National Programme on Climate Change and Human Health

PIP Guidance Note for Districts

FY. 2024-25, 2025-36

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 (template enclosed) should be finalized by all the districts by end of financial year 2023-24.

The **guidance note** enclosed here should guide district health officials on priority activities and key targets under NPCCHH for financial years 2024-25 and 2025-26. Heat-related illnesses, air pollution related diseases, and green (environmentally friendly and sustainable) and climate resilient infrastructure are three important climate sensitive health issues out of 17 climate sensitive diseases and issues identified for action in the programme. IEC and training at all levels will cover all of these subject specific areas. Heat-related illness surveillance and acute respiratory illness surveillance 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.

CONTENTS

NATIONAL PROGRAMME ON CLIMATE CHANGE AND HUMAN HEALTH (NPCCHH)

FY. 2024-25, 2025-36

- NPCCHH was approved in February 2019 for funding of the implementation of the programme related activities in the States under National Health Mission (NHM) and subsequently, it began receiving funding from FY. 2019-20 onwards.
- 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 7) for FY 2024-25, 2025-26.
- 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. **Awareness Generation** among the population especially vulnerable communities, health-care providers and policy makers regarding impacts of climate change on human health 2. **Capacity building of healthcare system** to reduce illnesses/ diseases due to variability in climate 3. **Health sector preparedness and response** including district level
4. To **develop partnerships and create synchrony**/ synergy with other missions, departments and programmes 5. To **steer research** on climate change and health

Health impact due to climate change is broadly considered in two ways:

- **Direct health impact** due to increased frequency and intensity of extreme weather events; examples- Heat wave, floods, heavy rainfall, cyclones, heat waves, droughts, cold waves
- **Indirect health Impact**: Water borne, vector borne, nutrition related illnesses etc

Accordingly, 17 Climate Sensitive Diseases (CSDs) or health issues are identified for focused action and integration under NPCCHH **(Annexure 1)**. Five priority 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. Vector-borne diseases
5. Extreme weather events related health impacts

DISTRICT LEVEL ORGANIZATIONAL FRAMEWORK

Ensuring establishment of the organizational structure is important for effective roll out of the programme. At district level, following structure should be ensured.

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

1. District level Multi-sectoral Task Force (DTF) on Climate Change and Health

Under the Chairmanship and guidance of District Collector, a District Task Force will be constituted and the members will contribute in preparing District Action Plan for Climate Change and Human Health (DAPCCHH). The recommended District Task Force structure is attached (**Annexure 2)**.

The District ensures that the DTF holds meeting every quarter in a year and the Task Force members oversees drafting, implementation, evaluation and revision of their district-specific **District 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 climate sensitive issues (CSI) 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 by the end of FY. 2023-24.

2. **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 CSI 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

Quarterly District Taskforce meetings

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

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

Some of the suggested key topics to be discussed in a DTF 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 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 challenges incurred during implementation of programme activities and revision of DAPCCHH based on identified challenges
- 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 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 meetings in the state along with MoMs to reach NPCCHH-HQ by 10th of every new financial quarter.

PROPOSED DISTRICT LEVEL ACTIVITIES

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. IEC Campaign

The District is aimed to create awareness through Information Education and Communication Activities (IEC) 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 content for the IEC for the all the climate sensitive issues will be provided by NPCCHH. The role of the District is to utilise these materials and translate the content into the local or regional language 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. District will utilise social media platform for propagating the climate sensitive issues as a means of wider and speedy method for creating awareness.

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 level and forwarded to Districts through State/UT 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://bit.ly/NPCCHHPrg*

c. Observance of important days on environment and health

Following days should be observed and activities to create community awareness relevant to signifying importance of the day are to be planned under NPCCHH every year

- World Water Day (March 22)
- World Health Day (April 7)
- World Environment Day (June 5)
- International Day of Clean Air for blue skies (September 7)
- World Environmental Health Day (September 26)
- International Day for Disaster Risk Reduction (October 13)
- International Day of Climate Action (October 24)
- National Pollution Day (December 2)

With the help of ANMs and ASHAs district will ensure **involvement of Village Health Nutrition and Sanitation Committee (VHNSC) and its members** in the planning and implementation of activities planned to observe above mentioned days.

Districts are encouraged to ensure mobilization of youths in the district by involving schools in the district, to this effect **Community Health Officers (CHOs) at the Health Wellness Centres in the district will plan activities to observe days along with School Health Wellness Ambassadors** in their geographical area of working.

At the district, sub-district, facility and VHNSC 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 IEC

In order to strengthen the IEC activities at District level and sub district level, monitoring and supervision will be given equal importance. DNO and members of DEHC should visit villages and health facilities to monitor the IEC activities, communication activities are carried out at periphery level. 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.

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 (1 Day)	State Trainers, SNO	DNO, Epidemiologists	DAPCCHH
b. Specialist (3 days)	District Level Trainers DNO	Specialists (DH/SDH/CHC)	Priority Climate sensitive health issues (Recommended schedule in Table 3)
c. Medical officers (3 days)	District Level Trainers DNO	MO, AYUSH Mos CHOs (DH/CHC/PHC/HWC)	
d. Community Health care workers (HCW) (2 days)	District Level Trainers, MO	Community Health Workers (ANM, MPW, ASHA)	
e. Panchayati Raj Institutions (1day)	District level trainers, MO, Health care workers	VHNSC, Panchayati Raj Institutions, communities	
f. Sentinel Surveillance Nodal Officers (1 day)	State Level Trainers, District Level Trainers DNO	Sentinel Surveillance Nodal Officers	ARI Surveillance

Modules for the training will be provided by NPCCHH. Training subjects should be selected in a way that training of MO and HCW 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, for MO and HCW, so they ensure health facility preparedness and remain vigilant for identification of illnesses in the population.

b. HRI and ARI Surveillance Training

A training on surveillance of HRI and ARI reporting on IHIP portal to be organised in each district.

Table 3: Recommended schedule of training	
Time of year	**Content matter**
February-March	• Heat-related illnesses including HRI surveillance reporting on IHIP • Disaster related health issues • Green & Climate resilient infrastructure
April-June	• Vector borne diseases • Zoonotic diseases • Water borne diseases • Food security and Nutrition related illnesses
July-September	• Air pollution-related illnesses including ARI surveillance reporting • Cardio pulmonary diseases • Allergic diseases
October-December	• Climate change and health impacts (generic and climatic zone-wise) • Mental Health, Occupational health • Coastal Climate Sensitive Diseases *(if applicable)* • Hilly region and Mountainous Climate Sensitive Diseases *(if applicable)* • *Vulnerability Needs Assessment on CC & HH*

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 by performing situational analysis at national/ state/ district/ below district levels.

A. HEAT-RELATED ILLNESSES

1. Surveillance

a. Surveillance of Heat-Related Illnesses (HRI)

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,** by login on *https://ihip.nhp.gov.in/npcchh/* using their existing p-form level credential, **from March 1 to July 31.** Daily linelist of suspected heatstroke cases, suspected heatstroke deaths, confirmed cardiovascular and confirmed heatstroke deaths should be maintained by the health facilities. The data collection formats are given in National Action Plan on Heat Related Illnesses (NAPHRI) *(https://bit.ly/NAPHRI)*.

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.

All suspected heatstroke deaths in the district should be investigated by a three-member committee using death investigation format provided in National Action Plan on Heat Related Illnesses *(https://bit.ly/NAPHRI)* and reported in relevant surveillance format.

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 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 **1st March to 31st 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 Room.

The specific logistical requirements and key deliverables for the Heat Stroke Rooms 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.

B. AIR POLLUTION RELATED DISASES IN CONTEXT OF CLIMATE CHANGE

1. Surveillance on air pollution related illnesses in all States Presently on Acute Respiratory Illness (ARI) in context of Air Pollution

The objective of ARI surveillance is to identify the trend of air pollution related illness in context of the outdoor air quality at an area and its report is shared to all relevant authorities including public health authorities to minimize the impact of the air pollution through timely appropriate intervention measures.

- 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)*

- 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 (mainly 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.*(https://ncdc.gov.in/index1.php?lang=1&level=2&sublinkid=922&lid=697)*.
- 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 122 NCAP cities and cities with high air pollution levels should ensure implementation of the plan to prepare health facility to prevent and manage ARI cases.

2. 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.

C. GREEN (ENVIRONMENTALLY FRIENDLY AND SUSTAINABLE) AND CLIMATE RESILIENT INFRASTRUCTURE

Defining the concepts of adaptation and mitigation

- **Green Healthcare facility Infrastructure (Mitigation)**

Health care including hospitals, health systems and the health products supply chain can paradoxically contribute to emissions from the entire lifecycle of their operations, estimated to be 2.6 gigatons of carbon dioxide a year or about 4.6% of total greenhouse gas emissions. 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)**

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.

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

1. **Guidelines for Green and Climate Resilient Healthcare Facilities** https://bit.ly/GCRHCF
2. **Guidelines for Solar Powering Healthcare Facilities** https://bit.ly/Solar_HCF

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

1. **Energy Auditing of the Healthcare Facilities for Energy Efficiency level in the HCFs (Carbon Emissions Reduction Measures from health sector)**

- The Healthcare Facilities is 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 has to 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 Measures to reduce carbon emissions HCFs)**

- 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

- 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.
- For hospitals, alternative energy means an initial investment with potential savings later on. For regions that have no access to electricity, alternative energy sources can fuel primary health-care facilities in even the most remote areas.
- Finally, alternative sources of energy give health facilities an advantage in terms of disaster preparedness, since alternative energy sources are less vulnerable to disruption than traditional fossil fuel systems.

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 maintenance component to the State Nodal Agency of REDA.
- NPCCHH-HQ is working with partners to provide technical support in pre-solarization assessment, solar panel specification and tender preparation processes. DNO may gather more info from SNO or contact NPCCHH-HQ.
- If the proposal is approved, State/District Nodal Agency of REDA in the District themselves will conduct the activity in Districts.

- 20-30% subsidy will be obtained from MNRE 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.
- 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

- 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.

  - 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.

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 Jalshakthi in the District. If the fund is not available through Ministry of Jalshakthi 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 Jalshakthi, 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.

D. VECTOR-BORNE DISEASES IN CONTEXT OF CLIMATE CHANGE

- Convergence with existing health programe 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 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 8)** 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.

4. RESEARCH ON CLIMATE CHANGE AND HEALTH

a. Population based climate and health vulnerability assessment (Annexure 9)

1. State will collaborate with local/regional medical or technical college/or a university to conduct population-based health vulnerability analysis in the context of climate change.
2. Vulnerability assessment modules developed by the programme to be used to conduct such assessments.
3. **Assessment to be conducted in 1 urban district and 1 rural district in the state.**

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

1. 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 7.**

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[1]

- 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 measures1

- 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://ncdc.gov.in/showfile.php?lid=959)

ANNEXURE 1: CLIMATE SENSITIVE DISEASES UNDER NPCCHH

Climate Sensitive Diseases (CSDs or Health Issues)
1. **Air Pollution related illnesses** 2. **Heat-related illnesses** 3. **Green and Climate Resilient infrastructure** 4. **Vector borne Diseases** 5. **Extreme weather events related health issues**
6. WASH & Water borne Diseases 7. Zoonotic Diseases and One Health 8. Cardiopulmonary Diseases 9. Allergic health issues 10. Nutrition-related diseases, Food security 11. Mental Health Issues 12. Coastal Climate Sensitive Diseases 13. Hilly region and Mountainous Climate Sensitive Diseases 14. Mental health 15. Occupational health 16. Vulnerability assessment 17. Health information system

ANNEXURE 2: DISTRICT LEVEL MULTI-SECTORAL TASKFORCE

Constitution of District level Multi-Sectoral Taskforce
District Collector (Chairman)
CMO/DHO/CHMO (Co-Chairman)
District Nodal Officer- NPCCHH (Member Secretary)
Members -
1. District Surveillance Officer
2. District Epidemiologist
3. District Malaria Officer/Vector-borne Diseases
4. District Programme Officer, NHM
5. District Disaster Management Authority
6. Department of Agriculture
7. Department of Water and Sanitation
8. Department of Animal Husbandry
9. Public Work Department
10. Department of power
11. District education department
12. Department of medical education
13. HoD, Preventive and Social Medicine of District level medical college/s
• Inclusion of those experts who can give technical guidance for the development in the chapters of the developing DAPCCHH guideline • Inclusion of Members (preferably) of the committee that drafted District Action Plan on Climate Change (DAPCC) under Department of Environment, Forest and Climate Change

ANNEXURE 3: SUGGESTED IEC ACTIVITES AND DISSEMINATION PLAN

Communication Method	Content

• **Posters**: At least 1-2 large wall poster and/ 1-2 foam board posters printed and disseminated in all healthcare facilities and all government educational institutes.
• One each at each facility/ institute per year.
• **Hoardings/billboard**: 5-10 billboards on prevalent CSI in the district should be placed in public areas
• **Wall painting**: 1-2 wall paintings on prevalent CSI per healthcare facility
• **Audio-video clips** on climate change and health should run in mass media throughout the year
  - 1-2 **video clips** of 1-2 minutes duration broadcasted on CSI relevant to that part of year
  - 1-2 **radio clips** of 1-2 minutes duration broadcasted on CSI relevant to that part of year
• Digital display of IEC should also be run in equipped healthcare facilities and government institutions
• **Painting on Buses**: Paint posters on 5-10 buses per district on prevalent CSI in the district
• **Social media:** Twitter and/ Facebook should be used if district officials have accounts, to post IEC and event related info with appropriate tagging.
	• IEC content on CSI will be provided by NCDC which should be translated into local language/s by State/District
	• Districts may also create their own content

Dissemination Plan

Recommended schedule of CSI to be focused in the IEC campaign	
Time of year	Content matter
Summer (March-July preferably)	Heat-related illnesses Disaster related health issues
Monsoon (June-August)	Vector borne diseases Zoonotic diseases Water borne diseases
Winter (September-February with more emphasis and whole year if possible)	Air pollution-related illnesses Cardio pulmonary diseases Allergic diseases
At any time throughout the year	Climate change and health impacts (generic and climatic zone-wise) Mental Health, Occupational health Green & Climate resilient infrastructure Coastal Climate Sensitive Diseases (if applicable) Hilly region and Mountainous Climate Sensitive Diseases (if applicable) Food security and Nutrition related illnesses

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			
1	**Designated District Nodal Officer -Climate Change (DNO)**			
A	If District has identified DNO in the district?		Yes/No	
B	O.M. of appointment of DNO's		Annexed (Yes / No)	
2	**Formation of District Multisectoral Task Force (DMTF)**			
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)	
3	**Capacity Building of State & District Nodal Officers on Climate Change**			
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	**Training on Air pollution**		**Training on Heat Related Illnesses**	
	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	**Training on any other Climate issues**		**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			No of Blocks :	

	Training of Panchayat Raj Institutions in past quarter		No of activities held:		Report Annexed (Yes / No), If Yes, No _____	
4	**IEC in past quarter**					
A	**At Block level in past quarter**					
	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	**At District Level in past quarter**					
	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	
5	**Observation of public health days related to Climate Change in past quarter**					
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			
6	**Printing in past quarter**					
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			

7	**Budget**							
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)							
	At the District level							
	FMR code	**Activities**	**Budget Received**	**Quarter I**	**Quarter II**	**Quarter III**	**Quarter IV**	**Total Expenditure**
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						
	Date of submission			**Signature of SNO**				

NPCCHH OBJECTIVES AND BUDGET HEADS FY. 2024-25, 2025-26

Priority key objectives	Proposed activities	New budget head
1. General awareness	IEC Campaigns	IEC & Printing
2. Capacity building of health professionals and health workers	• Training for the Health Professionals (Specialists, MO, AYSUH MO), CHOs and health workers	Capacity building incl. training
	• Training of VHNSC, PRI/block level training	
	• Training of School Health Wellness Ambassadors	
	• Printing of programme related material	IEC & Printing
	• Task force meeting to draft health sector plan meeting • Sensitization workshop • District Logistics and Mobility support	Planning & M &E
3. Strengthening of the health system	• Surveillance - Heat-related illnesses - Acute respiratory illness due to air pollution • Early Warning, Alert and Response System (EWARS) • Vulnerability Need Assessment • Documentation of best practice	Surveillance Research, Review, Evaluation (SRRE)
	• Heat Stroke room	Equipment, Drugs, Others including operating costs (OOC), Infrastructure – Civil works (I&C)

	• Climate-resilient healthcare facilities	Infrastructure – Civil works (I&C)
	• Greening of health care facilities and Maintenance of greening health care sector	Others including operating costs (OOC)
	• Population based vulnerability health assessment in context of climate change by a medical or technical college/or a university in 1 urban and 1 rural district • 1000-word report on best practice of a community-based intervention on climate change and health	Surveillance Research, Review, Evaluation (SRRE)

ANNEXURE 5: REQUIREMENTS FOR HEAT STROKE ROOMS AND EMERGENCY COOLING

Purpose: Immediate and rapid cooling of a patient suffering from heat exhaustion or suspected heat stroke

A. Requirements for Heat Stroke Room at Tertiary and Secondary Levels

	DH and SDH	CHC
Dedicated room/beds	Dedicated heat stroke room/beds (adult+paediatric) (Minimum 5 beds)	Dedicated heat stroke room/beds (adult+paediatric) (Minimum 2 beds)
	Selecting a heat stroke room/ beds • A room/beds in the health facility where the ambient temperature could be maintained optimally with appropriate natural shading and ventilation. • It should not on the top floor of a building • It can be cooled effectively with fans and coolers if air conditioning is not available. • Refrigerator, ice box, ice packs, ice cool water, cool blankets, wet linens, garden sprayer should be available in or close to the room round the clock.	
Core body temperature measurement	• Rectal thermometers *or* • Continuous core temperature monitor probe	
Cooling equipments *(Goal: to reduce core body temperature to **~39°C (102.2°F)** and to avoid hypothermia)*	For optimal room/air cooling and refrigeration/ice box • Ensure **functional** AC/Cooler/fans and proper maintenance (for room cooling) • Ensure **functional** refrigerator/ice box for ice cubes, cold water, IV fluids	
	For evaporative cooling for all paediatric cases, most adult heatstroke cases especially classic heatstroke ➢ Water spray bottles (used with fans) ➢ ICE packs: minimum 6 ice packs/dedicated bed [Effective, rapid cooling requires 6 packs/patient: on each side of neck (2), in armpits (2), over groin folds (2)] ➢ Towels/sheets: soak with cool water	
	For immersive cooling for exertional heatstroke in adults to fill with cold water and/ ice cubes • Portable bath tub (cool water temperature to kept at 15.5°C/60F) *or* ➢ Waterproof zipper body bags/cadaver body bags ***Important: precautions must be taken to keep head of the patient rested and above water level.***	
Supportive care	Ensure 1. Multiparameter monitor 2. ECG machine with Gel, electrodes, ECG paper 3. Stethoscope, BP apparatus, ET tube and laryngoscope 4. High flow oxygen	

	5. Defibrillator 6. Glucometer and testing strips 7. Ryle's tube (may use for cold water/cold NS gastrict lavage for internal cooling 8. Medicines: Lorazepam, Diazepam, IV anti-seizure medicines like phenytoin and valproate, ORS 9. Cold IV normal saline (0.9%), dextrose 50% in water solution (D50W), Dopamine, dobutamine ***Important: There is no therapeutic role for antipyretics/NASIDs. Paracetamol can worsen liver functions.***
Treatment protocols	Keep posters of **HRI Clinical protocols** and **HRI surveillance case definition/reporting** on walls for easy reference (Refer: National Action Plan on Heat-Related Illnesses and Heatstroke room guidelines)

- **Unit costs of emergency cooling related new/additional equipments**
  Other equipments and medicines mentioned above to be ensured through procurement related common budget heads

Equipment	Unit cost
a. Immersion/bath tub for cooling (portable)	@10,000/unit per DH/SDH/CHC
b. Rectal Thermometer (adults/pediactrics)	@300/unit, 5 per DH/SDH/CHC @300/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)	@30,000/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
Core body temperature measurement	Rectal thermometers	
Cooling equipments *(Goal: to reduce core body temperature to* ***~39°C (102.2°F)***	For optimal room/air cooling and refrigeration/ice box • Ensure **functional** AC/Cooler/fans and proper maintenance (for room cooling) • Ensure **functional** refrigerator/ice box for ice cubes, cold water, IV fluids	
	For rapid cooling for all heatstroke cases at primary/field/community level • Water spray bottles (to be used with fanning)	

and to avoid hypothermia)	• 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)] • Towels/sheets: soak with cool water • Waterproof zipper body bags/cadaver body bags (to be used with ice cubes/cold water) • Tarpaulin: for TACO (tarpaulin assisted cooling oscillation) method (to be used with ice cubes/cold water) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5224736/ • ***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.***
Supportive care	Ensure 1. ECG machine with Gel, electrodes, ECG paper 2. Stethoscope, BP apparatus, ET tube and laryngoscope 3. High flow oxygen 4. Defibrillator 5. Glucometer and testing strips 6. Ryle's tube (may use for cold water/cold NS gastric lavage for internal cooling 7. Medicines: Lorazepam, Diazepam, IV anti-seizure medicines like phenytoin and valproate, ORS 8. **Cold IV** normal saline (0.9%), dextrose 50% in water solution (D50W), Dopamine, dobutamine ***Important: There is no therapeutic role for antipyretics/NASIDs. Paracetamol can worsen liver functions***
Treatment protocols	Keep posters of **HRI Clinical protocols** on walls (Refer: National Action Plan on Heat-Related Illnesses and Heatstroke room guidelines)

ANNEXURE 6: PROPOSED UNIT COSTS

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

Output	Activities	Unit Cost
Green Measures in Healthcare Facilities*	Energy auditing in Healthcare Facilities *(To be done once in 3 years for a facility)*	@Rs.10,000 for PHC @Rs.30,000 for CHC @Rs.1,00,000 for DH
	Replace existing lighting (Non-LED) with LED	@Rs.25,000 for PHC @Rs.75,000 for CHC @Rs.2,00,000 for DH
	Installation of Solar Panels *(Annexure 10)*	@ Rs.15,00,000 for PHC @Rs.40,00,000 for CHC @Rs.70,00,000 for DH
	Install Rainwater Harvesting System	@Rs.5,00,000 for PHC @Rs.8,00,000 for CHC @Rs.10,00,000 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 VULNERABILITY ASSESSMENT AND BEST PRACTICE DOCUMENTATION

Vulnerability assessment and best practice documentation	Population based vulnerability health assessment: For two districts (1 urban and 1 rural)	@20,000/district level assessment/financial year
	Best practice of community-based intervention on climate change and health: Two reports	@20,000/report/financial year

ANNEXURE 7: NPCCHH KEY DELIVERABLES AND TARGETS FOR ACTIVITIES (PIP FY. 2024-25, 2025-26)

Sr No.	Activities	Budget Head	Type of Indicator	Indicator	Target	
					2024-25	2025-26
1	Quarterly State Task Force Meetings	Planning and M&E	Process	• Number of quarterly State Task Force Meetings conducted in a year	4	4
2	State Governing Body meeting (1/6 months)	Planning and M&E	Process	• Number of State Governing Body Meetings	2	2
3	Quarterly District Task Force Meetings	Planning and M&E	Process	• Number of quarterly District Task Force Meetings conducted in a year	4	4
4	Submission of District Action Plan on Climate Change and Human Health (DAPCCHH)	Planning and M&E	Output	• % DAPCCHH published on State NHM Website	25%	50%
	Key Objective 1: - General awareness					
5	Development of IEC material, campaigns, Innovative IEC/ BCC Str ategies	**IEC &Printing** • NPCCHHC (NCD .7) IEC & Printing • Specific requirement of the state/UT • Other Community engagement components (HSS.3)	Output	• % of Districts implemented IEC campaigns other than the days mentioned below (as per Annexure 3) on all climate sensitive issues • % of VHNSCs where dedicated IEC campaign conducted on: a. World Water Day (22nd March) b. World Health Day (7th April) c. World Environmental Day (5th June) d. International Day for Clean Air and Blue Skies (7th September) e. International Day for Disaster Risk Reduction (13th October) f. National Pollution Control Day (2nd December)	100% 100% 100% 100% 100% 100%	100% 100% 100% 100% 100% 100%
	Key Objective 2: - Capacity building of health professionals and health workers					
6	Orientation/ Training /capacity Building of healthcare staffs (Including training on	**Capacity Building** • NPCCHH (NCD.7) • IDSP (NDCP.1)		• % of Districts where DNO and Epidemiologists completed NPCCHH TOT/Refresher TOT	100%	100%

	Kayakalp eco-friendly theme)	• NVBDCP (NDCP.2) • Health & Wellness Centres (HSS.1) • Quality Assurance (HSS.6) • NMHP • Programme for intersectoral coordination with Zoonotic Diseases • NPCDCS • RCH		• % of Specialists in district trained on diagnosis and management of ARI and HRI including HRI surveillance and certification of Heat deaths • % of Sentinel Surveillance Nodal Officers trained for surveillance on ARI • % of Medical officers in district trained on diagnosis and management of HRI and ARI, including surveillance • % of CHOs trained on NPCCHH in District • % of health workers and ASHA/AWW trained on NPCCHH in District • % of districts in which DNOs and Epidemiologists trained on DAPCCHH	75% 75% 80% 100% 100% 25%	100% 100% 100% 100% 100% 50%
	Key Objective 3: - Strengthening of the health system preparedness					
7	Kayakalp Assessment of health facilities	• Kayakalp: OOC (HSS.6)	Process	• % of HCF per district per year that have conducted Kayakalp assessment	50%	100%
8	Heat Related Illness	• NPCCHH (NCD .7) Equipments/ Drugs/Infrastructure - Civil works (I&C)/ Other operating cost (OOC)	Output	• % of DHs and SDH with operational 5 bedded Heat Stroke Room (from 1st March – 31st July) • % of CHCs with operational 2 bedded Heat Stroke Room (from 1st March – 31st July)	25% 25%	50% 50%
		• NPCCHH (NCD .7) Surveillance, Research, Review, Evaluation (SRRE)	Output	• % of ambulances in a district equipped for ambulatory care of HRI cases • % of HCFs reporting HRI cases daily on IHIP portal	25% 50%	50% 100%
9	Air Pollution Related illnesses	• NPCCHH (NCD .7) Surveillance, Research, Review, Evaluation (SRRE)	Output	• % of Sentinel Surveillance Sites reporting ARI cases daily on IHIP portal	80%	100%
10	Green and Climate Resilient Infrastructure measures e.g.	Infrastructure - Civil works • NPCCHH (NCD .7)	Output	• % Districts with at least one climate resilience healthcare facility complying with Green Climate Resilient (GCR) guidelines of the programme	40%	60%

	• Energy efficiency • Solarization • Water conservation	• Green Measures in Health care facilities • Solar Panel • Rain water harvesting system		• % of HCF (HWC, CHC, SDH and DH) where Energy Audit is completed. • % of HCFs (HWC, CHC, SDH and DH) where non-LED lighting is replaced with LED lighting • % of HCFs (HWC, CHC, SDH and DH) solarized • % of HCFs (HWC, CHC, SDH and DH) with operational rain water harvesting system	20% 20% 20% 20%	40% 40% 40% 40%
11	Effluent treatment plant (ETP)	• Kayakalp: OOC (HSS.6) Other Infrastructure/ Civil works/expansion etc. (HSS.4)		• % of HCF having connection with ETP in Districts	30%	60%
12	Vulnerability assessment	• (NPCCHH, NCD .7) Surveillance, Research, Review, Evaluation (SRRE)		• Population based vulnerability health assessment in context of climate change by a medical or technical college/or a university in 1 urban and 1 rural district	1 combined report for 2 districts (urban+rural)	1 combined report for 2 districts (urban+rural)
13	Documentation for direct knowledge transfer	• (NPCCHH, NCD .7) Surveillance, Research, Review, Evaluation (SRRE)		• 1000-word report on best practice of a community-based intervention on climate change and health	2 best practice documents	2 best practice documents
	Key Objective 4: – Foster partnerships to create synchrony/ synergy with other health programmes, missions, and departments.					
14	Integration with other health programmes, Panchayati Raj Institution and schools	**Capacity Building** • NPCCHH (NCD.7) • Health & Wellness Centres (HSS.1)	Output	• % of Jan Arogya Samiti (JAS) and Panchayats sensitized on NPCCHH • % of School Health Wellness Ambassadors sensitized on Climate Change and Health • % Schools/colleges in a district sensitized on Climate Change and Health	50% 25% 25%	100% 50% 50%

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

ANNEXURE 8: AVAILABLE DISTRICT-LEVEL HAZARD/VULNERABILITY MAPPING TO IDENTIFY PRIORITY AREAS FOR PLANNING AND ACTIONS

Climate Hazard	District Level Hazard/Vulnerability Mapping*	Relevant Key Deliverables PIP FY24-25, 25-26
1. Extreme heat	1. Total No. of Annual Disastrous Heat Wave Days, 1969 to 2019, by IMD https://imdpune.gov.in/hazardatlas/heatnew.html 2. Heat wave vulnerability mapping for India https://pubmed.ncbi.nlm.nih.gov/28358338/	• Heatstroke room development • Ambulance preparedness for HRI management • Energy audit, efficiency measures • Solar panel instalment • Rainwater harvesting instalment • Passive cooling-cool roof/green roof measures • Consistent HRI surveillance reporting • Subject-specific IEC & Capacity building
2. Drought	1. Drought Normalized Vulnerability Index, by IMD https://imdpune.gov.in/hazardatlas/droughtnew.html 2. Mapping India's Climate Vulnerability (Drought, flood, cyclone) https://www.ceew.in/sites/default/files/ceew-study-on-climate-change-vulnerability-index-and-district-level-risk-assessment.pdf	• Rainwater harvesting instalment • Energy audit, efficiency measures • Solar panel instalment • Subject-specific IEC & Capacity building
3. Flood	1. Total Number of Flood Events During the Period from 1969 to 2019, by IMD https://imdpune.gov.in/hazardatlas/floodnew.html	• Structural flood-resilient measures (new facility/retro-fitting of old) • Energy audit, efficiency measures • Solar panel instalment • Subject-specific IEC & Capacity building
4. Cyclone	1. Return Period (in years) for Cyclonic Storm (CS) Passing Within 50 Nautical Miles of Coastal Districts: Annual (1961-2020) https://imdpune.gov.in/hazardatlas/cyclonenew_p1961_2020.html	• Energy audit, efficiency measures • Solar panel instalment • Rainwater harvesting instalment • Subject-specific IEC & Capacity building
5. Cold wave	1. Total Number of Disasterous Cold Wave Days in Annual During the Period from 1969 to 2019 https://imdpune.gov.in/hazardatlas/coldnew.html	• Energy audit, efficiency measures • Solar panel instalment • Subject-specific IEC & Capacity building
6. Landslide	1. Landslide hazard map https://ndem.nrsc.gov.in/geological_lshz.php	• To avoid development of climate-resilient facility new or retrofitting of old • Reassess utilization of health facilities in landslide prone areas
7. Air pollution	1. Non-attainment/Million plus cities (131) https://cpcb.nic.in/uploads/Non-Attainment_Cities.pdf	• Subject-specific IEC & Capacity building • 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 9: DISTRICT-LEVEL VULNERABILITY ASSESSMENT

Importance of Vulnerability Assessment

A vulnerability assessment related to climate and health enables health departments to comprehend which individuals and locations within their area are more prone to experiencing the negative health effects linked with changes in the climate. This evaluation of susceptibility among people and places can then be utilized to implement precise public health interventions.

An assessment of climate vulnerability pinpoints areas where health vulnerabilities emerge due to shifts in the climate. Sensitivity encompasses two key aspects: first, a community's capacity to endure climate related hazard (e.g., heat, floods, cyclone, drought) exposures and the range of resultant effects; second, physiological (such as age, gender, co-morbidities) and socioeconomic factors that heighten individuals' vulnerability to these exposures. This notion of sensitivity also encompasses access to functional infrastructure (such as the availability of electricity during an extreme weather event). The potential public health impact, arising from the interplay of exposure and sensitivity, can be counterbalanced by adaptive capacity. Adaptive capacity refers to the behavioural, institutional, and technological responses and adjustments aimed at mitigating the potential consequences. Typically, these adaptations minimize damages, offer opportunities for recovery, and enhance the ability to cope with repercussions.

Vulnerability assessment conducted by a district should result in ranking or mapping of village, divisions, zones or wards in the district. The indicators needed for assessments are hazard-specific sensitivity and adaptive capacity. Recommended climate sensitive health outcomes are extreme heat, vector-borne disease, water-borne disease, cardiovascular-respiratory health outcomes and injuries and mortality due to specific extreme weather events. Indicators should be selected based on availability, reliability, repeatability, specificity and relevance for the local area. Following indicator identification, statistical assessments (such as Principal Component Analysis (factor analysis) or on participatory approaches (such as the Analytic Hierarchy Process or the Budget Allocation Process (OECD, 2008) should be applied for find risk level-based ranking or mapping of selected sub-district level.

ANNEXURE 10: BENCHMARK COSTS FOR GRID CONNECTED ROOFTOP SOLAR PHOTOVOLTAIC SYSTEM BY MINISTRY OF NEW AND RENEWABLE ENERGY

(Guiding document for cost estimation for health facilities)

No. 32/24/2020-SPV Division
Government of India
Ministry of New & Renewable Energy
***

Block No. 14, CGO Complex, Lodhi Road,
New Delhi, Dated 27th October 2021

ORDER

Subject: Amendment in Benchmark costs for Grid-connected Rooftop Solar PV systems for the financial year 2021-22 -reg.

Vide Order no.318/38/2018-GCRT dated 18.08.2021 dated 18.08.2021, benchmark costs including taxes, were issued for FY 2021-22 by the Ministry. Subsequently, applicable Goods & Services Tax (GST) rates have been revised by GST Council for identified renewable energy equipment. In order to address the recent changes in GST rates and also any further changes in GST rates in future, it has been decided to issue benchmark costs excluding GST. For the purpose of calculating CFA available under MNRE Scheme, applicable GST rates may be added to these benchmark costs. Accordingly, undersigned is directed to convey the approval of competent authority for issuing the benchmark costs, excluding GST, for Grid-connected Rooftop Solar PV systems applicable for MNRE Scheme for the year 2021-22. Rooftop solar system capacity-wise benchmark costs are given below:

(A) For General Category States/ UTs:

RTS System Capacity range	Up to 1 kW	> 1 kW upto 2 kW	>2kW Upto 3kW	> 3kW upto 10 kW	>10 kW upto 100 kW	>100 kW upto 500 kW
Benchmark cost (Rs./kW) excluding GST	46923	43140	42020	40991	38236	35886

(B) For Other State/UTs (i.e North-Eastern States including Sikkim, Himachal Pradesh, Uttarakhand, Jammu & Kashmir, Ladakh, Andaman and Nicobar and Lakshadweep islands):

System Capacity range	Up to 1 kW	> 1 kW upto 2 kW	>2kW Upto 3kW	> 3kW upto 10 kW	>10 kW upto 100 kW	>100 kW upto 500 kW
Benchmark cost (Rs./kW) excluding GST	51616	47447	46216	45087	42056	39467

2. Above mentioned amendments in benchmark costs are effective from the 18.08.2021. All other terms and conditions mentioned in the Order dated 18.08.2021 remain unchanged. i.e. the date of issuance of original Order for benchmark costs for FY 2021-22.

(Hiren Chandra Borah)
Scientist-D

To

All Concerned

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ANNEXURE 11: REFLECTING THE BUDGET HEAD FOR PROPOSED ACTIVITIES

S.No	Activities	Unit Cost	Remarks/funding source
1	**Key Objective-1: General Awareness**		
		Should cover following per district per year • **Posters**: At least 1-2 large wall poster and/ 1-2 foam board posters printed and disseminated in all healthcare facilities and all government educational institutes. • One each at each facility/ institute per year. • **Hoardings/billboard**: 5-10 billboards on prevalent CSI in the district should be placed in public areas • **Wall painting**: 1-2 wall paintings on prevalent CSI per healthcare facility • **Audio-video clips** on climate change and health should run in mass media throughout the year - 1-2 **video clips** of 1-2 minutes duration broadcasted on CSI relevant to that part of year • 1-2 **radio clips** of 1-2 minutes duration broadcasted on CSI relevant to that part of year • Digital display of IEC should also be run in equipped healthcare facilities and government institutions • **Painting on Buses**: Paint posters on 5-10 buses per district on prevalent CSI in the district • **Social media:** Twitter and/ Facebook should be used if district officials have accounts, to post IEC and event related info with appropriate tagging.	• • NPCCHH and other related programmes
2	**Key Objective-2: Capacity building of health professionals and health workers**		
2.1.	ToT of Programme Officers at State/District/Block level- On NPCCHH implementation and activities		• NPCCHH
2.2	CHO, ANMs & ASHAs on NPCCHH		• NPCCHH /HWC
2.3	Training of Specialists/Sentinel surveillance nodal officer/ Medical Officers on NPCCHH and related issues		• NPCCHH /NVBCP/IDSP/Quality Assurance/ NMHP/Programme for

S.No	Activities	Unit Cost	Remarks/funding source
			intersectoral coordination with Zoonotic Diseases/NPCDCS/RCH
3	**Key Objective-3: Strengthening of the health system**		
3.1.	Assessment of the healthcare 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 @Rs.5.75 Crores for CHCs Based on available hazard/vulnerability assessment (Annexure 8)	• HSS. 4- Infrastructure as per IPHS norms
	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 8)	• NPCCHH • Untied fund/ • Major upgradation of civil work can be covered under IPHS (HSS. 4)
	3.2.3. Heatstroke room (Details in Annexure 5)	Based on available hazard/vulnerability assessment (Annexure 8)	• NPCCHH • Untied fund/
	3.2.3. Flood resilient measures in existing HCFs		
	a. Raise appropriately the floor and increase its strength (facility) to ward off from flooding. Make floodwall. Use flood damage resistant materials. b. Design roof to provide quick drainage and a structure that avoids any seepage or leakage. c. Place sewer backflow valves to prevent flooded sewage systems from backing up into HCF. d. Design surroundings to allow flood water outlet and avoids its pooling and damage.	Based on available hazard/vulnerability assessment (Annexure 8)	• Untied fund/ • Major upgradation of civil work can be covered under IPHS (HSS. 4)

S.No	Activities	Unit Cost	Remarks/funding source
	e. Provision for electricity back up (generators, server rooms) or solar supply. f. Move drug store, critical equipment to higher floors in the building or provisions for shifting to non-flooded areas during emergencies. g. Map historical flood levels and accordingly design location site the HCF facilities floor levels at which critical services are relocated. h. Have functional sump pumps with battery backup		
	3.2.4. Cooling measures for HCF (Climate Resilient measures in heat vulnerable areas)		
	a. Cool Roof Plans with solar or heat reflector (lime paint /simple acrylic polymer paints heat)	Based on surface area (average cost Rs.1.50/Sq.ft for locally-available white lime paint) Based on available hazard/vulnerability assessment (Annexure 8)	• Untied funds/ CSR funds
3.3	Green (Environmentally Sustainable) Measures in Healthcare Facilities (For detailed guidance refer, ***Guidance Note on Green Environmentally Sustainable & Climate Resilient Health Care Facilities for PIP FY.2024-25 & FY. 2025-26***)		
	3.3.1. Adoption of Energy efficiency measures in the existing HCFs		
	a. Energy auditing in Healthcare Facilities (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	• Contact Bureau of Energy Efficiency • Others including operating costs (OOC) • Kayakalp
	b. Replace existing lighting (Non-LED) with LED	Rs.7 Lakhs/District	• Contact Bureau of Energy Efficiency • Untied funds

S.No	Activities	Unit Cost	Remarks/funding source
			• Corpus funds available with the facility
	3.3.2. Adoption of Solarisation (renewable energy) in the exiting HCFs		
	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	• Contact MNRE appointed agencies • NPCCHH (for one-time cost) • Untied fund (Recurring expenditure)
	3.3.3. Adoption of Water conservation measures		
	Install Rainwater Harvesting (RWH) System	Rs.20 Lakhs/ District	• Contact MoJS or MoRD agencies • NPCCHH (for one-time cost) • Untied fund (Recurring expenditure)
	3.3.4. Waste Management		
	Effluent treatment plan (ETP) for toxic effluents from the healthcare facilities to the environments	*(Varies as per the capacity/ load)* @ Rs.5 lakhs (max) for CHC @ Rs.10 Lakhs (max) for SDH (100beds) @ Rs.40 Lakhs (max) for DH (500beds)	• Under HSS. 4- Public Health Institutions as per IPHS norms
3.4	Vulnerability assessment and documentation of best practices		
	3.4.1. Population based vulnerability health assessment: For two districts (1 urban and 1 rural)	@20,000/district level assessment	• NPCCHH
	3.4.2. Best practice of community-based intervention on climate change and health: Two reports	@20,000/report	• NPCCHH
