



GLOBAL **HEAT** HEALTH
INFORMATION NETWORK

The First Global Forum
on **HEAT** and **HEALTH**

*How heat waves are managed in
Morocco?*

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Royaume du Maroc
Ministère de la Santé



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DEL
Direction de l'Epidémiologie
et de Lutte contre les Maladies

Outlines

1. “DMN” Meteorological Vigilance System
 - Purpose and objectives
 - The Weather Vigilance Map
 - Temperature Thresholds
 - The dissemination of the Weather Vigilance Map
2. Ministry of Health’s actions against Heatweaves
 - The Multi-Risk Plan
 - The *“Early Warning, Alert and Response to Diseases related to CC”* Initiative



DMN METEOROLOGICAL VIGILANCE SYSTEM

(DMN = NATIONAL METEO DIRECTORATE)







Purpose and objectives

The system adopted by the “DMN” aims to

- Give public authorities at the national, regional and provincial levels the means to anticipate a difficult situation by an early announcement;
- Provide the public authorities with forecasting and monitoring tools to prepare and manage risk situations;
- Ensure wide dissemination of information and advice or behavior guidelines adapted to the situation.
- In addition to Heat waves, 5 others climatic phenomena are taken into account by the system, (*heavy rainfall ; strong winds ; cold waves; heavy snowfall; strong waves*)



THE WEATHER VIGILANCE MAP

- It is one of the outputs of the DMN's system
 - It describes, by 4 colors, the level of risk associated with weather conditions during the next 48 hours
-  Level 4 red: extreme risk require urgent actions and information to the population;
 -  Level 3 orange: significant risk ; it justifies the establishment of a reinforced vigilance
 -  Yellow level 2: risk linked to usual phenomena but which can be occasional and locally dangerous;
 -  Level 1 green: no risk.



Temperature thresholds

- The thresholds for Heat waves are not identical for all regions of Morocco: the national territory has been stratified into 4 zones with similar climates and local characteristics :

Temperature thresholds "Tmax"	Yellow	Orange	Red
Zone 1	42-45	45-48	48 et plus
Zone 2	40-43	43-46	46 et plus
Zone 3	38-41	41-44	44 et plus
Zone 4	32-36	36-40	40 et plus

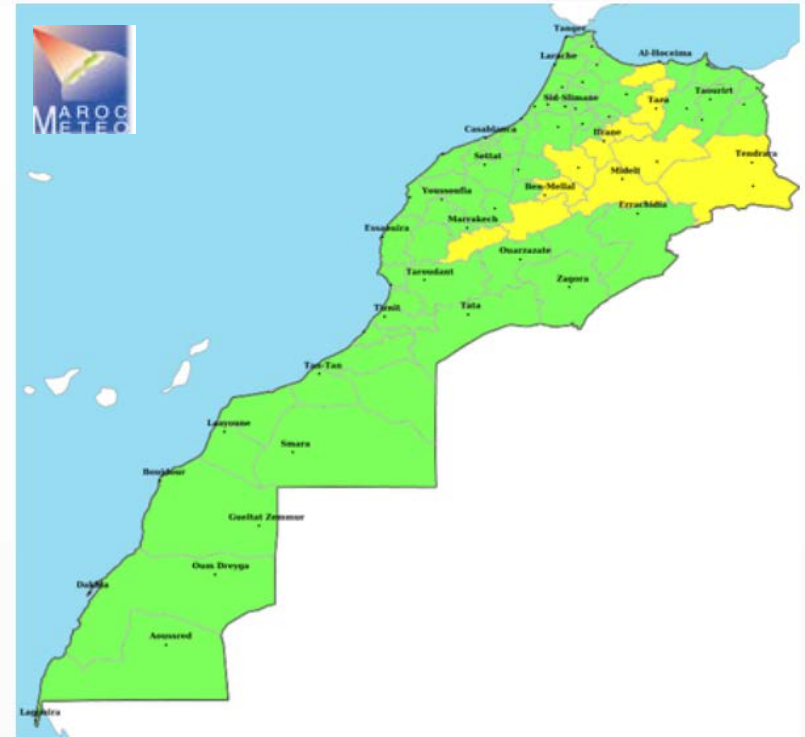
- ***Advices given during heat waves :***
 - Limit physical exercises;
 - Choose cool spots or stay in the shade
 - Take care of the elderly, children and vulnerable animals
 - Refresh yourself and drink water



THE DISSEMINATION OF THE WEATHER VIGILANCE MAP

- The vigilance card and its monitoring bulletins are permanently available 24/7 on the website:
vigilance.marocmeteo.ma

web page accessed
16 December 2018



Niveau de risque maximal par phénomènes :

Sam. 15-déc. : 

Dim. 16-déc. :  



Ministry of Health's actions against Heat Waves



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The Multi-risk Plan

- The joint WHO-MoH external evaluation conducted in Morocco in June 2016 prioritized the development of a
"National Multi-risk Plan for Public Health Emergency Preparedness and Response".
- The types of risks that were considered by this plan were identified following an assessment of all potential health hazards
- This evaluation used the WHO approach called STAR : "Strategic Tool for Assessing Risk "
- Heat waves was established by this assessment as one of dangerous threatening public health.



STRATEGIC TOOL FOR ASSESSING RISK (STAR)

OBJECTIVES :

1. Engage multisectoral stakeholders around a risk assessment developed for health sector planning;
2. Provide a systematic, transparent and evidence-based approach to identify and classify priority hazards by level of risk.
3. The outputs of the STAR process will help emergency planners to drive emergency preparedness activities, and to allocate resources to the scenarios that present the highest level of

PRINCIPLE :

Implementation of a risk management cycle, focussing on assessment and proactive management of high and very high risks, rather than a reactive approach to events as they occur



The Mutli Risk Plan was the subject of a recent workshop (November 12-15) that had gone through three stages

1. Identification and prioritization of risks to public health in Morocco
2. Drafting of draft 0 of the multi-risk plan
3. Discuss the feasibility of specific contingency plans (heat waves among others).



EARLY WARNING, ALERT AND RESPONSE OF DISEASES RELATED TO CLIMATE CHANGE IN MOROCCO

- This is an initiative presented during COP22 (*organized in Marrakech on November 2016*)
- Objectives :
 - i. Develop a system for monitoring climate change-related diseases based on health and environmental indicators;
 - ii. Develop a system of detection, early warning and response to extreme weather events.



Proposed work plan for the implementation of the initiative

- ***Develop the monitoring system:***
 1. Make an inventory, evaluate the health risks potentially impacted by the CC in Morocco and map the most endangered areas;
 2. Define health and environmental indicators related to climate change and develop standardized procedures for data collection;
 3. Put in place a sentinel surveillance system in areas with related health risks to CC



Early warning and detection system :

1. Develop a network of partners who will be involved in the detection system and warning of extreme weather events;
2. Develop standardized procedures for the collection and sharing of data related to the CC ;
3. Develop plans for preparing and responding to extreme weather events.



Thank you

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