



Improving Resilience to Extreme Events and Climate Impacts

Drought, Wildfires, Floods



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Commission for Environmental Cooperation

Strategic Plan 2015-2020



Climate Change
Mitigation and
Adaptation



Green Growth



Sustainable
Communities and
Ecosystems





Objectives

Creating institutional partnerships to:

- Advance the response capacities to extreme events that affect the health, safety, and socio-economic and environmental well-being of communities and populations across North America.
- Improved early warning, adaptation planning, and emergency management, and by supporting innovative solutions and better post-disaster reconstruction.



Using Volunteer Observer Networks to Monitor Precipitation and Wildfires

Expanding the use of volunteer observer networks to address information gaps in monitoring and predicting impacts of droughts, precipitation events and wildfires.



Using Volunteer Observer Networks to Monitor Precipitation and Wildfires



- Assessment of information needs and gaps relative to precipitation and wildfires.
- Analyse the feasibility of using citizen science and volunteer observation networks to address information needs.
- Feasibility study for the expansion of the Community Collaborative Rain, Hail and Snow (CoCoRaHS) Network and the Smoke Sense citizen science project across North America.



Costing Floods and Other Extreme Events

- Develop a standardized methodology for assessing the cost of catastrophic floods.
- Uptake into policies at federal, state/provincial and municipal level.

Costing Floods and Other Extreme Events

Table 1. An overview of the flood costing methodologies currently in use in Canada, Mexico and the United States, particularly with respect to data availability and access.

Method	Key Data Holders	Data Collection	Data Analysis & Presentation	Data Availability & Accessibility	Overall Effectiveness & Acceptability
Canadian Method					
Parliamentary Budgetary Office Method	Federal & provincial agencies; Insurance companies	●	●	●	●
IBRAUS	Default inventory data User-derived data	●	●	●	●
Computable General Equilibrium Models	Federal and provincial agencies	●	●	●	●
Mexican Method					
EULAG Method	Local government agencies	●	●	●	●
United States Methods					
Human Assessor	Federal government; Insurance companies	●	●	●	●
Model-Based Methods	FEMA, US Army Corps of Engineers	●	●	●	●
Fed Budget Outlays	Government agencies	●	●	●	●
State/Local Budget Outlays	All 50 states, territories & tribal governments	●	●	●	●

N.B.: A green light represents complete usefulness and effectiveness in approaches to data; a yellow/amber light represents somewhat usefulness and/or effectiveness; and a red light indicates unacceptability and ineffectiveness.

- Develop a common methodology for costing the impacts of floods and other extreme events.
- Workshops incorporating information about Indigenous perspectives and methodological approaches to multi-hazard assessments.
- Develop case studies (one per country) to demonstrate the use of the methodology.



Using remote sensing to prepare for and respond to extreme events

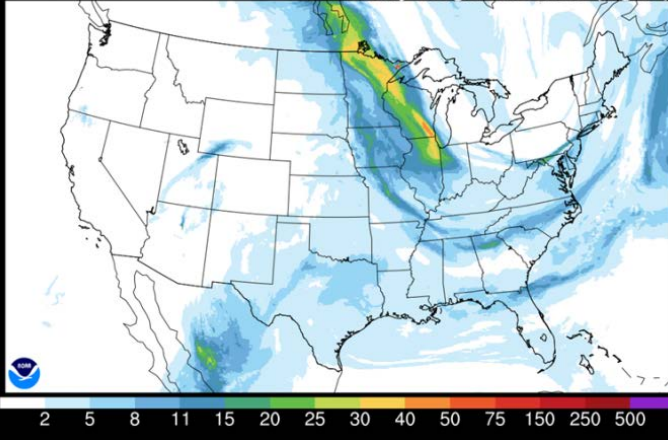
DigitalGlobe

Build local and regional capacities of first responders, emergency managers, and decision-makers to use real-time satellite imagery in responding to extreme events.

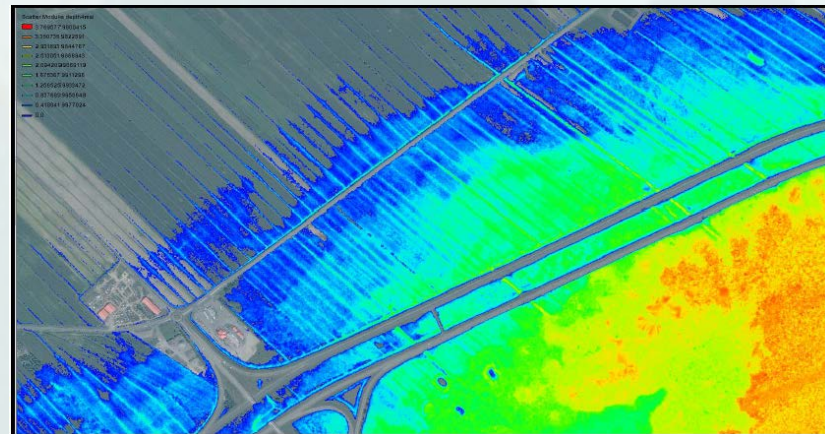
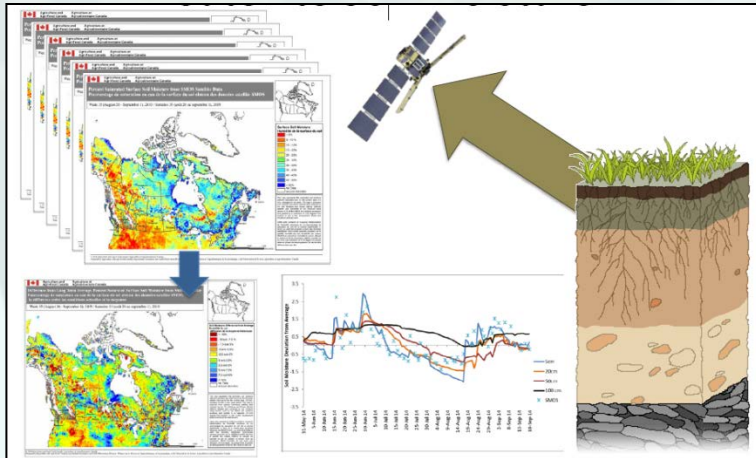


Using remote sensing to prepare for and respond to extreme events

HRRR-SMOKE 2019-06-03 16 UTC 0h fcst - Experimental Valid 06/03/2019 16:00 UTC
Vertically Integrated Smoke (mg/m²)



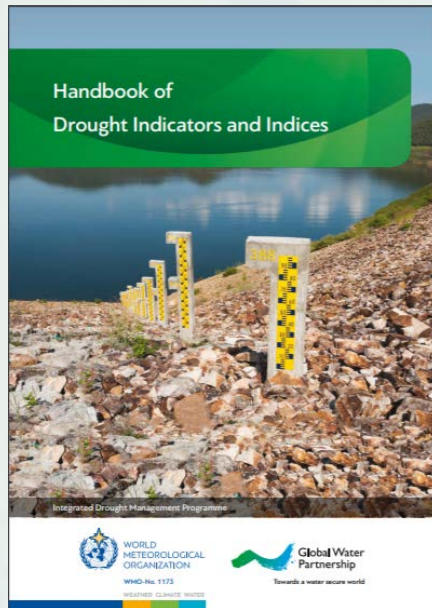
- Identify best available options for early warning systems that would benefit from enhanced access to satellite imagery.
- Conduct workshops on the use of satellite imagery and response tools for floods, drought, and forest fires.



Improving the Effectiveness of Early Warning Systems for Drought

Increase local capacity to use
drought information for planning
and risk management.

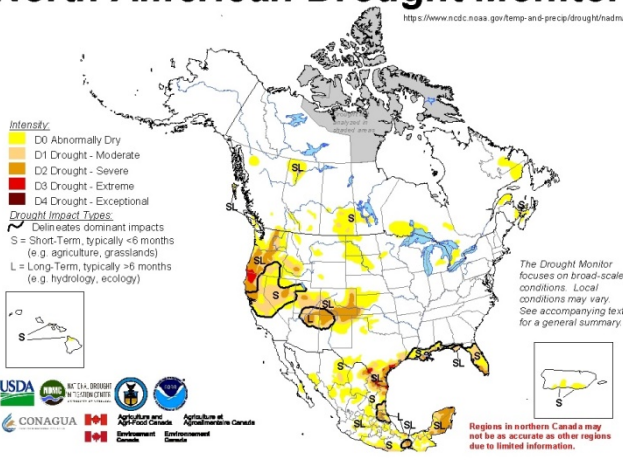
Improving the Effectiveness of Early Warning Systems for Drought



- Develop a set of guidelines on the use of locally relevant indicators in North American climate regions.
- Identify and compare available drought information and best practices, and provide recommendations for improving access and use.

North American Drought Monitor

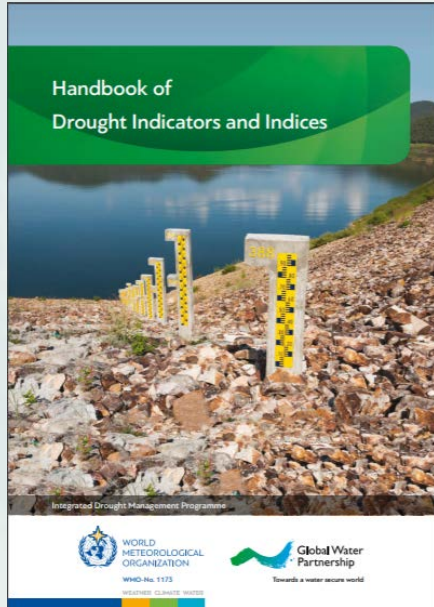
<http://www.ncdc.noaa.gov/temp-an-6-precip/drought/nadm/>



- Assess the use and user needs of the North American Drought Monitor (NADM), to improve access and development of user-oriented tools, with an emphasis on transboundary regions across North America.



You Opinion Counts!



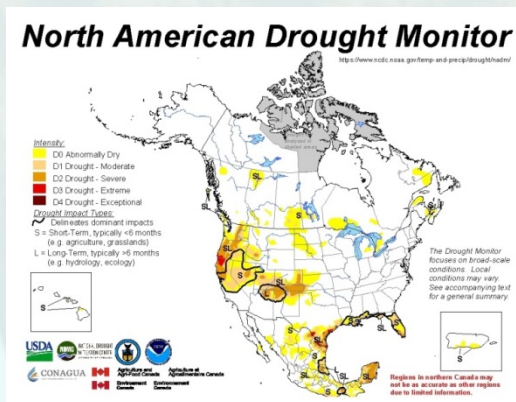
- Online Consultations on drought monitoring, indicators and indices: October 8 (English) and October 13 (Spanish). **To register:** <https://survey.zohopublic.com/zs/XPB3hT>

- **To provide written input:** <https://survey.zohopublic.com/zs/KgCCBr>

- Survey on access and use of drought products: <https://bit.ly/31TJN79>

- North American Drought Monitor (NADM) Use Assessment Survey: <https://bit.ly/3fVWphi>

- Select language of preference (English/Spanish/French)



Thank you!

Commission for Environmental Cooperation



Three Countries. One Environment.