

# PIP Guidance Note for Districts

FY. 2026-27, 2027-28

## National Programme on Climate Change and Human Health

National Programme on Climate Change and Human Health (NPCCHH) is a flagship programme of Ministry of Health and Family Welfare shaping health system response to climate change in the country with goal to reduce morbidity, mortality, injuries, and health vulnerability to climate variability and extreme weather events. The actions taken under the programme to spread general awareness, build capacity of health care workforce and strengthen health system structurally and functionally in coming years will determine our health system's adaptive capacity to increasing and compounding impacts of various climate sensitive diseases and health impacts ranging from increased vector and water borne diseases, food insecurity, heatwaves, flooding and other disasters that are predicted to be more frequent/severe.

NPCCHH, launched in 2019, has been establishing **organizational framework** and rolling out **activities** according to its five key objectives. To fulfil its vision, establishment of district level organizational structure i.e., **District Nodal Officer-Climate Change (DNO)** and **District Multisectoral Task Force (DTF)** in all the districts is a priority. They are important for timely implementation and adequate attention to local vulnerabilities. DTF is vital to identify locally relevant climate change and health issues and focus NPCCHH activities through DNO with support from various concerned departments to increase awareness among population and strengthening health care. **District Action Plan on Climate Change and Human Health (DAPCCHH)** is an essential document allowing districts to pre-plan response of health sector to each climate sensitive health issues and allocate resources. DAPCCHH should be finalized by all the districts by end of **2025**.

The **guidance note** enclosed here should guide district health officials on priority activities and key targets under NPCCHH for financial years 2026-27 and 2027-28. Out of 17 climate-sensitive diseases identified, heat-related illnesses, air pollution related diseases, green (environmentally friendly and sustainable) and climate resilient infrastructure are addressed solely addressed under the programme. NPCCHH also addresses vector-borne illnesses, water-related health issues and mental health in context of climate change. IEC and training at all levels will cover all these subject specific areas in context of climate change. National Heat-Related Illness and Death Surveillance and Acute Respiratory Illness surveillance in context of Air Pollution are important tools implemented at district level that allows monitoring of health impact of these two hazards. Simultaneous focus should be given to adoption of environmentally friendly (green) and resilient measures like energy audit, solarization etc for health care facilities based on local vulnerability. State and central NPCCHH will be providing all necessary support to achieve these targets.

National Programme on Climate Change and Human Health (NPCCHH) 3

District Level Organizational Framework 4

Proposed District Level Activities 5

**1. Awareness Generation 5**

**2. Capacity Building 8**

**3. Strengthening Health Preparedness and Response 11**

A... Heat-related illnesses 11

B... Air pollution related diseases in context of climate change 12

C. Green (Environmentally friendly and sustainable) and Climate Resilient infrastructure 15

D... Vector-borne diseases in context of climate change 20

E... Extreme weather events related health impacts 22

**4. Research on Climate Change and Health 22**

**5. Mission LiFE Converge with NPCCHH Program Activities 24**

## **Annexures**

|                                                                                                                   |    |
|-------------------------------------------------------------------------------------------------------------------|----|
| 1. Climate Sensitive Diseases under NPCCHH .....                                                                  |    |
| .....22                                                                                                           |    |
| 2. District level Multi-Sectoral Taskforce.....                                                                   | 23 |
| 3. Suggested IEC activities and Dissemination Plan.....                                                           | 24 |
| 4. Quarterly reporting format.....                                                                                | 25 |
| 5. Requirements for Heat Stroke Rooms.....                                                                        | 29 |
| 6. Unit costs for Green & Climate Resilient Healthcare Infrastructure.....                                        | 32 |
| 7. NPCCHH Key Deliverables and Targets for Activities.....                                                        | 33 |
| 8. Available District-level Hazard/Vulnerability Mapping to Identify Priority Areas for Planning and Actions..... |    |
| .....36                                                                                                           |    |

|                                                                                                                       |    |
|-----------------------------------------------------------------------------------------------------------------------|----|
| 9. Benchmark Costs for Grid Connected Rooftop Solar Photovoltaic Systems by Ministry of New and Renewable Energy..... | 38 |
| 10. Reflecting Budget Heads for Proposed Activities.....                                                              | 39 |

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## NATIONAL PROGRAMME ON CLIMATE CHANGE AND HUMAN HEALTH (NPCCHH)

**FY. 2026-27, 2027-28**

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- This guidance note describes activities and deliverables under NPCCHH at the District level in three of its five key objectives (Table 1) and targets (Annexure 8) for FY 2026-27, 2027-28.
- Goal of the programme: to reduce morbidity, mortality, injuries, and health vulnerability to climate variability and extreme weather.

| Table 1: Key objectives of NPCCHH                                                                                                                                                  |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| 1. <b>Awareness Generation</b> among the population especially vulnerable communities, health-care providers and policy makers regarding impacts of climate change on human health |  |
| 2. <b>Capacity building of healthcare system</b> to reduce illnesses/ diseases due to variability in climate                                                                       |  |
| 3. <b>Health sector preparedness and response</b> including at district level, facility and community level                                                                        |  |
| 4. To <b>develop partnerships and create synchrony</b> / synergy with other missions, departments and health, non-health programmes                                                |  |
| 5. To <b>steer research</b> on climate change and health                                                                                                                           |  |

Accordingly, 17 Climate Sensitive Diseases (CSDs) or health issues are identified for focused action and integration under NPCCHH (**Annexure 1**). **Five** priority areas and **two emerging areas** at present under NPCCHH at District level are:

1. Air Pollution Related illnesses
2. Heat-related illnesses
3. Green (environmentally friendly and sustainable measures) and Climate Resilient infrastructure
4. Extreme weather events related health impacts
5. Vector-borne diseases in context of climate change
6. Mental health in context of climate change
7. Water-related health issues in context of climate change

## DISTRICT LEVEL ORGANIZATIONAL FRAMEWORK

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Ensuring establishment of the organizational structure is important for effective roll out of the programme. At district level, following structure should be ensured (Details in Annexure 2)

1. District Multi-sectoral Task Force
2. District Environmental Health Cell with a District Nodal Officer-Climate Change (DNO)

## PROPOSED DISTRICT LEVEL ACTIVITIES

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### 1. Awareness Generation

To increase general awareness among all the relevant stakeholders including people especially vulnerable communities, health-care providers and policy makers regarding impacts of climate change on human health and ways to address them.

#### a. **Awareness generation and Behaviour Change Campaign**

The programme aims to create awareness, promote behaviour change and encourage health promotive practices through development of locally and culturally appropriate messages in posters, audio, video, organising public health events, issuing advisories related to climate change and human health. The aims of the campaign is to reach the most vulnerable with accurate and reliable actionable information that helps them protect themselves, identify and seek timely care.

Local, context specific activities may be undertaken to ensure that those most likely to be affected are reached through a combination of Inter-personal Communication and targeted outreach activities. (Example- Urban Poor, migrants, those living in remote/hard to reach areas, illiterate, elderly people living alone etc.)

The content for the IEC for the all the climate sensitive issues will be provided by the national and state level teams of NPCCHH. Districts may utilise these materials for dissemination at all levels. The list of IEC activities and the dissemination plan at the district level (**Annexure 3**).

The district is also encouraged to develop indigenous IEC material with respect to the mentioned climate sensitive issues. Districts may utilise social media platform for propagating the climate sensitive issues as a means of wider and speedy method for creating awareness.

ASHA, ANM and CHO maybe encouraged to utilize **community engagement platforms** e.g., Village Health Nutrition and Sanitation Committee (VHNSC), VISHWAS,, Jan Arogya Samitis, Village Water and Sanitation Committee (VWSC) and Pani Samitis for awareness generation and behaviour change communication.

#### **b. Public Health Advisories**

Health advisories are issued to alert population of potential harmful impact of impending environmental phenomena like cold wave/ frost, heat wave and elevated air pollution. Advisories are issued at central and state level and forwarded to Districts for public dissemination.

District should ensure timely dissemination of health advisories in locally acceptable language/s.

Public health advisories are available on-air pollution, heat wave/extreme heat, cold wave/frost, floods at <https://ncdc.mohfw.gov.in/centre-for-environmental-occupational-health-climate-change-health/>

#### **c. Observance of important days on environment and health**

Following days may be observed and activities to create community awareness

1. World Water Day (March 22)
2. World Health Day (April 7)
3. World Asthma Day (May 5)
4. Global Heat Action Day (June 2)
5. World Environment Day (June 5)
6. International Day of Clean Air for blue skies (September 7)
7. World Environmental Health Day (September 26)
8. World Mental Health Day (October 10)
9. International Day for Disaster Risk Reduction (October 13)
10. International Day of Climate Action (October 24)
11. National Pollution Day (December 2)

Districts are encouraged to ensure mobilization of youths in the district by involving schools and colleges in the district. To this effect **Community Health Officers (CHOs) at the Health Wellness Centres in the district may plan activities to observe days and may coordinate for this with School Health Wellness Ambassadors/NYK/NSS/Bharat Scouts and Guides** in their area.

At the district, sub-district, facility and community levels; it is recommended to arrange following community engagement activities:

- **Health facility based:** health awareness sessions, cleanliness drive,
- **Community setting based:** mass meetings, rallies, local/community radio programmes, tv programmes, street plays, mic-ing, etc.
- **Sports events:** athletics, cycling
- **Competitions** (such as essay writing, drawing, rangoli, etc) and quiz

d. **Monitoring and Supervision of Awareness generation and behaviour change activity**

To strengthen the awareness generation and behaviour change activities at District level and sub district level, monitoring and supervision should be given equal importance. DNO and members of DEHC should visit villages and health facilities to facilitate and monitor the community engagement activities. The detail **Quarterly Reporting Format** is **attached in Annexure 4**. The DNO/DEHC should compile proper quarterly reports with photographs and send to the State; and States to share with the NPCCHH. Reports of observance of important days should be prepared separately with details and photographs and transmitted to State; State to NPCCHH at npcchh-hq.ncdc@ncdc.gov.in.

## 2. CAPACITY BUILDING

To strengthen capacity of healthcare system to adapt/address illnesses/ diseases due to variability in climate and extreme weather events.

a. **Training on climate change and health**

Training plan on various health impacts of climate change is as follows:

| Table 2: NPCCHH Training plan at District level |         |              |                  |
|-------------------------------------------------|---------|--------------|------------------|
| Training Programme                              | Trainer | Participants | Training content |
| a. DNO and                                      | State   |              |                  |

|                                                                                             |                                                      |                                                                                                                                                                    |                                                                                                                                |
|---------------------------------------------------------------------------------------------|------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| members of the District Climate Health Cell                                                 | Trainers, SNO                                        | DNO, Epidemiologists                                                                                                                                               | DAPCCHH<br>((drafting/implementation)                                                                                          |
| b. Specialists                                                                              | District Level Trainers<br>DNO                       | Specialists<br>(DH/SDH/CHC)                                                                                                                                        | Priority Climate sensitive health issues<br>(Recommended schedule in Table 3)                                                  |
| c. Medical officers                                                                         | District Level Trainers<br>DNO                       | MO, AYUSH MOs<br>(DH/CHC/PHC/HWC)                                                                                                                                  |                                                                                                                                |
| d. Programme and Community Process Managers, Health Education Officers, Data Entry Officers | District level Trainers                              | District and Block level Programme Manager (DPM/BPM) and Community Process Manager (DCPM/BCPM), District and Block Health Education Officers, Data Entry Operators |                                                                                                                                |
| e. Allied and Healthcare professionals                                                      | District Level Trainers, DNO, Medical Officers       | Staff Nurse, Laboratory Technician, Pharmacist, EMTs, Other Support Staff                                                                                          |                                                                                                                                |
| f. Supervisory Staff                                                                        | District and Block level Trainers                    | Health Supervisor, Lady Health Visitor, ASHA Coordinator/Supervisor                                                                                                |                                                                                                                                |
| g. Community Health Officers/workers (HCW)                                                  | District Level Trainers, MO                          | Community Health Officers/ Workers (CHO, ANM/PHN, MPW, ASHA)                                                                                                       |                                                                                                                                |
| h. Panchayati Raj Institutions/Urban Local Bodies )                                         | District level trainers, MO, Health care workers     | Panchayati Raj Institutions/Urban Local Body officials                                                                                                             |                                                                                                                                |
| i. Sentinel Surveillance Nodal Officers                                                     | State Level Trainers, District Level Trainers<br>DNO | Sentinel Surveillance Nodal Officers                                                                                                                               | ARI Surveillance data collection and monitoring on IHIP                                                                        |
| j. Identifying and                                                                          |                                                      |                                                                                                                                                                    | <ul style="list-style-type: none"> <li>• Health impact of extreme heat</li> <li>• Identification and categorization</li> </ul> |

|                                             |                             |                                                                                                            |                                                                                                                                                                     |
|---------------------------------------------|-----------------------------|------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| reporting Heat-related deaths               | District level trainers/DNO | Police officials                                                                                           | of heat-related deaths <ul style="list-style-type: none"> <li>• Coordination of heat-related death reporting in IHIP portal, MoHFW</li> </ul>                       |
| k. Medical College                          | District Level trainers/DNO | Faculty, Post Graduate Students and staff of Medical College                                               | Priority Climate sensitive health issues                                                                                                                            |
| l. Health professionals from private sector | District level trainers/DNO | Health professions from private sector (by engaging with professional organisations like IMA/IAP/FOGSI/API | Priority Climate-sensitive health issues, participation in surveillance systems under NPCCHH, strengthening facility level preparedness and coordination during EWE |

Modules for the training will be provided by NPCCHH and also available at NPCCHH webpage at <https://tinyurl.com/NPCCHHnew>. Training subjects should be selected in a way that training of facility and field level staff on prevalent seasonal CSDs in the district are completed before possible seasonal increase in the CSDs. For example, training on heat-related illnesses, air pollution related illnesses and vector-borne diseases should be before summer, winter and monsoon respectively, to ensure health facility preparedness and remain vigilant for identification of illnesses in the population.

A new initiative planned under the programme is to set up and operationalise the Model Climate Health Service Learning Hub at SIHFW/SHRSC/Medical Colleges in 6 new states per year to provide practical hands-on training to strengthen skills of master trainers on new procedures like emergency cooling in facility and field settings and management of cardio-respiratory emergencies due to Air Pollution.

#### b. **HRI and ARI Surveillance Training**

A training on surveillance of HRI on IHIP portal and Air Pollution Related Illness Surveillance through NOADS to be organised in each district, specifically before the peak season.

**Table 3: Recommended schedule of training**



| Time of year     | Content matter                                                                                                                                                                                                                                                                                                                                                                                           |
|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| February-March   | <ul style="list-style-type: none"> <li>• Heat-related illnesses including HRI surveillance reporting on IHIP</li> <li>• Disaster related health issues</li> <li>• Green &amp; Climate resilient infrastructure</li> </ul>                                                                                                                                                                                |
| April-June       | <ul style="list-style-type: none"> <li>• Vector borne diseases</li> <li>• Zoonotic diseases</li> <li>• Water borne diseases</li> <li>• Food security and Nutrition related illnesses</li> </ul>                                                                                                                                                                                                          |
| July-September   | <ul style="list-style-type: none"> <li>• Air pollution-related illnesses including ARI surveillance reporting through NOADS app</li> <li>• Cardio pulmonary diseases</li> <li>• Allergic diseases</li> </ul>                                                                                                                                                                                             |
| October-December | <ul style="list-style-type: none"> <li>• Climate change and health impacts (generic and climatic zone-wise)</li> <li>• Mental Health, Occupational health</li> <li>• Coastal Climate Sensitive Diseases (<i>if applicable</i>)</li> <li>• Hilly region and/tribal region-specific Climate Sensitive Diseases (<i>if applicable</i>)</li> <li>• <i>Vulnerability Assessment on CC &amp; HH</i></li> </ul> |

- c. **Sensitization/knowledge building workshops** should be planned for seeking updates on various climate sensitive issues between District Officials, Medical Officers and academic institutions working on environment or climate change impact.

### 3. STRENGTHENING HEALTH PREPAREDNESS AND RESPONSE

To strengthen health preparedness and response

#### A. Heat-related illnesses

## 1. Climate-Health Surveillance

### a. National Heat-Related Illnesses and Death Surveillance

HRI surveillance is conducted to establish a baseline of HRI morbidity and mortality, to monitor HRI incidence in relation to environmental parameters and improve health system preparedness to extreme heat.

According to National Disaster Management Authority (NDMA), there are 23 States/UT (Andhra Pradesh, Bihar, Chhattisgarh, Delhi, Gujarat, Haryana, Jharkhand, Karnataka, Maharashtra, Madhya Pradesh, Odisha, Punjab, Rajasthan, Tamil Nadu, Telangana, Uttar Pradesh, Kerala, Goa, Uttarakhand, Jammu & Kashmir, West Bengal, Arunachal Pradesh and Himachal Pradesh) which are vulnerable to widespread impacts of extreme heat. However, most

States/UTs of India have witnessed increased annual average temperatures over last decade and recent rise in humid heat.

As such, all States/UTs are required to report in HRI surveillance on IHIP portal. All health facilities (PHC and above) should collect and report HRI data **daily throughout the year**, by login on <https://ihip.mohfw.gov.in/npcchh> using their existing p-form level credentials. Aggregate data of emergency footfall and facility-based deaths and patient-level data of suspected heatstroke cases, suspected heatstroke deaths, confirmed cardiovascular and confirmed heatstroke deaths should be entered by the health facilities. The data collection formats are based on National Action Plan on Heat Related Illnesses (NAPHRI) and referred at <https://tinyurl.com/NatHeatActionPlan>.

DNO to monitor reporting by health facilities and track health indicators to prepare and respond to extreme heat's impacts on their district's population on IHIP dashboard

All suspected heatstroke deaths in the district should be confirmed/investigated [Clinical confirmation by treating physician or autopsy or death investigation form (verbal autopsy) or three-member committee] and reported as such on IHIP portal. Autopsy is not mandatory. Autopsy Findings in Heat-Related Deaths: [https://ncdc.mohfw.gov.in/wp-content/uploads/2024/03/Autopsy-Findings-in-Heat-Related-Deaths\\_March24\\_NPCCHH.pdf](https://ncdc.mohfw.gov.in/wp-content/uploads/2024/03/Autopsy-Findings-in-Heat-Related-Deaths_March24_NPCCHH.pdf)

## 2. Health facility preparedness

All health facilities in a district should ensure implementation of NAPHRI to prepare health facility to prevent and manage HRI cases.

### **Health Facility and Ambulance Preparedness for Emergency Management of Severe Heat-Related Illnesses**

**Immediate and rapid cooling of a patient suffering from heat exhaustion or suspected heat stroke is essential and lifesaving.**

To ensure provision of rapid cooling (immersive and evaporative) and supportive care during heat-related emergencies at health facility and at community levels, development of Heat Stroke Rooms and preparedness of Ambulances will be supported through PIP, beginning FY 24-25, under NPCCHH.

A dedicated **Heat Stroke Management Unit/Room** will be set up at DHs, SDHs and CHCs in the vulnerable districts of above-mentioned heat vulnerable states, which should remain functional from

**1<sup>st</sup> March to 31<sup>st</sup> July.**

Heat vulnerable districts of a state will also equip **ambulances** to provide emergency cooling and supportive care for HRI cases at field level. Such

ambulances will be used to strengthen on-field, in transit cooling and referral services from community/HWC/PHC level to the nearest Heat Stroke Management Unit.

**The specific logistical requirements and key deliverables for the Heat Stroke Management Units and equipping ambulances is attached in Annexure 5 and 7, respectively.**

### 3. Early warning and alert

District to collect information on weather parameters and heatwave predictions from state meteorological department during summer and issue warning to the health care facilities of impending heatwave. District-wise warnings are at <https://mausam.imd.gov.in/responsive/districtWiseNowcastGIS.php>

#### B. aIR POLLUTION rELATED Diseases in context of climate change

### 1. Health Sector Preparedness and response to Air Pollution Related Diseases

The health sector plays an important role in managing the health impacts arising from air pollution through strengthening healthcare facilities, enhancing coordination, and intensifying public awareness.

Key components include:

- Activation of health action plans during elevated Air Quality Index (AQI) events and coordination with related departments (Environment, Pollution Control Boards, Transport, Urban Development, Power, Municipalities, Traffic Departments, etc.) for comprehensive IEC campaigns.
- Orientation and training of doctors and healthcare staff to recognize and manage air pollution-related health issues.
- Strengthening health care services across multiple areas including General and special OPDs, Emergency services, Referral services, Ambulance services, and Outreach programs.
- Ensuring availability of essential medications for acute respiratory, cardiovascular, and cerebrovascular conditions.
- Provision of diagnostic and laboratory services for early and accurate diagnosis.
- Availability of critical medical equipment such as oxygen supply, nebulizers, ventilators, and adequate hospital infrastructure including beds, stretchers, wheelchairs, and ambulances.
- Strict daily monitoring of AQI by health facilities during high pollution periods, with timely dissemination of AQI values and health advisories to the public.
- Intensifying public awareness efforts targeting vulnerable groups including

school children, college students, elderly, women, and patients with pre-existing respiratory, cardiovascular, or cerebrovascular diseases.

- Strengthening healthcare service provisions at all levels—from primary health centers to tertiary care—including human resource deployment, logistics, and bed capacity augmentation when necessary.
- Surveillance of respiratory, cardiovascular, and cerebrovascular case trends in healthcare facilities, with data sharing among relevant departments to guide timely interventions.
- Engaging civil society and private healthcare facilities to augment efforts in managing the health impacts of air pollution.

## **Provision of services for Air Pollution-Related Cardio-Pulmonary Illness through the special CHEST Clinic**

### **Purpose**

The purpose of the CHEST clinic is:

1. **Screening and risk communication** for air pollution-related cardio-pulmonary diseases
2. Among patients already suffering from cardio-pulmonary illnesses-**establish possible causes (including Air Pollution) and confirm diagnosis**
3. **Provide standard care** to patients suffering from cardio-pulmonary illnesses
4. **Promote behaviour change and adoption of healthy practices** to potential and diagnosed cases of air pollution-related cardio-pulmonary illnesses

### **Setting up a chest clinic**

CHEST Clinic may be established at CHC, SDH (Subject to the availability of specialists), District hospitals, and Medical Colleges in urban areas, covering all such facilities in NCAP cities initially. (Reference: Pollution Control Board data).

**During the peak air pollution months (usually from September to March), the clinics are expected to function for a fixed duration of at least two hours daily.**

### **Screening of patients for risk factors**

The staff nurse posted in the clinic would also be responsible for screening the patients to ascertain risk factors using a standard proforma (**Annexure- 6- CHEST Clinic- Screening tool for Air Pollution**). A register of individuals identified as being at high risk is to be maintained, and details of the high-risk individuals may also be shared with the respective blocks for community-based follow-up through ASHA, ANM, and CHO (**Annexure 6- CHEST Clinic- Format 1**).

### **Confirmation of diagnosis and provision of care**

Based on the clinical evaluation (including history, examination, and evaluation), a diagnosis may be arrived at and recorded utilising ICD Code in the CHEST Clinic register (**Annexure 6- CHEST Clinic- Format 2**). Provision of standard care may be initiated on an outpatient basis or in the

casualty/emergency/ward/ICU as per need. The Standard Treatment workflow for Pulmonology by ICMR (2019) may be used for the same.

#### **Follow-up and continuum of care**

The patient and at-risk individuals may be linked to their respective HWC, PHC, and CHC for continuation of medications and follow-up. For stable patients, a follow-up at the CHEST Clinic may be scheduled once a quarter or once in six months, as decided by the treating physician.

#### **Record maintenance and reporting**

All the aforementioned formats need to be maintained by the Staff nurse under the overall supervision of the Chest Physician/Physician/GDMO. A summary of the collated data can be collected through State/national-level digital tools, such as IHIP.

#### **Linkage with other programmes/services**

The CHEST clinic can be combined with the NCD Clinic, operated under the NP-NCD. In the presence of specific risk factors, bi-directional referral is encouraged between the CHEST Clinic, Tobacco Cessation clinics, and the TB Unit.

#### **Unit costs for drugs/equipment**

Unit costs for the drugs and equipment will be similar to the MoHFW and State government norms.

## **2. Surveillance on air pollution related illnesses in all States**

The objective of the surveillance are to estimate the disease burden and trends of air pollution related illnesses (APRI), assess the health impact of air pollution, gather area-specific health impact data, and use this information to guide control measures, allocate health resources, and recommend effective case management.

- For initiation of ARI surveillance, selection of cities can be done from the list of cities where air quality measurement system of any of CPCB/SPCB/SAFAR is established or 122 cities of NCAP. ([https://cpcb.nic.in/uploads/Non-Attainment\\_Cities.pdf](https://cpcb.nic.in/uploads/Non-Attainment_Cities.pdf))
- City having higher level of AQI are to be selected first for this ARI surveillance. During selection of the city, it is expected that both highest value and average value of AQI during span of last one year is to be considered.
- The identified sentinel hospitals (preferable Medical Colleges/District Hospitals /Hospitals with large patient inflow) should collect daily data and shared to the District Nodal Officer in suggested formats in HAP developed by NCDC.

- DNO to analyse ARI surveillance data with Air Quality Levels (AQI) from air quality monitoring centre from respected city of the hospital and send a **monthly surveillance analysis report** to the state and to NCDC throughout the year.

All health facilities in a district (PHC and above) in 131 non-attainment cities and cities with high air pollution levels should ensure implementation of the plan to prepare health facility to prevent and manage ARI cases.

### 3. Early warning and alert

Districts to collect information on Air Quality Data from State Pollution Control Board and issue warning to the health care facilities for preparedness in context of air pollution health Impacts.

The System for Air Quality Forecasting and Research (SAFAR), developed by IITM and operationalized by IMD, provides real-time air quality data and 1–3-day forecasts for metropolitan cities including Delhi, Pune, Mumbai, and Ahmedabad. (Website- <https://ews.tropmet.res.in/> Download the AIRWISE-Safar app from playstore). These forecasts assist officials with early warnings and help the public take preventive actions. The forecasts cover regional and city-specific pollution scenarios, including non-attainment cities.

State, District and City programme officials must regularly monitor air quality (AQ) forecasts available for their respective areas. Based on the severity of pollution levels, they are responsible for implementing appropriate health-related measures, such as issuing health advisories to raise public awareness.

C. Green (Environmentally friendly and sustainable) and Climate Resilient infrastructure

#### Defining the concepts of adaptation and mitigation

- **Green Healthcare facility Infrastructure (Climate Resilience and Mitigation)**

Health facility operations depends on availability of electricity, however during times of climate induced extreme events, often the power supply is either cut off or is irregular, thereby reducing the facility's ability to provide essential and emergency health services at a time where the demand is higher than usual. Additionally, health care including hospitals, health systems and the health products supply chain contribute to emissions from the entire lifecycle of their operations. Healthcare systems, hence, have a responsibility to adopt sustainable, low-carbon solutions to mitigate and reduce their own climate footprint.

- **Climate Resilient Healthcare facility infrastructure (Adaptation)**

Detail concepts and implementation process on various Green and Climate Resilient measures are at

**1. Guidelines for Green and Climate Resilient Healthcare Facilities**

<https://tinyurl.com/GCRguidelines>

**2. Guidelines for Solar Powering Healthcare Facilities**

<https://tinyurl.com/HFSolarization>

**Green and Climate Resilient Healthcare Facilities infrastructure activities supported through PIP proposals are as following ( DetailsAnnexure 6)**

Climate resilient Healthcare Infrastructure refers to the capacity of healthcare facility to adapt, reorganize and evolve to be better prepared for future disasters and climate change impacts. Health care facilities need to take effective measures to withstand the impacts of increasing extreme weather events and other climate-related hazards such as higher temperatures, increasing precipitation over longer periods of time (causing increased flooding), intense but short-lived rainfall (causing flash flooding), decreasing precipitation (affecting places where rainwater harvesting contributes to the water supply systems of health care facilities), and higher winds and storms.

**1. Energy Auditing of the Healthcare Facilities for Energy Efficiency level in the HCFs (Climate Resilience and Mitigation Measures from health sector)**

- The Healthcare Facilities are one of the major contributors to energy consumption and greenhouse gases (GHG) emissions. The fundamental goal of energy management is to produce goods and provide services with the least cost and least environmental effect.
- The scope of the activity would be the identification of Energy saving schemes in the facility along with the cost-benefit analysis. The study would cover field measurements and data analysis to identify saving possibilities in the utilities.
- All the level of healthcare facilities (PHC and above) should be considered for conducting the energy auditing.

**Procedure**

- District Nodal Officer (DNO)-NPCCHH should submit proposal to conduct Energy auditing in healthcare facilities (PHC and above) through District Nodal Agency of Bureau of Energy efficiency (BEE) in the district.
- If the District Nodal Agency of Bureau of Energy efficiency (BEE) is not available in the district, DNO has to submit the proposal through the State

Nodal officer (SNO)-NPCCHH. SNO further submit the proposal to the State Nodal Agency of BEE

- If the proposal has approved, District Nodal Agency of BE) in the district themselves will conduct the activity in Districts.
- DNO should monitor the activity and should submit a report to SNO and subsequently to NCDC.

## **2. Replacement of existing (non-LED) lighting with LED in Healthcare Facilities (Energy Efficiency Measure)**

- LEDs use one-third of the energy consumed by fluorescents, and their lifespan is five years longer. By making the switch to LEDs, hospitals and health systems can minimize maintenance costs, improve quality of lighting, and reduce emissions.
- So, in order to reduce the carbon emission Healthcare facilities (PHC and above) to preferably utilize LED in Healthcare Facilities.

### **Procedure**

- DNO should submit proposal to conduct replacement of existing lighting with LED in Healthcare Facilities (PHC and above) through District Nodal Agency of Bureau of Energy efficiency (BEE) in the district.
- If the District Nodal Agency of Bureau of Energy efficiency (BEE) is not available in the district, DNO to submit the proposal through the State Nodal officer Climate Change. SNO further submit the proposal to the State Nodal Agency of BEE.
- If the proposal has approved, State/District Nodal Agency of BEE in the District themselves will conduct the activity in Districts.
- If the Budget for this activity is not available through BEE, then the budget can be proposed under Green Healthcare Infrastructure in NPCCHH Programme under NHM.
- DNO has to monitor the activity and should submit a report to SNO and subsequently to NCDC.

## **3. Installation of Solar Panels in Healthcare Facilities**

- Use of renewable energy provide energy independence to health care services which is especially relevant for their continued functioning during extreme weather events and in remote areas. It imparts climate resilience to health care services. Hence, emphasis is given to off-grid (decentralized) solar power system installation for health care facilities.
- Health-care facilities can significantly cut greenhouse gas emissions and energy costs over time by using alternative forms of clean and renewable energy – such as solar energy. It also reduced cost on energy and increases savings.
- For, type of Solar Power Systems and their benefits refer: Standard Operating Procedure for solarization of Healthcare Facilities  
<https://tinyurl.com/NPCCHHnew>

### **Procedure**



- DNO should submit a proposal to conduct installation of solar panels in healthcare facilities (PHC and above) to District Nodal Agency of Renewable Energy Development Authority (REDA) in the district.
- If the District Nodal Agency of REDA is not available in the district, DNO has to submit the proposal through the State Nodal officer Climate Change. SNO further submit the proposal including **5-year Operation and Maintenance component** to the State Nodal Agency of REDA. Refer: Operation and Maintenance Guidelines (2025) at <https://tinyurl.com/NPCCHHnew>
- 20-30% subsidy will be obtained from MNRE for grid-connected solar panel systems and the remaining money may be proposed under the budget Head of Infrastructure – Civil works under NPCCHH in the NHM PIP Process by the District.
- If the proposal is approved, State/District Nodal Agency of REDA in the District themselves will conduct the activity in Districts.
- **Pre-solarization health facility assessment tool** at [https://nise.res.in/ncdc\\_portal/DownloadAPK/app-npcchh.apk](https://nise.res.in/ncdc_portal/DownloadAPK/app-npcchh.apk) (APK format) should be used to assess the facility and its energy requirements by REDA or relevant stakeholders installing solar panels.
- DNO is to monitor the activity and should submit a report to SNO and subsequently to NCDC.

#### 4. Install Rainwater Harvesting System in Healthcare Facilities

- El-Nino weather conditions are associated with reduced monsoon rainfall, higher temperatures and droughts in India. As El-Nino conditions have developed in 2023, possibility of extreme heat and drought increases. Therefore, passive cooling and rainwater harvesting installation measures should be seriously prioritized in drought-prone areas. Rainwater harvesting (RWH) is promoted as a climate change adaptation measure to relieve urban water supply and drainage pressures. Rainwater harvesting for healthcare facilities has the potential to save thousands of litres of mains water every year. This in turn can result in substantial cost savings and of course contribute to alleviating stormwater run-off.

##### Procedure

- District Nodal Officer-Climate Change to identify Healthcare Facilities (PHC and above) in the districts to Install Rainwater Harvesting and get an estimate from Dept. of Public works (PWD) and submit proposal to Department of Water and Sanitation under Ministry of Jal Shakthi in the District. If the fund is not available through Ministry of Jal Shakthi, then District may propose this activity under the Budget Head of Infrastructure – Civil works under NPCCHH.
- If the Budget for this activity is not available through Ministry of Jal Shakthi, then the budget can be proposed under Green Healthcare Infrastructure in NPCCHH Programme under NHM.
- After getting the funds the work has to be submitted to Dept. of Public

works (PWD) to complete the activity.

- DNO has to monitor the activity and should submit a report to SNO and subsequently to NCDC.

## 5. Retrofitting Healthcare Facility Infrastructure (Climate/ Disaster resilient) in Districts as per GCR guidelines.

- A climate resilient healthcare system is one that ensures an adaptive framework that helps it respond adequately and appropriately in the event of an acute climatic event.
- Health care facilities need to take effective measures to withstand the impacts of increasing extreme weather events and other climate-related hazards such as higher temperatures, increasing precipitation over longer periods of time (causing increased flooding), intense but short-lived rainfall (causing flash flooding), decreasing precipitation (affecting places where rainwater harvesting contributes to the water supply systems of health care facilities), and higher winds and storms.
- Thus, with climate change increasing the risk of severe impacts on health care facilities and placing complex, multifaceted and unpredictable demands on health systems, all new investments in the health sector should contribute to building resilience to climate change.

### Procedure

- District Nodal officer to identify commonly occurring extreme weather/climatic events occurring in the district
- Select the most vulnerable Healthcare facility (PHC and above) in the identified region to make it complying IPHS guideline.
- According to the identified Healthcare Facility, DNO has to get estimate from Dept. of Public works (PWD).
- If the Budget for this activity is not available through local/District/State administration, then the budget can be proposed under Climate Resilient Healthcare Infrastructure in NPCCHH Programme under NHM.
- DNO has to monitor the activity and should submit a report to SNO and subsequently to NCDC.

## 6. Monitoring and planning of GCR implementation using GCR checklist tool

- The checklist is a decision support tool to identify status of GCE implementation in the health facility and determine the next steps toward implementing high impact measures for climate resilience
- It has been developed based on the existing **NPCCHH guidelines on green and climate resilient healthcare facilities** and the **Indian Public Health Standards (IPHS) 2022 guidelines**.

The key features of GCR assessment checklist includes:

1. Checklist is developed under five themes- **energy efficiency and solarization, water management, waste management, smart and green building and climate resilient** measures classified under **71 indicators** considered for the assessment.
2. The **aggregate score** for the health facility shall be derived based on

summation of score of five themes and shall be normalized for the different types of health facilities: Sub District Hospital (SDH), Primary Health Centers (PHCs), Community health Centers (CHCs) and Sub Centres (SCs).

**Procedure: How to use the checklist for GCR assessment**

**Frequency of administration:** Six monthly

**Administered by:** health facility manager/medical officer

**Tool:** available in two formats: excel and digital tool)

- Excel format at <https://tinyurl.com/GCRchecklisttool> (download on computer and enter data for the assessment)
- Digital app will be disseminated through official communication
- SOP for checklist at <https://tinyurl.com/GCRchecklist>
- Records required: Energy bill, water bill, energy audit (if conducted in last 2years)
- Data from Kayakalp assessment may be used for relevant indicators, if that assessment is completed in past 6months.

◦ **Assessment Outcome**

1. Scoring and grading of GCR implementation (auto-generated)
2. Recommendation for **planning of high-impact GCR measures** (auto-generated) can help in determining funding and planning priorities to improve climate resilience

| Table 4: Health Facility Grading based on GCR checklist assessment |                                                                                                                                                          |                  |
|--------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Facility Grading                                                   | Facility Category                                                                                                                                        | Normalized Score |
| <b>Grade 1</b>                                                     | Least climate vulnerable and highly sustainable (Model Green and Climate Resilient Facility): <b>Model Green &amp; Climate Resilient Health Facility</b> | >85              |
| <b>Grade 2</b>                                                     | Moderately climate vulnerable and moderately sustainable                                                                                                 | 56-85            |
| <b>Grade 3</b>                                                     | Highly climate vulnerable and less sustainable                                                                                                           | 26-55            |
| <b>Grade 4</b>                                                     | Severely climate vulnerable and least sustainable                                                                                                        | ≤25              |

Facilities that receive Grade 1 score will be receive a certificateas **Model Green & Climate Resilient Health Facility**, after **completion of** following requisites

1. Verification visits and re-scoring from DNO-NPCCHH within a month of health facility's self-assessment
2. Submission of assessment reports (from health facility and DNO) to NPCCHH-HQ at [npcchh.hq-ncdc@ncdc.gov.in](mailto:npcchh.hq-ncdc@ncdc.gov.in)

D. Vector-borne diseases in context of climate change

- Convergence with existing health programme on vector-borne diseases should be done to understand distribution of vector-borne disease pattern and identify shifting disease patterns in the district with changing climate.
- DAPCCHH should enlist vulnerable areas and population based on existing and projected disease distribution patterns and plan to support/implement existing vector control, disease prevention, awareness and management activities.

#### E. Extreme weather events related health impacts

- With support from District/State Management Authority (DDMA/SDMA), DNO should identify vulnerable area and vulnerable population to prevalent climate change related extreme weather events e.g., extreme heat, floods, drought, cyclone, landslide, sea level rise.
- Mapping or indexing of vulnerable areas and hot spots based on high to low vulnerabilities if found from Disaster Management Authority or from available other resources (**Annexure 9**) should help in
  1. **Identifying health facilities** that lie in these vulnerable areas for prioritising health facilities for **necessary retrofitting measures**
  2. Determining locations and construction specification of **new health facilities**
  3. Identifying **vulnerable population** for priority health sector related disaster risk reduction measures (community level trainings and administrative action planning and response)
 Overall, steps 1-3 should inform PIP proposal drafting by district/state.

#### F. Water-related hEALTH iSSUES IN cONTEXT OF cLIMATE CHANGE

- Conduct a regular district level joint meeting with Public Health Engineering Department (PHED)/ Rural Water Supply (RWS) department (at least quarterly) with an agenda on water quality monitoring and surveillance activities
- Joint water-borne disease outbreak response: member of PHED to be part of the District RRT-IDSP (these officials will undertake testing of water sources and take subsequent corrective actions as required)
- Issue advisories for awareness and preparedness before summer, during floods and other extreme weather events (drought, cyclone, and saltwater intrusion due to sea-level rise)
- Observe water and water-health related days for community awareness
- Conduct training of master trainers. on water and water-related health issues
- Support integration of village level initiatives of water quality (PHED) and water-related health issues (NPCCHH).

Reference: Standard Operating Procedures for Joint Action on

Water Quality Monitoring and Health Outcomes:  
<https://tinyurl.com/WaterHealthSOP>

- Conduct awareness on mental health issues due to climate change
- Incorporate climate change's impact on mental health into trainings of health administrators and health care professionals.
- Training modules and IEC available at <https://tinyurl.com/NPCCHHnew>

#### 4. RESEARCH ON CLIMATE CHANGE AND HEALTH

##### 1. Documentation of community-based intervention on climate change and health

Each state will identify 2 community-based intervention on climate change and health every year and document them in a form of case studies. State may collaborate with local local/regional medical or technical college/or a university as per the need.

**A 1000-word cases study on such interventions will be drafted and shared with the NPCCHH-HQ. Two such case studies will be submitted by the state each year.**

#### CONCLUSION

The above document enlists the programme structural components and programme activities to be undertaken at the district level under NPCCHH. The key deliverables and the targets for the activities under NPCCHH are listed in **Annexure 8 and 10.**

#### 5. MISSION LIFE CONVERGE WITH NPCCHH PROGRAM ACTIVITIES

Mission LiFE (Lifestyle for Environment) promotes individual and community actions for a healthy and sustainable way of living. Many of the Mission LiFE actions are climate adaptation and/ mitigation measures, which overlaps with the mandate of NPCCHH. Hence, States/UTs and Districts will implement behavioural change activities under NPCCHH in line with the Mission LiFE actions.

Following relevant Mission LiFE actions are recommended to be integrated with behavioural change /IEC activities under NPCCHH:

##### A. Individual Level (for Healthcare Workforce)

- Sensitization of Healthcare Workforce (HCW) on Plastic Pollution and 3 R's

i.e., Reduce, Reuse and Recycle.

- Sensitization of HCWs and department staff to reduce use of paper for printing and advocate for paperless working
- Use public transport, cycles or walk whenever possible to commute to Healthcare Facility
- Avoid un-necessary travel for conferences, meetings, and trainings, instead consider online meeting/training sessions as much as possible, without compromising quality of training.

## **B. Activities at Health Facility (HF) and Health Department (Institute Level)**

### **1. Reduce Plastic Usage**

- Avoid use of single use plastic such as water bottles, glasses, plates, cups, spoons-forks, etc. during meetings, trainings, sensitization sessions, community-based events, etc.
- Replace single use plastic with sustainable choices like metal/glasses/nature-based utensils for personal use, health facility-based and community-based activities
- Identify all the plastic-based items being used (non-medical equipment) in the health facility. Discuss and prepare a list of alternative more sustainable options available for the same and direct their usage.
- Opt for/demand non-plastic-based food packaging while purchasing meals/snacks.
- Segregate plastic waste when its unavoidable to use and ensure its disposal through proper signage for recycling of plastic materials.
- Prepare and take a pledge to reduce plastic consumption in the HF as well as the community.
- Introduce and adhere to energy conservation measures
- Form and pledge to adopt a Switch Off policy to avoid un-necessary electricity consumption in non-patient areas.
- Display the policy in the HF premises. Present its merits to all staffs and community
- Label the switches based on their functions. Put signage related to energy saving measures and directing the need to switch off the appliances when not in use.
- Appoint a monitor for regulating and maintaining the identified set of actions for the Switch off policy.
- Align usage of air conditioning with ambient temperature, keeping AC temperatures at 24°Celsius than at 18-21°Celsius saves energy and is optimal for human body.
- Aware community to utilize natural lightning and ventilation to maximum

### **2. Introduce Water Conservation efforts in the HF<sup>1</sup>**

- Devise a schedule to regularly check for leaks in taps, pipes and ensure they are fixed immediately
- Place IEC poster to save water near handwash stations and washrooms
- Ensure no water wastage during watering of plants and gardens
- Pledge for water conservation in the facility and identify the list of activities to adopt for the same.
- Place IEC material to motivate the patients, visitors and the community to

save water.

3. Introduce food waste reduction and composting measures<sup>1</sup>

- Pledge food waste reduction in the facility
- Avoid food wastage at the HFs, during trainings, sensitization/awareness events, etc. Leftover food can be distributed to those who need in the community.
- Segregate food waste generated at the HFs, during trainings, sensitization/awareness events, etc. Such generated food waste can be collected in separate bins for composting.

C. **Community level activities**

- Community Cleanliness Drive:  
Organize cleanliness drives at local parks, or other natural areas including segregation of plastic waste and identification of alternative sources to reduce plastic consumption.
- Recycling initiatives:  
Promote use of sustainable options to replace single use plastic and promote recycling and a more sustainable lifestyle. Lead by example by replacing plastic with sustainable options during commemorating health days, health melas, VHNDs, etc. and sensitize community on importance of reducing waste and recycling. This may include food waste reduction and composting, re-use of grey water, reduce/reuse/recycle plastic, etc.
- Engaging children as change agents at community level:  
With the help of School Health Wellness Ambassadors inspire children by organising competitions/quiz sessions focused on climate change, environment and related health issues
- Awareness sessions on Environment-friendly measures for better human health:  
Create awareness among the community members on sustainable living practices, conservation of water, and the importance of saving electricity.

Reference:

1. Guidelines for Green and Climate Resilient Healthcare Facilities (access at <https://tinyurl.com/GCRguidelines>)

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**ANNEXURE 1: CLIMATE SENSITIVE DISEASES UNDER NPCCHH**

| Climate Sensitive Diseases (CSDs or Health Issues)   |
|------------------------------------------------------|
| 1. <b>Air Pollution related illnesses</b>            |
| 2. <b>Heat-related illnesses</b>                     |
| 3. <b>Green and Climate Resilient infrastructure</b> |



|                                                                    |
|--------------------------------------------------------------------|
| 4. <b>Vector borne Diseases in context of climate change</b>       |
| 5. <b>Extreme weather events related health issues</b>             |
| 6. <b>Water-related health issues in context of climate change</b> |
| 7. <b>Mental health in context of climate change</b>               |
| 8. Zoonotic Diseases and One Health                                |
| 9. Cardiopulmonary Diseases                                        |
| 10. Allergic health issues                                         |
| 11. Nutrition-related diseases, Food security                      |
| 12. Mental Health Issues                                           |
| 13. Coastal Climate Sensitive Diseases                             |
| 14. Hilly region and Mountainous Climate Sensitive Diseases        |
| 15. Occupational health                                            |
| 16. Vulnerability assessment                                       |
| 17. Health information system                                      |

**NPCCHH**

**OBJECTIVES AND BUDGET HEADS FY. 2026-27, 2027-28**

| <b>Priority key objectives</b>                                  | <b>Proposed activities</b>                                                                                                                                                                                                                                                                                                 | <b>Budget head</b>                               |
|-----------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|
| 1. General awareness                                            | IEC Campaigns                                                                                                                                                                                                                                                                                                              | IEC & Printing                                   |
| 2. Capacity building of health professionals and health workers | <ul style="list-style-type: none"> <li>• Training for the Health Professionals (Specialists, MO, AYSUH MO), CHOs and health workers</li> </ul>                                                                                                                                                                             | Capacity building incl. training                 |
|                                                                 | <ul style="list-style-type: none"> <li>• Training of VHNSC, PRI/block level training</li> </ul>                                                                                                                                                                                                                            |                                                  |
|                                                                 | <ul style="list-style-type: none"> <li>• Training of School Health Wellness Ambassadors</li> </ul>                                                                                                                                                                                                                         |                                                  |
|                                                                 | <ul style="list-style-type: none"> <li>• Printing of programme related material</li> </ul>                                                                                                                                                                                                                                 | IEC & Printing                                   |
|                                                                 | <ul style="list-style-type: none"> <li>• Task force meeting to draft health sector plan meeting</li> <li>• Sensitization workshop</li> <li>• District Logistics and Mobility support</li> </ul>                                                                                                                            | Planning & M & E                                 |
| 3. Strengthening of the health system                           | <ul style="list-style-type: none"> <li>• Climate-Health Surveillance</li> <li>• Heat-related illnesses</li> <li>• Acute respiratory illness due to air pollution</li> <li>• Early Warning, Alert and Response System (EWARS)</li> <li>• Vulnerability Need Assessment</li> <li>• Documentation of best practice</li> </ul> | Surveillance Research, Review, Evaluation (SRRE) |
|                                                                 | <ul style="list-style-type: none"> <li>• Heat Stroke Management Unit</li> </ul>                                                                                                                                                                                                                                            | Equipment, Drugs                                 |



|  |                                                                                                                                                      |                                                  |
|--|------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|
|  | <ul style="list-style-type: none"> <li>• Climate-resilient healthcare facilities</li> </ul>                                                          | Infrastructure – Civil works (I&C)               |
|  | <ul style="list-style-type: none"> <li>• Greening of health care facilities and Maintenance of greening health care sector</li> </ul>                | Others including operating costs (OOC)           |
|  | <ul style="list-style-type: none"> <li>• 1000-word report on best practice of a community-based intervention on climate change and health</li> </ul> | Surveillance Research, Review, Evaluation (SRRE) |

## ANNEXURE 2: DISTRICT AND CITY LEVEL MULTI-SECTORAL TASKFORCE AND DISTRICT CLIMATE HEALTH CELL

### **District and City level Multi-sectoral Task Force (DTF) on Climate Change and Health**

Under the Chairmanship and guidance of District Collector/Municipal Commissioner, a District/City Task Force will be constituted, and the members will contribute in preparing District Action Plan for Climate Change and Human Health (DAPCCHH).

The District Nodal Officer/Corporation Health Officer ensures that the DTF/CTF holds meeting every quarter in a year and the Task Force members oversees drafting, implementation, evaluation and revision of their district-specific **District/Municipal Action Plan for Climate Change and Human Health (DAPCCHH)**.

*DAPCCHH is an action-oriented guidance document on district health department's response to Climate Sensitive Diseases (CSDs) prevalent in the district. And the document facilitates and provides the methods of inter-departmental coordination and resource allocation to reduce impact of CSD and extreme weather on district's population. Its purpose is to allow long-term planning for delivery of NPCCHH objectives and should include inputs, processes, logistics, indicators and evaluation of each prevalent CSDs.*

District Nodal Officer-NPCCHH (DNO) is responsible for implementing DAPCCHH.

### **Quarterly District/City Taskforce meetings**

District Nodal Officer/Corporation Health Officer will be responsible to convene **one meeting of DTF/CTF every financial quarter**. In a FY, four DTF/CTF meetings are to be conducted. DNO will ensure a **quorum of 75% i.e., 75% of DTF/CTF members** must be present for each DTF/CTF meeting.

Minutes of the meeting (MoM) along with the list of participants is to be shared with SNO **within 15 days** of conducting DTF/CTF meeting.

Some of the suggested key topics to be discussed in a DTF/CTF meeting is:

- A brief on programme activities implemented in the ongoing financial quarter
- Quarterly review of programme activities and financial expenditure in the district
- Identifying challenges incurred during implementation of programme activities and revision of DAPCCHH based on identified challenges
- Identifying support required from non-health functionaries to implement programme activities successfully.
- Designating the roles and responsibilities for other non-health functionaries to collaboratively implement programme activities in the district.
- Identifying concerns regarding implementation of programme activities that need guidance from the state
- Discussion on plan of action to implement programme activities for the upcoming financial quarter and role of non-Health functionaries.

State Nodal Officer-NPCCHH (SNO) along with Consultant-NPCCHH will be responsible for compiling MoMs of DTF/CTF meetings conducted in each financial quarter of all the districts in the state and share it with NPCCHH-HQ at the end of each financial quarter.

*SNOs to ensure a compiled report of all DTF/CTF meetings in the state along with MoMs to reach NPCCHH-HQ by 10th of every new financial quarter.*

| <b>Constitution of District level Multi-Sectoral Taskforce</b> |                                                                        |
|----------------------------------------------------------------|------------------------------------------------------------------------|
| District Collector (Chairman)                                  |                                                                        |
| CMO/DHO/CHMO (Co-Chairman)                                     |                                                                        |
| District Nodal Officer- NPCCHH (Member Secretary)              |                                                                        |
| Members -                                                      |                                                                        |
| 1.                                                             | District Disaster Management Authority                                 |
| 2.                                                             | Department of Agriculture                                              |
| 3.                                                             | Department of Water and Sanitation                                     |
| 4.                                                             | Department of Animal Husbandry                                         |
| 5.                                                             | Public Work Department                                                 |
| 6.                                                             | Department of power                                                    |
| 7.                                                             | District education department                                          |
| 8.                                                             | Representative from Department of Panchayati Raj and Rural Development |
| 9.                                                             | Representative from Department of Housing and Urban Affairs            |

|                                                                                                                                                                                                                                                                                                                                                                             |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10. Department of Women and Child Development (ICDS)                                                                                                                                                                                                                                                                                                                        |
| 11. Representative from Department of Information and Public Relations                                                                                                                                                                                                                                                                                                      |
| 12. District Surveillance Officer (IDSP)                                                                                                                                                                                                                                                                                                                                    |
| 13. District Epidemiologist                                                                                                                                                                                                                                                                                                                                                 |
| 14. District Malaria Officer/Vector-borne Diseases                                                                                                                                                                                                                                                                                                                          |
| 15. District Programme Officer, NHM                                                                                                                                                                                                                                                                                                                                         |
| 16. Department of medical education                                                                                                                                                                                                                                                                                                                                         |
| 17. HoD, Preventive and Social Medicine of District level medical college/s                                                                                                                                                                                                                                                                                                 |
| 18. Representative from Women's/Youth Groups/other vulnerable population groups                                                                                                                                                                                                                                                                                             |
| 19. Representative from Professional Organisations (IAP/IMA etc.)                                                                                                                                                                                                                                                                                                           |
| 20. Representatives from NGOs/Development partners/religious bodies like Rotary Club/Lions Club/WHO/UNICEF/JHPIEGO etc.                                                                                                                                                                                                                                                     |
| 21. Representative of the Front-line workers like ASHA/ANM/CHO                                                                                                                                                                                                                                                                                                              |
| <ul style="list-style-type: none"> <li>• Inclusion of those experts who can give technical guidance for the development in the chapters of the developing DAPCCHH guideline</li> <li>• Inclusion of Members (preferably) of the committee that drafted District Action Plan on Climate Change (DAPCC) under Department of Environment, Forest and Climate Change</li> </ul> |

**District Environmental Health Cell:** Establish District Environmental Cell under the Health Department of the District. The district to designate DNO who is the key person responsible to carry out programme activities at the district level. To support the DNO; Medical officers and supporting staff should be provided for implementation of the programme activities.

### **Roles and Responsibilities of the District Environmental Health Cell**

1. Preparation and implementation of District Action Plan for Climate Change and Human Health (DAPCCHH)
2. Conduct IEC campaigns and sensitization workshops
3. Conduct Sub-District/CHC/ Block/PHC/SC level training for health care professionals and Panchayati Raj Institutions (PRI)
4. Implement health care strengthening measures and ensure health facility preparedness for prevalent CSD in the District
5. Maintain and update District database of illnesses identified in the district.
6. Maintain District level data on physical, financial, epidemiological profile for these illnesses.
7. Conduct vulnerability assessment and risk mapping for commonly occurring climate sensitive illnesses in the district.
8. Coordination Supervising and Monitoring and Reporting of programme related activities at every level

### ANNEXURE 3: SUGGESTED IEC ACTIVITIES AND DISSEMINATION PLAN

| Communication Method                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Content                                                                                                                                                                                                                                                                                                                                                                                                      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• <b>Banners:</b> At-least 1 banner per Front Line Worker for using during V/UHSND and other community engagement activities</li> <li>• <b>Flipcharts/Booklets:</b> At-least one per FLW for using during community engagement activities</li> <li>• <b>Posters:</b> At least 2 large wall poster and/ 2 foam board posters printed and disseminated in all healthcare facilities (from Medical College/District hospital to Health Sub Centre level) and all government educational institutes. <ul style="list-style-type: none"> <li>◦ At-least one each at each facility/ institute per year.</li> </ul> </li> <li>• <b>Hoardings/billboard:</b> At-least 10 billboards on prevalent Climate Sensitive Diseases in the district may be placed at strategic locations</li> <li>• <b>Wall painting:</b> At least 1-2 wall paintings on prevalent CSD per healthcare facility</li> <li>• <b>Audio-video clips</b> on climate change and health may be run in mass media throughout the year <ul style="list-style-type: none"> <li>◦ 1-2 <b>video clips</b> of 1-2 minutes duration broadcasted on CSD relevant to that part of year</li> <li>◦ 1-2 <b>radio clips</b> of 1-2 minutes duration broadcasted on CSD relevant to that part of year</li> </ul> </li> <li>• Digital display of IEC should also be run in equipped healthcare facilities and government institutions</li> <li>• <b>Painting on Buses:</b> Paint 5-10 buses per district on prevalent CSD in the district</li> <li>• <b>Social media:</b> Twitter and/ Facebook may be used if district officials/health workers have accounts, to post IEC and event related info with appropriate tagging.</li> </ul> | <ul style="list-style-type: none"> <li>• IEC available at for each disease component at<br/><br/><a href="https://tinyurl.com/NPCCHHnew">https://tinyurl.com/NPCCHHnew</a></li> <li>• New IEC content on CSD will be provided by NCDC/State Health Department</li> <li>• Content may be translated into local language/s by State/District</li> <li>• Districts may also create their own content</li> </ul> |

#### Dissemination Plan

| Recommended schedule of CSD to be focused in the IEC campaign |                                                          |
|---------------------------------------------------------------|----------------------------------------------------------|
| Time of year                                                  | Content matter                                           |
| Summer<br>(February-July preferably)                          | Heat-related illnesses<br>Disaster related health issues |
| Monsoon                                                       | Vector borne diseases                                    |

|                                                                              |                                                                                                                                                                                                                                                                                                                                        |
|------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| (June-August)                                                                | Zoonotic diseases<br>Water borne diseases<br>Extreme weather events like<br>Floods/Cyclones/Landslides etc.                                                                                                                                                                                                                            |
| Winter<br>(September-February with more emphasis and whole year if possible) | Air pollution-related illnesses<br>Cardio pulmonary diseases<br>Allergic diseases                                                                                                                                                                                                                                                      |
| At any time throughout the year                                              | Climate change and health impacts (generic and climatic zone-wise)<br>Mental Health, Occupational health<br>Green & Climate resilient infrastructure<br>Coastal Climate Sensitive Diseases (if applicable)<br>Hilly region and Mountainous Climate Sensitive Diseases (if applicable)<br>Food security and Nutrition related illnesses |
| During Important Climate and Environmental Health Days                       | Day and theme specific IEC                                                                                                                                                                                                                                                                                                             |

#### ANNEXURE 4: QUARTERLY REPORTING FORMAT

| Name of the State/District                    | Name of the District Nodal Officer (SNO) | Quarter Period  |
|-----------------------------------------------|------------------------------------------|-----------------|
|                                               |                                          |                 |
| O.M. of appointment of District Nodal Officer | Annexed (Yes / No)                       |                 |
| Postal Address of District Nodal Officer      |                                          |                 |
| Phone (O)                                     | (M)                                      | E Mail address: |

| Programme Activities /Deliverable |                                                                                   |                    |
|-----------------------------------|-----------------------------------------------------------------------------------|--------------------|
| <b>1</b>                          | <b>Designated District Nodal Officer -Climate Change (DNO)</b>                    |                    |
| A                                 | If District has identified DNO in the district?                                   | Yes/No             |
| B                                 | O.M. of appointment of DNO's                                                      | Annexed (Yes / No) |
| <b>2</b>                          | <b>Formation of District Multisectoral Task Force (DMTF)</b>                      |                    |
| A                                 | If District Multisectoral Task Force (DMTF) formed?                               | Yes/No             |
| B                                 | If yes, provide O.M. of constitution of DMTF                                      | Annexed (Yes / No) |
| C                                 | DMTF meeting held in past quarter                                                 | Yes/No,            |
| D                                 | Minutes of meeting held in past quarter                                           | Annexed (Yes / No) |
| <b>3</b>                          | <b>Capacity Building of State &amp; District Nodal Officers on Climate Change</b> |                    |

|   |                                                                                                |               |                                           |                                             |                      |          |
|---|------------------------------------------------------------------------------------------------|---------------|-------------------------------------------|---------------------------------------------|----------------------|----------|
| A | Have the DNO attended the TOT?                                                                 |               | Yes/No                                    |                                             |                      |          |
| B | Any other Healthcare Professionals attended the TOT?                                           |               | Yes/No                                    |                                             |                      |          |
| C | Whether the training has been conducted on Climate Change and Human Health in past quarter for |               | DNO -CC                                   | Yes/No                                      |                      |          |
|   |                                                                                                |               | Medical Officer                           | Yes/No                                      |                      |          |
|   |                                                                                                |               | Health Workers                            | Yes/No                                      |                      |          |
| D | No of health care professionals trained in past quarter on Climate change and Human Health     |               | Health care personnel                     | No of trained                               |                      |          |
|   |                                                                                                |               | DNO -CC                                   |                                             |                      |          |
|   |                                                                                                |               | Medical Officer                           |                                             |                      |          |
|   |                                                                                                |               | Health Workers                            |                                             |                      |          |
| E | <b>Training on Air pollution</b>                                                               |               | <b>Training on Heat Related Illnesses</b> |                                             |                      |          |
|   | Health care personnel                                                                          | No of trained | Health care personnel                     | No of trained                               |                      |          |
|   | DNO -CC                                                                                        |               | DNO -CC                                   |                                             |                      |          |
|   | Medical Officer                                                                                |               | Medical Officer                           |                                             |                      |          |
|   | Health Workers                                                                                 |               | Health Workers                            |                                             |                      |          |
| F | <b>Training on any other Climate issues</b>                                                    |               | Health care personnel                     | No of trained                               |                      |          |
|   |                                                                                                |               | DNO -CC                                   |                                             |                      |          |
|   |                                                                                                |               | Medical Officer                           |                                             |                      |          |
|   |                                                                                                |               | Health Workers                            |                                             |                      |          |
| G | No of Sensitization workshop/ meeting at District level on CC&HH matters in past quarter       |               | No :                                      | Report Annexed (Yes / No), If Yes, No _____ |                      |          |
| H | Training of Panchayat Raj Institutions in past quarter                                         |               | No of Blocks :                            |                                             |                      |          |
|   |                                                                                                |               | No of activities held:                    | Report Annexed (Yes / No), If Yes, No _____ |                      |          |
| 4 | <b>IEC in past quarter</b>                                                                     |               |                                           |                                             |                      |          |
| A | <b>At Block level in past quarter</b>                                                          |               |                                           |                                             |                      |          |
|   | Pollution                                                                                      | Total No      | Heat                                      | Total No                                    | Other Climate issues | Total No |
|   | No of audio                                                                                    |               | No of audio                               |                                             | No of audio          |          |
|   | No of video                                                                                    |               | No of video                               |                                             | No of video          |          |
|   | No of social media                                                                             |               | No of social media                        |                                             | No of social media   |          |
|   | No of posters                                                                                  |               | No of posters                             |                                             | No of posters        |          |
|   |                                                                                                |               |                                           |                                             |                      |          |
| B | <b>At District Level in past quarter</b>                                                       |               |                                           |                                             |                      |          |
|   | Pollution                                                                                      | Total No      | Heat                                      | Total No                                    | Other Climate issues | Total No |
|   | No of audio                                                                                    |               | No of audio                               |                                             | No of audio          |          |
|   | No of video                                                                                    |               | No of video                               |                                             | No of video          |          |

|          |                                                                                    |                        |                    |  |                    |  |
|----------|------------------------------------------------------------------------------------|------------------------|--------------------|--|--------------------|--|
|          | No of social media                                                                 |                        | No of social media |  | No of social media |  |
|          | No of posters                                                                      |                        | No of posters      |  | No of posters      |  |
|          |                                                                                    |                        |                    |  |                    |  |
| <b>5</b> | <b>Observation of public health days related to Climate Change in past quarter</b> |                        |                    |  |                    |  |
| A        | World Environment Day observed?                                                    | Yes/No /Not Applicable |                    |  |                    |  |
|          | If Yes, report submitted with details                                              | Report Annexed Yes/No  |                    |  |                    |  |
| B        | International day of Clean Air and Blue Skies observed?                            | Yes/No/Not Applicable  |                    |  |                    |  |
|          | If Yes, report submitted with details                                              | Report Annexed Yes/No  |                    |  |                    |  |
| C        | Other events observed in past quarter                                              | YES/No                 |                    |  |                    |  |
|          | If Yes, report submitted with details                                              | Report Annexed Yes/No  |                    |  |                    |  |
| <b>6</b> | <b>Printing in past quarter</b>                                                    |                        |                    |  |                    |  |
| A        | No of Training modules printed in past quarter                                     |                        |                    |  |                    |  |
| B        | IEC printed                                                                        |                        |                    |  |                    |  |
| C        | Others printed                                                                     | Details. Yes/No        |                    |  |                    |  |
| C        | Articles contributed to NPCCHH Newsletter for past quarter activities              | Attached.. Yes /No     |                    |  |                    |  |

|          |                                                               |                                                          |                        |                         |                   |                    |                   |                          |
|----------|---------------------------------------------------------------|----------------------------------------------------------|------------------------|-------------------------|-------------------|--------------------|-------------------|--------------------------|
| <b>7</b> | <b>Budget</b>                                                 |                                                          |                        |                         |                   |                    |                   |                          |
| A        | Total received by DNO for expenses in FY                      |                                                          |                        | OM Annexed (Yes / No)   |                   |                    |                   |                          |
| b        | Total budget spent till the end of past quarter (Rs in lakhs) |                                                          |                        |                         |                   |                    |                   |                          |
|          | <b>At the District level</b>                                  |                                                          |                        |                         |                   |                    |                   |                          |
|          | <b>FMR code</b>                                               | <b>Activities</b>                                        | <b>Budget Received</b> | <b>Quarter I</b>        | <b>Quarter II</b> | <b>Quarter III</b> | <b>Quarter IV</b> | <b>Total Expenditure</b> |
| 1        | 3.3.3.3                                                       | Training of PRI                                          |                        |                         |                   |                    |                   |                          |
| 2        | 5.1.1.2.13                                                    | Greening                                                 |                        |                         |                   |                    |                   |                          |
| 3        | 9.2.4.9                                                       | Training of MO's, Health workers and Programme Officer's |                        |                         |                   |                    |                   |                          |
| 4        | 10.2.14                                                       | Surveillance                                             |                        |                         |                   |                    |                   |                          |
| 5        | 11.4.7                                                        | IEC                                                      |                        |                         |                   |                    |                   |                          |
| 6        | 12.17.3                                                       | Printing                                                 |                        |                         |                   |                    |                   |                          |
| 7        | 16.1.2.1.23                                                   | Task force Meeting                                       |                        |                         |                   |                    |                   |                          |
|          | <b>Date of submission</b>                                     |                                                          |                        | <b>Signature of SNO</b> |                   |                    |                   |                          |

## ANNEXURE 5: REQUIREMENTS FOR HEAT STROKE MANAGEMENT UNITS, AMBULANCE PREPAREDNESS AND EMERGENCY COOLING

**Purpose:** Immediate, rapid, external cooling of a patient suffering from heat exhaustion or suspected heat stroke.

### A. Requirements for Heat Stroke Management Units at Tertiary and Secondary Levels

|                                                                                                                                    | DH and SDH                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | CHC                                                                 |
|------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|
| <b>Dedicated room/beds</b>                                                                                                         | Dedicated heat stroke room/beds (adult+paediatric) (Minimum 5 beds)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Dedicated heat stroke room/beds (adult+paediatric) (Minimum 2 beds) |
|                                                                                                                                    | <b>Setting up a heat stroke management unit</b> <ul style="list-style-type: none"> <li>A room/beds in the health facility where the ambient temperature could be maintained optimally with appropriate natural shading and ventilation.</li> <li>It should not on the top floor of a building</li> <li>It can be cooled effectively with fans and coolers if air conditioning is not available.</li> <li>Refrigerator, ice box, ice packs, ice cool water, wet linens, garden sprayer should be available in or close to the room round the clock.</li> </ul> |                                                                     |
| <b>Core body temperature measurement</b>                                                                                           | <ul style="list-style-type: none"> <li>Rectal thermometers <i>or</i></li> <li>Continuous core temperature monitor probe</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                     |
| <b>Functional Cooling equipment</b><br><br><i>(Goal: to reduce core body temperature to ~39°C (102.2°F), to avoid hypothermia)</i> | For optimal room/air cooling and refrigeration/ice box <ul style="list-style-type: none"> <li>Ensure <b>functional</b> personal cooling equipment like AC/Cooler/fans and proper maintenance</li> <li>Ensure <b>functional</b> refrigerator/ice box for ice cubes, cold water, IV fluids</li> </ul>                                                                                                                                                                                                                                                           |                                                                     |
|                                                                                                                                    | For immersive cooling for exertional heatstroke (must) in adults, and as default cooling method for suspected heatstroke cases (regardless of type) to fill with cold water and/ ice cubes <ul style="list-style-type: none"> <li>Inflatable/Portable bathtub (cool water temperature to kept at 15.5°C/60F) <i>or</i></li> <li>Waterproof zipper body bags/cadaver body bags</li> </ul> <p><b>Important: precautions must be taken to keep head of the patient rested and above water level.</b></p>                                                         |                                                                     |



|                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                            | <p>For evaporative cooling for all paediatric cases and classic heatstroke (if categorized at admission) cases in adults</p> <ul style="list-style-type: none"> <li>• <b>Water spray bottles</b> (used with fans)</li> <li>• <b>ICE packs: minimum 6 ice packs/dedicated bed</b><br/>[Effective, rapid cooling requires 6 packs/patient: on each side of neck (2), in armpits (2), over groin folds (2)]</li> <li>• <b>Towels/sheets:</b> soak with cool/ice water</li> </ul>                                                                                                                                                                                                                                                                                                                        |
| <b>Supportive care</b>     | <p>Ensure</p> <ol style="list-style-type: none"> <li>1. Multiparameter monitor</li> <li>2. <b>Glucometer and testing strips (common sign in severe HRI)</b></li> <li>3. ECG machine with Gel, electrodes, ECG paper</li> <li>4. Stethoscope, BP apparatus, ET tube and laryngoscope</li> <li>5. High flow oxygen</li> <li>6. Defibrillator</li> <li>7. Ryle's tube (may use for cold water/cold NS gastric lavage for internal cooling)</li> <li>8. Medicines: Lorazepam, Diazepam, IV anti-seizure medicines like phenytoin and valproate, ORS</li> <li>9. Cold IV normal saline (0.9%), dextrose 50% in water solution (D50W),</li> <li>10. Dopamine, dobutamine</li> </ol> <p><i>Important: There is no therapeutic role for antipyretics/NASIDs. Paracetamol can worsen liver functions.</i></p> |
| <b>Treatment protocols</b> | <p>Keep posters of <b>HRI Clinical protocols</b> and <b>HRI surveillance case definition/reporting</b> on walls for easy reference</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

• **Unit costs of emergency cooling related new/additional equipment**

Other equipment and medicines mentioned above to be ensured through procurement related common budget heads

| <b>Equipment</b>                                                | <b>Unit cost</b>                                                                               |
|-----------------------------------------------------------------|------------------------------------------------------------------------------------------------|
| a. Inflatable bathtub for cooling (portable)                    | @12,000/unit per DH/SDH/CHC                                                                    |
| b. Rectal Thermometer (adults/paediatrics)                      | @500/unit, 5 per DH/SDH/CHC<br>@500/unit, 3 per PHC/Ambulance                                  |
| c. Rectal temperature probe for existing Multiparameter monitor | @1,000/unit, as per available and suitable monitors allotted to heat stroke beds in DH/SDH/CHC |
| d. Multiparameter monitor (additional)                          | @50,000/unit, 5 per DH/SDH/CHC                                                                 |

**Note: Submit budget proposal for above mentioned activity unless funds available from other sources**

## **B. Requirements for Emergency Cooling at Primary and Field Levels**

Purpose: Rapid cooling of a patient suffering from moderate to severe heat-related illnesses and rapid referral and transport to secondary/tertiary level health facility, if needed, after first-aid and stabilization.

|                                                                                                                                    | PHC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Ambulance |
|------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| <b>Core body temperature measurement</b>                                                                                           | Rectal thermometers                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |           |
| <b>Functional Cooling equipment</b><br><br><i>(Goal: to reduce core body temperature to ~39°C (102.2°F), to avoid hypothermia)</i> | For optimal room/air cooling and refrigeration/ice box <ul style="list-style-type: none"> <li>• Ensure <b>functional</b> personal cooling equipment like AC/Cooler/fans and proper maintenance</li> <li>• Ensure <b>functional</b> refrigerator/ice box for ice cubes, cold water, IV fluids</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |           |
|                                                                                                                                    | For rapid cooling for all heatstroke cases at primary/field/community level <ul style="list-style-type: none"> <li>• Water spray bottles (to be used with fanning)</li> <li>• ICE packs: minimum 6 ice packs/patient [Effective, rapid cooling requires 6 packs/patient: on each side of neck (2), in armpits (2), over groin folds (2)]</li> <li>• Towels/sheets: soak with cool water</li> <li>• Waterproof zipper body bags/cadaver body bags (to be used with ice cubes/cold water)</li> <li>• Tarpaulin: for TACO (tarpaulin assisted cooling oscillation) method (to be used with ice cubes/cold water)</li> <li>• <b><i>Important: This method is preferred for adult patients, requires training of care givers, precautions must be taken to keep head of the patient protected and above water level.</i></b></li> </ul> |           |
| <b>Supportive care</b>                                                                                                             | Ensure <ol style="list-style-type: none"> <li>1. ECG machine with Gel, electrodes, ECG paper</li> <li>2. Stethoscope, BP apparatus, ET tube and laryngoscope</li> <li>3. High flow oxygen</li> <li>4. Defibrillator</li> <li>5. Glucometer and testing strips</li> <li>6. Ryle's tube (may use for cold water/cold NS gastric lavage for internal cooling)</li> <li>7. Medicines: Lorazepam, Diazepam, IV anti-seizure</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                  |           |

|                            |                                                                                                                                                                                                                                                                                     |
|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                            | <p>medicines like phenytoin and valproate, ORS</p> <p>8. <b>Cold IV</b> normal saline (0.9%), dextrose 50% in water solution (D50W), Dopamine, dobutamine</p> <p><i>Important: There is no therapeutic role for antipyretics/NASIDs. Paracetamol can worsen liver functions</i></p> |
| <b>Treatment protocols</b> | Keep posters of <b>HRI Clinical protocols</b> in unit                                                                                                                                                                                                                               |

**Detail technical and logistics guidance are at**

- **Strengthening health systems preparedness for heat-related illnesses (HRI) in India** (logistics)  
<https://tinyurl.com/HFHeatPrep>
- **Guidelines on Emergency Cooling for Severe Heat-Related Illnesses** (technical) <https://tinyurl.com/EmergencyCooling>

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## **ANNEXURE VI- CHEST CLINIC**

### **I. Risk Assessment for Air Pollution-Related Cardio-pulmonary Illnesses:**

Name of Individual/Patient: \_\_\_\_\_ Gender: Male/Female

Age: \_\_\_\_\_

Address: \_\_\_\_\_ Block: \_\_\_\_\_

Phone Number: \_\_\_\_\_

|   |                                                                                |                                                                                                                                                                                                                                                                           |
|---|--------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Habit of Smoking                                                               | <input type="radio"/> Never<br><input type="radio"/> Sometimes<br><input type="radio"/> Second Hand <input type="radio"/> In the past<br><input type="radio"/> Daily                                                                                                      |
| 2 | Type of Fuel is used for cooking/heating                                       | <input type="radio"/> Firewood<br><input type="radio"/> Crop Residue<br><input type="radio"/> Cow Dung Cake<br><input type="radio"/> Coal<br><input type="radio"/> Kerosene<br><input type="radio"/> LPG<br><input type="radio"/> Electric<br><input type="radio"/> Solar |
| 3 | Indoor pollutants (incense, mosquito coils) used in the home/school/workplace? | <input type="radio"/> Yes<br><input type="radio"/> No                                                                                                                                                                                                                     |
| 4 | Lack of proper ventilation at place of residence/study/work                    | <input type="radio"/> Yes<br><input type="radio"/> No                                                                                                                                                                                                                     |
| 5 | Occupational Exposure                                                          | <input type="radio"/> Crop Residue burning<br><input type="radio"/> Mining/Smelter<br><input type="radio"/> Burning of Garbage-                                                                                                                                           |

|   |                                                                                                                                                                                                                                          |                                                                                                                                                                                                                    |
|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|   |                                                                                                                                                                                                                                          | leaves<br>◦ Traffic Police<br>◦ Brick kiln workers<br>◦ Glass factory worker<br>◦ Construction workers<br>◦ Manufacturing                                                                                          |
| 6 | Exposure at the place of residence/study or at work due to                                                                                                                                                                               | ◦ Affected By Forest Fires<br>◦ Has Frequent Dust Storms<br>◦ Has Thermal Power Plants<br>◦ Heavy Industries<br>◦ Landfills<br>◦ Unpaved Roads/Major Road/Highway<br>◦ Known For Poor Air Quality or Frequent Smog |
| 7 | Family history of Cardio-pulmonary conditions in the family                                                                                                                                                                              | ◦ Yes<br>◦ No                                                                                                                                                                                                      |
| 8 | Protective behaviours<br><br>1. Do you monitor/follow updates on Air quality through an app/website<br>2. Do you avoid outdoor activities during poor air quality<br>3. Do you use N95 or equivalent masks during high pollution periods | ◦ Yes/ No<br><br><br>◦ Yes/ No<br><br><br>◦ Yes/ No                                                                                                                                                                |

-

## II. **CHEST clinic Format 1- Line list of individuals accessing services**

Name of the Hospital:

Date:

Block:

District:

State:

Name of Staff Nurse:

Name of Duty Doctor:

| Sl. No | Name of Individual/Patient and Phone # | Age | Gender | Village | Block | Risk Factor (Yes/No), If yes- Mention code | Diagnosis if symptomatic |
|--------|----------------------------------------|-----|--------|---------|-------|--------------------------------------------|--------------------------|
| 1      |                                        |     |        |         |       |                                            |                          |
| 2      |                                        |     |        |         |       |                                            |                          |
| 3      |                                        |     |        |         |       |                                            |                          |

## III. **CHEST Clinic Format 2- Summary reporting (Daily)**

Name of the Hospital:

Date:

Type of Facility: CHC/SDH/DH/Medical College/Others (Specify):

Block:

District:

State:

Name of Staff Nurse:

Name of Duty Doctor:

|                                                                   | Paediatric |   | Adult |   |
|-------------------------------------------------------------------|------------|---|-------|---|
|                                                                   | M          | F | M     | F |
| No. of persons screened during the day:                           |            |   |       |   |
| Cumulative no. of persons screened:                               |            |   |       |   |
| No. of persons with exposure to Air Pollution:                    |            |   |       |   |
| Cumulative no. of persons with exposure to Air Pollution          |            |   |       |   |
| No. of persons provided risk-based counselling to reduce exposure |            |   |       |   |
| Cumulative no. of persons provided risk-based counselling:        |            |   |       |   |
| No. of new cardio-pulmonary illnesses diagnosed during the day    |            |   |       |   |
| No. of new cases put on treatment                                 |            |   |       |   |
| Cumulative no. of cardio-pulmonary illnesses diagnosed            |            |   |       |   |
| Cumulative no. of cases put on treatment                          |            |   |       |   |
| No. of cases on follow-up for Standard of Care (As of date)       |            |   |       |   |
| No. of patients for refill of drugs (As of date)                  |            |   |       |   |
| Cumulative no. of patients lost to follow-up                      |            |   |       |   |

#### IV. **Drugs required in the CHEST clinic**

1. **Bronchodilators-** Salbutamol (inhaler, syrup, tablet), Ipratropium Bromide (Inhaler)
2. **Inhaled/Systemic Steroids-** Budesonide (Inhaler), Prednisolone (Tablet/Syrup), Hydrocortisone (Injection), Dexamethasone (Tab/Inj)
3. **Antihistaminic-** Levocetirizine (Tab/Syp), Pheniramine (Inj)
4. **Antibiotics-** Amoxicillin-Clavulanate, Azithromycin, Levofloxacin, Anti-TB Drugs,
5. **Hypoxia management-** Oxygen (Medical Gas)
6. **For anaphylaxis-** Adrenaline (Inj)
7. **Antipyretic-** Paracetamol (Tab/Syp)
8. **For Interstitial Lung Disease Management at the tertiary level-** Pirfenidone/Nintedanib
9. **Pulmonary Embolism Management-** Low Molecular Weight Heparin

#### V. **Devices/Equipment:**

|              |                     |             |                       |
|--------------|---------------------|-------------|-----------------------|
| Stethoscope  | Nebuliser Machine   | ECG Machine | Autoclave             |
| BP Apparatus | Ambu Bag (Adult and | X-ray Unit  | Ventilator (Adult and |

|                          |                         |               |                                              |
|--------------------------|-------------------------|---------------|----------------------------------------------|
|                          | Paediatric)             |               | Paediatric)                                  |
| Thermometer              | Suction machine         | Spirometer    | ECG                                          |
| Pulse Oximeter           | Oxygen Concentrator     | ABG Analyzer  | Non-invasive Ventilation like CPAP and BiPAP |
| Oxygen Cylinder (B type) | Inhaler, Spacer Devices | Defibrillator |                                              |

**For medical management of the cases- access the ICMR Standard Treatment workflow for Cardio-pulmonary diseases through the following link-**  
<https://www.icmr.gov.in/standard-treatment-workflows-stws>

#### ICD Code for various Cardio-pulmonary Conditions

| Condition                                                                                                                         | ICD Code |
|-----------------------------------------------------------------------------------------------------------------------------------|----------|
| Asymptomatic case with Contact with and (suspected) exposure to air pollution                                                     | Z77.110  |
| Symptomatic with suspected or confirmed Exposure to air pollution                                                                 | Z58.1    |
| Acute respiratory infections or exacerbations                                                                                     | J06      |
| Acute lower respiratory tract infections                                                                                          | J22      |
| Acute exacerbation of Asthma                                                                                                      | J45      |
| Acute infections of Influenza                                                                                                     | J10      |
| Pneumonia (Viral/Bacterial)                                                                                                       | J18      |
| Acute on Chronic respiratory diseases                                                                                             | J44      |
| Acute Exacerbation of Obstructive Lung Disease and Bronchiectasis                                                                 | J47      |
| Acute respiratory distress syndrome (ARDS)                                                                                        | J80      |
| Allergic Rhinitis                                                                                                                 | J30      |
| Chronic Obstructive Pulmonary Disease (COPD)                                                                                      | J44      |
| Lung Cancer                                                                                                                       | C34      |
| Pulmonary Tuberculosis (PTB)                                                                                                      | A15      |
| Lower Respiratory Tract Infections (Pneumonia)                                                                                    | J18      |
| Interstitial Lung Disease (ILD)                                                                                                   | J84      |
| Pneumoconiosis due to various dusts (asbestos, silica, talc, etc.)                                                                | J60-J64  |
| Airway disease due to specific organic dusts (byssinosis, flax-dresser's disease, etc.).                                          | J66      |
| Hypersensitivity pneumonitis due to organic dusts                                                                                 | J67      |
| Respiratory conditions due to inhalation of chemicals, gases, fumes, and vapors (bronchitis, pneumonitis, pulmonary edema, etc.). | J68      |
| Angina pectoris                                                                                                                   | I20      |
| Acute myocardial infarction                                                                                                       | I21      |
| Chronic ischemic heart disease                                                                                                    | I25      |
| Cerebral infarction (ischemic stroke)                                                                                             | I63      |
| Essential (primary) hypertension                                                                                                  | I10      |
| Hypertensive heart and renal disease                                                                                              | I11–I13  |
| Heart failure                                                                                                                     | I50      |
| Paroxysmal tachycardia                                                                                                            | I47      |
| Atrial fibrillation and flutter                                                                                                   | I48      |
| Other cardiac arrhythmias                                                                                                         | I49      |

|                             |     |
|-----------------------------|-----|
| Atherosclerosis of arteries | 170 |
| Pulmonary Heart Diseases    | 127 |

## ANNEXURE 6: PROPOSED UNIT COSTS

### A. HEALTH FACILITY LEVEL BASED UNIT COSTS FOR GREEN & CLIMATE RESILIENT HEALTHCARE INFRASTRUCTURE MEASURES

| Output                                                         | Activities                                                                                                                                                                                                                                                                                                       | Unit Cost                                                                 |
|----------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|
| Green and Climate Resilient Measures in Healthcare Facilities* | <b>Energy auditing in Healthcare Facilities</b><br><i>(To be done once in 3 years for a facility)</i>                                                                                                                                                                                                            | @Rs.10,000 for PHC<br>@Rs.30,000 for CHC/SDH<br>@Rs.1,00,000 for DH       |
|                                                                | <b>Replace existing lighting (Non-LED) with LED</b>                                                                                                                                                                                                                                                              | @Rs.25,000 for PHC<br>@Rs.75,000 for CHC<br>@Rs.2,00,000 for DH           |
|                                                                | <b>Installation of Solar Panels</b>                                                                                                                                                                                                                                                                              |                                                                           |
|                                                                | <ul style="list-style-type: none"> <li>For off-grid (decentralised) renewable energy setup with battery back-up and inverter)<br/>refer: <b>Guidelines for Solar Powering Healthcare Facilities</b> (Page 15)<br/><a href="https://tinyurl.com/HFSolarization">https://tinyurl.com/HFSolarization</a></li> </ul> | @Rs.15,00,000 for PHC*<br>@Rs.40,00,000 for CHC*<br>@Rs.70,00,000 for DH* |
|                                                                | <ul style="list-style-type: none"> <li>For Grid-connected Solar Power systems</li> </ul>                                                                                                                                                                                                                         | see MNRE Benchmarks at <i>(Annexure 7)</i>                                |
|                                                                | <ul style="list-style-type: none"> <li>Operational and Maintenance contract up to 2-3% of estimated cost of the solar panels may be considered for new solar panel installation</li> </ul>                                                                                                                       |                                                                           |
|                                                                | <ul style="list-style-type: none"> <li>Battery replacement cost for off-grid solar power systems (cost as per 2025)</li> </ul>                                                                                                                                                                                   |                                                                           |
|                                                                | <b>Lead acid batteries</b>                                                                                                                                                                                                                                                                                       |                                                                           |
|                                                                | <b>VRLA (Gel batteries)</b>                                                                                                                                                                                                                                                                                      |                                                                           |
|                                                                | <b>Lithium-Ion batteries</b><br>(6-7year battery life)                                                                                                                                                                                                                                                           | @Rs.15,000 per kWh of existing solar panel system                         |
|                                                                |                                                                                                                                                                                                                                                                                                                  | @Rs.5,00,000                                                              |

|  |                                                    |                                                               |
|--|----------------------------------------------------|---------------------------------------------------------------|
|  | <b>Installation of Rainwater Harvesting System</b> | for PHC<br>@Rs.8,00,000<br>for CHC<br>@Rs.10,00,000<br>for DH |
|--|----------------------------------------------------|---------------------------------------------------------------|

\*Estimated based on field implementation and government benchmarks

**Note: Submit budget proposal for above mentioned activity unless funds available from other sources**

## B. PROPOSED UNIT COSTS FOR DOCUMENTATION OF BEST PRACTICES

|                                        |                                                                                                   |                |
|----------------------------------------|---------------------------------------------------------------------------------------------------|----------------|
| <b>Documentation of best practices</b> | Best practice of community-based intervention on climate change and health:<br><b>Two reports</b> | @20,000/report |
|----------------------------------------|---------------------------------------------------------------------------------------------------|----------------|

## ANNEXURE 7: BENCHMARK COSTS FOR GRID CONNECTED ROOFTOP SOLAR PHOTOVOLTAIC SYSTEM BY MINISTRY OF NEW AND RENEWABLE ENERGY

*(Guiding document for cost estimation for health facilities)*

□

## ANNEXURE 8: NPCCHH KEY DELIVERABLES AND TARGETS FOR ACTIVITIES (PIP FY. 2026-27, 2027-28 ) Proposed Key Deliverables NHM- 2026-27 & 2027-28- NPCCHH

| National Programme on Climate Change and Human Health |                |                                                                                                                                                  |            |         |         |              |
|-------------------------------------------------------|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------|------------|---------|---------|--------------|
| Sl. No                                                | Indicator Type | Key Del .NHM                                                                                                                                     | Unit       | 2026-27 | 2027-28 | Source       |
| 1                                                     | Output         | Districts that have completed their District Action Plan on Climate Change and Human Health (DAPCCHH)                                            | Percentage | 100%    | 100%    | State Report |
| 2                                                     | Output         | Districts' Nodal Officers trained on Climate Change and Health                                                                                   | Percentage | 100%    | 100%    | State Report |
| 3                                                     | Output         | Medical Officers trained on Climate Change and Health                                                                                            | Percentage | 50%     | 100%    | State Report |
| 4                                                     | Output         | Other regular cadres (staff nurses, paramedics, pharmacists, MRT, Health Supervisor, Lady Health Visitors) trained on Climate Change and Health. | Percentage | 10%     | 20%     | State Report |
| 5                                                     | Output         | Health Care Workers (CHO, ANMs) on Climate Change & Health                                                                                       | Percentage | 10%     | 20%     | State Report |
| 6                                                     | Output         | ASHA supervisor/facilitator and ASHAs trained on Climate Change and Health                                                                       | Percentage | 10%     | 20%     | State Report |
| 7                                                     | Output         | DH& SDH with operational Heat Stroke                                                                                                             | Percentage | 30%     | 40%     | State Report |



|    |        |                                                                                                                                                                      |            |                |                |              |
|----|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|----------------|----------------|--------------|
|    |        | Room (01 <sup>st</sup> Mar to 31 <sup>st</sup> July) in Heat Prone States.                                                                                           |            |                |                |              |
| 8  | Output | District-level hospital in Urban areas with a functioning Chest Clinic rendering services on air pollution impact during winter months (prioritizing in NCAP cities) | Number     | 4 DH per state | 8 DH per state | State Report |
| 9  | Output | Ambulances equipped to provide health care services for heat-related illnesses during the summer season                                                              | Percentage | 10%            | 20%            | State Report |
| 10 | Output | Solarisation of Health Care Facilities                                                                                                                               | Percentage |                |                | State Report |

Training on Climate Change and Health includes- Heat Related Illness, Air Pollution Related Illness, Extreme Weather Events, Green and Climate Resilient Healthcare

| Human Resources for NPCCHH |                     |                                                                                      |
|----------------------------|---------------------|--------------------------------------------------------------------------------------|
| Designation                | Number of Positions | Budget Head                                                                          |
| State Consultant (NPCCHH)  | Consultant 1        | 14.2.4.1                                                                             |
|                            | Consultant 2        |                                                                                      |
| Data Entry Operator        | 1 DEO per district  | District may propose a DEO under HR Annex after requisite allocation under State NHM |

### ANNEXURE 9: AVAILABLE DISTRICT HAZARD/VULNERABILITY MAPPING TO IDENTIFY PRIORITY AREAS FOR PLANNING AND ACTIONS

| Climate Hazard                                                         | District Level Hazard/Vulnerability Mapping*                                                                                                                                                                                     | Relevant Key Deliverables<br>PIP FY26-27, 27-28                                                                                                                    |
|------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>National Climate-Health Risk Assessment (2025)</b><br>MoHFW, MOEFCC | Multi-Hazard District-Index: <a href="https://tinyurl.com/CHRDistrictIndex">https://tinyurl.com/CHRDistrictIndex</a><br>Complete report: <a href="https://tinyurl.com/ClimHealthRisk25">https://tinyurl.com/ClimHealthRisk25</a> | 7. Current and future hazard specific and combined <b>climate-health risk</b><br>8. useful for implementation of all key indicators, except those on air pollution |
|                                                                        | <a href="#">Total No. of Annual Disastrous Heat Wave Days, 1969 to 2019, by IMD</a> (Hazard map)                                                                                                                                 | 7. Heatstroke room development                                                                                                                                     |

|                 |                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                    |
|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Extreme heat | <a href="https://imdpune.gov.in/hazardatlas/heatnew.html">https://imdpune.gov.in/hazardatlas/heatnew.html</a>                                                                                                                                                                                        | 8. Ambulance preparedness for HRI management<br><br>7. Energy audit, efficiency measures<br>8. Solar panel installation<br>9. Rainwater harvesting installation<br>10. Passive cooling-cool roof/green roof measures<br>11. Consistent HRI surveillance reporting<br>12. Subject-specific IE C & Capacity building |
| 2. Drought      | <a href="#">Drought Normalized Vulnerability Index, by IMD (Hazard map)</a><br><a href="https://imdpune.gov.in/hazardatlas/droughtnew.html">https://imdpune.gov.in/hazardatlas/droughtnew.html</a>                                                                                                   | 7. Rainwater harvesting installation<br>8. Energy audit, efficiency measures<br>9. Solar panel installation<br>10. Subject-specific IE C & Capacity building                                                                                                                                                       |
| 3. Flood        | <a href="#">Total Number of Flood Events During the Period from 1969 to 2019, by IMD (Hazard map)</a><br><a href="https://imdpune.gov.in/hazardatlas/floodnew.html">https://imdpune.gov.in/hazardatlas/floodnew.html</a>                                                                             | 7. Structural flood-resilient measures (new facility/retrofitting of old)<br>8. Energy audit, efficiency measures<br>9. Solar panel installation<br>10. Subject-specific IE C & Capacity building                                                                                                                  |
| 4. Cyclone      | <a href="#">Return Period (in years) for Cyclonic Storm (CS) Passing Within 50 Nautical Miles of Coastal Districts: Annual (1961-2020) (Hazard map)</a><br><a href="https://imdpune.gov.in/hazardatlas/cyclonenew_p1961_2020.html">https://imdpune.gov.in/hazardatlas/cyclonenew_p1961_2020.html</a> | 7. Energy audit, efficiency measures<br>8. Solar panel installation<br>9. Rainwater harvesting installation<br>10. Subject-specific IE C & Capacity building                                                                                                                                                       |
|                 | <a href="#">Total Number of Disastrous Cold Wave Days in Annual During the Period from 1969 to</a>                                                                                                                                                                                                   | 7. Energy audit, efficiency measures                                                                                                                                                                                                                                                                               |

|                  |                                                                                                                                                                                                                           |                                                                                                                                                           |
|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| 5. Cold wave     | <a href="https://imdpune.gov.in/hazardatlas/coldnew.html">2019</a> (Hazard map)<br><a href="https://imdpune.gov.in/hazardatlas/coldnew.html">https://imdpune.gov.in/hazardatlas/coldnew.html</a>                          | 8. Solar panel installation<br>9. Subject-specific IE C & Capacity building                                                                               |
| 6. Landslide     | Landslide hazard map<br><a href="https://ndem.nrsc.gov.in/geological_lshz.php">https://ndem.nrsc.gov.in/geological_lshz.php</a>                                                                                           | 7. To avoid development of climate-resilient facility new or retrofitting of old<br>8. Reassess utilization of health facilities in landslide prone areas |
| 7. Air pollution | <a href="https://cpcb.nic.in/uploads/Non-Attainment_Cities.pdf">Non-attainment cities (131)</a> <a href="https://cpcb.nic.in/uploads/Non-Attainment_Cities.pdf">https://cpcb.nic.in/uploads/Non-Attainment_Cities.pdf</a> | 7. Subject-specific IE C & Capacity building<br>8. Consistent Sentinel surveillance reporting                                                             |

\*If available, hazard/vulnerability mapping done by **State or District Disaster Management Authority** should be considered and utilized. #Proposed priority recommendation pertains more for **Green & Climate Resilient components**; all other programme activities should be scaled up to cover all the districts in line with given key deliverable targets

## ANNEXURE 10: REFLECTING THE BUDGET HEAD FOR PROPOSED ACTIVITIES

| S<br>·<br>N<br>o | Activities                                | Unit Cost                                                                                                                                                                                                                                                                                                                                                                                                      | Remarks/funding source                                                                                                                               |
|------------------|-------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1                | <b>Key Objective-1: General Awareness</b> |                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                      |
|                  |                                           | Should cover following per district per year <ul style="list-style-type: none"> <li>• <b>Banners:</b> At-least 1 banner per Front Line Worker for using during V/UHSNC and other community engagement activities</li> <li>• <b>Flipcharts/Booklets:</b> At-least one per FLW for using during community engagement activities</li> <li>• <b>Posters:</b> At least 2 large wall poster and/ 2 foam b</li> </ul> | <ul style="list-style-type: none"> <li>• NPCCHH and other related programmes like NVBD CP, NOHP, IDSP, NTEP, NP-NCD, NMHP, RMNCH+AN, etc.</li> </ul> |

|   |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |
|---|--------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
|   |                                                                                      | <p>oard posters printed and disseminated in all health care facilities and all government educational institutes.</p> <p>O. ne each at each facility/ institute per year.</p> <ul style="list-style-type: none"> <li>• <b>Hoardings/billboard:</b> 5-10 billboards on prevalent CSD in the district should be placed in public areas</li> <li>• <b>Wall painting:</b> 1-2 wall paintings on prevalent CSD per healthcare facility</li> <li>• <b>Audio-video clips</b> on climate change and health should run in mass media throughout the year - 1-2 <b>video clips</b> of 1-2 minutes duration broadcasted on CSD relevant to that part of year</li> <li>• 1-2 <b>radio clips</b> of 1-2 minutes duration broadcasted on CSD relevant to that part of year</li> <li>• Digital display of IEC should also be run in equipped healthcare facilities and government institutions</li> <li>• <b>Painting on Buses:</b> Paint posters on 5-10 buses per district on prevalent CSD in the district</li> <li>• <b>Social media:</b> Twitter and/ Facebook should be used if district officials have accounts, to post IEC and event related info with appropriate tagging.</li> </ul> |  |
| 2 | <b>Key Objective-2: Capacity building of health professionals and health workers</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |
|   | ToT of Programme Officers/Programme Managers/Community Process Man                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |

|                                                              |                                                                                                                                                          |                                                                                                                                                            |                                                                                                                                                                                                        |
|--------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2.1                                                          | Trainers/Health Education Officers/Data Entry Operators at State/District/Block level- On NPCCHH implementation and activities                           |                                                                                                                                                            | <ul style="list-style-type: none"> <li>NPCCHH /NVBCP /IDSP/Quality Assurance/ NMHP/Programme for intersectoral coordination with Zoonotic Diseases/NPCDCS/RCH</li> </ul>                               |
| 2.2                                                          | CHO, ANMs & ASHAs on NPCCHH                                                                                                                              |                                                                                                                                                            |                                                                                                                                                                                                        |
| 2.3                                                          | Training of Specialists/Sentinel surveillance nodal officer/ Medical Officers and Allied Healthcare professionals on NPCCHH and related issues           |                                                                                                                                                            |                                                                                                                                                                                                        |
| 2.4                                                          | District level private sector engagement workshop in 375 Districts in district with large private sector presence                                        | @ Rs. 0.60 Lakhs per workshop (1 workshop per district per year)                                                                                           | <ul style="list-style-type: none"> <li>NPCCHH</li> </ul>                                                                                                                                               |
| 2.5                                                          | Setting up and operationalising the Model Climate Health Service Learning Hub at SIH FW/SHRSC/Medical Colleges in 6 states on pilot basis                | Set up of the Hub- Rs. 2.00 Lakhs per Hub<br>Operationalisation of the hub- Rs. 1 Lakhs per batch (30 participants per batch)- 10 batches per Hub per year | <ul style="list-style-type: none"> <li>NPCCHH (to purchase accessories and job aids. Procurement of medical supplies and logistics to be done from HSS/other heads already mentioned below)</li> </ul> |
| <b>3 Key Objective-3: Strengthening of the health system</b> |                                                                                                                                                          |                                                                                                                                                            |                                                                                                                                                                                                        |
| 3.1                                                          | Assessment of the health care facilities for Green Measures in Healthcare Facilities                                                                     | -                                                                                                                                                          | -                                                                                                                                                                                                      |
| 3.2                                                          | Climate Resilient Healthcare Infrastructure                                                                                                              |                                                                                                                                                            |                                                                                                                                                                                                        |
|                                                              | 3.2.1. New healthcare facilities with climate resilient infrastructural features                                                                         | @Rs.1.43 Crore for PHCs<br>@Rs.5.75 Crores for CHCs<br>Based on available hazard/vulnerability assessment (Annexure 9)                                     | <ul style="list-style-type: none"> <li>HSS. 4- Infrastructure as per IPHS norms</li> </ul>                                                                                                             |
|                                                              | 3.2.2. Existing healthcare facilities Retrofitting Healthcare Facility Infrastructure (Climate/ Disaster resilient) in Districts as per IPHS guidelines. | @Rs.5 Lakh per HCF or Based on available hazard/vulnerability/ health facility gap assessment (Annexure 9)                                                 | <ul style="list-style-type: none"> <li>NPCCHH</li> <li>Untied fund/</li> <li>Major upgradation of civil work can be covered under IPHS (HSS. 4)</li> </ul>                                             |
|                                                              | 3.2.3. Heatstroke Management Units (Details in Annexure 5)                                                                                               | Based on available hazard/vulnerability assessment (Annexure 9)                                                                                            | <ul style="list-style-type: none"> <li>NPCCHH</li> <li>Untied fund/</li> </ul>                                                                                                                         |

|  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                        |                                                                                                                                                                       |
|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <p>3.2.3. Flood resilient measures in existing HCFs</p> <ol style="list-style-type: none"> <li>Raise appropriately the floor and increase its strength (facility) to ward off from flooding. Make floodwall. Use flood damage resistant materials.</li> <li>Design roof to provide quick drainage and a structure that avoids any seepage or leakage.</li> <li>Place sewer backflow valves to prevent flooded sewage systems from backing up into HCF.</li> <li>Design surroundings to allow flood water outlet and avoid its pooling and damage.</li> <li>Provision for electricity back up (generators, server rooms) or solar supply.</li> <li>Move drug store, critical equipment to higher floors in the building or provisions for shifting to non-flooded areas during emergencies.</li> <li>Map historical flood levels and accordingly design location site the HCF facilities floor levels at which critical services are relocated.</li> <li>Have functional sump pumps with battery backup</li> </ol> | <p>Based on available hazard/vulnerability assessment (Annexure 9)</p> | <ul style="list-style-type: none"> <li>NPCCHH</li> <li>Untied fund/</li> <li>Major upgradation of civil work can be covered under HSS. 4 as per IPHS Norms</li> </ul> |
|  | <p>3.2.4. Cooling measures for HCF (Climate Resilient measures in heat vulnerable areas)</p> <ol style="list-style-type: none"> <li>Cool Roof Plans with solar or heat reflection</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <p>Based on surface area</p>                                           |                                                                                                                                                                       |

|     |                                                                                                                                                                                                     |                                                                                                                                               |                                                                                                                                                                                               |
|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|     | ctor (Solar reflecting index of more than 90) (lime paint / acrylic polymer/emulsion/elastomeric paints)                                                                                            | (cost may vary from place to place and range from Rs.1.50 to Rs. 5/Sq. Ft)<br>Based on available hazard/vulnerability assessment (Annexure 9) | <ul style="list-style-type: none"> <li>• NPCCHH</li> <li>• Untied funds/ CSR funds</li> </ul>                                                                                                 |
| 3.3 | Green (Environmentally Sustainable) and Climate Resilient Measures in Healthcare Facilities                                                                                                         |                                                                                                                                               |                                                                                                                                                                                               |
|     | 3.3.1. Adoption of Energy efficiency measures in the existing HCFs                                                                                                                                  |                                                                                                                                               |                                                                                                                                                                                               |
|     | a. Energy auditing in Healthcare Facilities<br>(Identifying all energy end-uses in the facility, estimating the amount of energy used by each end-use, conducted in-house or by a qualified agency) | Rs.3 Lakhs/District                                                                                                                           | <ul style="list-style-type: none"> <li>• Contact Bureau of Energy Efficiency</li> <li>• Others including operating costs (OOC)</li> <li>• Kayakalp</li> <li>• CSR funds</li> </ul>            |
|     | b. Replace existing lighting (Non-LED) with LED                                                                                                                                                     | Rs.7 Lakhs/District                                                                                                                           | <ul style="list-style-type: none"> <li>• Contact Bureau of Energy Efficiency</li> <li>• Untied funds</li> <li>• Corpus funds available with the facility</li> </ul>                           |
|     | 3.3.2. Adoption of Solarisation (renewable energy) in the exiting HCFs (Cost mentioned below are for off-grid systems)                                                                              |                                                                                                                                               |                                                                                                                                                                                               |
|     | Connectivity of services of prime importance –emergency, essential care, childbirth, freezer for cold chain maintenance (vaccines), new-born care corners with solar power back-up                  | Rs.20 Lakhs/ District                                                                                                                         | <ul style="list-style-type: none"> <li>• Contact MNRE appointed agencies</li> <li>• NPCCHH (for one-time cost)</li> <li>• Untied fund (Recurring expenditure)</li> <li>• CSR funds</li> </ul> |
|     | 3.3.3. Adoption of Water conservation measures                                                                                                                                                      |                                                                                                                                               |                                                                                                                                                                                               |
|     | Install Rainwater Harvesting (RWH) System                                                                                                                                                           | Rs.20 Lakhs/ District                                                                                                                         | <ul style="list-style-type: none"> <li>• Contact MoJS or MoRD agencies</li> <li>• NPCCHH (for one-time cost)</li> <li>• Untied fund (Recurring expenditure)</li> <li>• CSR funds</li> </ul>   |
|     | 3.3.4. Waste Management                                                                                                                                                                             |                                                                                                                                               |                                                                                                                                                                                               |
|     | Effluent treatment plan (ETP) for toxic effluents from the healthcare facilities to the                                                                                                             | (Varies as per the capacity/ load)<br>@ Rs.5 lakhs (max) for CHC                                                                              | <ul style="list-style-type: none"> <li>• Under HSS. 4- Public Health Institutions as per IPHS n</li> </ul>                                                                                    |

|     |                                                                                                |                                                                               |                     |
|-----|------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|---------------------|
|     | environments                                                                                   | @ Rs.10 Lakhs (max) for SDH (100beds)<br>@ Rs.40 Lakhs (max) for DH (500beds) | orms<br>• CSR funds |
| 3.4 | Documentation of best practices                                                                |                                                                               |                     |
|     | 3.4.2. Best practice of community-based intervention on climate change and health: Two reports | @20,000/report                                                                | • NPCCHH            |

| Activity                                                                                                          | Budget Head                                                                                                                                                   | Activity                                                                                                                | Budget head                                                                                                                                      |
|-------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| Quarterly State Task Force Meetings                                                                               | Planning and M&E                                                                                                                                              | Kayakalp Assessment of health facilities                                                                                | Kayakalp: OOC (HSS.6)                                                                                                                            |
| State Governing Body meeting (1 in 6 months)                                                                      | Planning and M&E                                                                                                                                              | Air Pollution Related illnesses                                                                                         | • NPCCHH (NCD .7)<br>Surveillance, Research, Review, Evaluation (SRRE)                                                                           |
| Quarterly District Task Force Meetings                                                                            | Planning and M&E                                                                                                                                              | Documentation for direct knowledge transfer                                                                             | (NPCCHH, NCD .7)<br>Surveillance, Research, Review, Evaluation (SRRE)                                                                            |
| Submission of District Action Plan on Climate Change and Human Health (DAPCCHH)                                   | Planning and M&E                                                                                                                                              | Effluent treatment plant (ETP)                                                                                          | • Kayakalp: OOC (HSS.6)<br>Other Infrastructure/ Civil works/expansion etc. (HSS.4)                                                              |
| Development of IEC material, campaigns, Innovative IEC/ BCC Strategies                                            | <b>IEC &amp; Printing</b><br>• NPCCHH (NCD .7)<br>IEC & Printing<br>• Specific requirement of the state/UT<br>• Other Community engagement components (HSS.3) | Green and Climate Resilient Infrastructure measures e.g.<br>• Energy efficiency<br>• Solarization<br>Water conservation | Infrastructure - Civil works<br>• NPCCHH (NCD .7)<br>• Green Measures in Health care facilities<br>• Solar Panel<br>Rain water harvesting system |
| Orientation/ Training /capacity Building of healthcare staffs (Including training on Kayakalp eco-friendly theme) | <b>Capacity Building</b><br>• NPCCHH (NCD.7)<br>• IDSP (NDCP.1)<br>• NVBDCP (NDCP.2)                                                                          | Heat Related Illness                                                                                                    | • NPCCHH (NCD .7)<br>Equipments/ Drugs/Infrastructure - Civil works (I&C)/ Other operating cost (OOC)                                            |



|                                                                                  |                                                                                                                                                                                                                                                            |  |  |
|----------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
|                                                                                  | <ul style="list-style-type: none"> <li>• Health &amp; Wellness Centres (HSS.1)</li> <li>• Quality Assurance (HSS.6)</li> <li>• NMHP</li> <li>• Programme for intersectoral coordination with Zoonotic Diseases</li> <li>• NPCDCS</li> <li>• RCH</li> </ul> |  |  |
| Integration with other health programmes, Panchayati Raj Institution and schools | <b>Capacity Building</b> <ul style="list-style-type: none"> <li>• NPCCHH (NCD.7)</li> <li>• Health &amp; Wellness Centres (HSS.1)</li> <li>•</li> </ul>                                                                                                    |  |  |

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