



Republic of the Philippines  
**Department of Environment and Natural Resources**

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JUL 12 2021

**MEMORANDUM**

**FOR/TO :** Heads of Offices  
All Attached Agencies  
All DENR Bureaus  
  
Regional Executive Directors  
Region I to XIII, NCR, CAR  
  
All Service Directors

**FROM :** The Undersecretary and Coordinator  
Crisis Management and Data Collection Coordination Group

**SUBJECT :** **CRISIS KNOWLEDGE MANAGEMENT PLAN**

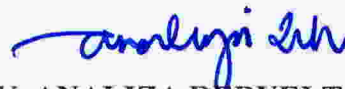
In accordance with DENR Special Order No. 2021-201 dated April 28, 2021 creating the “Crisis Management Committee and Working Groups, Defining their Roles and Designating Officials to Operationalize their Tasks”, the Crisis Knowledge Management and Data Collection Coordination Group (CKMDCCG) has drafted the DENR Crisis Knowledge Management Plan (CKMP).

The draft CKMP aims to provide a tool for the CMC to coordinate data collection and tracking, record information relating to current response efforts and highlight key decisions required to facilitate prioritization of tasks/resources in order to enhance COVID-19 response and crisis management. It has the following pillars:

<b>KM Pillar</b>	<b>Description</b>
1. One DENR	Connecting with employees and management increasing cooperation thereby instituting a “ONE DENR” approach.
2. Whole of DENR	Practicing inclusivity and common approach that apply to whole of DENR in its management and response to CoVid-19 in all levels and branches of the Department.
3. Knowledge	Knowledge that are clear, reliable, relatable and applicable that promotes understanding of the CoVid pandemic thereby promoting a culture of safety.
4. Policy and systems based	Policies, Processes and systems clarified to enhance understanding of actions, plans and measures being implemented.

5. Leadership	Management is in the forefront and exercising authority and responsibility through decisive and responsive decisions.
6. Personnel and employees	DENR personnel and employees are guided and well informed and applying knowledge to enhance understanding and practice a culture of safety with clear coordination between management and employees.

The CKMDCCG will organize a consultation cum orientation workshop on the CKMP scheduled on July 30, 2021. In this regard, we are furnishing you a copy of the draft CKMP for your review and comments. You may submit your inputs, recommendations and other concerns to the CKMDCCG Secretariat through the SDRMD-KISS at [sdrmd@denr.gov.ph](mailto:sdrmd@denr.gov.ph) not later than July 26, 2021.



ATTY. ANALIZA REBUELTA-TEH *CESO I*

Encls.: Draft Crisis Knowledge Management Plan

Cc.: The Head Executive Assistant  
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**CRISIS MANAGEMENT COMMITTEE  
KNOWLEDGE MANAGEMENT AND DATA COLLECTION COORDINATION GROUP**

**COVID-19 CRISIS KNOWLEDGE MANAGEMENT PLAN  
("OneDENR")**

**Introduction**

COVID-19 pandemic has brought challenges affecting all sectors worldwide, bringing widespread shutdown of economies, altered social norms, and disruption of government operation. In the Philippines, continued implementation of various levels of quarantine classifications, has become notorious for causing the longest lockdown due to the pandemic.

In April this year, the country had its second wave and pushed the total of recorded infection to exceed the 1 million mark at 1.14 M, with a highest tally for a day on April 3, 2021 with reported case of 15,280. The current surge has continuously slowed down to 5,760 cases as of May 15, 2021 but we also breached the 19,000 mark for total deaths.

Amidst the pandemic, the Department of Environment and Natural Resources has been devising mechanisms to continue on providing quality public service while ensuring the safety of its employees. Initiatives are continuously being undertaken to provide a safe workplace and to provide all the possible assistance to all its employees. Some of these are applying alternative work arrangement, supplying ensure vitamins and other health essentials, arranging free COVID-19 testing sessions, and conducting webinars that are beneficial to mental health.

Despite all measures, DENR personnel were not spared in the surge of infection, due to community transmission. From less than five cases last year, about fifty-five cases were reported as of April 30.

Testing, and vaccination has been hailed as the only way to move forward to a new normal and eventually, to herd immunity. For this reason, the DENR has included to its plethora of COVID-19 programs, the testing of employees and arranging for vaccination of personnel.

Surviving as one family to bring into focus to the One-DENR approach to the pandemic, Special Order No. 2021-201 dated April 28, 2021 created the Crisis Management Committee (CMC) with the objective of coordinating DENR response to eliminate and/or reduce exposure, thus, maintain a healthy work environment and lower impact to DENR's operation. The order, also created the Crisis Knowledge Management and Data Collection Coordinating Group (CKMDCCG) to coordinate data collection and tracking, record information relating to current response efforts and highlight key decisions required to facilitate prioritization of tasks/resources. The CKMDCCG is also tasked to formulate and implement a Crisis Knowledge Management Plan (CKMP) that will share and ensure access to timely information and educational resources.

## **I. Crisis Knowledge Management Plan**

The recent resurgence of the COVID-19 disease in NCR which started in March and peaked in April this year took an alarming turn at the Department with a sudden rise of cases and the lost of at least one official and several more falling ill. This brought the DENR to take a more rigorous action and with more focus on managing the COVID-19 crisis rather than assuming that the present preventive measures can stem the surge of the pandemic.

Special Order No. 2021-201 was issued by the Secretary on April 28, 2021 creating a Crisis Management Committee (CMC) and Working Groups and defining their roles and designated officials to operationalize their tasks.

In support to the responsibilities of the CMC, the Order created the Crisis Knowledge Management and Data Collection Coordination Group (CKMDCCG) with the following responsibilities:

1. It shall establish COVID-19 situation reporting dashboard;
2. Coordinate data collection and tracking;
3. Record information relating to current response efforts and highlight key decisions required to facilitate prioritization of tasks/resources; and
4. It shall formulate and implement a Crisis Knowledge Management Plan (CKMP) that will share and ensure access to timely information and educational resources and sourcing/uploading the most recent and relevant information so that employees understand the policies and processes.

The Knowledge Management Plan aims to create a culture of safety with clear coordination between management and employees.

The Special Order highlights the necessity of having information that can be accessed by the CMC to evaluate progress and be able to recommend appropriate decision to the Secretary. It also tasked the CMC to monitor the events, round the clock and regularly communicate updates within the Department to avoid fake news and confusion. This requirement focuses on communicating information and transforming data to knowledge and bridge gaps between management and employees to have common perspective on managing the COVID-19 crisis in as much as the operation of the DENR to provide environmental services in a COVID-19 situation hinges on the health, safety and well-being of the officials and employees.

The surge of cases in recent months demonstrates that prevention cannot be achieved in being limited to the technicalities such as disinfection and health monitoring in entry points of the office. Issues that are not necessarily apparent that could also be in play may include pandemic and quarantine fatigue, mental anxiety and need for socializing and risks that are existing outside of the DENR compound.

COVID-19 crisis management can be supported with knowledge management which will process data and tap on over one-year of DENR personnel's experiences, learnings and lessons on surviving the pandemic. This knowledge is to be collated including those floating from all sources and on the internet, and on the application of policies and guidelines, and curated to reach management and employees who needs information and make decisions.

The Crisis Knowledge Management Plan will not be siloed on the terrible outcome of an infection, but will gather information that can possibly prevent or

minimize such. Knowledge solutions shall be created from the ideas and initiatives of the different offices and personnel to serve as models of best practices. Knowledge materials and products shall also be shared and made available through various media to ensure that management and employees are well informed.

COVID-19 has no respect for, nor make no distinction of its victims. Thus, the KMP will work on the policy of inclusivity and common approach to the crisis as ONE DENR and WHOLE OF DENR.

## **II. Scope and Coverage of the CKMP**

In compliance with Special Order No. 2021-201, the Crisis Knowledge Management Plan shall be implemented at the DENR Central Office and to be replicated in all other Offices of DENR including Bureaus, Attached Agencies, Regional Offices, PENROs and CENROs.

The CKMP shall be adapted to the specific Office including the production and sharing of knowledge products, materials and knowledge solutions, which may be relevant to that office.

The CKMP shall be limited to the management of knowledge related to and relevant to responding to COVID-19 crisis. However, the learnings gained and knowledge management process including knowledge solutions may be applied to minimize vulnerabilities, enhance disaster response and other crisis.

## **III. Objectives and Goals**

The CKMP's objectives are aligned with the objective of the DENR to perform its mandated function and provide environmental services to the public. The following are the objectives of the KMP:

1. To provide a tool for the CMC to coordinate data collection and tracking, record information relating to current response efforts and highlight key decisions required to facilitate prioritization of tasks/resources;
2. To serve as tool to share and ensure access to timely information and educational resources for decision making at all levels of the Department including management and employees;
3. Enhance COVID-19 response and crisis management by ensuring availability and accessibility of accurate, reliable and relatable information from various sources and making them available when required through lesson learning, sharing and other available means;
4. Preserve lessons, learnings, experiences and relevant tacit knowledge on COVID-19 to be accessed and shared in appropriate modules including trainings, learning events, sharing sessions and other media; and
5. To create a culture of safety with clear coordination between management and employees.

#### **IV. Strategies and Drivers**

The KMP shall focus on knowledge required to address Covid-19 incidence and mitigate further spread, including focusing resource distribution and responding both to individual and workplace concerns and necessary action of management.

##### **1. Gap analysis**

###### **a. Reliable information to promote understanding CoVid 19**

Foremost constraint in understanding Covid 19 is lack of reliable information and knowledge on the disease and the pandemic, which was fraught with confused data and fake news. Knowledge serves a critical tool to appropriately respond to and prevent transmission through a spreader incident at the workplace and in the community.

It will be critical to assess knowledge to determine applicability of both individual and organizational knowledge and or to determine kinds of knowledge that will be required by individual personnel, the office and management to aid in decision making.

The KMP shall treat knowledge from both employees and management as appropriate, with sensitivity to the requirement of responding to the pandemic.

###### **b. Disaster preparedness**

CoVid-19 pandemic has been categorized among disasters and knowledge generated from this experiences shall be used to define appropriate response procedures and readiness for service continuity of the Department.

###### **c. Policy, guidelines, procedures**

These include internally issued policies and guidelines and relevant issuances related to quarantine procedures from the IATF, DOH, CSC, DBM, LGU and others to establish protocols for service delivery and/or skeleton force and alternative work arrangement.

These are not always communicated effectively and understood.

###### **d. Organizational structure**

This include crisis management structure including command and communication lines that should reach all levels of the organization including service providers.

###### **e. Culture, beliefs, social norms, family, values**

Certain issues of CoVid-19 impacts employees cultural system and values which affects how information and knowledge are processed, internalized and shared.

Establishing and collating organizational and employees' knowledge involve organization policies and on personal data that are mandated to be protected, but are necessary for response action, such as contact tracing. Establishing necessary knowledge also touch on other information which

can be considered as sensitive such as family, gender, discrimination due to Covid stigma.

**f. Organizational support**

Implementation of Knowledge Management would require support such provision of sufficient funds, competent personnel, information access, knowledge documentation, access to information hubs and necessary facilities.

**g. Competent personnel**

Implementation of the KMP would require competent personnel.

**h. Responding to incidence**

Fragmentation and confusing response procedure put personnel at risk and can bring possible transmission clusters within the DENR.

**i. Knowledge management action plan**

A knowledge management action plan will be established to provide the framework for collating, organizing and having tacit, explicit and implicit knowledge to address lack of information and proliferation of confusing data.

**Gap Analysis and Action to address Gaps**

GAP	Action Plan	Result Indicator	Time
Reliable information to promote understanding CoVid 19	Knowledge buildup	Knowledge that are reliable, verifiable, trusted, relatable	Immediately / continuing process
Disaster preparedness	Treat Covid as a disaster requiring systematic response procedures;  Incorporate in Service Continuity Plan of the DENR and DRR Guidelines.	Knowledge on response procedures identified, codified and included in DENR disaster preparedness plans	By August 2021 / continuing update
Policy, guidelines, procedures	Establish clear command lines, flow of information and communication of understandable policies and guidelines	Guidelines, procedures and other information are understood and transformed to knowledge for guidance of all employees	Immediately / continuing update
Organizational structure	Establish structure with clear lines of responsibility and authority	Structure is clear and promotes knowledge development and application to alleviate effects of pandemic	Immediately / continuing review and updating
Culture, beliefs, social norms, family, values	Address existing cultural issues for both individual and organization	Cultural issues are clarified and culture of knowledge is established	Continuing

Organizational support	Establish requirement for implementation of the CKMP including personnel, budget, technology support, communication, documentation, etc.	The CKMP is sufficiently supported and implemented	Continuing
Competent personnel	Requirement for competency is established and training programs, mentoring, coaching are planned	CKMP implementation is supported with competent personnel	Continuing
Responding to incidence	Establish coherent and effective incident procedures such as detection and response recommendation.	Knowledge on best practices and accepted procedures are applied, understood by all and incident response are clear	Continuing
Knowledge management action plan	Establish the CKMP as strategy to address the lack of reliable information on CoVid-19, promote understanding and achieve a culture of safety	The CKMP is established and implementation is sustained	Immediately/ /continuing review and update;

## 2. Knowledge building

Parallels in disaster management would usually depend on readiness and planning before the crisis and relying heavily on knowledge to establish response processes. However, there is limited model for COVID-19. In this regard, strategies for knowledge acquisition for COVID-19 crisis will encompass the over one (1) year of battling the pandemic. It will incorporate elements from various sources, notably, anecdotal experiences and learnings as a source of tacit knowledge and explicit knowledge to be gained from available information from the IATF, DOH, Executive Issuances, Legislations, DENR guidelines and policies, issuances from other offices, WHO guidelines, and other relevant literatures, and implicit data that will guide the DENR in the development of effective procedures and strategies. Data from the monitoring and disease surveillance of Covid cases, contact tracing outputs, health and wellness services and results, COVID-19 prevention data, surveys and learning events outcome would contribute to understanding and defining strategies and knowledge acquisition, application and preservation.

## 3. Data and knowledge application

Data are to be transformed to information and knowledge that can be used for decision and strengthening DENR's ability to better deliver tailored knowledge solutions to promote culture of safety and cooperation within the DENR organization.

Specific application:

- a. Documentation and sharing of tacit and explicit knowledge;
- b. Data analysis and information system development to process and transform data and information to knowledge;



- c. Awareness raising through sharing of knowledge and information in transmedia format which will be shared through the DENR website, social media accounts and other available platforms such as the DENR News Alerts and the developed Dashboard Tracker. These materials can be infographics, posters, web publishing, blogs, anecdotes, pamphlets and handouts, webinars, dialogue sessions, policy dissemination;
  - d. Crisis mapping using generated and compiled data on cases presented in dashboards and incidence maps;
  - e. Knowledge for decision-making, effecting change and collaboration among employees, management and other parties such as providers.
4. **Consideration of issues** such as cultural, religious, health and morbidity conditions and other issues that can impact on decisions whether individual or collectively that can affect management of and response to Covid-19;
  5. **Policy based knowledge management processes** including compliance with applicable laws and regulations particularly Data Privacy Act and RA 11332 "**Mandatory Reporting of Notifiable Diseases and Health Events of Public Health Concern**";
  6. **Establishment of structure** to implement and oversee the KMP as provided in DENR SO No. 2021-201 and defining clear responsibilities among other units of DENR;
  7. **Knowledge evaluation and preservation.** Knowledge are to be evaluated and curated into those that are useful, beneficial, applicable and relatable and knowledge to be retained and preserved for future crisis and readiness planning. Knowledge generated and acquired in the implementation of the CKMP shall be incorporated in the DENR's disaster readiness, response procedures and service continuity plans.
  8. **Capacity development.** Competency of personnel who will be involved in the implementation of the CKMP at all levels shall be ensured.
  9. **Improvement of approaches for building strategic alliances.** Collaboration with all the units of the DENR shall be strengthened in the identification of tacit and explicit knowledge and in ensuring that knowledge is not only shared but improves the adaptive capacity of the DENR to respond to the pandemic;

#### 10. Risks assessment

Application of inappropriate knowledge could result to unexpected outcome, and/or faulty decisions and escalation rather than prevention. Evaluation for risks shall be done on knowledge management processes to ensure prevention of costly mistakes including in releasing information and sharing of knowledge that has not been verified to help in managing COVID-19 crisis. Risks shall consider underlying constraints and opportunities associated with ensuring CKMP implementation in accordance with SO 2021-201.

#### 11. CKMP evaluation

The CKMP will be reviewed after the six (6) months and determined if its implementation has achieved substantive outcome.

## Result Framework for Strategy and Drivers

Activity	Output /Indicator	Collaborator/s	Objectives (Including Time Table)	Impact/Result
<b>Driver</b>	<b>1. Gap Analysis</b>			
<b>Strategy</b>	<b>Promoting understanding of existing capacity and constraints in the implementation of CKMP</b>			
Action Planning	KM Action Plans a. Action Plan b. CKMP			Action Plans prepared and providing guidance to respective offices
Addressing identified gaps and analysis	Strategies to address identified gaps and constraints			Requirement for implementation is analyzed and appropriate solution to address gaps are identified.
Internal brainstorming activities to identify issues, concerns, and challenges, and possible initiatives and interventions	Local issues and concerns are identified and strategies formulated to address them			Measures to address gaps are arrived at thru consultation and evaluation
Obtaining stakeholders and client input	Clients knowledge base platform including issues and concerns			As necessary, external stakeholders' views and input are incorporated in the solution e.g. service providers, for inclusive approach
Gathering employees perceptions	Survey results			Inclusivity in creating knowledge products and solutions
Get into agreements with offices within the DENR system to ensure accessibility to information	Established information gathering and sharing			Leveraging other offices and providers of data and information
<b>Driver</b>	<b>2. Knowledge Building</b>			
<b>Strategy</b>	<b>Pursuit of Knowledge Creating Activities</b>			
Building knowledge-base on Covid-19 from personal experiences through survey, dialogues, sharing sessions, etc.	Tacit knowledge identified, documented and shared when possible			In-depth realization of personal perspective in combatting the pandemic
Building knowledge-base on Covid-19 from explicit knowledge through widely sourced information and knowledge	Explicit knowledge compiled and shared through various media			Knowledge is obtained from wide array of sources for greater reach and basis for choices and solutions
DENR COVID-19 Response Identification and Analysis Workshop	Workshop output on documentation of DENR response;  Implicit and explicit knowledge that contribute to effective response strategies			Gained appreciation of DENR initiatives to mitigate the pandemic and possibly, improve the system with new ideas
Develop and operationalize a reliable and updated Clients' knowledge base platform	Knowledge-base platform of clients  Tacit knowledge			Insights gained on clients perspective in transacting with DENR during CoVid restrictions
Survey of personnel to gain in-depth insights and perceptions on Covid	Survey results, analyzed and processed for knowledge and application;			First hand data on employees and perspectives for better implementation of

	Tacit knowledge identified.			measures and addressing personal issues and anxiety
Monitoring and surveillance of Covid-19 cases within DENR and in community	Data compiled, analyzed and shared			Understanding risks of transmission at the workplace
<b>Driver</b>	<b>3. Data and Knowledge Application</b>			
<b>Strategy</b>	<b>Development of Knowledge Products</b>			
Development/identification of platforms where knowledge products can be shared	Platforms identified and developed for knowledge sharing and dissemination			Windows for knowledge sharing, including gaps in knowledge e.g. real and fake news, are identified
Development of information, education and communication materials	Knowledge materials produced and made available thru transmedia			Data and information are transformed into products for sharing and learning
Development of platform for sharing and dissemination of monitoring results	Covid-19 dashboards for real-time information			New platforms for sharing and dissemination of knowledge developed for easy access to knowledge
Compilation of relevant information on Covid-19 situation transmission within the DENR and community	Compiled reports are submitted to management for decision making and shared with employees for guidance thru transmedia			Products are developed from experiences and from internal data and shared to provide information and guidance on decision making and planning
<b>Strategy</b>	<b>Knowledge Solutions</b>			
Documentation of knowledge that can be used for focused application and shared as best practices	Documented knowledge solutions			Knowledge from personal and office experiences are documented and shared as knowledge solution
<b>Strategy</b>	<b>Crisis Management</b>			
Crisis mapping using compiled data	Presentation of Covid-19 in spatial format showing the location of affected personnel			Using spatial application, map the extent of CoVid-19 transmission among DENR community
Crisis surveillance, response and prevention	Guidelines and policies			Policies and guidelines are effectively communicated and understood by employees and stakeholders
Strategies for future crisis management	Strategies for disaster prevention			Timely data and information are used to detect clustered transmission within DENR and communities and used to break patterns of infection thru effective disinfection, managed work schedules, etc.

Driver		4. Consideration of issues			
Strategy	Identification of underlying issues and perceptions				
Analysis of demographic data of employees	Personnel data				Demographics and personnel information such as health conditions are used to provide specific actions and customized response such as work scheduling and services
Survey of health issues, co-morbidities, vaccine preferences, other health related concerns	Survey results				Employees' health conditions, perspectives and preferences are used to develop profiles for monitoring health conditions and as reference for health services
Identification of cultural considerations, religion and beliefs, community issues	Survey results				Culture, religion and beliefs are taken into consideration to create respectful and considerate program of response as well as understand community issues such as localized surges and spikes
Driver	5. Policy based knowledge management processes				
Strategy	Adoption of policy, guidelines and procedures based on knowledge				
Tracking of IATF and DOH Guidelines and Issuances	IATF and DOH and other relevant guidelines e.g. CSC are compiled, disseminated				Understanding and incorporation of regulatory guidelines to local policies and guidelines;
	Local policies and guidelines issued				Local policies and guidelines are adopted and disseminated according to national and local government and expert information
Formulation of response, prevention and monitoring protocols based on expert data, policies and guidelines	Responsive response protocols, preventive measures and mitigation strategies				Procedures are guided by expert knowledge and proven protocols
Implement plans, programs, policies and guidelines that are understood by all concerned.	Clear and responsive plans, programs and policies				Plans, programs, policies are crafted in easy to understand format and do not create further confusion and stress
Strategy	Provision of health related information				
Provision of health assistance, including webinars, based on known data about Covid-19 prevention	Health assistance provided, including webinars				Health assistance not limited to vitamins and supply, including mental health promotion, destressing sessions and enjoyable activities such as art-centric

					activities help promote well-being and remove pandemic anxiety
<b>6. Knowledge evaluation and preservation</b>					
<b>Driver</b>					
<b>Strategy</b>					
Evaluation of gathered and compiled data for preservation and future application	Classified and curated data				Gained knowledge from tacit and explicit sources are evaluated and curated for optimum relevance and benefits
Knowledge preservation	Knowledge that can be used for future decision making and planning are preserved in appropriate format				Gained knowledge are preserved to benefit not only addressing current crisis but also, future disasters not limited to CoVid.
<b>Strategy</b>					
<b>Crisis and disaster management planning</b>					
Integrate curated knowledge in crisis and disaster management planning and incorporated in readiness, response procedures and service continuity plans of the DENR	Covid-19 knowledge incorporated in the DENR Service Continuity Plan				Useful knowledge are incorporated into the DRRM policies and processes and as a strategy for Service Continuity
<b>Strategy</b>					
<b>Monitoring, evaluation and improvement</b>					
Establish M&E guidelines to establish effectiveness of knowledge intervention; Monitor data and information relevant to the crisis	Monitoring and evaluation guidelines Data and information monitoring processes				M&E guidelines provide parameters for measurement of effectiveness and improvement of activities. Data are monitored and providing information as basis for planning and decision
Review and get feedback on programs and activities implemented	Procedure and results analyzed				Employees and clients feedback as necessary help in reviewing effectiveness of knowledge product and knowledge programs
<b>Driver</b>					
<b>Strategy</b>					
<b>7. Establishment of structure</b>					
<b>Implementation of DENR Special Order No. 2021-201</b>					
Implementation of DENR Special Order No. 2021-201 and establishment of the Crisis Management Committee and Coordination Group	Parallel Crisis Management Committee is established in all Offices of the DENR				Structure for crisis management is established and taking lead in addressing the CoVid-19 pandemic crisis. The CKMDCCG takes responsibility for data and information and developing knowledge based approach in addressing CoVid-19

Replication of the Crisis Knowledge Management Plan in all DENR Offices	CKMP is replicated and implemented in all DENR Offices			CKMP is replicated and a structured and organized management of knowledge is adopted in all offices
Harmonize implementation of strategies, programs and interventions within respective offices and across DENR	Harmonized programs			All offices implement plans and programs based on uniform policies and knowledge
<b>Strategy</b>	<b>Implementation of programs based on "One DENR"</b>			
Implementation of the CKMP based on One DENR organization and inclusivity, from rank and file to management and service providers	Uniform and inclusive implementation of the CKMP			CoVid-19 response encompasses all offices of the DENR and implements policies based on common objectives and inclusive coverage.
<b>Strategy</b>	<b>Institutionalization through the Service Continuity Plan</b>			
Roles, responsibilities and authorities necessary to respond to future Covid-19 and similar crisis are integrated to the DENR Service Continuity Plan	Updated DENR Service Continuity Plan and DRRM Plan			The CKMDCCG ensures that knowledge gained from the CoVid-19 pandemic crisis serves as template for future policies on disaster preparedness
<b>Driver</b>	<b>8. Capacity development</b>			
<b>Strategy</b>	<b>Knowledge improvement and competency development</b>			
Training on various aspects of Covid-19 handling of cases for medical teams health and wellness personnel	Medical Teams and Health and Wellness Teams are trained and applying knowledge and skills			Enhanced competency on knowledge management and sharing of information for sustained effective implementation of policies, plans and programs
Information and knowledge are shared and disseminated among personnel and employees	Well-informed employees and personnel			Information and knowledge are not limited to decision makers in management but also for personal decision making of employees
Management is informed of Covid situation in the various offices of the DENR.	Management is making decisions and issuing relevant and useful policies and guidelines			Management has the ability to assess and evaluate CoVid-19 situation in the whole of DENR and able to implement specific response appropriate to the situation

Training of service providers to effectively implement and practice health protocols	Service providers (utility and security) are well informed and following protocols			Service providers are trained and has knowledge on their roles and contribution to the system and performs their responsibilities
<b>Driver</b>	<b>9. Improvement of approaches for building strategic alliances</b>			
<b>Strategy</b>	<b>Improvement of approaches for building strategic alliances</b>			
Roundtable discussion (to assess applicability of existing resources and response to the crisis and to propose possible remedies to the challenges)	Harmonized plans and programs			Concerned offices are informed of their roles and contribution to crisis management and contributes knowledge to over-all strategies
Participate in the review of DENR issuances and bulletins (if those are still applicable based on the collected data)	Inclusive policies and programs			Explicit knowledge out of issuances, guidelines and policies from external sources are used to formulate policies and guidelines that are applicable to the DENR based on existing data and safety requirements.
Conduct joint planning and evaluation of implementation of programs	Harmonized plans and programs			Evaluation of the effectiveness of the CKMP will be done through consultative workshop with PPS and other offices, including all involved including future-proofing of the CKMP
<b>Driver</b>	<b>10. Risk Assessment</b>			
<b>Strategy</b>				
Roundtable discussions (to assess risks and identify solutions in knowledge management)	Risks and procedure to address risk are identified			Review of plans and programs developed out of the CKMP are reviewed for relevance, applicability and implementation feasibility, taking in consideration, expected impact
<b>Driver</b>	<b>11. CKMP Evaluation</b>			
<b>Strategy</b>				
Roundtable discussions to assess effectiveness of the implementation of the CKMP	Evaluation of the CKMP	CKMDCCG	December 2021	Review of the CKMP and all plans, programs, products and services created and implemented are reviewed to determine

				effectiveness in achievement of objectives and impact to employees and management and in achieving a culture of safety.
Improvement of the CKMP	Improvement as necessary	CKMDCCG	October 2021	Improvement is made as appropriate and necessary.
Continuity of implementation	CKMP implementation extended after six (6) months  CKMP is incorporated to Service Continuity Plan and DRRM strategies	CKMDCCG  DDRRMT	After six(6) months onward	CKMP is reviewed and improved, incorporating results of implementation and provide inputs for enhancing the DENR Service Continuity Plan and DRRM.

### Knowledge Management Pillars

The implementation of the CKMP will be based on the following pillars which serves as guideposts in achieving outcomes of the CKMP:

Pillar	Description
<b>1. Knowledge</b>	Knowledge that are clear, reliable, relatable and applicable that promotes understanding of the CoVid pandemic thereby promoting a culture of safety
<b>2. One DENR</b>	Connecting with employees and management increasing cooperation thereby instituting a "ONE DENR" Approach
<b>3. Whole of DENR</b>	Practicing inclusivity and common approach that apply to Whole of DENR in its management and response to CoVid-19 pandemic in all levels and branches of the Department.
<b>4. Policy and systems based</b>	Policies, Processes and systems clarified to enhance understanding of actions, plans and measures being implemented
<b>5. Leadership</b>	Management is in the forefront and exercising authority and responsibility through decisive and responsive decisions
<b>6. Personnel and employees</b>	DENR personnel and employees are guided and well informed and applying knowledge to enhance understanding and practice a culture of safety, health and well being

### V. Action Plan and alignment to Theory of Change

Time /Milestones	Indicator	Outcome	Impact	Methodology
	SO 2021-201  CKMDCCG is organized and taking responsibility in accordance with the SO	Initial Action Plan of the CMDCCG is formulated;  CKMP is initiated	The CKMDCCG is organized and is tasked to formulate a Crisis Knowledge Management Plan. The CKMP is implemented at the DENR Central Office and in all other offices of the DENR tasked to organize the same structure in their respective offices.  The CKMDCCG ensures that all offices and personnel of the Department has access to knowledge and can make decisions based on informed judgement.	Compliance to the Special Order;  Action Plan preparation  Drafting the CKMP



1st month of implementation May 1-31, 21	Established Crisis Knowledge Management and Data Collection Coordination Group (CKMDCCG) and preparation of requirement of SO 2021-201	The CKMDCCG is established;  Prepared Action Plan	The CKMDCCG implements the requirements of SO 2021-201;  Evaluates requirement and establish data and knowledge processes.	Evaluation and analysis, Data collection Curation of knowledge material Publication and sharing
	a) Action Plan	Action Plan prepared and submitted	Compliance to SO 2021-201	Action Plan preparation On-line consultation and deliberation
	b) CoVid-19 Information/Tracking Dashboard	Procedure for data collection  Covid-19 CO Dashboard design and prototype	Dashboard for data updating and quick information is designed and tested	Identification of and meetings with data sources  Design, development, testing by KISS  Consultation with the Contact Tracing Team, Health and Wellness and Medical Teams  Beta, de-bugging, improvement and  Turn-over to the CCT, roll-out and updating with live data
	c) Draft, CoVid-19 Crisis Knowledge Management Plan (CKMP) Draft	Draft of the CKMP	Draft of the CKMP is prepared incorporating the objective of SO 2021-201 to share and ensure access to timely information and educational resources and sourcing/uploading the most recent and relevant information so that employees understand the policies and processes. The CKMP aims to create a culture of safety with clear coordination between management and employees.	Brainstorming, draft preparation, consultation, research
	d) Curated Covid-19 information and knowledge from transmedia	Relevant knowledge and information that can help employees understand Covid 19 are included in the DENR News Alert and published in Facebook through the SCIS.  Compiled explicit knowledge prepared by CCS	Wider reach of general information on Covid-19 such as FAQs, facilities, vaccination, and others reach employees through facebook, twitter and other media.	Collating explicit knowledge from various sources.  Publication in transmedia and DENR Website  Pushed E-mail thru the News Alerts
	e) Design of surveys to address issues and perceptions of employees	Initial surveys developed addresses the profile of personnel in relation to vaccination. Survey on perceptions about coping with CoVid-19	Understanding employees' perceptions on CoVid-19 and vaccination profiles which includes personnel health condition and preferences help in preparation of more responsive procedures and interventions	Survey design (KISS/CCS) Analysis table Plan for execution Dashboard design for vaccination profile  Online meetings and consultation
2nd Month of implementation Jun 1-30, 21	Knowledge build-up	Knowledge being accessed and used by personnel and management to make decisions and promote a culture of safety	Personnel and management are better informed on CoVid-19 and the extent of its effect at the DENR Central Office  Employees are participating in knowledge activities thru surveys and by accessing sources of knowledge e.g. DENR Website and facebook page;	Data collection, collating knowledge products by SCIS and CCS  Design of CoVid-19 corner and access to knowledge products (DENR webpage/FB)  Live update of CoVid-19 cases by the CTT  Screenshots of Dashboard showing live updates

			Management is provided with easy to understand and appreciate data presented in graphical formal	
	a) CoVid-19 Information/Tracking Dashboard	<ul style="list-style-type: none"> <li>Central Office CoVid-19 Tracking Dashboard is fully operational and being updated, live by the CTT</li> </ul>	<p>The Dashboard is providing the CTT with an interactive tool to keep track of cases at the Central Office, including updating the CTT database.</p> <p>The Dashboard is providing management with real-time update on Covi-19 cases at the Central Office with complete data to decide on the response action to take.</p>	<p>Full transfer of the dashboard to the CTT while KISS provides technical assistance.</p> <p>Live updating of the database and dashboard which also computes data for graphical illustration.</p>
		<ul style="list-style-type: none"> <li>National CoVid-19 Tracking Dashboard (Design and Beta phase)</li> </ul>	National CoVid-19 data will be consolidated from all the other offices of the DENR for a "oneDENR" perspective	<p>Online meetings with the different Offices (Bureaus, RO, AA) Consultation: CMC, Health and Wellness, HRDS, Medical Team</p> <p>Design and development by KISS</p>
	b) 2 <sup>nd</sup> draft of the CKMP	Prepared 2 <sup>nd</sup> draft of the CKMP fully integrating aspects of KM such as DENR Pillars, Theory of Change	CKMP draft is prepared and ready to be finalized	Research, writing, consultation Online meetings
	c) Employees survey on vaccination profiling	KISS with Medical Team, Health and Wellness Team, CSS, CMC, Vaccination Coordination Group. Design of a Vaccination Profile database and dashboard	Employees can submit data that can serve to determine vaccination priorities, issues, preferences, co-morbidities and for continuing updating of employees' vaccination profile	<p>Conceptualization and design</p> <p>Research, interview, consultation with H&amp;W, Medical Team, CMC, Vaccination Group</p> <p>Finalization, roll out and turn over to the Health and Wellness Team which will manage the vaccination profile data.</p> <p>Publication of the survey instrument form and creating a weblink to be access by personnel and employees.</p> <p>KISS to provide technical assistance.</p>
	d) Employees survey on CoVid perceptions	Survey to analyze employees perceptions on CoVid-19 designed by the CSS and assisted by the KISS	Provide employees a venue to express their perceptions and views on CoVid-19 and its impact	<p>Design and conceptualization by CCS</p> <p>Survey instrument development</p> <p>Survey roll-out, analysis and interpretations</p>
	e) Curated Covid-19 information and knowledge from transmedia	CoVid-19 information are published in transmedia, pushed through e-mail through DENR Alerts.	Employees gain information that will add to their knowledge stock on the real stories and events pertaining to CoVid-19.	Research Information curation E-mail push DENR Web publication
		<p>Creation of the "One DENR" corner at the DENR Website</p> <p>CSS collated explicit knowledge on CoVid-19 from various sources</p> <p>CSS compiled information materials</p>	Employees gain access to curated and specific information and knowledge though a link at the DENR website.	Research Information curation DENR Web publication Updating

3 <sup>rd</sup> Month of implementation Jul 1-31, 21	Replication of the CKMDCCG structure	The CKMDCCG is established in all offices and the CKMP is replicated in the various offices to serve as guide in the management of CoVid-19 data, information and knowledge.	Well-organized and focused implementation of data generation and knowledge formulation is established. Employees and management have access to relevant data and using knowledge to make plans and decisions.	Online Meetings Organization of the CKMDCCG in all offices
	<p>Full implementation of strategies established in the previous month and providing the platform for data and information sharing and knowledge generation:</p> <ul style="list-style-type: none"> <li>• CKMP</li> <li>• CoVid-19 Dashboard - CO</li> <li>• CoVid-19 Dashboard - Other Offices</li> <li>• CoVid-19 Dashboard - National</li> <li>• Survey and analysis</li> <li>• Curated knowledge</li> </ul>	<p>Full implementation of the initial activities and targets.</p> <p>System of monitoring and reporting is established for the said activities.</p> <p>The CKMP is adopted and replicated in the other Offices of the DENR.</p> <p>The Dashboards are working and are used to generate data for management;</p> <p>Survey is ready to be implemented with analysis procedure established, and</p> <p>Knowledge are continuously curated and published through transmedia and other outlets.</p>	Initial activities are completed and providing data for generation of knowledge both for employees and management.	<p>Data consolidation; Report generation; Knowledge documentation and transformation to products; Conduct of surveys and analysis of results</p> <p>Submission of knowledge updates and reports to management</p> <p>Sharing of knowledge solutions among DENR offices</p>
	Inter-office network established through focal points and Health and Wellness Focal Persons of the Divisions at the Central Office; Counterpart from other Offices are also designated.	<p>Focal Persons designated;</p> <p>Common approach and collaborative effort to resolution of issues and concerns.</p> <p>Harmonized programs and strategies among designated responsible units</p>	<p>Coordination and sharing of important data for planning and decision making;</p> <p>Solution to identified issues and concerns for both employees and management considered all aspects and perspective of the issue.</p> <p>Documentation of critical data e.g. transmission levels in offices;</p> <p>Submission of best practices for development of knowledge solutions</p>	<p>Meetings Sharing of information Documentation Collaboration Consultation Levelling off</p> <p>Development of knowledge solutions for sharing</p>
	Competency on knowledge management and related skills	Improved competency on Covid-19 and knowledge management	<p>Enhanced competency for both management and employees, particularly on understanding issues related to CoVid will effectively improve response and procedure for addressing the pandemic.</p> <p>Competency improvement for handling knowledge will ensure that adequate and accurate information reaches the decision-makers for timely response.</p>	<p>Training needs assessment Competency assessment Training Webinars Orientation Workshops Knowledge sharing sessions Mentoring Knowledge application evaluation Sharing knowledge and knowledge solutions</p> <p>Designation of competent personnel</p>
	Alternative mode of knowledge sharing	Programs for alternative mode of knowledge sharing e.g. Dalaw Turo, musical programs, poetry sessions, art installations, etc.	<p>Mental health is enhanced and boosted morale by not focusing on the difficulties of the Pandemic by participating in enjoyable activities.</p> <p>Morale and attitudes are improved</p>	<p>Development of alternative programs Program execution After program evaluation</p> <p>Collaboration meetings by HR, SCIS, CCS others;</p>
	Issued policy, guidelines and issuances	Compiled issuances, guidelines and issuances from IATF, DOH, CSC, DENR and other bodies	The compilation will serve as reference as well as a source of material for	<p>Research Compilation Reproduction</p>

			publication to the "One DENR".	Publication and sharing thru DENR webpage and other venues
4 <sup>th</sup> month of implementation Aug 1-31, 21	Continuing implementation of the CKMDCCG primary activities;	Updated data, information and knowledge are continually shared to employees and reported to management	Employees and management are always informed and can make plans and decisions as necessary.  A culture of safety is felt and evident in the workplace	Continuing implementation, assessment, evaluation, updating and improvement  Meetings and consultations
	In conjunction with the rainy/typhoon season, Covid-19 response strategies are aligned with other disasters response procedures and DENR Service Continuity Plan	CoVid-19 Strategies consider the possible effect of typhoon and other disasters  Plans are approved and adopted	Strategies for CoVid-19 are defined in relation to other disasters and risks and vice versa. Health protocols of Covid-19 in case of disasters are developed and incorporated to procedures of the DRRM	Action plan preparation Updating of the Service Continuity Plan and DRRM procedures  Meetings/consultations with DRRMT  Updated Plans are approved  Information dissemination
5 <sup>th</sup> month of implementation Sep 1-30, 2021	Continuing implementation of the CKMDCCG primary activities;	Updated data, information and knowledge are continually shared to employees and reported to management	Employees and management are always informed and can make plans and decisions as necessary.  A culture of safety is felt and evident in the workplace	Continuing implementation, evaluation, updating and improvement  Meetings and consultations
6 <sup>th</sup> Month of implementation Oct 1-31, 2021	Continuing implementation of the CKMDCCG primary activities;	Updated data, information and knowledge are continually shared to employees and reported to management	Employees and management are always informed and can make plans and decisions as necessary.	Continuing implementation
	Review of the CKMP and other strategies of the CKMDCCG	Updated Strategies	The CKMP and other strategies of the CKMDCCG are reviewed through a workshop to evaluate its continuing relevance and usefulness in consideration of a possible change in the CoVid-19 situation.	Evaluation workshop Documentation Report writing Policy recommendation
	Good practices gathered from the different offices are documented as knowledge solutions and shared	Shared knowledge solutions, good practices and lessons learned	The documentation of implementation of CKMP can generate valuable lessons for the improvement of tacit knowledge that can also be incorporated to the overall Disaster Risk Reduction strategies of the DENR. The strategies for service continuity will add anew dimension to DRR and public service.	Documentation of Good practices Sharing of lessons learned
7 <sup>th</sup> Month of implementation and Onward	Implementation of updated and enhance CKMDCCG primary activities;	Updated data, information and knowledge are continually shared to employees and reported to management	Employees and management are always informed and can make plans and decisions as necessary.  Enhanced culture of safety	Revision and enhancement Continuing implementation  Online and mixed physical meetings

## VI. Implementation arrangement

The CKMP shall be implemented in pursuant to Special Order No. 2021-201 which require that all Offices in the Central and Regional Offices, Bureaus, Attached Agencies shall participate in the development of interventions and new proposals, linked to the assessed needs and gaps. The Bureaus, Attached Agencies and Regional Offices, PENROs and CENROs are directed to replicate the implementation arrangement in their respective offices, as may be appropriate.

#### a. Responsibility and authority

The CKMDCG Coordinator shall oversee the implementation of the CKMP with the Deputy Coordinators and Secretariat, including monitoring and submission of reports and updates to the CMC and the Secretary, and

The CKMDCG shall ensure that all Offices of the DENR replicates, adopts and implement their respective CKMP.

#### b. Budget and support

Sufficient funds shall be allocated for the implementation of the CKMP for activities not covered by existing funds of concerned offices, subject to the preparation of WFP.

#### c. Leveraging

In addition to the above arrangement, the CKMP shall leverage on the participation of the following units and offices and their equivalent in the Bureaus, Attached Agencies and Regional Offices in the acquisition, sharing and use of knowledge:

DENR Unit	Type of knowledge / Knowledge process
Administrative Service	Workplace safety including prevention of transmission at the workplace.
Human Resources Development Service	Training, seminars, webinars, information and knowledge sharing sessions, mentoring and tacit knowledge documentation and sharing.
Knowledge and Information Systems Service	Data and information system management for COVID-19 cases and tracking through Dashboard, survey development and analysis of data; Webpage management and network infrastructure support.
Health and Wellness Team	Health related interventions, co-morbidity management, health monitoring and tracking and vaccine profiling.
DENR Medical Team	Expertise in managing communicable diseases, health monitoring and other requirements for health protocols.
Contact Tracing Team	Immediate response to reported cases and tracking contacts and situation reporting.
GAD Focal Points	Ensuring that the well-being of personnel is being addressed and, indirectly, their families as well as empowering employees.
SCIS	Transmedia knowledge releases, monitoring of explicit knowledge from different sources, development of knowledge materials; Webpage and social media management; Communicating the CKMP to DENR offices and employees and stakeholders.
Personnel Division	Personnel related information necessary for focused intervention among employees.
DENR DRRMT	Experience in disaster response, crafting of the DENR Service Continuity Plan.

#### d. Report and Monitoring

The CKMDCCG will monitor the implementation of the CKMP. The Secretariat will compile and process submitted data and knowledge materials on CoVid-19 and prepare updates for the coordination group, the CMC and management.

An implementation report shall be prepared by all offices at the end of the six (6) months period to highlight CoVid-19 data and related knowledge products as well as knowledge solutions that were documented to be shared to other offices.

## **VII. Implementation, Evaluation and Improvement**

The implementation of the CKMP shall be for a period of six (6) months. A review of the effectiveness of the Action Plans and achievement of identified outcomes will be considered for review, including suitability and relevance of knowledge acquired, generated or shared and their effectiveness in providing basis in overall decision-making, effecting change and promotion of culture of safety.

The CKMP shall be updated and improved as necessary to ensure its relevance and adapt to future requirements addressing knowledge in relation to disaster preparedness, response and mitigation of the current crisis and pandemic and as necessary, to align with the overall disaster preparedness and response management strategies of the Department.