

# **COLD WAVE EARLY ACTION PROTOCOL** 2022

Narainapur Rural Municipality Raptisonari Rural Municipality















### **CONTENTS**

1.	Introduction		
2.	Purp	1	
3.	Key	2	
4.	Risk	analysis	3
	4.1	Hazard selection	3
	4.2	Impact area	3
	4.3	Sector-wise impact	4
	4.4	Vulnerability analysis	5
5.	Trigg	5	
	5.1	Readiness phase	5
	5.2	Activation phase	5
6.	Sele	6	
	6.1	Process of early action selection	6
		6.1.1. Workshop	6
		6.1.2. Drafting of early action protocol	6
		6.1.3. Simulation exercise	6
		6.1.4. Approval of early action protocol	6
	6.2	Agreed early actions	6
		6.2.1 Messaging	7
		6.2.2 Health checkups	7
		6.2.3 Distribution of warm clothes	7
		6.2.4 Cash transfer	7
	6.3	7	
7.	Selection and registration of beneficiaries		
	7.1	Beneficiary selection	7
	7.2	Beneficiary registration	8
		7.1.1 Before the readiness phase	8
		7.1.2 After the readiness phase	8
8.	Earl	9	
	8.1	Preparedness	9
	8.2	Implementation	9
		8.2.1. Readiness phase	9
		8.2.2. Activation phase	9
	8.3	Monitoring and Evaluation	9
9.	Con	nplaint/feedback mechanism	10
10.	Bud	10	



## नरैनापुर गाँउपालिका गाउँकार्यपालिकाको कार्यालय

नरैनापुरबाँके लुम्बिनी प्रदेश नेपाल

पत्र संख्या :-२०७९/०८०

चलानी नम्बर :

दुई शब्द



बाँके जिल्ला विभिन्न प्रकृतिका प्रकोपहरुका कारण उच्च जोखिमयुक्त जिल्लाको रुपमा रहेको छ । खासगिर बाढी, डुवान, आगलागी, भुकम्प, शितलहर, महामारी, हुरीवतास, कोभिड १९ जस्ता प्रकोपहरुबाट बिढ जोखिममा रहेको छ । यी विविध प्रकृतिका जोखिमका बाबजुद विपद्लाई रोक्न नसिकए पिन यसबाट हुने क्षित न्यूनिकरण भने अवश्य गर्न सिकन्छ, जसका लागि सर्बपिक्षय हातेमालो तथा सिक्रय सहयोग एक अपरिहार्य विकल्प हो । विपद् न्यूनिकरण तथा व्यवस्थापन एक बृहत्तर विषय भएकोले यसका विभिन्न आयामहरुमा हाल आएर निवनतम् अवधारणाहरु स्थापित भएका छन् जस अन्तर्गत विपद पूर्वतयारी संगसंगै पूर्वसुचनामा आधारित विपद् पूर्वकार्यहरु बिढ प्रभावकारी रुपमा कार्यान्वयन भैरहेका छन् । सोही सन्दर्भमा यस गाउँपालिकाले सेभ द चिल्ड्रेन र सामाजिक विकास मञ्चको प्राविधिक सहयोगमा यस गाउँपालिकाको शितलहर पूर्वकार्य कार्यविधि कृत्रिम घटना अभ्यासबाट परिक्षण गरि पारित गरिएको छ । यस शितलहर पूर्वकार्य कार्ययोजनाको शितलहर पूर्वानुमान र उपलब्ध समयको आधारमा नरैनापुर गाउँपालिकामा शीतलहरको प्रभाव तथा असर मानिस, पशुपंक्षी तथा बालीनालीमा पूर्णरुपमा पर्नु भन्दा अगावै न्यूनिकरण गर्ने मुख्य उद्देश्यका साथ निर्माण गरिएको यस कार्यविधिले अपेक्षाकृत नित्जा दिनेमा विश्वस्त भएको छु ।

यस अवसरमा सेभ द चिल्ड्रेन र सामाजिक विकास मञ्चलाई सिहत यस गाउँपालिकाको कार्यसिमिति, कार्यपालिका, प्रमुख प्रशासिकय अधिकृत लगाएत सम्पूर्ण शाखा प्रमुख ज्यूहरुलाई स-धन्यवाद आभार प्रकट गर्दै अन्तमा सकभर विपद्को सामना गर्न नपरोस् यदि परिहाले पिन संभावित क्षतिलाई सामान्य पार्न सिकयोस भन्दै हार्दिक शभकामना व्यक्त गर्दछ।

इश्तियाक अहमद शाह

अध्यक्ष

नरैनापुर गाउँपालिका बाँके इश्तियाक अहमद शाह

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पत्र संख्याः ०७९/०८०

च.नं.ः



### दुई शब्द

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तप्त बहुम्बर्ड औडेल





#### 1. INTRODUCTION

The Cold Wave Early Action Protocol has been designed for the implementation of cold wave early actions based on the weather forecasts in Raptisonari and Narinapur rural municipalities, Nepal. It includes cold wave risk analysis, thresholds and triggers, a set of early actions, type of agreed beneficiaries, implementation processes, estimated costs, monitoring and evaluation, and key implementing agencies.

Raptisonari and Narainapur rural municipalities are located in Banke District of Lumbini Province, western Nepal.

#### 2. PURPOSE

The cold wave early action protocol is developed to minimize the impact of cold waves in people, livestock, crops in Raptisonari and Narainapur rural municipality, and build their knowledge on anticipatory actions before the disaster.



#### 3. KEY IMPLEMENTING AGENCIES

#### Raptisonari and Narainapur rural municipalities

Raptisonari and Narainapur rural municipalities will be the lead implementing government bodies. Exercising the rights related to disaster management entrusted to the local level, in conjunction and alone, by Local Disaster Management Act and related policies as well as the Local Government Operation Act, both the rural municipalities have approved this cold wave early action protocol, agreeing to lead actions and interventions.

#### Save the Children

Save the Children will be the key supportive agency for this cold wave early action protocol implementation. SC is a development partner of Nepal Government and working in the field of development and humanitarian response sectors. Currently, Save the Children is working as a partner in Raptisonari and Narainapur rural municipalities for disaster risk reduction and management including cold wave.

#### Social Development Forum

As the local implementation partner, Social Development Forum (SDF) Banke will support the implementation of the cold wave early action protocol. The main responsibility of SDF will be to collaborate and support Raptisonari and Narainapur rural municipalities to implement the cold wave early action protocol.

#### **Red Cross Red Crescent Climate Centre**

Red Cross and Red Crescent Climate Centre will provide technical expertise in defining thresholds and triggers to develop cold wave early action protocol for Raptisonari and Narainapur rural municipalities.

#### Nepal Red Cross Society, Raptisonari and Narainapur sub-chapters

Nepal Red Cross Society, Raptisonari and Narainapur sub-chapter will be part of the implementation of the early action protocol. Raptisonari and Narainapur rural municipalities will work in coordination and cooperation with the Red Cross chapters as required.

#### 4. RISK ANALYSIS

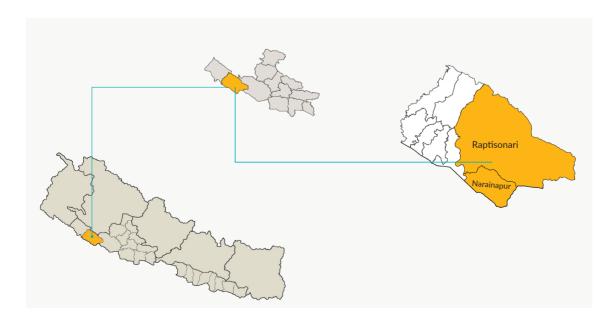
#### 4.1 Hazard selection

The Terai region of Nepal is always at risk of cold waves due to the western low atmospheric pressure in winter. Raptisonari and Narainapur rural municipalities, located in the Terai region, are at risk of cold waves. Analyzing on the basis of the geographical area currently covered by the municipalities, the incidents of cold waves in the past 30 years are presented in the table below.

YEAR	DURATION OF COLD WAVE
2021	10-15 days
2020	10-15 days
2019	10-15 days
2018	30 days
2013-2017	A few days
2012	45 days
1997-2011	A few days
1996	90 days

#### 4.2 Impact area

Since Raptisonari and Narainapur rural municipalities are in the southern part of Nepal, the entire area of the rural municipalities are the cold wave risk zone.





#### 4.3 Sector-wise impact

Cold waves in Raptisonari and Narainapur rural municipalities have severely impacted the lives of people, livestock and crops.

The table illustrates the level of impact of the cold waves:

#### Impact on people

Senior citizens 80 years and above	Respiratory disease, cardio-vascular diseases, death incidence		
Children under 5 years	Diarrhea, dysentery, cold-related diseases, death incidents		
People with disabilities	Diarrhea, dysentery, cold-related diseases, death incidents		
Pregnant and lactating women	Cold induced diseases, unconsciousness due to cold, body ache		
People with chronic illness	Problems in the treatment, chances of developing complications, death incidents		
Homeless	Suffering from chill, death from cold		
Poor and marginalized	Suffer from chill, death from cold		
Wage laborers	Likely to lose their jobs		
School-age children	Effects on education due to school closure		

#### Impact on livestock

Poultry	Disease, loss of poultry due to cold
Goats	Disease, loss of goats due to cold

#### Impacts on crops

Potato	Yeast/fungus forming, loss of the crops
Mustard	Loss of the crops
Tomato	Yeast/fungus forming, loss of the crops

#### 4.4 Vulnerability analysis

The impact of cold wave in the people of Raptisonari and Narainapur rural municipalities are categorized in 5 groups on the basis of prioritized early actions:

- 1. Senior citizens above eighty years
- 2. Children under two years of age
- 3. Pregnant women
- 4. Persons with chronic illness
- 5. Persons with full disabilities

#### 5. TRIGGER ANALYSIS

Considering the availability and reliability of weather forecasts, workload, financial implications and the 'no-regret' approach the cold wave triggers have been divided into two phases:

#### 5.1 Readiness phase

If the data of automated weather center, under Department of Hydrology and Meteorology, Weather Forecasting Division of Government of Nepal, located at Nepalgunj airport shows the daily average maximum temperature is less than 10th percentile (16.5 degrees Celsius) based on the analysis of the data of the last twenty years; and if the weather forecast bulletin predicts that Lumbini Province or Nepalgunj area faces decrease in maximum temperature in the next three consecutive days, the preparedness work will be reviewed and the readiness phase will be in effect.

Or,

If the data of automated weather center, under Department of Hydrology and Meteorology, Weather Forecasting Division of Government of Nepal, located at Nepalgunj airport shows the daily average minimum temperature is less than 10th percentile (5.4 degrees Celsius) based on the analysis of the data of the last twenty years; and if the weather forecast bulletin predicts that Lumbini Province or Nepalgunj area will have further decrease in minimum temperature in the next three consecutive days, the preparedness work will be reviewed and the readiness phase will be in effect.

#### 5.2 Activation phase

If the data of automated weather center, under Department of Hydrology and Meteorology, Weather Forecasting Division of Government of Nepal, located at Nepalgunj airport shows the daily average temperature is less than 5th percentile (with maximum temperature 13.8 and/or minimum temperature 4.5 degrees Celsius) based on the analysis of the data of the last twenty years, and if the weather forecast bulletin predicts that Lumbini Province or Nepalgunj area will have decrease in temperature for at least two consecutive days, the activation phase will be in effect.

In order to triangulate the weather-forecast data, European Centre for Medium-Range Weather Forecasts (ECMWF) will be regularly monitored.

#### **6. SELECTION OF COLD WAVE EARLY ACTIONS**

#### 6.1 Process of early action selection

#### 6.1.1. Workshop

A two-day workshop to identity cold wave selection actions was organized in the presence of the chairperson, vice-chair, ward chairs of Raptisonari and Narainapur rural municipality, local disaster management committee members and staffs, along with technical experts from Nepal Red Cross Society respective sub-chapters, Save the Children and Social Development Forum.

The workshop discussed the historical timeline of cold waves in the rural municipalities for the last 30 years. The impact of the cold wave, promising approaches to response actions, early actions based on weather forecast, and priority group identification was also discussed. The workshop also formed a task force to draft and finalize the cold wave early action protocol.

The workshop identified the following response practices for cold wave carried out by the municipality in the past:

- Distribution of warm clothes to senior citizens
- Firewood arrangement and distribution
- Distribution of nutritious food to pregnant women
- Distribution of warm clothesfor new mothers and babies
- IEC publication and dissemination
- Mobile health clinics for senior citizens (80 and above)

#### 6.1.2. Drafting of early action protocol

The task force with technical support from Save the Children developed the cold wave early action protocol, and submitted the protocol to the local disaster management committee.

#### 6.1.3. Simulation exercise

Simulation exercise was carried out to validate the draft early action protocol. In the simulation, the set of early actions and the implementation processes included in the protocol were tested and reviewed. The simulation identified the positive aspects, improvement areas and the gaps. Local disaster management committee finalized the early action protocol with the necessary amendments.

#### 6.1.4. Approval of early action protocol

The meeting of local disaster management committee of Raptisonari and Narainapur rural municipality approved the early action protocol.

#### 6.2 Agreed early actions

The following strategic actions have been identified as 'early actions' to address the impact if cold waves:

#### 6.2.1 Lifesaving messaging

If the cold wave forecast enters the readiness phase, critical life-saving messages on how to be safe from the cold wave will be disseminated. While doing so, weather forecast messages and the notice issued by the relevant ministries and subordinate agencies of government will be considered. The information shall contain information related to the impact of cold waves on people, livestock and crops, and mitigation measures. The information will be disseminated via local radio, television, miking, other mechanisms, leaflets, mobile messages (SMS or Interactive Voice Receiver (IVR)) etc.

#### 6.2.2 Mobile health clinics

These actions will be activated if the cold wave forecast enters the readiness phase:

 People who are at high risk and vulnerable conditions, for example, senior citizens above 80 years, children below 2 years, pregnant and lactating mothers, persons with chronic illness and person with full disability (Category 'A') will be provided health checkups, either via mobile health camps, or through home visits, as required.

#### 6.2.3 Distribution of warm clothes

These actions will be activated if the cold wave forecast enters one of the criteria of the activation phase (either the maximum or minimum temperature thresholds)

- Warm clothes/blankets will be distributed to senior citizens above 80 years and children below six months.

#### 6.2.4 Cash transfer

These actions will be activated if the cold wave forecast enters the activation phase:

- Cash assistance will be provided to senior citizens above 80 years, children from dalit community below two years, people with chronic illness and persons with disability (category A)
- Cash assistance will be NPR 2000 per person.

#### 6.3 No-regret approach

Regarding the cold wave, even if the temperature is slightly higher than the defined thresholds, the people, livestock and crops will be more, or less affected. So, there will be no negative impact from the early actions, including information dissemination, health checkups and treatment, warm clothes and cash distribution even if there will be no cold wave event as per the weather forecasts.

#### 7. SELECTION AND REGISTRATION OF BENEFICIARIES

#### 7.1 Beneficiary selection

Beneficiaries from most vulnerable groups prioritized by the workshop are as follows.

- i. Senior citizens above 80 years
- ii. Children from dalit community below 2 years
- iii. Pregnant and lactating women
- iv. People with chronic conditions
- v. People with full disabilities (category 'A')



#### 7.2 Beneficiary registration

#### 7.1.1 Before the readiness phase

Based on the seasonal/weather calendar of the onset of cold wave in Nepal, local disaster management committee will initiate the registration of beneficiaries. The sources of data for the beneficiary registration shall be: (a) social security allowance program, (b) registration of people having chronic illness (c) health centers (d) thematic sections of municipalities including the women and children section and so on.

#### 7.1.2 After the readiness phase

Local disaster management committee will replace the earlier data with updated data from the social security allowance program, update that data of people with chronic conditions, update the name list of lactating mothers based on the recent birth and registration in local health facilities and vital registration section.

#### 8. EARLY ACTION PLAN IMPLEMENTATION

#### 8.1 Preparedness

The local disaster management committee shall initiate the following tasks for the preparedness phase:

- Review of cold wave early action protocol
- Simulation exercise on cold wave protocol
- Decision from the executive committees
- Data analysis and pre-registration of beneficiaries
- All preparedness work on early action for information dissemination
- All preparedness work on early action for distribution of warm clothes
- All preparedness work on early action for cash distribution
- Preparedness work on using social security allowance bank accounts.
- Coordination and collaboration with relevant agencies, including Nepal Police, Forest Office, National Park, local organizations, Red Cross etc.

#### 8.2 Implementation

#### 8.2.1. Readiness phase

After entering the readiness stage, the Local Disaster Management Committees, in cooperation with Save the Children, Social Development Forum and Nepal Red Cross Society Raptisonari and Narainapur sub-chapters will conduct the following activities:

- Verify all the tasks mentioned in the preparedness stage and complete them, if pending
- Messaging
- Update the data of beneficiaries
- Carry out all preparedness work required for implementing the programs of activation phase
- Health checkups of people at risk from cold wave

#### 8.2.2. Activation phase

After entering the activation phase, the Local Disaster Management Committees, in cooperation with Save the Children, Social Development Forum and Nepal Red Cross Society Raptisonari and Narainapur sub-chapters will conduct the following activities:

- Continue messaging.
- Actions to protect crops and livestock
- Warm clothes distribution to senior citizens, children, pregnant and lactating mothers
- Cash transfer

#### 8.3 Monitoring and Evaluation

Monitoring and evaluation of cold wave early action will be done in three phases:

- Monitoring of the design and implementation of early actions
- Post distribution monitoring after 3-4 weeks of implementation
- Evaluation of early actions after 3-4 weeks of implementation



#### 9. COMPLAINT/FEEDBACK MECHANISM

Local level complaint handling mechanisms under the municipal and ward level authority will be activated to manage/handle complaints/feedbacks regarding the implementation of this cold wave early actions. Grievance redressal and handling mechanism of Save the Children and SDF will also be used.

#### 10. BUDGET

SN	Headings	Estimated cost (USD)	Responsibility	
			Rural Municipalities	Save the Children
1	Workshop on drafting cold wave anticipatory action	2,800.00		2,800.00
2	Simulation exercise	2,200.00		2,200.00
3	Implementation of cold wave anticipatory action	38,000.00	9,000.00	29,000.00
4	Monitoring and evaluation	2,000.00		2,000.00
	Total	45,000.00	9,000.00	36,000.00





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