	**/**		
1.3 Advocate and monitor LGU compliance to CC-responsive licensing and accreditation standards	**CCAH Program / TWG/NCFHD**	**/**	**/**	**/**
1.4 Licensing/accreditation of health facilities according to standards	**DOH/PhilHealth**		**/**	**/**

Year	Indicator 2/Target
2015	• ***10 vulnerable provinces implementing Enhancement Action Plans based on results of vulnerability assessment***
2016	• ***Another 10 vulnerable provinces implementing Enhancement Action Plans based on results of vulnerability assessment***

Action Point	Office/Staff Responsible	Schedule		
		2014	2015	2016
2. Enhance health facilities based on results of vulnerability assessment in the vulnerable provinces			**10**	**10**
2.1 Inventory of existing equipment, systems, logistics, etc.	**LGUs/CCAH Program**		**/**	
2.2 Procure equipment/logistics as needed	**LGUs/CCAH Program**		**/**	**/**
2.3 Design and install support systems (e.g. referral, etc.) as needed	**LGUs/CCAH Program**		**/**	**/**

Year	Indicator 3/Target
2015	• ***At least 80% of health providers in the 10 high vulnerable provinces trained on relevant CC-oriented policies, intervention packages or alternative delivery schemes***
2016	• **At least 80% health providers in the other 10 high vulnerable provinces *trained on relevant CC-oriented policies, intervention packages or alternative delivery schemes***

Action Point	Office/Staff Responsible	Schedule		
		2014	2015	2016
3. Train health providers on CCAH-oriented program policies, intervention packages or alternative delivery schemes	**Program In-Charge**			
3.1 Review training modules/ manuals	**Program In-Charge**	**/**	**/**	**/**
3.2 Enhance/develop training modules	**Program In-Charge**	**/**	**/**	**/**
3.3 Conduct training/orientation	**Program In-Charge/ CHD Coordinators**	**-**	**/**	**/**
4. Train/Orient health care providers on HEMS	**c/o HEMS**	**/**	**/**	**/**

Strategy 3. *Strengthen CCAH Monitoring and Evaluation (M and E)*

Central to the adaptation of program policies/guides and package of interventions and the design of alternative health delivery schemes responsive to the health impacts of climate change is an up-to-date, accurate, reliable and accessible information to guide key decisions and actions. This necessitates the development of a CCAH Monitoring and Evaluation Framework with corresponding guidelines and tools applicable at each level of administration. The M and E Framework is expected to generate the needed information through the conduct of researches/studies, the strengthening of the functionality of disease surveillance system, particularly on climate-sensitive diseases and through regular CCAH reporting and field monitoring. More local researches are needed to establish health impacts of climate change and

measure cost-effectiveness and efficiency of different CCAH interventions. On the other hand, the disease surveillance system allows the study of CC parameters' influence on the incidence of climate-sensitive diseases or on the behaviours of the disease vectors. As the national, sub-national and local levels intensify their respective actions on CCAH, it is imperative that reporting and monitoring of their implementation status is established or conducted on a regular basis.

Key Result Area 3.1	***CCAH monitoring and evaluation system developed and functional***
Year	**Indicator/Target**
2014	• ***M and E Framework, Guidelines and Tools developed and disseminated to all concerned offices***
2015	• ***10 vulnerable provinces submitting CCAH reports to appropriate levels***
2016	• ***All 20 vulnerable provinces submitting CCAH reports to appropriate levels***

Action Point	**Office/Staff Responsible**	**2014**	**2015**	**2016**
1. Develop CCAH M and E framework, guides and tools				
1.1 Develop the CCAH M and E Framework establish CCAH indicators, data sources, means and frequency of data collection	**CCAH ProgramU/TWG**	**/**		
1.2 Develop CCAH M and E guides and tools	**CCAH Program /TWG**	**/**		
1.3 Development of CCAH software (as needed)	**CCAH**	**-**	**-**	**-**
2. Orient/Train CCAH coordinators on the M and E Framework. Guidelines and Tools	**CCAH Program / TWG**			
3. Conduct field monitoring in selected areas	**CCAH Program/TWG Coordinators at all levels**		**/**	**/**
4. Regular submission of CCAH reports	**LGUs/CHDs**		**/**	**/**
5. Annual PIR	**CCAG Program / TWG/CCAH Coordinators at all levels**		**/**	**/**

Key Result Area 3.2	***CCAH research management system in place and functional***
Year	**Indicator/Target**
2014	**CCAH researches/studies integrated in the DOH Health Research Agenda**
2015	**1 research/study completed with results disseminated**
2016	**2 researches/studies completed with results disseminated**

Action Point	Office/Staff Responsible	Schedule		
		2014	2015	2016
1. Develop CCAH Research Agenda				
1.1 Inventory/ consolidate existing researches/studies on CCAH including research groups	**CCAH Program/TWG**	**/**		
1.2 Hold consultations on research needs on CCAH	**CCAH Program/TWG**	**/**		
1.3 Identify research agenda and integrate with HPDPB research agenda	**CCAH Program/TWG/ HPDPB**	**/**		
2. Implement CCAH Research/ Studies				
2.1 Develop proposals	**CCAH Prorgam/ TWG and Program Concerned**		**/**	
2.2 Conduct research/studies	**Contracted parties/CCAH Program**		**/**	**/**
c. Disseminate results (publication, technical forum)	**CCAH Program/TWG**		**/**	**/**

Key Result Area 3.3	***Disease surveillance system in vulnerable areas functional***
Year	**Indicator/Target**
2014	• ***20 vulnerable provinces assessed on functionality of disease surveillance system***
2015	• ***10 vulnerable provinces with functional disease surveillance system***
2016	• ***another 10 vulnerable provinces with functional disease surveillance system***

Action Point	Office/Staff Responsible	Schedule		
		2014	2015	2016
1. Assess functionality of the disease surveillance systems in vulnerable areas	**NEC**	**/**	**/**	
2. Enhance diseases surveillance system for CC-sensitive diseases in vulnerable areas	**NEC/R/P/C/ MESU**	**-**	**/**	**/**
3. Train NEC/R/PESU and CCAH Coordinators on statistical analysis	**CCAH Program /NEC**	**/**	**/**	
4. Routine analysis of CC parameters with climate- sensitive diseases at the national/regional/provincial levels	**CCAH Program / CHD and LGU CCAH Coordinators**		**/**	**/**

Strategy 4. *Establish financing mechanisms to support CCAH initiatives*

Adaptation measures on climate change for health including support for mitigation efforts require a gargantuan amount of resources. Strategy 4 requires that all possible sources of funds be tapped, mobilized and secured to sustain CCAH operations at various levels of administration. It is necessary therefore that the DOH prepares an overall investment plan in support the CCAH implementation and be able to mobilize funds from various sources. Primarily, funding support must be advocated from within the DOH bureaucracy at the central and regional offices as well as from the local government units (LGUs). Additional funding assistance must be mobilized from development partners, private institutions and other government agencies. The possibility of PhilHealth financing will be explored particularly for climate-sensitive diseases.

Key Result Area 4.1	***Financing scheme for CCAH Strategic Plan implementation developed and packaged***
Year	**Indicator/Target**
2014	• ***1 proposal developed/packaged for DOH funding based on results of financing analysis and investment plan***
2015	• ***3 proposals developed/packaged for donors/ development partners funding based on results of the financing analysis and investment plan***
2016	• ***20 proposals developed/packaged for LGU funding based on results of financing analysis and investment***

Action	**Office/ Staff Responsible**	**Schedule**		
		2014	**2015**	**2016**
1. Conduct CCAH Financing Study	**CCAH Program/TWG**	**/**		
2. Package CCAH initiatives for funding by various sources/Investment Plan	**CCAH Program/TWG**	**/**		
3. Develop proposals (package CCAH initiatives for funding by various sources)	**CCAH Program/TWG**	**/**		

Key Result Area 4.2	***Funding support from various stakeholders mobilized and accessed for CCAH initiatives***
	Indicator/Target
2014	• **At least 1% of total DOH budget allocated for CCAH**
2015	• **Amount of funds mobilized from donors/ development partners/other government agencies at least doubled from the previous year**
2016	• **At least 80% of the vulnerable provinces include allocation of funds for CCAH in their PIPHs**

Action	**Office/ Staff Responsible**	**Schedule**		
		2014	**2015**	**2016**
1. DOH Funding				
1.1 Orient/advocate among concerned DOH programs/ offices, clusters and management to finance CCAH efforts	**CCAH Program/TWG**	**/**		
1.2 Identify funding within DOH for CCAH and develop guidelines on its allocation and utilization	**CCAH Program/TWG**	**/**		

2. Donors/Development Partners Funding - conduct round-table discussions/ advocacy with other concerned stakeholders	**CCAH Program/TWG**	**/**	**/**	**/**
3. Develop PhilHealth Benefit package for climate sensitive disease	**PhilHealth/IDO**	**/**	**/**	**/**
4. Advocate in the 20 high vulnerable LGUs to integrate CCAH enhancement plan requirements to P/C/MIPH or AOP	**CCAH Program / Regional CCAH Coordinators**		**/**	**/**

Strategy 5. ***Strengthen multi-sector coordination of CCAH efforts at all levels***

The DOH recognizes that though it is the lead agency in coordinating and managing the implementation of CCAH efforts in the country, it needs the support of other national government agencies, development partners, health care managers and providers both in the public and private sectors, the civil society (e.g. academe, non-government organizations, professional societies, etc.) and especially the LGUs who are responsible in making things happen at the local level. In this regard, there is a need to strengthen the coordination of CCAH-related efforts within the DOH as various offices are involved in CCAH activities. Coordination must also be established and functional at the sub-national and local levels. Coordination must also go beyond the DOH and links must be established with the other government agencies and the LGUs to ensure that CCAH-related efforts are harmonized with the programs/activities of the other sectors and at the local level.

Key Result Area 5.1	***Coordination mechanism within DOH in place and functional at all levels***			
Year	**Indicator/Target**			
2014-2016	• ***At least 80% of expected DOH partners attending coordination meetings***			
Action Point	**Office / Staff Responsible**	**Schedule**		
		2014	**2015**	**2016**
1. Hold TWG quarterly meetings	**CCAH Program**	**4 mtgs**	**4 mtgs**	**4 mtgs**
2. Conduct annual CCAH Planning				
2.1 At DOH-Central Office with CHDs	**CCAH Program**	**/**	**/**	**/**
2.2 At CHD level with vulnerable LGUs	**CHDs**		**10 reg**	**10 reg**
3. Organize Technical updates to DOH management	**CCAH Program**	**2 mtgs**	**2 mtgs**	**2 Mtgs**
Key Result Area 5.2	***Partnership with other national government agencies and other groups of stakeholders established and functional***			
Year	**Indicator/Target**			
2014-2016	• ***At least 80% of expected partners attending coordination meetings and involved in joint undertakings***			

Action Point	Office/Staff Responsible	Schedule		
		2014	2015	2016
11.1 Mapping of partners/stakeholders	**CCAH Program**	**3**	**5**	**7**
11.2 Multi-Sectoral forum (e.g. CC Summit, CC Consciousness Week, PDF, etc.)	**CCAH Program**	**/**	**/**	**/**
11.3 Policy Forum/IACEH	**CCAH Program**	**4**	**4**	**4**
a. IACEH on CC	**CCAH Program**	**4**	**4**	**4**
b. RIACEH on CC	**CCAH Program**	**4**	**4**	**4**
11.4 Regular meetings for updates on CC projects (e.g. research with PCHRD)	**CCAH Program /TWG**	**3**	**5**	**7**

Strategy 6. *Improve awareness of communities on the impact of CC and their readiness to respond to health risks brought about by CC*

While the first two strategies address the readiness and capability of the supply side (network of health care providers and facilities) in responding to health impacts of climate change, there is equally a need for the community members to be made aware of the effects of climate change on their welfare and health and the key measures they can undertake to cope with these impacts. The poor and marginalized population need more attention and assistance as they are the most hardly hit during disasters and calamities. For this purpose, there is a need to design and develop appropriate key messages related to climate change and identify strategic communication/information channels to reach them. Equipping them with the necessary skills to cope with the challenges of climate change is utmost important.

Key Result Area 6.1	***Key decision makers supporting CCAH initiatives implementation***
Year	**Indicator/Target**
2014	• **At least 80% of targeted national decision makers *and managers supporting CCAH initiatives (financial, technical, policy advice, etc.)***
2015	• **At least 80% of targeted regional decision-makers and managers *supporting CCAH initiatives (financial, technical, policy advice, etc.)***
2016	• **At least 80% of targeted local decision-makers and managers *supporting CCAH initiatives (financial, technical, policy, etc.)***

Action Point	Office/Staff Responsible	Schedule		
		2014	2015	2016
1. Develop national promotion/risk communication plan	**NCHP**	**/**		
2. Develop Information Kit materials	**NCHP**	**/**		
3. Orient national government agencies, development partners/donors	**NCHP**	**/**		
4. Orient regional CC focal person, HEPOs, DOH representatives	**NCHP**	**/**		

5. Conduct of advocacy meetings with LGU/LHB	**Regional CC Focal person and HEPOs**	**3**	**3**	**3**

Key Result Area 6.2	***Health care providers capacitated to undertake health risk communication and promotion strategies in response to impact of CC***
Year	**Indicator/Target**
2014	**At least 80% of expected regional CCAH Coordinators and HEPOs trained on risk communication**
2015	**At least 80% of expected provincial/city CCAH coordinators and HEPOs in 20 vulnerable areas trained on risk communication**
2016	**At least 80% of expected health care providers in the 20 vulnerable areas trained on risk communication**

Action Point	**Office/Staff Responsible**	**Schedule**		
		2014	**2015**	**2016**
1. Conduct skills enhancement training on risk communication/promotion of CCAH among regional and provincial CCAH Coordinators and HEPOs	**NCHP**		**/ 3 (zonal batches)**	**/ 3 (zonal batches)**
2. Conduct skills enhancement training on risk communication promotion on CCAH among local health care providers	**Regional and Provincial CC Team**		**/**	**/**

Key Result Area 6.3	***Communities in vulnerable areas informed, educated, and practiced desired behaviour in accessing health services related to CCAH***
Year	**Indicator/Target**
2015	• **At least 80% of community members in 10 vulnerable areas aware of CCAH measures and availing of services**
2016	• **At least 80% community members aware of CCAH measures and availing of services**

Action Point	**Office/Staff Responsible**	**Schedule**		
		2014	**2015**	**2016**
1. Produce, pre-test and disseminate prototype IEC materials	**NCHP**	**20**	**20**	**20**
2. Conduct of awareness campaign through CC Congress	**CHD CC Team**	**/**	**/**	**/**
3. Conduct educational activities through lay forum and community assemblies	**Trained Health Care Providers**	**/**	**/**	**/**
4. Launch of best performing barangay/ communities on CC (C2 Champs or C3 Advocates)	**NCHP**			**/**

Strategy 7. *Ensure availability of resources to protect the community from the health impacts of climate change*

The poor are the hardest hit during disasters and calamities. Prior to the occurrence of extreme events, the poor are already highly vulnerable to diseases and infections.

They also have the least means to access health and services given their limited knowledge, lack of resources and the physical barriers as they most likely reside in geographically-challenged localities. In addition to raising their awareness of the impact of climate change and equipping them with certain skills to cope when disasters hit, they need to be socially protected to ensure their continuous access to basic health care and services. Mechanisms must be mounted (e.g. transportation) and expanded (e.g. 100% enrolment of poor households to PhilHealth) and be oriented on how to avail said benefits. There is also a need to establish alternative community-based health interventions (e.g. herbal medicines/plants, cultivating alternative types of food to meet basic needs, etc.). Furthermore, sustainable livelihood programs can also be introduced and promoted especially to the poor households living in high-risk/hazard prone areas. Other vulnerable groups (e.g. people with disabilities, the elderly, pregnant women, infants) who have the least ability to cope and survive during these situations should be mapped out and their special needs be identified.

Key Result Area 7.1	***Community-based support system to prepare and respond towards health impacts of climate change in place***
Year	**Indicator/Target**
2014	• **At least 3 community-based intervention packages identified and documented**
2015-2016	• **At least 3 community-based intervention packages implemented in selected vulnerable areas**

Action Point	**Office/Staff Responsible**	**2014**	**2015**	**2016**
1. Identify and document community-based interventions that help prepare households/ members for eventual impacts of CC	**CCAH Program**	**/**		
2. Engage/mobilize local partners to assist communities	**CCAH Program**		**/**	**/**
3. Implement community-based interventions/alternative support mechanisms (e.g. transport, herbal medicine, alternative food sources, etc.) and livelihood projects	**Local partners/ LGUs**		**/**	**/**
4. Design and engage poor households in livelihood projects	**Local Partners/ LGUs**		**/**	**/**

Key Result Area 7.2	***Poor households and other vulnerable groups availing of financial and other forms of assistance***
Year	**Indicator/Target**
2014	• **Poor households and high-risk groups mapped out in the high vulnerable provinces**
2015-2016	• ***Proportion of identified poor households and vulnerable groups benefitting from community-based interventions***

Action Point	Office/Staff Responsible	Schedule		
		2014	2015	2016
1. Locate/map-out poor households (NHTS/ CCTs) and other high risk groups in the 20 vulnerable provinces	**CHTs/other volunteer workers**	**/**		
2. Facilitate enrolment of all poor households to PhilHealth, engagement in livelihood projects or other forms of financial assistance	**CHTs**	**/**	**/**	**/**
3. Identify special needs of vulnerable groups (PWDs, elderly, infants, pregnant women in the vulnerable provinces and provide orientation/ training how to cope and address impacts of climate change on their health	**Local partners**		**/**	**/**

V. Budgetary Requirement

An estimated amount of 378.0 million pesos is required to finance the 2014-2016 CCAH Strategic Plan in order to achieve its set goals, objectives and targets. As summarized below, the highest investment is for the development and modification of policy instruments and package of interventions responsive to health impacts of climate change. Substantial amount is also required to equip the health care facilities and develop the capability of health personnel in both hospitals and other health facilities respond to the impacts of climate change. Large amount of funds is also needed to empower the community members, particularly the poor households living in the vulnerable provinces including the other high risk groups to cope with the challenges brought about by climate change.

Table 7. Budget Requirement for the Implementation of the 2014-2016 Strategic Plan

Strategy/Key Result Area	2014	2015	2016	Total
Strategy 1. *Develop/modify policy instruments and package of interventions responsive to health impacts of climate change*	**9,395,000**	**70,395,000**	**82,395,000**	**162,185,000**
KRA 1	2,895,000	2,895,000	2,895,000	8,685,000
KRA 2	6,500,000	67,500,000	79,500,000	153,500,000
Strategy 2. *Build-up the capacity of the network of health care providers and facilities to be climate change-responsive*	**4,530,000**	**37,795,000**	**36,625,000**	**76,070,000**
KRA 3	1,120,000	11,335,000	10,375,000	22,830,000
KRA 4	3,410,000	26,460,000	26,250,000	53,240,000
KRA 4 - Indicator 1	530,000	8,260,000	8,050,000	16,840,000
KRA 4 - Indicator 2		12,320,000	12,320,000	24,640,000
KRA 4 - Indicator 3	2,880,000	5,880,000	5,880,000	11,760,000
Strategy 3. *Strengthen CCAH Monitoring and Evaluation*	**1,460,000**	**13,207,500**	**13,267,500**	**27,935,000**
KRA 5	837,500	1,137,500	1,077,500	3,052,500
KRA 6	322,500	9,450,000	9,450,000	19,222,500
KRA 7	300,000	2,620,000	2,740,000	5,660,000
Strategy 4. *Establish financing mechanisms to support CCAH initiatives*	**2,737,500**	**620,000**		**3,357,500**

KRA 8	2,400,000			2,400,000
KRA 9	337,500	620,000		957,500
Strategy 5. *Strengthen multi-sector coordination of CCAH efforts at all levels*	**2,197,500**	**5,600,000**	**5,602,500**	**12,050,000**
KRA 10	492,500	3,892,500	3,892,500	6,927,500
KRA 11	1,705,000	1,707,500	1,710,000	5,122,500
Strategy 6. *Improve awareness of communities on the impact of CC and their readiness to respond to health risks brought about by CC*	**4,687,500**	**12,608,000**	**19,496,000**	**36,791,500**
KRA 12	1,687,500	2,087,000	1,475,000	5,249,500
KRA 13		2,421,000	2,421,000	4,842,000
KRA 14	3,000,000	8,100,000	15,600,000	26,700,000
Strategy 7. *Ensure availability of resources to protect the community from the health impacts of climate change*	**3,016,000**	**28,240,000**	**28,240,000**	**59,496,000**
KRA 15	716,000	10,000,000	10,000,000	20,716,000
KRA 16	2,300,000	18,240,000	18,240,000	38,780,000
Grand Total	**28,023,500**	**168,465,500**	**185,626,000**	**377,885,000**

The above amounts still need to be mobilized from different sources. As stipulated in the plan, funds will be sourced primarily from the DOH allocation at the national and regional levels including financing from donors and other development partners. LGUs' contributions have to be mobilized to implement the package of interventions and to sustain CCAH operations on the ground. Please refer to Annex 4 for the detailed budget allocation per key result area.

VI. Implementation Arrangements

The 2014-2016 CCAH Strategic Plan will be implemented in a concerted effort among national, regional and local groups of stakeholders. The cooperation of other development partners and other concerned national government agencies including the local government units (LGUs) will be harnessed to ensure efficient and effective implementation of the plan. A team of consultants will be hired to assist the DOH in the development or adaptation of the policy instruments, health intervention packages, alternative health delivery schemes, risk communication or health promotion plan, conduct of researches and in establishing the CCAH monitoring and evaluation system. The CC Unit together with the Technical Working Group on CCAH and their regional and local counterparts will be mobilized to coordinate the implementation of the 2014-2016 CCAH Strategic Plan.

At the National Level. At the national level, the Climate Change Unit (CCU) will take the lead in coordinating the overall implementation of the plan governed by the technical direction to be provided by the CCAH Technical Working Group (TWG). The existing CCU staff needs to be beefed up with additional 2-3 fulltime staff to assist the head of the CCU coordinate CCAH-related activities. The National Technical Working Group (TWG) on CCAH is currently being recomposed to provide the needed technical direction. Mandated offices in-charge of the different programs and policies, systems and tools will take full responsibility of their assigned tasks: NEC in charge of disease surveillance, IDO for the infectious diseases, DDO for non-communicable diseases, the Women, Children and Family Health Cluster for health interventions appropriate for each group of clients, the NCHP for the risk communication/health promotion component of the Plan. Closer coordination will have to be worked continuously with HEMS in-charge in the preparation, actual

response and post activities during disasters and emergencies. As required in the CCAH Strategic Plan, the DOH is encouraged to establish a multi-sectoral coordination group to encourage non-DOH development partners and those in the private sector to participate and become involved in the CCAH plan implementation.

At the Regional Level. The CCAH Coordinator designated in each CHD will be responsible in coordinating all regional level activities towards CCAH. Said coordinators are expected to coordinate with other CHD offices and personnel involved in climate change-related undertakings and other related programs such as the HEMS, environmental health, infectious disease programs and family health clusters. Likewise, the regional counterparts of the program coordinators, RESUs, HEPOs in the CHDs, environmental health staff and HEMS coordinators will be tapped and mobilized to cascade relevant activities at the regional level down to the LGUs. The CHD CCAH focal persons are likewise encouraged to establish multi-sector coordination at their level to support the CCAH plan implementation.

At the Local Level. The LGUs through its provincial/municipal/city health offices will take the lead in the implementation of the modified health intervention packages, adapt and comply with the policy instruments and guides on CCAH especially in the identified 20 high vulnerable provinces to climate change. Various mechanisms will be established to expand the reach especially to the poor and other high risk groups through various media channels with regard to promotion/risk communication on the impacts of climate change and the participation of local development partners (NGOs, POs, etc.) in helping community members access health care and services.

The following summarizes the roles and functions of concerned DOH national offices, CHDs and other partners in the implementation of the CCAH Strategic Plan.

Climate Change Unit (CCU)

1. Set policy directions and develop agenda on CCAH
2. Obtain climate change parameters overtime in coordination with concerned agencies and develop climate change health advisories for issuance by DOH management
3. Support the development of tools and other materials necessary for the implementation of CCAH initiatives
4. Provide technical assistance in the design and conduct of vulnerability assessment tool and the implementation of CCAH initiatives/interventions
5. Serve as technical advisers/resource in CCAH related conferences
6. Develop research agenda on CCAH in coordination with other DOH offices and LGUS and coordinate the conduct of researches/studies on CCAH
7. Set-up database and establish climatological trends on climate change indicators related to design and implementation of health programs
8. Organize avenues sharing climate change concerns, finding ands and information
9. Liaise with other government agencies and groups of stakeholders on relevant CCAH concerns and initiatives
10. Develop criteria, mechanisms for inter-agency PPP
11. Serve as IACEH secretariat for CC sector
12. Support HEMS in coordination and collaboration with partners and stakeholders in DRR and CCAH related preparedness, response and recovery activities
13. Help promote awareness and appreciation of impact on CCAH

14. Support advocacy of other mitigation and adaptation measures implemented by other agencies
15. Monitor and evaluate progress of implementation of CCAH policies, plans and initiatives and document climate change related good practices

NCDPC – Environmental and Occupational Health Office (EOHO)

1. Review and adapt existing program policies, guidelines and health technologies/ packages and interventions appropriate in CC-vulnerable areas
2. Review existing plans and integrate climate change-oriented strategies and activities
3. Identify / modify / adapt climate change indicators
4. Continue regular program monitoring and make available report for climate change unit
5. Provide technical assistance to LGUs in the implementation and adaptation of modified / strategies climate change-related interventions.
6. Undertake researches / studies to establish correlation of climate change to discuss patterns

NCDPC – Infectious Disease Office (IDO)

1. Review, modify and adapt existing policies, standards, guidelines, protocols and plans in response to climate change impact on health in vulnerable areas.
2. Develop or design plans, programs and strategies and interventions in response to climate change impact on health in vulnerable areas.
3. Ensure appropriate budget allocation for CCAH initiatives in the program and financial plans.
4. Coordinate with CCU on CCAH initiatives.

NCDPC – Degenerative Disease Office (DDO)

1. Review and update existing policies, guidelines, standards on climate sensitive non-communicable diseases (NCDs)(ex chronic respiratory disease, Bronchial Asthma, CVD)
2. Design/develop strategies or interventions related to climate sensitive NCDs for identified communities in vulnerable areas
3. Continue regular program monitoring and make available report to CCU
4. Provide TA to LGUS in the implementation and adoption of strategic interventions on climate-sensitive NCDs
5. Develop advisories on climate sensitive NCDs, e.g. heat stroke, HPN, CVD, Skin CA
6. Advocate healthy lifestyle activities (ex eat less meat, promote use of bicycles, walking) to support mitigation efforts of climate change

Health Emergency Management and Services (HEMS)

1. Promote and advocate climate change related disaster risk-reduction and management strategies.
2. Enhance capacity of the health sector to reduce climate change-related disaster risks.
3. Assist in promoting of safe health facilities on the context of climate change-related disasters.
4. Continuous implementation of early alert and warning sign during climate change-related emergency and disaster-related event.
5. Regular monitoring of extreme weather events and other climatological hazards.

6. Institutionalization of HEMs at the local level to increase community resilience to climate change-related disasters/emergencies.
7. Coordination and collaboration with partners and stakeholders in disaster risk reduction and climate change adaptation and health related preparedness, response and recovery activities.

National Center for Health Promotion (NCHP)

1. Assess and design risk communication and health promotion schemes / mechanisms addressing various groups of stakeholders. This includes the popularization among local decision makers and planners of CC best practices and innovative schemes.
2. Develop key messages on he promotion of a) CC adaptation and mitigation on health; and b) promote links of CC to health environment and other CC-related disease.
3. Develop pre-test and produce IEC materials related to CC on health. Prototypes will be provided to CHDs for reproduction and dissemination.
4. Disseminate these through appropriate channels of communication related to CC on health.
5. Provide TA for CHDs, LGUs and other stakeholders in developing locally-specific risk communication and health promotion CC packages; and
6. Help promote PPP to synergize resources for CC and health.

Bureau for International Health Coordination (BIHC)

1. Organize Health Partners Meeting to discuss issues and actions on CCAH.
2. Facilitate inter-country coordination mechanisms and tap international networks and multi-lateral bodies and organization for exchange on CCAH
3. Help promote international PPPs to synergize resources for climate change and health
4. Coordinate international funding sources of CC and Health
5. Provide management support for foreign-funded component of CC project implementation

Health Policy Development and Planning Bureau (HPDPB)

1. Facilitate formulation of sectoral policies supporting CCAH
2. Facilitate review and updating of health program policies and enhance guidelines in support of CCAH
3. Facilitate decision making and planning for the CCAH with timely dissemination of evidences thru health policy notes
4. Provide advocacy support for CCAH implementation
5. Initiate development of the research agenda for climate change and health

National Epidemiology Center (NEC)

1. Develop and maintain a disease surveillance system that can provide early warning on the impact of climate change on diseases focusing on CC prone areas
2. Review and analyze climate indicators that are relevant to the occurrence of climate sensitive diseases.
3. Monitor and evaluate trends in climate-sensitive diseases.
4. Conduct research/studies on CC and Health.
5. Utilize the Philippine Integrated Disease Surveillance and Response (PIDSR), Surveillance in Post Extreme Emergencies and Disasters (SPEED), Health Emergency and Reporting System (HEARS), Online National Electronic Injury

Surveillance System (ONEISS), as databases that will be installed to receive outputs from the local surveillance system.

6. In coordination with CCU and HEMS shall integrate indicators for climate change and health for the following (ME3) Monitoring and Evaluation for Efficiency and Effectiveness as a basis for monitoring.

Health Human Resource and Development Bureau (HHRDB)

1. Provide technical assistance to CC Unit in coordination with concerned DOH offices in the development of training module/learning materials and conduct of capability building activities on CC and health.
2. Assist CC Unit in identifying learning institution if necessary to provide CC and Health Training Programs.
3. Assist CC Unit in monitoring the application of trainings conducted.

Centers for Health and Development (CHDs)

1. Support the assessment of vulnerable areas relative to the risk and impact of CC
2. Spearhead implementation of CCAH initiatives at the regional level
3. Adapt and implement CC portfolio in the region with the LGUs (framework, plans, roadmaps)
4. Provide LGUs with technical and financial assistance as needed in the implementation of CCAH at the local level
5. Participate in developing/adapting policies, programs, strategies on CCAH
6. Establish coordination mechanism with government agencies and other groups of stakeholders relevant to CCAH concerns and initiatives
7. Support the establishment and operationalization of CCAH information system
8. Undertake capacity building for regional personnel and LGUs on CCAH
9. Establish financing mechanisms on CCAH at the CHD level to LGU level
10. Responsible for the reproduction of manuals, documents, IEC materials on CCAH for dissemination to stakeholders and LGUs
11. Serve as technical advisers/resource persons representing the CHD in CCAH conferences, stakeholders meetings, inter-agency collaborations, etc.
12. Participate in the development of the CCAH research agenda and proposals and facilitate conduct of researches/studies within their catchment LGUs
13. Monitor and evaluate CCAH activities and accomplishments at the local level

Local Government Units (LGUs)

1. Undertake health vulnerability assessment on climate change adaptation and mapping of climate-change vulnerable areas
2. Develop plan of action to enhance adaptive capacity to health impacts of climate change and incorporate these action points into their P/C/MIPHs
3. Implement CCAH initiatives according to recommended standards and protocols
4. Capacitate local health facilities and service providers to adequately respond to health impacts of climate change
5. Engage local development partners in the design and implementation of responsive CCAH interventions
6. Ensure compliance of local health facilities and providers to CCAH standards and protocols
7. Allocate budget to support in the design and implementation of CCAH measures/ interventions

8. Participate in the conduct of CCAH researches/studies
9. Coordinate CCAH interventions and DRRMC measures
10. Establish information system on CCAH parameters and generate reports as needed

Part 4. Regional Action Plans

The DOH organized a planning workshop last February 10-11, 2014 among the different regions in the country in order to formulate their respective plans of actions for the next 3 years in support to CCAH. The planning workshop was attended by a total of 14 CHDs represented by the CCAH/HEMS Coordinators. As a process, each region conducted a rapid assessment of the status of CCAH implementation in their region and in their catchment LGUs, and identified factors that influenced their performance. The formulation of their Action Plans was anchored on the results of their rapid assessment and was patterned after the objectives and key strategies of the 2014-2016 National CCAH Strategic Plan.

Assessment. Results of the rapid assessment showed that most regions have been oriented on the CCAH, but this was limited mainly to the designated CCAH Point Persons and a few of the CHD personnel. Admittedly, the CHDs have received copies of the CCAH policies and framework but most claimed that these were not disseminated to the rest of the staff and not cascaded down to their LGUs. In terms of organizational structure and staffing, it is positive to note that the CHDs have designated their CCAH Point Persons and most of them are con-currently the HEMS Coordinators. These designations however have been threatened by the recent implementation of the Rationalization Plan with most of the designated staff opting for early retirement. The other challenge is the multi-tasking of these designated coordinators. At the LGU level, only a few have identified their point persons on CCAH. There are a number of regions claiming to have attended training on CCAH and a few of them have also involved the LGUs. There were more CHDs though reporting that the training was confined merely at the regional level. Likewise, there were no follow-through activities undertaken, hence the focus and concern towards CCAH waned and stopped. A few CHDs mentioned about IEC materials they received on CCAH but these again are few in numbers resulting to very scanty coverage at the local level. Promotion of CC interventions at the regional and local level is quite strong in the aspect of mitigation measures. Almost all CHDs mentioned at least one mitigation activity they have undertaken in support to CC. Understandably, mobilization of the community was the least implemented. However, there seemed to be some degree made on strengthening the coordination and networking between the DOH/CHD with other government agencies and the private sector in support to CCAH. The summary of these ratings are shown in Annex 6.

Action Points. Given this infancy stage of CCAH adoption/implementation at the CHD and LGU levels, the primary actions that came out of the plans each CHD formulated are focused on the following:

- further orientation of the CHD officials and technical staff on CCAH
- cascading this orientation to their catchment LGUs
- reorganization/designation of new CCAH Point Persons as a result of the implementation of the Rationalization Plan
- integrate CCAH concerns/issues into their existing RIACEH and other technical working groups

- training of both the regions and LGUs on the Vulnerability Assessment Tool, the results of which become their basis for charting more responsive CCAH measures; this will be prioritized in identified high vulnerable areas
- translate IEC materials into vernacular and conduct other promotion activities
- continue strengthening the disease surveillance system
- inclusion of CCAH plans and activities into their P/CIPH or AOP

The following section presents the respective Action Plans of the 14 regions.

2014 -2016 Regional CCAH Action Plan

CHD: ILOCOS REGION

I. Assessment		
CCAH Component	**Strengths**	**Gaps**
1. Policies and Guidelines	• policies/guidelines/materials received	• Only a few LGU's were oriented
2. CCAH Awareness/Capability		• Only went through orientation
3. Structure and Staffing	• there are focal persons in CHD	• No staff in LGU
4. Vulnerability Assessment	• only in area of health and populace like diseases: cholera, dengue, chikungunya, leptospirosis, malaria	
5. CCAH initiatives and mitigation measures	• CCAH measures in WASH, IVM, Tree-planting	
6. Promotion and Advocacy	• IEC materials, forum on CCAH	• Materials were limited
7. Networking and Coordination		• Nothing in place
8. Community Mobilization		• Nothing in place

II. Objectives, Strategies and Key Result Areas	
Objective 1. Improve the adaptive capacity of the health care delivery system	
Strategy 1.	Develop/modify policy instruments, plans and package of interventions responsive to health impacts of climate change
KRA 1.1	Program policies, plans, guidelines and standards developed/modified/adopted for CCAH
Strategy 2.	Build-up the capacity of health care providers and facilities to be climate CC-responsive
KRA 2.1	Health vulnerability assessment and planning capacity in place at local level
Objective 2:	**Enhance support mechanisms to adaptation and mitigation efforts on climate change in the health sector**
Strategy 3	Strengthen CCAH Monitoring and Evaluation
KRA 3.1	CCAH monitoring and evaluation system developed and functional
KRA 3.3	Disease surveillance system in vulnerable areas functional
Strategy 5.	Strengthen multi-sector coordination of CCAH efforts at all levels
KRA 5.2.	Partnership with other national government agencies and other groups of stakeholders established and functional

III. Action Plan

Action Points	**2014**	**2015**	**2016**	**Locus of Responsibility**	**Budget**
1. Conduct annual CCAH planning	⁄	⁄	⁄	Focal person (FP)	30,000
2. Reactivate RIACEH/other stakeholders	⁄			Focal person	25,000
3. Cascade training to provincial and city/ municipal/ barangay vulnerability assessors		⁄		PHO/ MHO (La Union, (Pangasinan	200,000
4. Conduct vulnerability assessment in high		⁄		Focal person	200,000

vulnerable provinces down to barangay					
5. Orientation training on CCAH continued		/	/	Focal person	5,040,000
6. CCAH Planning in assessed provinces together with municipal/city CCAH point				Focal person	200,000
7. Conduct field monitoring in selected areas			/	FP/ other programs	50,000
8. Regular submission of CCAH reports			/	FP/ other programs	100,000
9. Conduct PIR			⁄	FP/other programs	150,000
10. Routine analysis of CC parameters of CC sensitive diseases			⁄	RESU	50,000
GRAND TOTAL					**5,990,000**

2014-2016 Regional CCAH Action Plan

CHD. CAGAYAN VALLEY

I. Assessment		
CCAH Component	**Strengths**	**Gaps**
1. Policies and Guidelines		• Not fully cascaded to all CHD & LGU staff
2. CCAH Awareness/ Capability		• Not all CHD and LGU staff have attended CCAH orientation, hence have misconception on CCAH
3. Structure and Staffing		• there is a designated point personnel for CCAH in CHD but no point persons in LGUs
4. Vulnerability Assessment		• Both CHD and LGU officials/staff not quite familiar on CC vulnerability assessment of local system
5. CCAH initiatives and mitigation measures	• CCAH measures initiated at CHD	
6. Promotion and Advocacy		• inadequate promotional activities on CCAH
7. Networking/Coordination		• poor coordination with other groups on CCAH

II. **Objectives, Strategies and Key Result Areas**	
Objective 1.	**Improve the adaptive capacity of the health care delivery system**
Strategy 1	Develop/modify policy instruments, package of interventions responsive to CC impact
KRA 1.1	Program policies, plans, guidelines and standards developed/modified/adopted for CCAH
Strategy 2	Build-up the capacity of health care providers and facilities to be CC – responsive
KRA 2.1	Health vulnerability assessment and planning capacity in place at local level
Objective 2	**Enhance support mechanisms to adaptation and mitigation efforts on climate change in the health sector**
Strategy 5	Strengthen multi-sector coordination of CCAH efforts at all levels
KRA 5.1	Coordination mechanism within DOH in place and functional at all levels

KRA 5.2	Partnership with other natl govt agencies/ other groups of stakeholders established and functional
Objective 3	**Empower communities to manage health impacts of climate change**
Strategy 6	Improve capacity of communities to prepare and respond to health impacts of CC
KRA 6.1	Key decision makers supporting CCAH

III. Action Plan

Action Points	2014	2015	2016	Locus of Responsibility	Budget
1. Review policy instruments/ programs related to CCAH	/			Focal person	
2. Develop CC Oriented Program	3	2	3	Focal person	20,000
3. Consultative Meetings (CHD Staff and other stakeholders)	2	3	4	Focal person	100,000
4. Orient program managers on CCAH policies/ guides	1	2	2	Focal person	150,000
5. Conduct training of trainors for provincial CCAH coordinators	1	-	-		75,000
6. Cascade training to provincial and municipality assessors	1	3 (Cagayan , Isabela, Quirino)	1 (N.Viscaya)	Focal person	500,000
7. Vulnerability assessment in high-risk areas	-	3	2	Focal person	250,000
8. Conduct semi-annual planning/ meetings		/			
9. CCAH Annual Training of CHD personnel – capability building		/			
10.Activate RIACEH quarterly meeting		/	/		
11. Translate IEC materials to local dialect		/			
12. Advocacy Meeting					
GRAND TOTAL					**1,095,000**

2014-2016 Regional CCAH Action Plan

CHD: CENTRAL LUZON

I. Assessment

Component	Strengths	Gaps
1. Policies and Guidelines		• No orientation on overall CCAH framework, policies, and guidelines
2. CCAH awareness/ capability	• Conducted orientation on CC	
3. Structure and Staffing	• Identified regional point person/coordinator	• Roles not yet defined
4. Vulnerability Assessment	• Identified high prone disaster areas from geo-hazard maps/ actual disaster occurrences	• No vulnerability assessment tool regarding climate change
5. CCAH initiatives and	• RESU, HEMS (with HEPO)	

mitigation measures	integration of CCAH principles	
6. Promotion and Advocacy	• With printed IEC on CC	• No other effort on advocacy and financial support
7. Networking/d Coordination		• Thru RIACEH, RDC/CLARO
8. Community Mobilization		• No orientation done at community

II. Objectives, Strategies and Key Result Areas	
Objective 1	**Improve the adaptive capacity of the health care delivery system**
Strategy 1:	Develop/modify policy instruments and package of interventions responsive to health impacts of climate change
KRA1:	Program policies and plans, guidelines and standards developed/modified and adopted for CCAH
Strategy 2:	Build-up the capacity of health care providers and facilities to be climate change-responsive.
KRA	Health vulnerability assessment and planning capacity in place at local level
Objective 2	**Enhance support mechanisms to adaptation and mitigation efforts on climate change in the health sector**
Strategy 5:	Strengthen multi-sector coordination of CCAH efforts at all levels
KRA 5.2	**Partnership with other national government agencies and other groups of stakeholders established and functional**
Objective 3	**Empower communities to manage health impacts of climate change**
Strategy 6:	*Improve awareness of communities on the impact of CC and their readiness to respond to health risks brought about by CC*
KRA 6.3	Communities in vulnerable areas informed, educated, and practiced desired behaviour in accessing health services related to CCAH

III. Action Plan

Action Point	2014	2015	2016	Locus of Responsibility	Budget
1. Disseminate/adapt enhanced policies/guides		/	/	CHD	
2. Include CCAH in OPLAN 2016		/		CHD	
3. Conduct TOT on Vulnerability Assessment Survey for Regional, Provincial , City/ Municipal CC Coordinator		/		CHD	900,000
4. Conduct Vulnerability Assessment Survey in selected high risk provinces		/ (3)	/ (4)	CHD	250,000
5. CC Orientation / Summit (Planning)	/			CHD	500,000
6. Conduct Annual CCAH Meeting		/	/	CHD	500,000
7. Update RIACEH/RICT meetings on CCAH	/	/	/	CHD	
8. Conduct monitoring using tool developed by DOH-CO			/	CHD	100,000
9. Adapt/Prepare and provide IEC Materials		/		CHD	500,000
10. Orient community on CCAH (pilot areas)			/	CHD	300,000
GRAND TOTAL					**3,050,000**

2014-2016 Regional CCAH Action Plan

CHD: BICOL

I. Assessment		
CCAH component	**Strengths**	**Gaps**
1. Policies and Guidelines		Least achieved
2. CCAH Awareness/Capability		Least achieved
3. Structure and Staffing		Least achieved
4. Vulnerability Assessment		Least achieved
5. Implementation of CCAH initiatives and mitigation measures	• Identified hazard areas; GPS tracking to epidemics at the LGU health facilities • Tree planting; clean-up drive at river backs, seashore	

	• Identified buildings and facilities as evacuation center	
6. Promotion and Advocacy		Least achieved
7. Networking and Coordination		Least achieved
8. Community Mobilization		Least achieved

II. Objectives, Strategies and Key Result Areas	
Objective and Target	To institutionalize the adaptive capacity of all Bicolanos to the health impacts of the climate change
Strategy 1	Disseminate policies/ guidelines for adoption by all LGUs
KRA 2.1	Approved policies/ordinance s/resolutions are in placed
Strategy 3	Capacity development of health providers and facilities to be CC-responsive
KRA 1	Responsive health providers and facilities

III. Action Plan

Action Points	**2014**	**2015**	**2016**	**Locus of Responsibility**	**Budget (GOP)**
1. Orient stakeholders not only in identified hazard-prone provinces	/			EOH Coordinator	400,000
2. Provide prototype of ordinance/ resolution	/			EOH Coordinator	
3. Conduct orientation/trainings on CCAH		/	/	EOH Coordinator	1,200,000
4. Conduct regular updates on CCAH through PIR		/	/	EOH Coordinator with other program coordinators	500,000
5. Facilitate conduct of TOT on vulnerability assessment		/			914,000
6. Conduct of roll out trainings on vulnerability assessment			/		2,500,000
7. Conduct other CCAH-related training			/		
8. Regional Forum/Summit (printing of IEC materials and summit)		/	/		
1st summit					150,000
2nd summit					900,000
9. Strengthen coordination with partner agencies/stakeholders through regular meetings on CCAH concerns: RIACEH, MMT, Air/Watershed QMA, RLECC, NutriCom Net, RDRRMC Clusters, etc.	/	/	/	EOHO Coordinator	150,000

10. Conduct regular monitoring and evaluation of the CCAH activities/ programs implemented (Tools c/o Dr. Cecil)		/	/	EOHO Coordinator	100,000
GRAND TOTAL					**5,734,000**

2014-2016 Regional CCAH Action Plan

CHD: WESTERN VISAYAS

I. Assessment		
CCAH Component	**Strengths**	**Gaps**
1. Policies and Guidelines	• Conducted TOT on CCAH	• Not all were oriented
2. CCAH Awareness/Capability	• conducted training on CCAH for selected LGU's in 2012 and in other LGU's in 2013 • oriented CHD personnel on Climate Change and Health	•
3. Structure and Staffing	• there are identified staff	•
4. Vulnerability Assessment	• CHDs and P/CHOs staff are familiar	•
5. Implementation of CCAH initiatives and mitigation measures	• Mitigation measures: waste segregation; energy conservation	• Failed to mitigate on green house gases emission like coal fired power plant, industries and farmer practices
6. Promotion and Advocacy	• Rated best achieved	•
7. Networking and Coordination	• Rated best achieved	•
8. Community Mobilization	• Support advocacy on mitigation	•

II. Objectives, Strategies and Key Result Areas	
Objectives:	To capacitate LGUs, Monitor and Evaluate the Implementation of Climate Change.
Strategy 2	Capability building
Strategy 3	

III. Action Plan					
Action Points	**2014**	**2015**	**2016**	**Locus of Responsibility**	**Budget (GOP CHD 6)**
1. Training for CHO/MHO/DMO on CC	⁄			CC Coordinator	13,000
2. Conduct Vulnerability assessment.		⁄	⁄		478,800

3. Post –training monitoring and evaluation of action plan generated during the training		⁄	⁄	CC Coordinator	56,000
5. Conduct monitoring		⁄	⁄	CC Coordinator	GOP CHD 6
Same Strategy 3			⁄	CC Coordinator	
Same Action 3			⁄	CC Coordinator	
GRAND TOTAL					**547,000.00**

2014-2016 Regional CCAH Action Plan

CHD: CALABARZON

I. Objective and Strategies
Objective: Improve the adaptive capacity of the health care delivery system in the provinces of Region 4A.
Strategy1. Develop policy instruments and package of interventions responsive to health impacts of climate change
Strategy2. Enhance support mechanisms to adaptation on climate change in the health sector.
II. Action Plan

Action Point	2014	2015	2016	Locus of Responsibility	Budget
1. Push for the development (through the DOH-EOH) of a model ordinance template adopting RA 9729 & 10121.	/			CHD 4a NCD Cluster	Integrate with other approved NCD activities for 2014
2. Advocate for the adoption of the model ordinance and dissemination of the CCAH policies to LGUs specifically but not limited to the 4 high risk provinces in Region 4A.	/			CHD 4a NCD Cluster	
3. Regular meetings with LGUs and RIACEH partners.	/	/	/	CHD 4a NCD Cluster	Integrate with other approved NCD activities for 2014
4. Employ Model ordinance template	/			CHD 4a NCD Cluster	

2014-2016 Regional CCAH Action Plan

CHD: CENTRAL VISAYAS

I. Assessment

- IEC Materials are not available at the region
- CCAH is not well established at the region
- Point person did not undergo TOT on CC
- No funds for CCAH

II. Objective and Strategy

Objective 1: Improve the adaptive capacity of the health care delivery system

Strategy 2: Build-up the capacity of the network

III. Action Plan

Action Point	2014	2015	2016	Locus of Responsibility	Budget
1. Orient CHD personnel on CCAH (IDO, RESU, Health promotions)	/				90,000
2. Form CCAH core group (CHD)	/				
3. Conduct training on CCAH (core group & province)	/				400,000
4. Train the PHO/ CHO/MHO (4 provinces, 3 cities)		/	/		1,200,000
5. Production of IEC Materials	/				200,000

GRAND TOTAL	**1,890,000**

2014-2016 Regional CCAH Action Plan

CHD: ZAMBOANGA PENINSULA

I. Assessment	
Strengths	**Gaps**
• Creation of Clusters (WASH, Nutrition, MHPSS, Health) and respond by cluster approach during disasters • Official designation of CCAH point person and alternate (Infectious cluster head & ES personnel) • Established RHEMS and institutionalized reporting system of the region (thru OPCEN	• Not all health personnel in RHO / LGU are oriented and understand CCAH. • CCAH Tools not cascaded at the regional level. • Regional/ Provincial CCAH coordinators not capacitated • No IEC materials available at the region.
II. Objectives, Strategies and Key Result Areas	

III. Action Plans

Action points	2014	2015	2016	Locus of Responsibility	Amount
1. Document the activities done by other programs and identify CCAH interventions	EOHO		Non Com	EOHO	-
2. Adopt/implement newly developed policies/guides in vulnerable areas			3 prov , 2 cities	DOH -CHD	-
3. Capacitate regional/ provincial CCAH Team	10 pax (RO9) 16 pax (LGU)	2 pax/ municipality (3 batches)		DOH-CO	1.500,000

4. Orientation among PHO/ CHO/ MHO on CCAH	40 MHOs 40 COH (public and private)	67 municipalities (3 batches)		DOH -CHD	318,000 (CONAP, ES Fund)
5. Conduct of VA of high risk areas		3 prov and 5 cities		DOH -CHD	DOH-CO
6. Advocate to vulnerable LGUs to integrate CCAH enhancement plan requirement to PIPH			identified LGUs from VA	DOH -CHD	100,000
7. Enhance diseases surveillance system for CC-sensitive diseases		3 prov	5 cities	DOH -CHD	1M –DOH CO with some hardware
8. Include CCAH on Health Emergency Network		2 activity	4 mtgs or as need arises	DOH -CHD	50,000
9. Conduct skills enhancement training on risk communication and hygiene promotion among local health providers		3 prov and 5 cities	High risks LGUs	DOH -CHD	1M – DOH CO
10. Develop and produce IEC materials on vernacular languages			As many as needed	DOH-CO and CHD	800,000 (funds from ES @ region & Central Office)
GRAND TOTAL					**4,768,000**

2014-2016 Regional CCAH Action Plan

CHD: NORTHERN MINDANAO

I. Assessment		
CCAH Component	**Strengths**	**Gaps**
1. Policies/Guidelines	• some public health program guidelines modified to support CCAH during disaster response • Regional Memo issued on modification of standards (WASH, nutrition) during disaster	

2. CCAH Awareness/ Capability		• Not all health personnel in RHO / LGU oriented/understand CCAH • Not clearly understood; Selected personnel only were trained
3. Structure and Staffing	○ Official designation of CCAH Point Person in RESDRU and alternate (HEMS, EOHO) ○ ESU established; reporting system institutionalized in region	○ Establishment not clearly defined ○ multi-tasked CCAH point person • Regl/ Provl CCAH coordinators not capacitated on CCAH
4. Vulnerability Assessment	• well-versed in VA	• CCAH tools not cascaded in CHD
5. CCAH initiatives and mitigation measures	• DILG started to orient LGU	
6. Promotion/ Advocacy		• No IEC materials available in CHD

II. Objective, Strategies and Key Result Areas

Strategy 1: Develop/modify policy instruments/package of interventions responsive to health impacts of CC

Strategy 2: Build-up the capacity of health care providers and facilities to be climate change- responsive.

Strategy 3: Strengthen CCAH Monitoring and Evaluation

Strategy 4: Establish financing mechanisms to support CCAH initiatives

Strategy 5: Strengthen multi-sector coordination of CCAH efforts at all levels

Strategy 6: Improve awareness of communities on the impact of CC and their readiness to respond to health risks brought about by CC

III. Action Plan

Action Points	2014	2015	2016	Locus of Responsibility	Amount
1. Document activities done by programs and identify CCAH interventions	IHEMS/ EOHO/	IDO/ FHC	Non Com	HEMS/ EOHO	-
2. Adopt/ implement policies/ guides in high vulnerable areas			5 prov	Region	-
3. Capacitate Director IV	/			DOH-CO	
4. Capacitate Director IV Regional/ provincial CCAH Team on CCAH	10 pax/ region/ prov/city	10 pax/ prov (4 provinces		CHD	1.5M-CO
5. Orient PHO/CHO/MHO on CCAH		5 prov/20 batches	9 cities/20 batches	CHD	2.5 M-CO
6. Conduct VA in high risk areas					3.0 M-CO
7. Enhance diseases surveillance system for CC-sensitive diseases		5 prov	9 cities	CHD	1M-CO w/ hardware
8. Advocate vulnerable LGUs to include CCAH plans in PIPH			/	CHD	100,000
9. RIACEH on CCAH	1 mtg	2 mtg	4 mtgs	CHD	50,000
10. Inclusion of CCAH on Health Emergency Network	1 mtg	2 mtg	4 mtgs	CHD	50,000

11. Skills enhancement training on risk communication		2 cities 5 prov	High risks LGUs		1.5M-COI
12. Develop and produce IEC materials in vernacular			/		2.0 M-CO

2014-2016 Regional CCAH Action Plan

CHD: Davao

I. Assessment		
CCAH Component	**Strengths**	**Gaps**
1. Policies and Guidelines		• CHD not oriented on CCAH; provincial CCAH point person not all trained; only a few attended TOT
2. CCAH Awareness/Capability		• Only those trained aware of CCAH; no follow-up so it died a natural death • 5 CHD health staff trained on TOT but only 1 left (retired/promoted, resigned • LGUs' trained staff non-functional, • LGUs have other priorities (e.g. Health emergencies and PIPH activities)
3. Structure and Staffing		• CHD has designated coordinator but retired. LGUs' Point Persons retired or , promoted; lack of manpower in EOH unit (1 Engr II, 1 JO)
4. Vulnerability Assessment		• those who attended VA, opted to retire, RESU staff in charged in PIDSR, no time for CCAH
5. CCAH initiatives and mitigation measures		• No interventions conducted; • No mitigation conducted
6. Promotion and Advocacy	• CCAH promotional materials distributed to municipalities affected, by typhoon and flooding	
7. Networking and Coordination		• No activity regarding CCAH
8. Community Mobilization		• No activity for community mobilization

II. Objectives, Strategies and Key Result Areas
Objective 1: Improve the adaptive capacity of the health care delivery system
Strategy 1: Develop/modify instruments, package of interventions responsive to health impacts of CC
KRA 1
KRA 2
Strategy 2: Build-up capacity of network of health providers/facilities to be CC-responsive

III. Action Plan

Action Points	**2014**	**2015**	**2016**	**Locus of Responsibility**	**Amount**
1. Disseminate/orient concerned CHD program managers/implementors on CCAH framework, policies, guides	/				
2. Review policies/guide of every program for	/			30 pax @	30,000

synchronization and integration				1,000/pax	
3. Conduct TOT on CCAH for regional, provincial, city and selected municipalities CCAH point persons	/			30 pax + 5 fac x 5 days	315,000 100,000
4. Roll out training of CCAH to provinces / municipalities		/		30 pax 5 batches = 150 pax for 3 days	810,000 150,000
5. Creation of TWG on CCAH		/			30,000
6. Conduct field monitoring in selected areas.			/	TWG – 12 pax	384,000
7. Vulnerability assessment (ComVal, Davao Oriental)		/			
GRAND TOTAL					**1,819,000**

2014-2016 Regional CCAH Action Plan

CHD: SOCCKSARGEN

I. Assessment		
CCAH Component	**Strengths**	**Gaps**
1. Policies and Guidelines		• National framework not familiar
2. CCAH Awareness/ Capability	• training conducted among LGUs with Dr. Magturo in 2012; • orientation of CC to CHD staff and ARMM	• CCAH program was not sustained
3. Structure and Staffing		• designated staff as CC focal person but not fully implemented the program
4. Vulnerability Assessment		• HEMS, RESU staff, and some LGUs
5. CCAH initiatives and mitigation measures		• Not yet started
6. Promotion and Advocacy		• Not yet started
7. Networking/Coordination		• Not yet started
8. Community Mobilization		• Not yet started
II. Objectives, Strategy and Key Result Areas		
Objectives and Targets: To operationalize the adaptive capacity of the health care delivery system.		
Strategy 1		
Strategy 2		

III. Action Plan					
Action Points	**2014**	**2015**	**2016**	**Locus of Responsibility**	**Budget**
1. Conduct orientation on CC to RHO staff and DOH reps	/			CC point person	
2. Integrate CC to RIACEH agenda	/	/	/	CC Point person	
3. Conduct orientation of CHDs on CCAH			/	CC Point person	400,000

					EOH-Mla
4. Disseminate to LGUs on CC program policies/guidelines		/	/	CC Point person	
5. Training on vulnerability assessment		/		CC Point person	800,000 EOH-Mla
6. Conduct vulnerability assessment in vulnerable municipalities		/ 5 muns	/ 10	CC Point person with PHOs	800,000 EOH-Mla
7. Mainstream CCAH into the AOP		/ Cotabato City, North Cotabato	/ Sarrangani, Sultan Kudarat	PHOs/CHO CCAH Point Persons	800,000 EOH-Mla
8. Monitoring & evaluation				CC Point Person	
GRAND TOTAL					**2,800,000**

2014-2016 Regional CCAH Action Plan

CHD: CARAGA

CCAH Component	Strengths	Gaps
1. Policies and Guides		• not all CHD/LGU officials and staff oriented on CCAH
2. CCAH Awareness/Capability	• conducted Climate Change Forum with different stakeholders • conducted orientation of selected LGU/CHD health staff	• not all CHD/LGU officials and staff clearly understand what is climate change and its impact on Health • no trained trainor on CCAH
3. Structure and Staffing	• identified key staff as designated CCAH coordinator	• no point person at LGU level • roles and functions not clearly defined at CHD and LGU levels
4. Vulnerability Assessment	•	• Vulnerability assessment Tool not cascaded at CHD/LGU levels
5. CCAH Initiatives and Mitigation Measures	•	• No data documented
6. Promotion and Advocacy	• experience on extreme changes of climates	• CHD HEPO not trained on CCAH • no available IEC materials
7. Networking/Coordination		• CCAH implementation networking and coordination not yet established
8. Community Mobilization		• Information not disseminated at community level

II. Objectives, Strategies and Key Result Areas

Strategy 2: Build-up the capacity of the network of health care providers and facilities to be climate change-responsive

Strategy 3: Strengthen CCAH Monitoring and Evaluation (M and E)

III. Action Plan

Action Points	2014	2015	2016	Locus of Responsibility	Budget
1. Orient/train CHD technical staff and DOH representatives	/			CCAH coordinator	
2. Training of Trainor for CCAH local coordinator	/			DOH CO	600,000
3. Conduct orientation/ training among LGU Health personnel official and staff		/		CCAH local coordinator	650,000
4. Training on Vulnerability Assessment Tools		/ (2)	/ (3)	DOH-CO (5 provinces)	
5. Integrate CCAH implementation on HEMS trainings	/	/ (2)	/ (3)		
6. Gather health Information/ baseline data related to health impact on CC	/	/			
7. Update CCAH implementation at RIACEH meeting	/	/	/		300,000
8. Update CCAH in EOH Regional Consultative Meeting	/	/	/		
GRAND TOTAL					**1,550,000**

2014-2016 Regional CCAH Action Plan

CHD: CAR

I. Assessment		
CCAH Component	**Strengths**	**Gaps**
1. Policies and Guidelines		• Not all CHD/LGU officials oriented • No modification made on policies
2. CCAH Awareness/Capability		• not all CHD/LGU aware and trained on CCAH
3. Structure and Staffing	• presence of RIACEH	• lack of personnel to handle CCAH; need to adapt to new staffing pattern
4. Vulnerability Assessment		• tools not finalized • limited personnel trained on HVACA
5. CCAH initiatives and mitigation measures	• measures implemented: - waste segregation; - power/energy conservation - tree-planting activities - clean-up drive	• No resources / funds
6. Promotion and Advocacy	• Fun run • Walk for a cause; • "Kapihan", EIC	• more health promo involvement needed • IEC materials needed • Orientation support of LGU's and partners limited
7. Networking and Coordination		• Ride-on activity of EOH Program
8. Community Mobilization		• No participation from communities

II. Objective, Strategies and Key Result Areas
Strategy 1. Develop/modify policy instruments, package of interventions responsive to health impacts of CC
KRA 1.1. Localized program, policies, guides and standard developed modified and adapted for CCAH
Strategy 2 : Build-up capacity of network of health providers and facilities to be climate-change responsive
KRA 2.1 Health vulnerability assessment and planning capacity in place at local level

III. Action Plan

Action Points	**2014**	**2015**	**2016**	**Locus of Responsibility**	**Amount**
1. Orient program managers of the 4 programs on CCAH (Target – 4 programs (IDC, EOH, FHC, RESU/ HEMS))	/	/	/	EOHC	150,000
2. Disseminate/orient concerned program managers on CCAH Target: Ifugao, Benguet, Baguio, Apayao Target: Abra, Kalinga, Mt. Province		/	/	EOHC EOHC	250,000 250,000
3. Make use of HVACA tools/Roll-out training to provincial and municipal assessors Target: Ifugao, Benguet, Apayao, Baguio Target: Kalinga, Abra, Mt. Province		1 1	1 1	EOHC EOHC	
4. PIR on CCAH for 6 provinces and cities		/	/	EOHC	
GRAND TOTAL					**650,000**

2014-2016 Regional CCAH Action Plan

CHD: NCR

I. Assessment		
CCAH Component	**Strengths**	**Gaps**
1. Policies and Guides		• Not yet a priority for now
2. Awareness and Capability on CCAH		• CHD Personnel not yet oriented re CCAH • At the LGU Level, TOT was done (2012) but it stopped although some some programs are also related to CCAH
II. Objectives, Strategy and Key Results Area		
Strategy 2: Build-up of Network of Health Care Providers		
KRA 2.1 Health Vulnerability Assessment and Planning		
Strategy 3. Strengthen CCAH monitoring and evaluation		
KRA 3.1 CCAH monitoring and evaluation system developed and functional		

III. Action Plan					
Action Points	**2014**	**2015**	**2016**	**Locus of Responsibility**	**Budget**
1. Identify point person inr every Cluster and organize a Core group	/			CCAH Point Person	
2. Orient CHD personnel on CCAH initiative to	/			CCAH Point Person	
3. Conduct TOT on CCAH at local level (Public/Private Health Care Provider)		/		CCAH Point Person	
4. Produce CC/CCAH IEC materials and Logistics as needed		/		CCAH Point Person	
5. Vulnerability Assessment: Identification of most disaster prone cities			/	CCAH Point Person	
6. Monitoring and Evaluation in CC/CCAH awareness within the local level			/	CCAH Point Person	

ANNEXES

Annex 1.a Effects of CC Parameters on Various Diseases and Health Concerns

CC Para meters	Non-Communicable Diseases	Food- Water-Water-Washed Diseases	Vector-Borne Diseases	Air-Pollutant Related Diseases
Increase in Temperature	HEATWAVES • extreme heat exposure caused more than 7,800 deaths waves (US) • heat wave is leading cause of death attributed to weather conditions (2000-2009 CDC) • depletion of ozone layer results in increased ultraviolet (UV) radiation exposure causing cancer • higher ambient temperatures increases transfer of volatile/ semi-volatile compounds from water / wastewater to the atmosphere, and alter the distribution of contaminants to places more distant from the sources, changing subsequent human exposures (NIEHS, 2009). CARDIOVASCULAR DISEASE • CVD hospital admissions increase with heat • Dysrhythmias are primarily associated with extreme cold • Stroke incidence increases w/ higher temperature • Increased ozone formation due to higher temperatures harms pulmonary gas exchange and causes stress on the heart. • Increased ozone concentrations are associated with heart attack	DIARRHEA • climate change is responsible for 2.4% of diarrhea cases worldwide (WHO) • there is 3% increase in diarrhoea per degree increase in temperature (Pacific Islands Study) CHOLERA • Future increases in sea surface temperature and increased concentration of pollutants in river flows create a more favorable environment for the growth of V. cholera • number of cholera cases is increasing due to climate change through (i) water contamination resulting from floods; (ii) rapid growth of flies and other insects due to dirty and wet places where they can lay their eggs; (iii) increasing uncollected garbage; and improper disposal of human wastes, especially during floods. SCHISTOSOMIASIS • Temperature determines if snails can reproduce - <10°C, which occurs usually in early spring • reproduction is severely inhibited in sub-tropical environments • Both adults and eggs succumbing at Increase in temperature could cause an increase in epidemic potential of 11 to 17% for schistosomiasis	DENGUE • CC is responsible for estimated 7% of dengue fever cases in some industrialized countries (2000 WHO) • CC increases the proportion of global population exposed to dengue from 35%, to 50-60% by 2085 Hales et al, Lancet 2002) • Dengue outbreak in 1998 may be associated with the 1997-98 El Niño event. • Geographic range of Ae. aegypti is limited by freezing temperature that kill overwintering larvae and eggs, so that dengue virus transmission is limited to tropical and subtropical regions. • Global warming increases flight range of mosquito and reduces the size of Ae. aegypti's larva • Since smaller adults must feed more frequently to develop their eggs, warmer temperatures would boost the incidence of double feeding and increase the chance of transmission. • the time the virus must spend incubating inside the mosquito is shortened at higher temperatures (e.g. the incubation period of dengue type-2 virus lasts 12 days at 30 C, but only 7 days at 32-35 C. • Shortening incubation period by 5 days can mean a potential 3-fold higher transmission rate of disease	RESPIRATORY DISEASE • Increase ground level ozone and fine particle concentrations trigger a variety of reactions including chest pains, coughing, throat irritation, congestion and reduce lung function and cause inflammation of the lungs • Increase carbon dioxide concentrations and temperatures, affect the timing of aeroallergen distribution and amplify the allergenicity of pollen and mold spores • Increase precipitation in some areas lead to increase in mold spores • Increase in rate of ozone formation due to higher temperatures and increased sunlight increase the frequency of droughts, leading to increased dust and particulate matter • every 1^0 C rise in temperature, the risk of premature death among respiratory patients is up to six times higher than in the rest of the population. • increased frequency of cardio-respiratory attacks due to higher concentrations of ground-level ozone • Ozone is a powerful oxidant associated with persistent structural airway and lung tissue damage and contribute to more severe symptoms of asthma and increase in respiratory hospital admissions and deaths • estimated1,500 more annual ozone - associated deaths by 2020 in UK alone

CC Para meters	Non-Communicable Diseases	Food- Water-Water-Washed Diseases	Vector-Borne Diseases	Air-Pollutant Related Diseases
Increase in Temperature	• Increased particulate matter due to droughts and other conditions is associated with systematic inflammation, compromised heart function, deep venous thrombosis, pulmonary embolism, and blood vessel dysfunction • Stress and anxiety as a result of extreme weather events are associated with heart attacks, sudden cardiac death, and stress-related cardiomyopathy heart disease) • Ischaemic heart disease (IHD) • previous studies indicate a seasonal trend in IHD mortality - the leading cause of • death worldwide IHD mortality, with the highest rate in winter. Studies have examined the effects • of temperature on IHD mortality, but few studies have assessed the lag effects of heat on IHD mortality, especially in China. • Developing countries are anticipated to be susceptible to the impact of extreme temperatures, because they have more limited adaptive capacity and more vulnerable people than developed countries.	<u>SALMONELLOSIS</u> • Recent studies on foodborne diseases • show that disease episodes caused by Salmonella bacteria increase by 5-10% per each degree Celsius rise in temperature • In 2007, the European Union incidence was 31.1 cases per 100 000 population (151 995 confirmed cases), with eggs being the biggest contributors to these outbreaks • , followed by fresh poultry and pork. • Roughly one-third of the transmission of salmonellosis (population • attributable fraction) in England and Wales, Poland, the Netherlands, the Czech Republic, Switzerland and Spain can be attributed to temperature influences. • Temperature has the most noticeable effect on salmonellosis and food poisoning notifications one week before disease onset, indicating inappropriate food handling and storage at the time of consumption. • Food poisoning - higher temperatures in summer could cause an estimated 10,000 extra cases of salmonella infection per year.	• Higher temperatures boost mosquitoes reproductive rate, lengthen breeding season, and make them bite more frequently • shorten time it takes for pathogens they carry to mature to an infectious state; • expand the mosquitoes' range to higher elevations and more northern latitudes, potentially putting previously unexposed populations at risk. <u>MALARIA</u> • 1^0 C increase in sea temperature equivalent to 20% increase in malaria cases (Mantilla2009) • Temperature increase allows spread of both vector of the disease (anopheles mosquitos) and causal agent (plasmodium parasites) to higher latitudes and altitudes • increase in temperature affects areas where malaria is already established by reducing interval between blood meals and shortening incubation period of parasite in the mosquito. Both events increase malaria prevalence • increase of 3^0 C by 2100 is hypothesized to increase the no. of malaria cases by 50-80 M • Higher temperatures facilitate transmission in humid areas but reduce it if associated with low humidity • CC induces other ecologic changes, which lead to agricultural and economic changes that might increase/ decrease transmission potential. • higher temperatures probably raise the maximum altitude for transmission	• frequency of respiratory disease changes due to transboundary long-range air pollution • desertification and higher frequency of forest fires increase transboundary of particles which is linked to increased symptoms and reduced lung function in asthmatic children, and higher mortality in adults including lung cancer deaths • increased pollen season results in increased respiratory allergic reactions in sensitised individuals, and plant habitat changes expose previously unexposed populations (some individuals will be newly sensitised) <u>ASTHMA</u> • Increase in external temperature automatically increases body temperature, and in turn increases the body metabolism which demands more oxygen

CC Para meters	Non-Communicable Diseases	Food- Water-Water-Washed Diseases	Vector-Borne Diseases	Air-Pollutant Related Diseases
Rainfall	• Exposure to toxic chemicals are known or suspected to cause cancer following heavy rainfall (NIEHS, 2009).	• A Pacific Island Study shows a 2% increase in diarrhoea per unit increase in rainfall above 5 × 10–5 kg/m2/min • 8% increase in diarrhoea per unit decrease in rainfall below 5 × 10–5 kg/m2/min		
Sea Level Rise	SUICIDE • Suicide rates increased in the 4 years after floods by 13.8% (Kresnow, E. et al, 1998)			
Extreme Weather Events	SUICIDE • Suicide rates increased in the 1 year after earthquakes by 62.9% and 2 years after hurricanes by 31% (Kresnow, E. et al, 1998). CHRONIC ILLNESSES • diabetes, asthma, emphysema and CVDs are most commonly reported category in evacuation centers at 33% (Hurricane Katrina within the first 24 days after its landfall.	GASTRO INTESTINAL • Second, are GI illnesses (27%).		RESPIRATORY ILLNESSES • Occurrences of respiratory illness (20%) and rashes (16%) were also reported (MMWR, 2006).

Annex 1.b Climate Change Impacts on Urban Areas

Change in Climate	Possible impact on urban areas
Changes in means	• increased energy demands for heating / cooling
Temperature	• worsening of air quality
	• exaggerated by urban heat islands
Precipitation	• increased risk of flooding
	• increased risk of landslides
	• distress migration from rural areas
	• interruption of food supply networks
Sea-level rise	• coastal flooding
	• reduced income from agriculture and tourism
	• salinisation of water sources
Changes in extremes	
Extreme rainfall/tropical cyclones	• more intense flooding
	• higher risk of landslides
	• disruption to livelihoods and city economies
	• damage to homes and businesses
Drought	• higher food prices
	• water shortages
	• disruption of hydro-electricity
	• distress migration from rural areas
Heat- or cold-waves	• short-term increase in energy demands for heating / cooling
Abrupt climate change	• possible significant impacts from rapid and extreme sea-level rise
	from rapid and extreme temperature change
Changes in exposure	
Population movements	• movements from stressed rural habitats
Biological changes	• extended vector

Annex 2. Summary of Pre-Tests Results Among NCDPC Officials and Staff Forum on Climate Change, DOH Conference Hall, July 28, 2013

Climate Change Concepts/Principles	Frequency (n=41)
A. Top-Most Climate Change Concepts/Parameters Understood	
• Climate change can influence a rise in infectious diseases	40
• Climate change affects water supply	38
• Population health is not affected by climate change	38
• Climate change increases the risk of flooding	37
• Extreme weather events increase mortality rates	37
• climate is considered over multiple years (e.g., a 30-year average	33
• climate is the average state of the atmosphere and underlying land or water in a region over a particular time scale	30
• climate is characterized by soil moisture, sea surface temperature, and concentration and thickness of sea ice	30
• weather is considered in a time scale of minutes to weeks	30
• vulnerability is the degree to which individuals and systems are susceptible to or unable to cope with the adverse effects of climate change, including climate variability and extreme	29
• weather is a day-to-day changing atmospheric conditions	28
• As a society becomes wealthier, more literate and better able to exert legislative control, the following community-wide environmental hazards increase or decrease:	
○ When the drought breaks, there is a much larger proportion of susceptible hosts to become infected, therefore there is a potential increase in transmission.	32
○ As a temperature warmer Malaria is projected to increase in higher latitudes and altitudes	29
○ In the long term, when the mosquito vector lacks the necessary humidity and water breeding, the incidence of mosquito borne diseases decreases	28
B. Top-Most Climate Change Concepts/Parameters Misunderstood	
• Coping Capacity describes the general ability of institutions, systems and individuals to adjust to potential damages, to take advantage of opportunities and to cope with the consequences. The primary is to reduce future vulnerability to climate variability and change	13
• Adaptation are strategies, policies and measures undertaken now and in the future to reduce potential adverse health effects	14
• Seasonal distribution of allergens is unlikely to be influenced by climate change	14
• Coping Capacity describes what could be implemented now to minimize the negative effects of climate variability and change. In other words, it encompasses the interventions that are feasible to implement today in a specific population	16
• Greenhouse gases serve to cool the temperature of the Earth and lower atmosphere	16
• Without the greenhouse effect, the Earth would be 33 degrees colder than present	16
• As a society becomes wealthier, more literate and better able to exert legislative control, the following community-wide environmental hazards increase or decrease:	
○ Biodiversity loss increases	19
○ Heavy air pollution decreases	19

Annex 3. Evolving Functions of the CC Unit

CC Unit Functions as defined under Department Personnel Order	CC Unit Functions as defined in the National Policy for CCAH
• Act as technical advice officers, resource persons/ speakers representing the NCDPC/DOH CCAPH to stakeholders, inter-agencies, local, international meetings, fora or convention on CC	• Act as technical advisers/ resource persons to CC and Health-related conferences, training, seminars, etc., and as coordinators of capability building efforts on CC and Health
Review, revise, enhance and assist in the development of existing manuals or being developed by Outcome Managers/Convenors at the respective DOH offices to make these more responsive to the changing environmental conditions and challenges	• Set policies and standards for CCAH • Develop tools necessary for the implementation of CCAH initiatives
• Develop the Climate Change portfolio for Health	• Develop the climate change agenda for health and provide technical assistance in its operationalization.
• Contribute concepts for research proposals/ materials through the initiatives of their respective Offices Outcome Managers/ Program Convenors in relation to CC Program	• Conduct evidence based research and development for CCAH.
• Disseminate letters/memos/ directives on needs/requirements of the CC Program and teport to the director of the NCDPC, through the Outcome Manager of the Climate Change Division Chief of the EOHO, on the revisions, developments, enhancements of individual program Manuals of Procedures Clinical Practice Guidelines and other concerns of the CC Program	• Liaise with other government agencies and groups of stakeholders on relevant CC and Health concerns or initiatives. • Serve as a secretariat to the IACEH pertinent to CC sector. • Develop criteria, mechanisms for interagency public sector and private sector partnership and conduct public private partnership forums for climate change and health.
• Update the Directors III and Division Chiefs of the NCDPC divisions, activities and accomplishments of the CCP and its integration to the different NCDPC Programs for them to have a sound basis for supervision and management of the different programs	• Monitor and evaluate progress of implementation of Climate Change for health policies, plans and initiatives.

Annex 4. Budgetary Assumptions by Strategy and KRA

Strategy 1. *Develop/modify policy instruments and package of interventions responsive to health impacts of climate change*

Key Result Area 1	***Program policies, guidelines and standards developed/modified and adopted for CCAH***							
Year	**Indicator/Target**							
2014	• ***3 program policies/guides (EOHO, IDO and FHO) enhanced/ developed, disseminated and adopted in priority regions and vulnerable provinces***							
2015	• ***3 program policies/guides enhanced/developed, disseminated and adopted in priority regions and vulnerable provinces***							
2016	• ***3 program policies/guides enhanced/developed, disseminated and adopted in priority regions and vulnerable provinces***							
Action Point	**Office/Staff Responsible**	**Schedule**			**Budget Assumptions**	**Budgetary Requirement**			
		2014	**2015**	**2016**		**2014**	**2015**	**2016**	**Total**
1. 1 Enhance/develop CC-oriented program policies/guides		**3**	**3**	**3**		**1,950,000**	**1,950,000**	**1,950,000**	**5,850,000**
a. Preparatory Work: Inventory of existing policies/guidelines; review and summary of findings, drafting	**Program in-Charge**	**/**	**/**	**/**	**Consultancy: 1 consultant at Php 500,000 per program policy X 3 program policies per year**	**1,500,000**	**1,500,000**	**1,500,000**	**4,500,000**
b. Validation/ Enhancement Workshop/s	**Program in-Charge**	**/**	**/**	**/**	**Meals and Accommodation at Php 1,500/day X 2 days for 25 participants X 3 program policies per year**	**225,000**	**225,000**	**225,000**	**675,000**
c. Multi-sector consultation: LGUs, development partners, other concerned agencies	**Program in-Charge**	**/**	**/**	**/**	**Meals and Accomodation at Php 1,500/day X 2 days for 25 participants X 3 programs**	**225,000**	**225,000**	**225,000**	**675,000**
1.2 Disseminate/orient concerned managers and implementers on the enhanced or newly-	**Program in-Charge and CHDs concerned**	**/**	**/**	**/**	**Dissemination Forum: 1 day to be attended by 50 pax X Php500/day X 3 programs per year**	**75,000**	**75,000**	**75,000**	**225,000**

developed policies/ guidelines in high vulnerable areas					**Printing of policies/ guides at Php 50,000 per program X 3 program policies per year**	**150,000**	**150,000**	**150,000**	**450,000**
1.3 Adopt/implement the enhanced or newly-developed policies/ guidelines in high vulnerable areas	**High vulnerable provinces**	**/**	**/**	**/**	**Orientation of local implementers/ health care providers: Php 250/staff X 3 staff per facility X 16 facilities (6 hospitals and 10 RHUs)per province X 20 vulnerable provinces X 3 programs/year**	**720,000**	**720,000**	**720,000**	**2,160,000**
KRA 1						**2,895,000**	**2,895,000**	**2,895,000**	**8,685,000**

Key Result Area 2	***Package of interventions and alternative health care delivery schemes developed, tested and implemented in priority areas***								
Year	**Indicator/Target**								
2014	· ***3 CC-oriented intervention packages and health delivery schemes* (EOHO, IDO, FHO) *modified/designed, pre-tested/piloted and implemented***								
2015	· ***another 3 CC-oriented intervention packages and health delivery schemes modified/designed, pre-tested/piloted and implemented***								
2016	· ***another 3 CC-oriented intervention packages and health delivery schemes modified/designed, pre-tested/piloted and implemented***								
	· ***1 Regional Health Emergency System in place in priority regions***								
Action Point	**Office/Staff Responsible**	**Schedule**			**Budget Assumptions**	**Budgetary Requirement**			
		2014	**2015**	**2016**		**2014**	**2015**	**2016**	**total**
2.1 Modify/Develop CC-oriented service/ intervention packages		**3**	**3**	**3**		**4,500,000**	**64,500,000**	**64,500,000**	**133,500,000**
a. Review, modify or design CC -oriented service packages	**Program in Charge**	**/**	**/**	**/**	**Consultancy: at Php 500,000 X 3 interventions per year**	**1,500,000**	**1,500,000**	**1,500,000**	**4,500,000**
b. Pilot test service package/s	**Program in Charge**	**/**	**/**	**/**	**Pilot test per intervention at Php 1,000,000 X 3 packages**	**3,000,000**	**3,000,000**	**3,000,000**	**9,000,000**

c. Implement in 10 priority areas	**Program in Charge**	**-**	**/**	**/**	**Php 2.0 M per intervention in 10 provinces X 3 intervention packages/year and to begin only 2015**		**60,000,000**	**60,000,000**	**120,000,000**
2.2 Establish Regional Health Emergency System in 3 priority regions	**BLHD, HEMS, and concerned CHDs and LGUs**	**/**	**/**	**/**	**Study and edesigning of the system in the first 2 years at Php 5.0 M. Implementation on 2016 will be limited only to 3 contiguous regions with Php 5.0 M per region**	**2,000,000**	**3,000,000**	**15,000,000**	**20,000,000**
KRA 2						**6,500,000**	**67,500,000**	**79,500,000**	**153,500,000**
Strategy 1						**9,395,000**	**70,395,000**	**82,395,000**	**162,185,000**

Strategy 2. Build-up the capacity of the network of health care providers and facilities to be climate change-responsive

Key Result Area 3	***Health vulnerability assessment and planning capacity in place at local level (province/municipality/city/barangay)***								
Year	**Indicator/Target**								
2014	· ***Health Vulnerability Assessment Tools harmonized***								
2015	· ***10 vulnerable provinces completed health vulnerable assessment with corresponding enhancement action plans***								
2016	· ***another 10 remaining vulnerable provinces completed health vulnerable assessment with corresponding enhancement action plans***								
Action Point	**Office/Staff Responsible**	**Schedule**			**Budget Assumptions**	**Budgetary Requirement**			
		2014	**2015**	**2016**		**2014**	**2015**	**2016**	**total**
3.1 Enhance/harmonize health vulnerability assessment tools	**CCAH Program**					**1,120,000**	**6,960,000**	**6,000,000**	**14,080,000**
a. Review and enhance VA Tool	**CCAH Program/TWG**	**/**			**Php 500/meeting X 20 px X 2 meetings**	20,000			**20,000**
b. Revise/enhance Training Module for Vulnerability Assessors	**CCAH Prorgam/TWG**	**/**			**Consultancy: Php 50,000**	**50,000**			**50,000**

c. Conduct TOT for national/ regional CCAH Coordinators	CCAH Program/TWG	/			Total Trainers: 15 CCU/TWG and 20 CHDs (2staff/CHD of 10CHDs with vulnerable provinces) plus 5 secretariat/resource persons = 30 pax at 2 days training at Php 1,500/day	90,000			90,000
d. Cascade training to provincial and city/ municipal vulnerability assessors	TWG/Regional CCAH Coordinators	/	/		Total Pax Per Province: 4 PHO; 12 hospitals (2staff /hospital X 6 hospitals) and 20 RHU staff (2staff/RHU *10RHUs) plus 4 secretariat/resource persons = 40 pax at Php 1,200/day X 2 days X 10 provinces	960,000	960,000		1,920,000
e. Cascade training to barangay vulnerability assessors	Prov/Mun CCAH Coordinators		/	/	Total Pax Per Province: 1/brgy X 30 brgys/municipality x 10 municipalities per province X 10 provinces at Php 1000/day X 2 days		6,000,000	6,000,000	12,000,000
3.2 Conduct vulnerability assessment in high vulnerable provinces down to the barangay level	PHO/CHO/ MHO in high vulnerable areas (PHO)		/ 10	/ 10	Forms: Php 20/form X 300 brgys and 16 facilities (6 hospitals and 10 RHUs) = 350 form per province X 10 provinces		175,000	175,000	350,000
					Transportation: Php 200/person X 300 people		600,000	600,000	1,200,000
3.3 Planning for CCAH in the assessed provinces with participation of the municipal/city CCAH point persons	PHO/CHO/ MHO in vulnerable areas		/	/	Province and Municipalities: 4 PHO, 6 hospitals and 10 RHUs = 20 plus 5 secretariat/resource persons = 25 pax X 2 days planning X Php 1,200/day X 10 provinces		600,000	600,000	1,200,000
					Barangay Planning: 300 bgys/province X 10 provinces = 3,000 /30 batch = 100 batches X 1 day X Php 1000		3,000,000	3,000,000	6,000,000
KRA 3						1,120,000	11,335,000	10,375,000	22,830,000

Key Result Area 4	*Health care providers (facilities and staff) complying with climate change -responsive standards*								
Year	**Indicator 1 /Target**								
2014	* DOH licensing and PhilHealth accreditation standards include CC-proof standards								
2015	· ***100% of health facilities (hospitals/RHUs as applicable) in the 10 high vulnerable areas complying with CC-proof licensing and accreditation standards***								
2016	· ***100% of health facilities (hospitals/RHUs as applicable) in the other 10 high vulnerable areas complying with CC-proof licensing and accreditation standards***								
Action Point	**Office/Staff Responsible**	**Schedule**			**Budgetary Assumptions**	**Schedule**			
		2014	**2015**	**2016**		**2014**	**2015**	**2016**	**Total**
4.1 Review and integrate CC-oriented standards in DOH licensing and PhilHealth accreditation standards									
a. Preparatory works: Review licensing and accreditation standards if already CC-responsive	**CCAH Program / TWG/ NCFHD Licensing Office and PhilHealth**	**/**			**Consultancy: Php 500,000 for 6 months**	**500,000**			**500,000**
b. Integrate CC-responsive standards in licensing and accreditation requirements	**DOH Licensing/ PhilHealth**	**/**			**Meetings: Php 500/person X 15 staff X 4 mtgs (2 mtgs on licensing and 2 mtgs on accreditation)**	**30,000**			**30,000**
c. Advocate and monitor LGU compliance to CC-responsive licensing and accreditation standards	**CCAH Program /TWG/ NCFHD**	**/**	**/**	**/**	**Travel: Php 8,000/province plus Php 2,500 (Php 250 per municipal advocacy X 10 municipalities) X 2 staff x 10 provinces**		**210,000**		**210,000**
					Advocacy materials: Php 5000/province X 10 provinces		**50,000**	**50,000**	**100,000**
d. Comply with licensing/ accreditation of health facilities according to standards	**DOH Licensing/ PhilHealth**		**/**	**/**	**Estimated no. of facilities: 6 hospitals plus 10 RHUs = 16 facilities X 50,000/facility to comply x 10 provinces**		**8,000,000**	**8,000,000**	**16,000,000**
KRA 4 - Indicator 1						**530,000**	**8,260,000**	**8,050,000**	**16,840,000**

Year	Indicator 2/Target							
2015	· *10 vulnerable provinces implementing Enhancement Action Plans based on results of vulnerability assessment*							
2016	· *Another 10 vulnerable provinces implementing Enhancement Action Plans based on results of vulnerability assessment*							
Action Point	**Office/Staff Responsible**	**Schedule**			**Budgetary Assumptions**	**Schedule**			
		2014	**2015**	**2016**		**2014**	**2015**	**2016**	**total**
4.2 Enhance health facilities based on results of vulnerability assessment in the vulnerable provinces			**10**	**10**					
a. Inventory of existing equipment, systems, logistics, etc.	**LGUs/CCAH Program**		**/**		**Inventory Forms/Supplies at Php 2,000 per facility X 16 facilities (6 hospitals and 10 RHUs0 per province X 10 provinces each in 2015 and 2016**		**320,000**	**320,000**	**640,000**
b. Procure equipment/ logistics as needed	**LGUs/CCAH Program**		**/**	**/**	**Php 50,000/facility X 16 faciliites/province X 10 provinces**		**8,000,000**	**8,000,000**	**16,000,000**
c. Design and install support systems (e.g. referral, etc.) as needed	**LGUs/CCAH Program**		**/**	**/**	**Php 25,000/facility X 16 faciliites/province X 10 provinces**		**4,000,000**	**4,000,000**	**8,000,000**
KRA 4 - Indicator 2							**12,320,000**	**12,320,000**	**24,640,000**

Year	Indicator 3/Target
Year	Indicator 3/Target
2015	• ***At least 80% of health providers in the 10 high vulnerable provinces trained on relevant CC-oriented policies, intervention packages or alternative delivery schemes***
2016	• **At least 80% health providers in the other 10 high vulnerable provinces *trained on relevant CC-oriented policies, intervention packages or alternative delivery schemes***

Action Point	**Office/Staff Responsible**	**Schedule**			**Budgetary Assumptions**	**Schedule**			
		2014	**2015**	**2016**		**2014**	**2015**	**2016**	**Ttotal**
4.3 Train health providers on CCAH-oriented program policies, intervention packages or alternative delivery schemes	**Program In-Charge**								

a. Review training modules/ manuals	**Program In-Charge**	**/**	**/**	**/**	**Consultant: Php 500,000/module X 6 modules (3 policies and 3 intervention packages)/year**		**3,000,000**	**3,000,000**	**6,000,000**
b. Enhance/develop training modules	**Program In-Charge**	**/**	**/**	**/**					
c. Conduct training among CHD/LGU health providers	**Program In-Charge/ CHD Coordinators**		**/**	**/**	**Participants: 16 faciities (hospitals and RHUs) plus 6 BHS/RHU X 10 RHUs = 76 pax/province plus 4 secretariat = 80/2 batches X 10 provinces X 3 days X Php 1,200/day**	**2,880,000**	**2,880,000**	**2,880,000**	5,760,000
4.4 Train/Orient health care providers on HEMS	**c/o HEMS**	**/**	**/**	**/**	**c/o HEMS**				
KRA 4 - Indicator 3						**2,880,000**	**5,880,000**	**5,880,000**	**11,760,000**
KRA 4						**3,410,000**	**26,460,000**	**26,250,000**	**53,240,000**
Strategy 2						**4,530,000**	**37,795,000**	**36,625,000**	**76,070,000**

Strategy 3. *Strengthen CCAH Monitoring and Evaluation (M and E)*

Key Result Area 5	***CCAH monitoring and evaluation system developed and functional***								
Year	**Indicator/Target**								
2014	· ***M and E Framework, Guidelines and Tools developed and disseminated to all concerned offices***								
2015	· ***10 vulnerable provinces submitting CCAH reports to appropriate levels***								
2016	· ***All 20 vulnerable provinces submitting CCAH reports to appropriate levels***								
Action Point	**Office/Staff Responsible**	**2014**	**2015**	**2016**	**Budgetary Assumptions**	**Schedule**			
5.1 Develop CCAH M and E framework, guides and tools	**CCAH Program /TWG**					**2014**	**2015**	**2016**	**total**
a. Develop the CCAH M and E Framework establish CCAH indicators, data sources, means and frequency of data collection	**CCAH Program /TWG**	**/**			**1 Consultant to develop M and E Framework and guidelines and tools at Php 500,000**	**500,000**			**500,000**

b. Develop CCAH M and E guides and tools	**CCAH Program /TWG**	**/**							
c. Development of CCAH software (as needed) - Phase 2	**CCAH Program /TWG/IMS**				**c/o DOH MIS but after 2016**				
5.2 Orient/Train CCAH coordinators on the M and E Framework, Guidelines and Tools	**CCAH Program /TWG**				**Training/Orientation at the National Level: 4 CCU staff; 12 TWG members, 8 technical staff (NEC, NCHP, MIS, etc.; 4 secretariat/ resource persons) for 2 days at Php 1,500/pax/day**	**90,000**			**90,000**
					CHD Level: 10 CHDs of vulnerable provinces X 2 staff per region plus 5 secretariat/ resource persons = 25 X Php 1200 per pax per day X 2 days)		**60,000**		**60,000**
					Provincial/Municipal Level: PHO = 4 plus 1 rep per facility (16 facilities) plus 5 resource persons/secretariat per province X 2 days X 1000/day/pax		**50,000**	**50,000**	**100,000**
5.3 Conduct field monitoring in selected areas	**CCAH Program/TWG/ CCAH Coordinators at all levels**		**/**	**:**	**National Level : 3 members per team X 2 monitoring/year to 10 provinces: Fare at Php 10,000/trip**		**600,000**	**600,000**	**1,200,000**
					Per Diem: Php 1000/pax/day X 3 days monitoring X 2 times a year to 10 provinces		**180,000**	**180,000**	**360,000**
5.4 Regular submission of CCAH reports	**LGUs/CHDs**		**/**	**/**					
5.5 Annual PIR	**CCAH Program/ TWG/CCAH Coordinators at all levels**		**/**	**/**	**National Level: 3 days at Php 1,500 per day X 55 participants (2/reg, 4 CCU, 12 TWG members plus 5 secretariat and resource persons)**	**247,500**	**247,500**	**247,500**	**742,500**
KRA 5						**837,500**	**1,137,500**	**1,077,500**	**3,052,500**

Key Result Area 6	*CCAH research management system in place and functional*								
Year	**Indicator/Target**								
2014	· ***CCAH researches/studies integrated in the DOH Health Research Agenda***								
2015	· ***1 research/study completed with results disseminated***								
2016	· ***2 researches/studies completed with results disseminated***								
Action Point	**Office/Staff Responsible**	**Schedule**			**Budgetary Assumptions**	**Schedule**			
		2014	**2015**	**2016**		**2014**	**2015**	**2016**	**Total**
6.1 Develop CCAH Research Agenda									
a. Inventory/ consolidate existing researches/ studies on CCAH including research groups	**CCAH Program /TWG**	**/**			**1 Consultant to review existing researches/studies, identify research gaps, develop TORs to work for 3 months at Php 300,000**	**300,000**			**300,000**
b. Hold consultations on research needs on CCAH	**CCAH Program /TWG**	**/**			**Meals: At Php 500/person/mtg X 15 people X 3 mtgs**	**22,500**			22,500
c. Identify research agenda and integrate with HPDPB research agenda	**CCAH Program/ TWG/ HPDPB**	**/**							
6.2 Implement CCAH Research/ Studies									
a. Develop proposals	**CCAH Program /TWG and Program Concerned**		/						
b. Conduct research/studies	**Contracted parties/ CCAH Program**		/	/	**3 research stuides per year beginning 2015 at Php 3.0 M per study**		**9,000,000**	**9,000,000**	**18,000,000**
c. Disseminate results (publication, technical forum)	**CCAH Program /TWG**		/	/	**Technical Forum: One forum for 3 studies for 75 pax at Php 1000/pax (food, supplies)X 2 days**		**150,000**	**150,000**	**300,000**
					Printing: Php 1000/copy X 100 copies X 3 studies per year		**300,000**	**300,000**	**600,000**
KRA 6						**322,500**	**9,450,000**	**9,450,000**	**19,222,500**

Key Result Area 7	*Disease surveillance system in vulnerable areas functional*								
Year	**Indicator/Target**								
2014	· ***20 vulnerable provinces assessed on functionality of disease surveillance system***								
2015	· ***10 vulnerable provinces with functional disease surveillance system***								
2016	· ***another 10 vulnerable provinces with functional disease surveillance system***								
Action Point	**Office/Staff Responsible**	**Schedule**			**Budgetary Assumptions**	**Schedule**			
		2014	**2015**	**2016**		**2014**	**2015**	**2016**	**Total**
7.1 Assess functionality of disease surveillance systems in vulnerable areas	**NEC**	/	**/**		**Traveling Expenses: Fares/transportation at Php 15,000/province X 20 provinces**	**300,000**			**300,000**
7.2 Enhance diseases surveillance system for CC-sensitive diseases in vulnerable areas	**NEC/R/P/C/ MESU**		**/**	**/**	**Enhancement of Surveillance System: at Php 25,000/province for 10 provinces in 2015 and another 10 provinces in 2016**		**250,000**	**250,000**	**500,000**
7.3 Train NEC/R/PESU and CCAH Coordinators on statistical analysis	**CCAH Program /NEC**	/	**/**		**Training: 4 NEC + 20 CHDs (1 RESU and CCAH Coordinator) + 20 PHO (PESU and CCAH Coordinator) + 4 secretariat = 50 pax for 10 provinces in 2015 and another 10 provinces in 2016 at Php 1500/pax/day X 3 days**		**2,250,000**	**2,250,000**	**4,500,000**
7.4 Routine analysis of CC parameters with climate-sensitive diseases at the national/regional/ provincial levels	**CCAH Program /CHD and LGU CCAH Coordinators**		/	/	**Supplies/materials at Php 12,000/province/year for 10 provinces in 2015 and 20 provinces in 2016**		**120,000**	**240,000**	**360,000**
KRA 7						**300,000**	**2,620,000**	**2,740,000**	**5,660,000**
Strategy 3						**1,460,000**	**13,207,500**	**13,267,500**	**27,935,000**

Strategy 4. *Establish financing mechanisms to support CCAH initiatives*

Key Result Area 8	***Financing scheme for CCAH Strategic Plan implementation developed and packaged***								
Year	**Indicator/Target**								
2014	• ***1 proposal developed/packaged for DOH funding based on results of financing analysis and investment plan***								
2015	• ***3 proposals developed/packaged for donors/ development partners funding based on results of the financing analysis and investment plan***								
2016	• ***20 proposals developed/packaged for LGU funding based on results of financing analysis and investment***								
Action	**Office/ Staff Responsible**	**Schedule**			**Budgetary Assumptions**	**Schedule**			
		2014	**2015**	**2016**		**2014**	**2015**	**2016**	**Total**
8.1 Conduct CCAH Financing Study	**CCAH Program /TWG**	**/**				**2,000,000**			**2,000,000**
8.2 Package CCAH initiatives for funding by various sources/CCAH investment plan	**CCAH Program /TWG**	**/**	**/**						
8.3 Develop proposals (package CCAH initiatives for funding by various sources)	**CCAH Program /TWG**	**/**	**/**			**400,000**			**400,000**
KRA 8						**2,400,000**			**2,400,000**

Key Result Area 9	***Funding support from various stakeholders mobilized and accessed for CCAH initiatives***								
Year	**Indicator/Target**								
2014	· **At least 1% of total DOH budget allocated for CCAH**								
2015	· **Amount of funds mobilized from donors/ development partners/other government agencies at least doubled from the previous year**								
2016	· **At least 80% of the vulnerable provinces include allocation of funds for CCAH in their PIPHs**								
Action	**Office/ Staff Responsible**	**Schedule**			**Budgetary Assumptions**	**Schedule**			
		2014	**2015**	**2016**		**2014**	**2015**	**2016**	**total**
9.1 DOH Funding									

a. Orient/advocate among concerned DOH programs/ offices, clusters and management to finance CCAH efforts	**CCAH Program/ TWG**	**/**			**No. of stakeholders: 30 officials at Php 250/pax for meals**	**7,500**			**7,500**
b. Identify funding within DOH for CCAH and develop guidelines on its allocation and utilization	**CCAH Program /TWG**	**/**			**Consultant: at Php 300,000 to identify funding for CCAH within the DOH (national and CHD levels) and develop guidelines**	**300,000**			**300,000**
9.2 Donors/Development Partners Funding - conduct round-table discussions/ advocacy with other concerned stakeholders	**CCAH Program /TWG**	**/**	**/**	**/**	**Targeted No. of Participants = 20 X Php 1,500 meals and snacks)**	**30,000**			**30,000**
9.3 Develop PhilHealth Benefit package for climate sensitive disease	**PhilHealth/IDO**	**/**	**/**	**/**	**Consultant: at Php 500,000 to identify and design Philhealth babenfit apckages for climate sensitive diseases**		**500,000**		**500,000**
9.4 Advocate in the 20 high vulnerable LGUs to integrate CCAH enhancement plan requirements to P/C/MIPH or AOP	**CCU/Regional CCAH Coordinators**		**/**	**/**	**Advocacy Forum for 5 officials per province at Php 1,200 (supplies/meals) per participant X 20 provinces**		**120,000**		**120,000**
KRA 9						**337,500**	**620,000**		**957,500**
Strategy 4						**2,737,500**	**620,000**		**3,357,500**

Strategy 5. ***Strengthen multi-sector coordination of CCAH efforts at all levels***

Key Result Area 10	***Coordination mechanism within DOH in place and functional at all levels***								
Year	**Indicator/Target**								
2014-2016	· ***At least 80% of expected DOH partners attending coordination meetings***								
Action Point	**Office / Staff Responsible**	**Schedule**			**Budgetary Assumptions**	**Schedule**			
		2014	**2015**	**2015**		**2014**	**2015**	**2016**	**total**
10.1 Hold TWG quarterly meetings	**CCAH Program**	**4 mtgs**	**4 mtgs**	**4 mtgs**					
10.2 Conduct annual CCAH Planning	**CCAH Program**					**22,500**	**22,500**	**22,500**	**67,500**
a. At DOH-Central Office with CHDs	**CCAH Program**	**/**	**/**	**/**		**450,000**	**450,000**	**450,000**	**6M**
b. At CHD level with vulnerable LGUs	**CHDs**		**10 reg**	**10 reg**			**3,400,000**	**3,400,000**	**6,800,000**
10.3 Organize Technical updates to DOH management	**CCAH Program**	**2 mtgs**	**2 mtgs**	**2 mtgs**		**20,000**	**20,000**	**20,000**	**60,000**
KRA 10						**492,500**	**3,892,500**	**3,892,500**	**6,927,500**
Key Result Area 11	***Partnership with other national government agencies and other groups of stakeholders established and functional***								
Year	**Indicator/Target**								
2014-2016	· ***At least 80% of expected partners attending coordination meetings and involved in joint undertakings***								
Action Point	**Office / Staff Responsible**	**Schedule**			**Budgetary Assumptions**	**Schedule**			
		2014	**2015**	**2016**		**2014**	**2015**	**2016**	**total**
11.1 Mapping of partners/stakeholders	**CCAH Program**	**3**	**5**	**7**		**5,000**	**7,500**	**10,000**	**22,500**
11.2 Multi-Sectoral forum (e.g. CC Summit, CC Consciousness Week,	**CCAH Program**	**/**	**/**	**/**		**150,000**	**150,000**	**150,000**	**450,000**

PDF, etc.)									
11.3 Policy Forum/IACEH	CCAH Program	4	4	4		600,000	600,000	600,000	1,800,000
a. IACEH on CC	CHDs	4	4	4		450,000	450,000	450,000	1,350,000
b. RIACEH on CC	CCAH Program	4	4	4		450,000	450,000	450,000	1,350,000
11.4 Regular meetings for updates on CC projects (e.g. research with PCHRD)	CCAH Program/ TWG	3	5	7		50,000	50,000	50,000	150,000
KRA 11						1,705,000	1,707,500	1,710,000	5,122,500
Strategy 5						2,197,500	5,600,000	5,602,500	12,050,000

Strategy 6. *Improve awareness of communities on the impact of CC and their readiness to respond to health risks brought about by CC*

Key Result Area 12	***Key decision makers supporting CCAH initiatives implementation***								
Year	**Indicator/Target**								
2014	• **At least 80% of targeted national decision makers *and managers supporting CCAH initiatives (financial, technical, policy advice, etc.)***								
2015	• **At least 80% of targeted regional decision-makers and managers *supporting CCAH initiatives (financial, technical, policy advice, etc.)***								
2016	• **At least 80% of targeted local decision-makers and managers *supporting CCAH initiatives (financial, technical, policy, etc.)***								
Action Point	**Office/Staff Responsible**	**Schedule**			**Budgetary Assumptions**	**Schedule**			
		2014	**2015**	**2016**		**2014**	**2015**	**2016**	**total**
12. 1 Develop national promotion/risk communication plan	NCHP	/			Consultant at Php 500,000	500,000			500,000
					Risk Communication Planning Workshop: For 25 pax X 3 days X Php 1,500/day	112,500			112,500
12.2 Develop Information Kit materials	NCHP	/			Production of Information Kit: 1.0 million per year	1,000,000	1,000,000	1,000,000	3,000,000

12.3 Orient national government agencies, development partners/ donors on CCAH initiatives	**NCHP**	**/**			**Orientation: 1 day X Php 1500 (food materials) X 50 national stakeholders every year**	**75,000**	**75,000**	**75,000**	**225,000**
12.4 Orient regional CC focal person, HEPOs, DOH representatives	**NCHP**	**/**			**Orientation: 1 day X Php 1200 (food materials) X 30 regional stakeholders every year X 17 regions**		**612,000**		**612,000**
12.5 Conduct of advocacy meetings with LGU/LHB	**Regional CC Focal person and HEPOs**	**3**	**3**	**3**	**Advocacy: 1 day X Php 1000 (food and supplies) X 40 per province X 10 provinces per year**		**400,000**	**400,000**	**800,000**
KRA 12						**1,687,500**	**2,087,000**	**1,475,000**	**5,249,500**
Key Result Area 13	***Health care providers capacitated to undertake health risk communication and promotion strategies in response to impact of CC***								
Year	**Indicator/Target**								
2014	• **At least 80% of expected regional CCAH Coordinators and HEPOs trained on risk communication**								
2015	• **At least 80% of expected provincial/city CCAH coordinators and HEPOs in 20 vulnerable areas trained on risk communication**								
2016	• **At least 80% of expected health care providers in the 20 vulnerable areas trained on risk communication**								
Action Point	**Office/Staff Responsible**	**Schedule**			**Budgetary Assumptions**	**Schedule**			
		2014	**2015**	**2016**		**2014**	**2015**	**2016**	**total**
13.1 Conduct skills enhancement training on risk communication/ promotion of CCAH among regional and provincial CCAH Coordinators and HEPOs	**NCHP**		**/3 (zonal batches)**	**/3 (zonal batches)**	**Training: 4 PHO + 10 municipal supervisors + 4 CHDs (as resource persons) and 4 other stakeholders + 3 secretariat - 25 pax for 3 days per province X 10 provinces X Php 1,500/day/pax**		**1,125,000**	**1,125,000**	**2,250,000**

13.2 Conduct skills enhancement training on risk communication promotion on CCAH among local health care providers	**Regional and Provincial CC Team**		**/**	**/**	**Training: 16 health facilities X 2 staff/facility =32 + 4 PHO (as resource persons) = 36 per province X 10 provinces X 3 days X Php 1200**		**1,296,000**	**1,296,000**	**2,592,000**
KRA 13							**2,421,000**	**2,421,000**	**4,842,000**
Key Result Area 14	***Communities in vulnerable areas informed, educated, and practiced desired behaviour in accessing health services related to CCAH***								
Year	**Indicator/Target**								
2015	· **At least 80% of community members in 10 vulnerable areas aware of CCAH measures and availing of services**								
2016	· **At least 80% community members aware of CCAH measures and availing of services**								
Action Point	**Office/Staff Responsible**	**Schedule**			**Budgetary Assumptions**	**Schedule**			
		2014	**2015**	**2016**		**2014**	**2015**	**2016**	**Total**
14.1 Produce, pre-test and disseminate prototype IEC materials	**NCHP**	**/ 20**	**/ 20**	**/ 20**	**IEC materials: Php 3.0 M**	**3,000,000**			**3,000,000**
14.2 Conduct of awareness campaign through CC Congress	**CHD CC Team**	**/**	**/**	**/**	**Awareness Campaign: for 50 stakeholders per province X 10 provinces at Php 1,200/pax)**		**600,000**	**600,000**	**1,200,000**
14.3 Conduct educational activities through lay forum and community assemblies	**Trained Health Care Providers**	**/**	**/**	**/**	**Educational Activities: Php 25/pax X 40 pax/barangay X 30 brgys/municipality X 10 municipalities per province X 20 provinces X 2 times a year) for 2015 and 20 provinces in 2016**		**6,000,000**	**12,000,000**	**18,000,000**
14.4 Launch of best performing barangay/ communities on CC (C2 Champs or C3 Advocates)	**NCHP**			**/**	**Prizes: Php 100,000 per province X 10 provinces in 2015 and 20 provinces in 2016**		**1,000,000**	**2,000,000**	**3,000,000**

					Documentation and validation of entries, awarding ceremonies, supplies,materials, food) at Php 50,000/province X 10 provinces		**500,000**	**1,000,000**	**1,500,000**
KRA 14						**3,000,000**	**8,100,000**	**15,600,000**	**26,700,000**
Strategy 6						**4,687,500**	**12,608,000**	**19,496,000**	**36,791,500**

Strategy 7. *Ensure availability of resources to protect the community from the health impacts of climate change*

Key Result Area 15	***Community-based support system to prepare and respond towards health impacts of climate change in place***								
Year	**Indicator/Target**								
2014	· **At least 3 community-based intervention packages identified and documented**								
2015-2016	· **At least 3 community-based intervention packages implemented in selected vulnerable areas**								
Action Point	**Office/Staff Responsible**	**Schedule**			**Budgetary Assumptions**	**Schedule**			
		2014	**2015**	**2016**		**2014**	**2015**	**2016**	**total**
15.1 Identify and document community-based interventions that help prepare households/ members for eventual impacts of CC	**CCAH Program**	**/**			**1 Consultant to document and design community - based interventions and mapped out local partners in the 20 provinces at Php 500,000**	**500,000**			**500,000**
15.2 Engage/mobilize local partners to assist communities by giving them grant assistance to implement projects	**CCAH Program**		**/**	**/**	**Mapping, Orientation and Planning of local partners to implement projects in the 20 vulnerable provinces: 1 local partner per province X 3 staff per local organization X 20 provinces = 60 pax at Php 1,200 X 3 days**	**216,000**			**216,000**
15.3 Implement community-based interventions/ alternative support mechanisms (e.g. transport, herbal medicine, alternative	**Local partners/ LGUs**		**/**	**/**	**Grant Assistance to local partners at Php 1.0 million per province X 10 provinces in 2015 and 10 provinces in 2016**		**10,000,000**	**10,000,000**	**20,000,000**

food sources, etc.) and livelihood projects									
KRA 15						**716,000**	**10,000,000**	**10,000,000**	**20,716,000**
Key Result Area 16	***Poor households and other vulnerable groups availing of financial and other forms of assistance***								
Year	**Indicator/Target**								
2014	· **Poor households and high-risk groups mapped out in the high vulnerable provinces**								
2015-2016	· ***Proportion of identified poor households and vulnerable groups benefitting from community-based interventions***								
Action Point	**Office/Staff Responsible**	**Schedule**			**Budgetary Assumptions**	**Schedule**			
		2014	2015	**2016**		**2014**	**2015**	**2016**	**total**
16.1 Locate/map-out poor households (NHTS/ CCTs) and other high risk groups in the 20 vulnerable provinces	**CHTs/other volunteer workers**	**/**			**Honoraria/Transpo of CHT members/BHWs: Php 100/day/CHT member X 3 days mapping X 30 BHWs/CHT members per municipality X 10 municipalities/province X 20 vulnerable provinces**	**1,800,000**			**1,800,000**
16.2 Facilitate enrolment of all poor households to PhilHealth, engagement in livelihood projects or other forms of financial assistance	**CHTs**	**/**	/	**/**	**Php 1,200/month PhilHealth Premium/year for each poor HH X 12 months for approximately 40 HHs per municipality X 10 muniicplaiites/province X 10 provinces**		**11,520,000**	**11,520,000**	**23,040,000**
16.3 Identify special needs of high risk groups (PWDs, elderly, infants, pregnant women in the vulnerable provinces and provide orientation/ training how to cope and address impacts of climate change on their health	**Local partners**		/	**/**	**1 Consultant at Php 500,000 to idenitfy special needs of vulnerable groups, define appropriate interventions and develop training module**	**500,000**			**500,000**
					Training Per Province: 2 PHO CHT/BHW Coordinators with 2 Regional CHT/BHW Coordinators = 4 plus 20 municipal supervisors (2 per RHU X 10 RHUs) = 24 pax plus 6 secretariat/resource persons at Php 1,200 X 2 days per province X 10 provinces		**720,000**	**720,000**	**1,440,000**

					Training of CHT members, BHWs to educate/inform vulnerable groups how to cope with impacts of CC : 30 BHWs/CHT per municipality X 10 municipalities per province at 2 days training X Php 1000/day X 10 provinces		**6,000,000**	**6,000,000**	**12,000,000**		
KRA 16						**2,300,000**	**18,240,000**	**18,240,000**	**38,780,000**		
Strategy 7						**3,016,000**	**28,240,000**	**28,240,000**	**59,496,000**		
Grand Total						**28,023,500**	**168,465,500**	**185,626,000**	**377,885,000**		

Annex 5. Rapid Assessment of CHD and Catchment LGU's Status on CCAH Implementation

Assessment Questions Rate the level of achievement using scale 1 to 5, with 1 as the least achieved and 5 as most achieved	**Ilocos Region**		**Cagayan Valley**		**Central Luzon**		**Bicol**		**W. Visayas**		**North Mindanao**		**Davao**		**SOCCSKSARGEN**		**CARAGA**		**CAR**		**NCR**	
	CHD	LGUs	CHD	LGUs	CHD	LGUs	CHD	LGUs	CHD	LGUs	CHD	LGUs	CHD	LGUs	CHD	LGUs	CHD	LGUs	CHD	GUs	CHD	LGUs
1. Policies and Guidelines																						
1.1 Our CHD/LGU officials and staff have been oriented on the overall CCAH Framework, Policies and Guidelines	1	2	3	1	1	1	1	1	5	5	3	1	1	1	1		2	2	3	3	2	1
1.2 Our CHD/LGU officials and staff are familiar with the provision of the CCAH Framework and Policies	1	2	2	1	1	1	1	1	4	4	3	1	1	1	1		2	1	3	2	2	
1.3 Our CHD/LGU officials and staff are able to operationalize the CCAH policies and guides	1	1	2	1	1	1	1	1	3	3	3	1	1	1	1		1	1	3	2	2	
1.4 We have modified some of our public health program guidelines and standards to support CCAH (specify)	2	1	1	1	2	1	1	1	2	2	4	1	1	1	1		1	1	3	2	1	
2. Awareness and Capability on CCAH																						
2.1 Our CHD and LGU officials and health staff clearly understand what is climate change and its impact on health	2	2	2	1	2	2	1	2	5	5	4	3	2	1	2		1	1	3	2	2	1
2.2 Our CHD and LGU officials and health staff have attended orientation/training on CC/CCAH	1	2	1	1	3	3	1	1	5	5	3	2	2	1	2		2	2	3	3	3	1
2.3 Our CHD and LGU officials and health staff are able to implement CCAH measures and interventions	1	1	2	1	1	1	1	1	4	4	3	1	1	1	2		2	2	3	2	1	
3. Structure and Staffing																						
3.1 Our CHDs/LGUs have identified and designated key staff to coordinate CCAH initiatives	3	1	3	1	4	1	2	1	5	3	5	1	2	1	3		3	2	3	2	1	
3.2 The roles and functions of the designated CCAH Coordinators at the	2	1	3	1	1	1	1	1	5	3	3	1	2	1	3		3	1	2	2	1	

CHD and LGU levels are clearly defined																						
3.3 We have established clear coordination with the other programs/offices in the CHDs and LGUs	1	1	3	1	1	1	1	1	5	3	3	2	2	1	3		1	1	2	2	2	
4. Vulnerability Assessment																						
4.1 Our CHDs and P/CHO officials and staff are familiar how to assess vulnerability of the local health system to impact of CC	1	1	2	1	1	1	1	1	4	4	3	3	1	1	3		1	1	2	2	1	
4.2 Our CHDs/PHO/CHO officials and staff are familiar with the vulnerability assessment tool on CCAH	1	1	2	1	1	1	1	1	4	4	3	3	1	1	3		1	1	2	1	1	
4.3 Our CHD/P/CHO officials and staff are aware how to address/respond to the results of the vulnerability assessment	1	1	2	1	1	1	1	1	4	4	3	2	1	1	3		1	1	2	1	1	
4.4 We have identified the high prone disaster areas to be supported	1	1	3	1	5	4	3	3	2	2	5	4	1	1	3		2	3	2	1	1	
Assessment Questions Rate the level of achievement using scale 1 to 5, with 1 as the least achieved and 5 as most achieved	**Ilocos Region**		**Cagayan Valley**		**Central Luzon**		**Bicol**		**W. Visayas**		**North Mindanao**		**Davao**		**SOCCKSARGEN**		**CARAGA**		**CAR**		**NCR**	
	CHD	LGUs	CHD	LGUs	CHD	LGUs	CHD	LGUs	CHD	LGUs	CHD	LGUs	CHD	LGUs	CHD	LGUs	CHD	LGUs	CHD	GUs	CHD	LGUs
5. Implementation of CCAH initiatives and Mitigation measures																						
5.1 We have started to implement CCAH measures or interventions at the region and local levels.	2	1	3	1	2	1	2	3	1		3	2	1	1			1	1	3	2	1	
5.2 We have supported the implementation of mitigation measures	2	1	3	2	2	2	3	3	3	2			1	1			1	1	3	2	1	
6. Promotion and Advocacy																						
6.1 Our CHD/LGU officials and staff have promoted CCAH interventions or measures	1	2	3	1	1	1	2	3	4	4	3	1	1	1			1	1	3	2	1	
6.2 We have available promotion materials on CCAH	1	1	2	1	2	1	1	1	4	4	1	1	2	1			1	1	3	2	1	
6.3 There have been strong advocacy on-going among local officials to support CCAH initiatives	1	1	1	1	1	1	2	2	4	3		1	2	1			1	1	3	2	1	
6.4 We have started to tap/mobilize regional/local partners to support CCAH (financial, technical assistance, logistics, etc)			2	1	1	1	2	2	4	1	2	1	1	1			1	1	3	2	1	
7. Networking and Coordination																						
7.1 Our CHD/LGU officials and staff have established coordination with relevant groups of stakeholders to help in implementing CCAH initiatives	1	1	2	1	4	3	2	2	4	3	1	1	1	1			3	2	2	2	1	
7.2 Our CHD/LGU officials and staff have established partnership with the private sector to support CCAH initiatives	1	1	2	1	4	3	2	2	4	1	1	1	1	1			1	1	2	2	1	
7.3 There is regular coordination meetings among concerned groups or offices concerning CCAH issues and gaps	1	1	2	1	3	2	1	2	4	2	1	1	1	1			1	1	2	2	1	
8. Community Mobilization																						
8.1 The community members are generally aware of interventions and measures they can implement or undertake to support CCAH	1	1	1	1	1	1	1	2	4	2	2	1	1	1			1	1	2	1	1	

8.2 Community-based volunteer health workers are equipped with proper knowledge regarding CCAH initiatives and measures	1	1	1	1	1	1	1	1	3	1	1	1	1	1			1	1	2	1	1	

Annex 6. People Consulted in the Assessment of CCAH and Strategic Planning for 2014-2016

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