

SIMPLIFIED EARLY ACTION PROTOCOL

Burkina Faso | Heat waves



Workshop on the development of the protocol for early actions against heat waves in the city of Ouagadougou held on 28 November 2023 at the CRBF headquarters

<u>sEAP No:</u> sEAP2024BF01	<u>Operation No:</u> MDRBF020	<u>Total Budget</u> CHF 219,935		<u>Readiness:</u> CHF 46,021	
				<u>Prepositioning:</u> CHF 86,957	
				<u>Early Action:</u> CHF 87,108	
<u>People targeted:</u> 50,000 People	<u>sEAP approved:</u> 03/12/2024	<u>sEAP timeframe:</u> 2 years	<u>sEAP lead time:</u> 04 (days)	<u>Operational timeframe:</u> 3 months	
Prioritized geographical areas: City of Ouagadougou					

RISK ANALYSIS AND EARLY ACTION SELECTION

Prioritized hazard and its historical impact

Over the past few decades, Burkina Faso has faced a series of "extreme" weather events of unprecedented magnitude and speed. Among these hazards, we can mention:

- The severe droughts of 1973-74 and 1983-84 which greatly affected the ecosystems and the production systems of vulnerable communities;
- There are also dust storms that are frequent. Located near the southern edge of the Sahara Desert, Burkina Faso is regularly crossed by large loads of dust and sand. These dust storms reduce visibility, damage crops and infrastructure, and can have adverse effects on people's health;
- In addition to these hazards, heat waves are a growing threat in a warming climate.

Ouagadougou, Burkina Faso, is one of the hottest cities in the world. The annual temperature cycle shows that the monthly (maximum) daytime temperature is always above 30°C while the nighttime (minimum) temperature is continuously above 15°C (Figure 1). The period from March to May is the hottest season in the city, with temperatures regularly exceeding 40°C, especially in April.

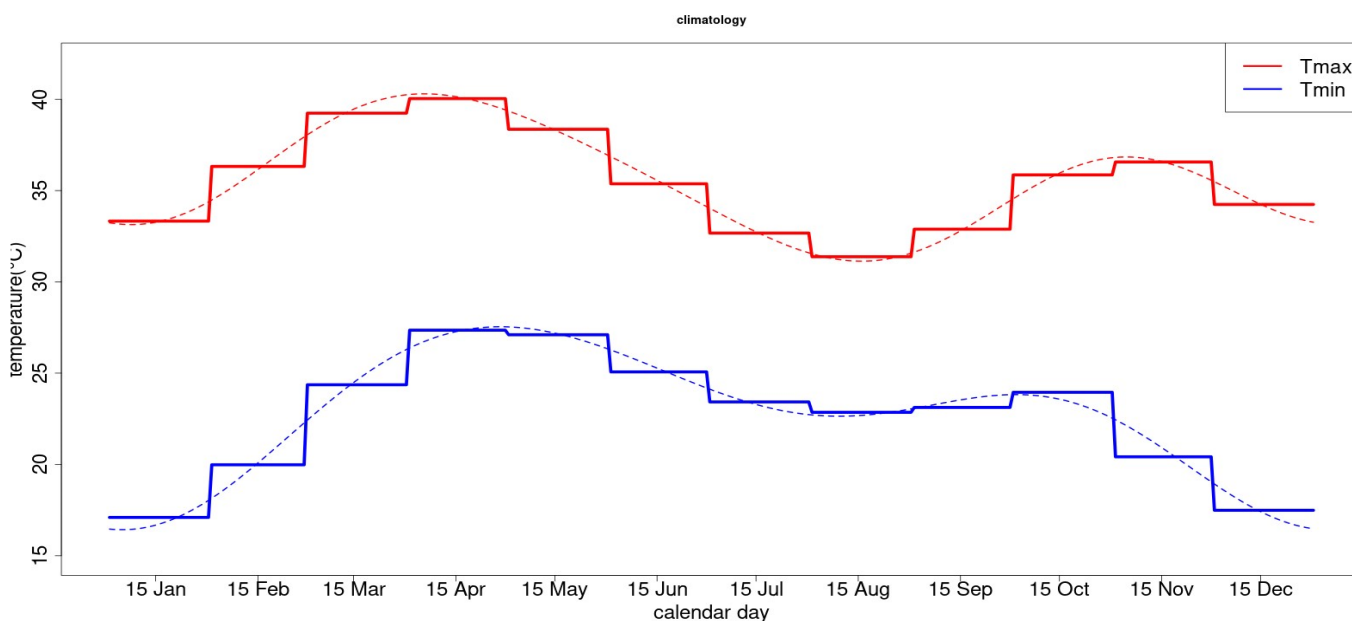


Figure 1. Evolution of daytime (red) and nighttime (blue) temperatures throughout the year in Ouagadougou. Solid lines represent monthly averages, and dotted lines represent averages by calendar day.

It is therefore understood that periods during which the temperature significantly exceeds these averages lead to unbearable levels of discomfort and negative impacts on the three million inhabitants of the city. To account for the IFRC's requirements for the magnitude of events, heat waves are defined here, according to *Tassemedo 2023*, as three or more consecutive days during which the temperature exceeds the 90th percentile of the distribution of the hottest month of the year. This corresponds to 42.4°C for the daytime temperature and 30.3°C for the nighttime temperature. Applying this definition

to the data of the National Meteorological Agency (ANAM), we obtain the characteristics presented in below table.

Table 1. Characteristics of heat waves in Ouagadougou

Metric	Tmax	Tmin
Threshold intensity (°C)	42.4	30.3
Average intensity (°C)	43.0	31.3
Average duration (days)	3.8	3.2
Maximum duration (days)	7	4
Number of events from 1991 to 2021	11	12
Number of Heatwave Days (March)	6	0
Number of Heatwave days (April)	36	35
Number of Heatwave days (May)	0	3
Concomitance (%)	11.9	13.2

[Explain which risks have been selected for this protocol and why](#)

Heat waves are therefore of a very large magnitude and have huge impact. Although not systematically reported, major events often attract media coverage. For example, in 2019, following a major heat wave in March, national television announced a death toll of 67 at the Bogodogo University Hospital in Ouagadougou ([2\) RTB - Global warming: Observation of the heatwave in Ouagadougou - YouTube](#)). Additional reports on some extreme heat events are presented in Appendix 1. The temperatures often mentioned in the report are close to the threshold used here.

To obtain a more in-depth assessment of the impact of heat in Ouagadougou, a survey was conducted among experts (doctors, meteorologists and demographers), water and energy professionals, certain vulnerable groups (the elderly, people with chronic diseases, etc.) and vulnerable communities. The consolidated list of impact can be found below. The report of the survey is also available.

Table 2: Impact on heat waves in Ouagadougou

Health	Water	Hygiene	Energy	Socio-economics	Gender, Equity, Social Inclusion	Environment
Excessive sweating and increased dehydration and accidental falls (seizures for example), dizziness	Excessive water consumption	Increase in cases of diseases linked to lack of hygiene	Excessive electricity consumption	Decreased work productivity and academic performance	Increased time for fetching water for women and children	Increased water stress in plants Increase in fire cases
Increased cardiovascular, mental, respiratory, genitourinary, dermatological, endocrine and nutritional diseases, hyperglycemia, hypoglycemia and hyperthermia	Water disruption (difficulty of water deserts by water supply utilities	Difficulty in managing menstruation (increased fatigue, depression, premenstrual syndrome, etc.)	Increase in load shedding	Drop in production in certain sectors of activity (metal construction, catering, agri-food, market gardening, etc.)	Community conflicts related to access to water Increased difficulties in accessing water for people living with disabilities Cases of domestic violence or sexual assault	Acceleration of soil degradation (drying out, decrease in organic matter and microorganism content, etc.)

Health	Water	Hygiene	Energy	Socio-economics	Gender, Equity, Social Inclusion	Environment
					related to night-time water chores related to shortages	
Increase in morbidity and mortality among people with special needs (the elderly, pregnant women, children under 5 years of age, people with chronic diseases, and certain specific groups such as albinos, lepers, etc.)	Early drying up of water points	Faster spoilage of food	Low efficiency of photovoltaic solar panels	Decline in reproduction in humans and animals Bitumen degradation	Declining school performance and dropping out of classes by young girls due to fetching water	Acceleration of desertification

Heat waves are one of the most recurrent hazards such as floods, droughts, etc. that Burkina Faso has been facing over the past ten years. Heat waves are defined as a continuous increase in temperatures leading to particularly intense heat periods during the hot season (March to May). This hazard was selected in view of the importance of its negative impact on vulnerable communities. However, there is little action to alleviate at-risk communities, although heat waves are referred to as "silent killers" in some contexts. The risk of extreme heat is generally greater in large cities, and more particularly in spontaneous settlements commonly known as "undeveloped neighbourhoods" due to greater exposure and vulnerability coupled with a low capacity to adapt to the population. The city of Ouagadougou is particularly exposed because of its high population density, especially in undeveloped areas.

As this is only a simplified early action protocol (PAP) for the moment, only daytime heat waves will be considered. The priority impacts selected for this simplified (PAP) are listed in the table below.

Sector of intervention	Priority impact	Justification
Health	Loss of life	Heat waves have a significant impact on the health of vulnerable people (the elderly and children under 5 years old, pregnant women, people with chronic diseases, albino, lepers, etc.) causing loss of human lives, during periods of high heat, an increase in mortality is observed in these people.
WASH, Gender, Equity, Social Inclusion and Education	Difficulty in accessing drinking water	In periods of high heat, the demand for water and electricity increases considerably while the supply remains constant or even decreases due to extreme heat. This leads to a shortage of water, especially in the undeveloped neighborhoods, and therefore an increase in cases of diseases related to lack of hygiene and the time it takes for women to fetch water, including young girls in school. This also leads to poor personal and clothing hygiene among students. This situation could also disrupt academic performance, especially among young girls, who are generally involved in fetching water during school hours.

		Because of the energy deficit, school children, especially young girls, have difficulty studying at night.
Socio-economics	Decline in labour productivity	The economic sector is considerably affected during the heat wave. This is due to the lack of energy for some activities and the extreme heat that affects the performance of few day workers. The target of this intervention is made up mainly of day labourers who live from hand to mouth. During this period, they are unable to work regularly or are forced to expose themselves to the effects of heat waves to the detriment of their health to cover their families' basic needs. This situation is even more difficult for people with special needs who are heads of households.

[Describe the selected early actions and explain how they will address the risks and lead to the intended outcome](#)

The selected actions were collected from the communities during the survey and validated during the workshop with stakeholders. These actions take into account the specific needs of communities at risk while respecting the standards of protection (dignity, access, participation and safety).

ACTIONS	JUSTIFICATION
Raising awareness among at-risk communities about the negative impact of heat waves	<p>Once the weather forecasts that the threshold has been reached, at-risk communities will be alerted followed by awareness campaigns.</p> <p>This action aims to inform and improve the knowledge of at-risk communities about the harmful effects of extreme heat and promote preventive safety practices.</p> <p>This will be done through the broadcasting of video clips, radio spots through media and digital platforms, posters and door-to-door canvassing or town criers before critical periods.</p> <p>This action could be done with a shorter lead time (2 to 0 days).</p>
Distribution of WASH and dignity kits, food, solar kits and drinking water	<p>This action targets people with special needs, vulnerable day workers and students. It will improve their living conditions during the hot period through the following actions:</p> <ul style="list-style-type: none"> • Distribution of WASH kits: WASH kits consisting of a 15l bucket, a 20l canister, two 450g soap balls will be distributed to vulnerable households to strengthen their drinking water storage capacity and improve their hygiene conditions. • Distribution of dignity kits (a 10l bucket, a pack of 4 reusable pads). <p>These kits will be distributed to women and girls of reproductive age from vulnerable households in the target area. This will improve menstrual hygiene and ensure the dignity of this specific group.</p> <ul style="list-style-type: none"> • Food distribution (1 bag of rice of 25kg, 3 litres of oil, 3 kg of sugar, 0.5 kg of salt, 5 kg of cowpeas). <p>This action is intended for people with special needs who are heads of households. It will reduce their exposure to heat waves thanks to these food kits.</p>

	<ul style="list-style-type: none"> • Distribution of lighting kits (1 rechargeable solar lamp). <p>These kits will be distributed to the most vulnerable students assigned to water chores. These kits will allow them to study at night.</p> <ul style="list-style-type: none"> • Distribution of refreshment and cooling kits (a water bottle and a rechargeable portable mini fan). <p>These kits are intended for the elderly, pregnant and breastfeeding women, albinos and the chronically ill. This will create pleasant conditions and preserve the health of these target groups.</p> <ul style="list-style-type: none"> • Drinking water distribution. <p>This action aims to improve access to drinking water for vulnerable populations in the target areas. It will be done through a distribution of water with cisterns and water sachets. Health centres will also be supplied with drinking water.</p> <p>All of these actions could be carried out with a shorter lead time (4 to 2 days).</p>
Home visits for follow-up and medical care of people with special needs	<p>To monitor the elderly, albinos, lepers, pregnant women and children under 5 years of age during heat waves, trained community volunteers will conduct home visits. During these visits, they will check on the state of health of these people, provide them with advice and, if necessary, facilitate their referral to health centres for appropriate care. The CRBF will cover certain medical products for people with special needs who do not have the necessary means.</p> <p>For people with albinism, kits consisting of sunscreen, water bottle, mini-fan and wide-brimmed hat will be distributed to reduce their exposure to heat waves and preserve their health.</p> <p>This action could be done with a shorter lead time (2 to 0 days).</p>


EARLY ACTION INTERVENTION


Overall objective of the intervention	The overall objective is to reduce the impact of heat waves on vulnerable people in the city of Ouagadougou.
Potential geographical high-risk areas that the simplified EAP would target	This intervention will cover the city of Ouagadougou, in particular the spontaneous housing districts commonly known as "non-lotis". According to estimates by the National Institute of Statistics, these undeveloped areas concentrate 70% of households and are home to three times as many poor people (47.4%). The majority of these people are daily workers and without a stable income. They live in difficult conditions with limited access to basic social services (health, drinking water, education, electricity, etc.). In view of these living conditions, these populations are more vulnerable to the harmful effects of heat waves.


<p>Who will be assisted through this operation and what criteria will be used for their selection?</p>	<p>The people who will be targeted by the early actions of this simplified PAP are the most vulnerable people, including the elderly, children under five years old, students, pregnant or breastfeeding women, the chronically ill, albinos, lepers, people living with disabilities, etc.</p> <p>A survey has identified groups of people vulnerable to this hazard. More in-depth targeting will make it possible to identify the potential beneficiaries of the actions of this intervention. This targeting will involve all stakeholders (state technical services, community leaders, local CRBF committees and beneficiaries). The main criteria used are age, gender, physical conditions, state of health, household income, access to basic social services, etc.</p>
<p>Trigger(s) statement</p>	<p>The simplified PAP is activated if a maximum temperature threshold of 42.4°C for at least three (03) consecutive days is announced by the National Meteorological Agency with a lead time of 4 days compared to the beginning.</p>
<p>Trigger threshold justification</p>	<p>The heat wave is defined in this context as the exceeding of the temperature above the 90° percentile of the hottest month of the year for at least 3 consecutive days. The ANAM is the structure authorized to make forecasts and alert in the event of the probable occurrence of a heat wave. To do this, it publishes weekly and daily forecasts of the meteorology of Burkina Faso on its Facebook page. The Burkinabe Red Cross also regularly receives meteorite data forecasts by email from ANAM.</p> <p>At the CRBF, the team in charge of anticipatory actions (the Disaster Management Coordinator, the AA Focal Point and the AA Focal Point Assistant) will monitor ANAM's forecasts with the support of two focal points designated for this purpose within ANAM.</p>
<p>Next steps – For National Societies that intend to develop a full EAP (Optional)</p>	<p>To develop this simplified PAP into a comprehensive PAP, the CRBF will continue to mobilize resources to conduct a large-scale study on the impact of heatwaves on communities at national level. This study will therefore make it possible to identify the areas at risk at national level and to facilitate the development of a comprehensive PAP for this hazard.</p>


PLANNED OPERATIONS

	Livelihoods	Budget	44,613 CHF
		Targeted Persons	1,200
Indicator:	Number of people who received food kits	Target:	Pregnant and lactating women and Persons with special needs heads of household
Preparation activities:		<ol style="list-style-type: none"> 1. Target potential beneficiaries; 2. Sign framework contracts; 3. Train CRBF volunteers; 4. Identify distribution locations. 	
Pre-positioning activities:		<ol style="list-style-type: none"> 1. Pre-positioning 1200 food kits 	
Priority early actions:		<ol style="list-style-type: none"> 1. Distributing 1200 food kits to vulnerable people 	


	Health and care	Budget	47,637 CHF
		Targeted Persons	50 500
Indicator:	Number of people referred and cared for Number of people affected by home visits	Target:	People with special needs (pregnant women, breastfeeding women, albinos, people with leprosy, the elderly)
Preparation activities:		<ol style="list-style-type: none"> 1. Target potential beneficiaries; 2. Train/retrain CRBF volunteers; 3. Sign framework contracts with the media. 	
Pre-positioning activities:		<ol style="list-style-type: none"> 1. Pre-position 100 protection kits for albinos; 2. Acquire 50 health kits (blood pressure monitors, thermometers, etc.); 3. Pre-position 300 cooling and cooling kits 	
Priority early actions:		<ol style="list-style-type: none"> 1. Distribute protection kits for albinos; 2. Organize home visits for medical follow-up; 3. Contribute to the coverage of medical expenses. 	

	Water, Sanitation and Hygiene	Budget	54,065 CHF	
		Targeted Persons	50,000	
Indicator:	Number of people who received water, hygiene and sanitation assistance	Target:	Vulnerable/disadvantaged communities (inhabitants of undeveloped areas)	
Preparation activities:	<ol style="list-style-type: none"> 1. Target potential beneficiaries; 2. Train CRBF volunteers; 3. Sign framework contracts with suppliers. 			
Pre-positioning activities:	<ol style="list-style-type: none"> 1. Pre-position WASH kits 			
Priority early actions:	<ol style="list-style-type: none"> 1. Distributing WASH kits 2. Distributing drinking water 			


	Protection, Gender and Inclusion	Budget	12,703 CHF	
		Targeted Persons	500	
Indicator:	Number of people affected	Target:	Women, girls, children and the elderly	
Preparation activities:	<ol style="list-style-type: none"> 1. Target potential beneficiaries; 2. Train CRBF volunteers. 			
Pre-positioning activities:	<ol style="list-style-type: none"> 1. Pre-position 500 Dignity Kits; 2. Pre-position 100 solar light kits. 			
Priority early actions:	<ol style="list-style-type: none"> 4. Distribute dignity kits; 5. Distribute solar lamps. 			


	Community Involvement and Accountability	Budget	16,030 CHF	
		Targeted Persons	100% 200 000	
Indicator:	% of complaints processed Number of people sensitized	Target:	Project beneficiaries	
Preparation activities:		<ol style="list-style-type: none"> 1. Establish complaint management and feedback committees in the areas of intervention; 2. Sign framework contracts with the media; 3. Produce awareness-raising materials (spots, video clips, posters, etc.) 4. Training CRBF volunteers 		
Pre-positioning activities:		<ol style="list-style-type: none"> 1. Raise awareness on the feedback management mechanism (green line, local committees); 2. Produce IEC materials on heat waves (FAQs, posters/flyers, etc.). 		
Priority early actions:		<ol style="list-style-type: none"> 1. Collecting community perceptions on heat waves; 2. Taking into account endogenous solutions to heat waves; 3. Collect and process complaints; 4. Risk Communication and Community Engagement; (Educating at-risk communities on the negative impact of heat waves (broadcast). 		

ENABLING APPROACHES

	Strengthening the national society	Budget	CHF 17,249	
		Targeted Persons	100 volunteers	
Indicator:	Increased number of trained volunteers	Target:	Burkinabe Red Cross	
Preparation activities:		<ol style="list-style-type: none"> 1. Office Supplies 2. Contribution to head office operations (water, electricity, internet, security, etc.) 3. Communication staff 4. Vehicle fuel 5. Supervision of activities (State technical services) 6. Staff capacity building 7. Project visibility (communication on activities) 		

Pre-positioning activities:	N/A
Priority early actions:	N/A

	Partnership and coordination	Budget	CHF 8,280	
		Targeted Persons	6 meetings	
Indicator:	Number of coordination meetings held	Target:	Technical services (DGPC, ANAM, Health, CONASUR, etc.)	
Preparation activities:	<ol style="list-style-type: none"> 1. Establish a coordination mechanism with all stakeholders 2. Sign a collaboration protocol with ANAM 			
Pre-positioning activities:				
Priority early actions:	<ol style="list-style-type: none"> 1. Share heatwave alerts 2. Organize a lessons-learned workshop with stakeholders 			

	Secretarial services	Budget	19,357 CHF	
		Targeted Persons		
Indicator:			Target:	
Preparation activities:	<ol style="list-style-type: none"> 1. Payment of IFRC support costs for the implementation of the simplified PAP 2. Tracking readiness activities 			
Pre-positioning activities:	N/A			
Priority early actions:	1. Support for the implementation of early actions			

CONDITIONS TO DELIVER THE EARLY ACTION

[Experience and/or capacity to implement the early actions.](#)

The Burkinabe Red Cross (CRBF), an auxiliary of the public authorities, is one of the largest actors in responding to emergency situations in Burkina Faso. The national society (NS) is a statutory member of the National Council for Emergency Relief and Rehabilitation (CONASUR) and therefore highly contributes makes an enormous contribution to the relief of people affected by crises and disasters at national level.

In recent years, the CRBF has carried out several emergency response operations in the following areas of intervention: Emergency shelter, food security, WASH, health, child protection, etc. It also has very dynamic support services that facilitate the implementation of these actions.

The NS coordination units and directorates involved in this PAP have a long and rich experience in responding to crises and disasters. Thus, we can rely on existing tools to facilitate the implementation of this PAP.

In terms of procurement, there are framework contracts that are signed with suppliers to facilitate purchases.

As far as communication is concerned, there are existing framework contracts with radio stations allowing the dissemination of information to communities at risk.

In view of this extensive experience, the NS current knowledge of anticipatory actions and its good collaboration with the technical services, the CRBF is able to effectively implement this PAP.

The main risks that could arise during the implementation of this project are:

- Insecurity (attacks by Unidentified Armed Groups (GANI) in the areas of intervention. Burkina Faso has been facing a security crisis since 2016 marked by GANI attacks. This crisis is now affecting a major part of the country. However, the city of Ouagadougou is relatively calm. But large-scale attacks could impact the implementation of this PAP. To this end, the CRBF is taking steps to ensure that actions can continue through the preposition of contingency stocks and the strengthening of the capacities of communities and volunteers for the implementation of anticipatory actions themselves.
- Political and social unrest. The socio-political context of Burkina Faso is very fragile in view of the recent coups d'état recorded in the country. In the event of new socio-political unrest, the project's actions could be impacted following measures that could be taken by the authorities that could hamper supply chain. To deal with such a situation, it is imperative to set up effective feedback mechanisms and above all to prepare the community and possible for a self-culture of anticipatory actions.
- Rejection of anticipatory actions by communities. Communities may not adopt anticipatory actions and may cause difficulties in the implementation of the project. To avoid such a situation, awareness-raising is necessary for the benefit of communities and especially the administrative authorities and community leaders. Their full involvement throughout the process will also facilitate their access to the mechanism.
- Occurrence of other hazards (natural disasters, epidemics, etc.) in the areas of intervention. The occurrence of a major disaster impacting a significant number of people in the areas of intervention could lead to stop of the projects' implementation. In this case, a temporary suspension of

	<p>the project could be requested for a resumption after the situation has stabilized.</p> <p>The project will be monitored through the internal monitoring and evaluation system of projects. The steering committee that will be set up could regularly take stock of the implementation of the project. Activity reports will be provided to the Federation and a narrative and financial report during each quarter.</p>
<p><u>Red Cross Red Crescent Movement partners, Governmental / other agencies consulted/involved on this simplified EAP</u></p>	<p>Key stakeholders include:</p> <ul style="list-style-type: none"> - ANAM: National Meteorological Agency is housed within the Ministry of Transport and has expertise in the collection, monitoring and forecasting of weather and climate information throughout the national territory. For this project, ANAM will provide the CRBF with weather warnings and bulletins related to heat waves; - DGPC: Directorate General of Civil Protection: like any civil protection, their mission is to ensure the protection of people, property and the environment against the risks of disasters of all kinds; studying, developing and monitoring civil security measures at the national level; organize and coordinate emergency relief; - SP/CONASUR: the Permanent Secretariat of the National Council for Emergency Relief and Rehabilitation is responsible for the prevention and management of crises and disasters and works in collaboration with the other technical services. For this project, the SP/CONASUR will contribute to the care of affected people. - Other actors such as the Health Emergency Response Operations Center (CORUS) and health centers in the target areas will also be involved and will be able to facilitate care and communication with the affected people. - Communities at risk will be strongly involved throughout the process to ensure that they take better ownership of early actions. - The Red Cross and Red Crescent Climate Centre will provide technical expertise to the CRBF to facilitate the implementation of this PAP. - PNSs will be involved during the implementation of the PAP. - IFRC will provide technical support and funding for the implementation of the PAP. <p>All these actors have fully participated in the development of the PAP. ANAM supported the NS in the development of the trigger. The Climate Centre supported on technical aspects. The other actors were consulted and worked on the definition of early actions.</p>

BUDGET



Early Action Protocol Summary

EAPcode - BURKINA FASO RED CROSS
OUAGADOUGOU HEAT WAVES

<u>Operating Budget</u>	Readiness	Pre-Pos Stock	Early Action	TOTAL
Planned Operations	22,155	86,957	65,936	175,049
Shelter and Basic Household Items	0	0	0	0
Livelihoods	4,537	36,295	3,781	44,613
Multi-purpose Cash	0	0	0	0
Health	6,805	27,221	13,611	47,637
Water, Sanitation & Hygiene	3,025	11,342	39,698	54,065
Protection, Gender and Inclusion	0	12,098	605	12,703
Education	0	0	0	0
Migration	0	0	0	0
Risk Red., Climate Adapt. and Recovery	0	0	0	0
Community Engagement and Accountability	7,788	0	8,242	16,030
Environmental Sustainability	0	0	0	0
Enabling Approaches	23,866	0	21,021	44,887
Coordination and Partnerships	1,626	0	6,654	8,280
Secretariat Services	4,991	0	14,367	19,357
National Society Strengthening	17,249	0	0	17,249
TOTAL BUDGET	46,021	86,957	86,957	219,935

all amounts in Swiss Francs (CHF)

Contact information

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