

Lightning Safety Module Developed in Colombia

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Lightning mortality scenario

Lightning mortality data from scientific studies made in Colombia...

- ❑ *Statistics of the Colombian National Army Lightning Accidents –*
72 deaths within the National Army between 2003 – 2012 (Cruz et al., 2013)
- ❑ *Lightning fatalities in Colombia from 2000 to 2009 –*
757 deaths between 2000 – 2009 (Navarrete, Cooper & Holle, 2014)
- ❑ *Lightning mortality rate in Colombia for the period 1997 – 2014 –*
1173 deaths between 1997 – 2014 (Cruz-Bernal et al., 2018)
- ❑ *Study of correlation between Ground Flash Density, Population Density and Lightning Mortality In Colombia–*
642 deaths between 2008 – 2018 (Currently in development)



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CHARACTERIZATION OF THE LIGHTNING SAFETY EDUCATION PROGRAMS
IN THE WORLD AS A FIRST STEP FOR THE CREATION OF
A LIGHTNING SAFETY POLICY IN COLOMBIA

A research-innovation project presented by
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- Trabajo de Grado (1.946Mb)
- Anexo 1 (193.0Kb)
- Anexo 2 (230.7Kb)

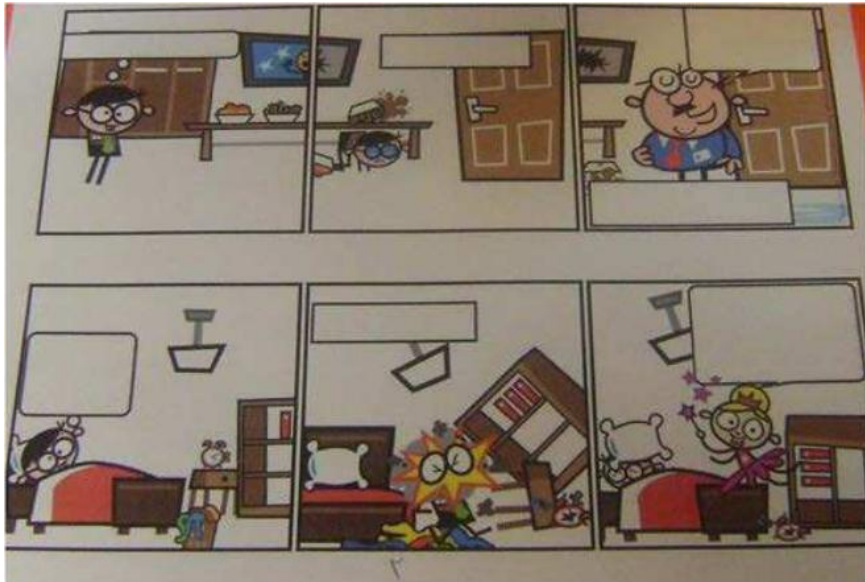


Link: <https://repository.udistrital.edu.co/handle/11349/6420>



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I. Creation of a lightning safety comic strip



“Silly Timmy” Comic for teaching about earthquakes to kindergarten children



Teacher is teaching Silly Timmy Comic Strips to her class

Source: Use of comic strips in teaching earthquakes to kindergarten children, Sharpe and Izadkhah (2014)



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2. *Development of a lightning safety documentary for Colombian rural population*



- ✓ A lightning safety documentary divided into small segments could provide to rural dwellers a contextualization on lightning safety
- ✓ The documentary could be presented in schools and other crowded venues



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3. Implementation of Lightning Safety radio advertisements

- ✓ Radio is the second most used mass media in Colombia, and many times the first one where electricity is not available
- ✓ The inclusion of short lightning safety ads within the radio programming could reach a lot of peasants and their families with the lightning safety message



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4. Addition of lightning to the UNGRD Climate Change Mobile (App and Risk Awareness Website)



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5. Inclusion of lightning risk in the UNGRD Knowledge Committee



Source: <http://portal.gestiondelriesgo.gov.co/>

- ✓ Lightning must be included within the work of the Knowledge Committee so that it begins to be part of the National System for Disaster Risk Management
- ✓ High education institutions like the Universidad Distrital Francisco José de Caldas can support that inclusion by providing a research platform on lightning and Lightning Risk Management

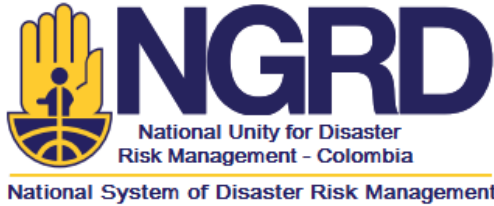


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The screenshot shows the website conciencia.gestiondelriesgo.gov.co. The NGRD logo is visible, along with navigation links: INICIO, PROFES FRENTE AL RIESGO, RIESGOS Y AMENAZAS, FRENTE AL RIESGO, and CONTÁCTENOS. A large green banner features the text 'CONCIENCIA' and 'RIESGO' with the instruction 'Haz click sobre los iconos del pizarra para preparar los aplicativos y empezar a prepararte en prevención y reducción del riesgo'. Below this, a section titled 'CONCIENCIA ANTE EL RIESGO' contains three buttons: 'CONOCE Y REDUCE EL RIESGO', 'ACTÚA', and 'EVALÚA'. A dropdown menu under 'RIESGOS Y AMENAZAS' lists various hazards: CICLONES TROPICALES, INCENDIOS FORESTALES, INUNDACIONES, MOVIMIENTOS EN MASA, SISMOS, TSUNAMI, VOLCANES, and 'DESCARGAS ELÉCTRICAS ATMOSFÉRICAS', which is highlighted with a yellow border.



Challenges in the implementation

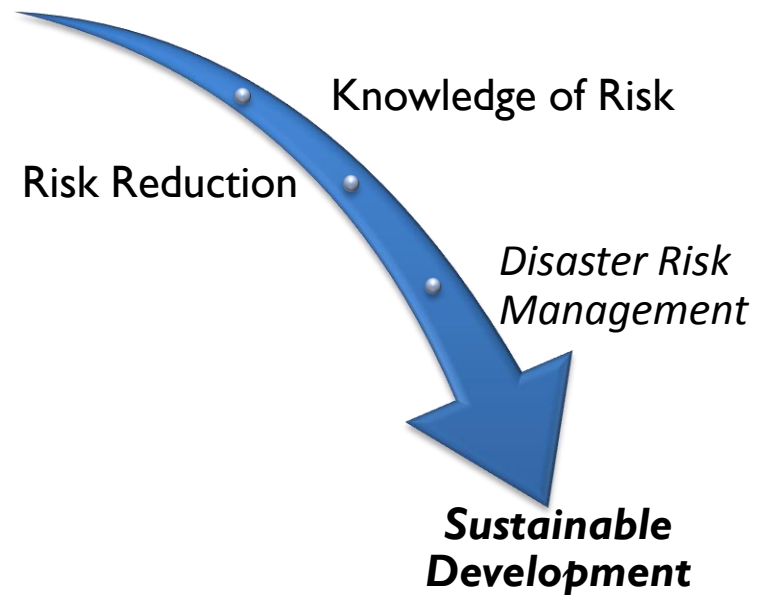


NATIONAL PLAN OF DISASTER RISK MANAGEMENT "A STRATEGY OF DEVELOPMENT"

 PRESIDENCIA DE LA REPÚBLICA



**GENERAL
GOAL**



Challenges in the implementation

TRANSFORMING OUR WORLD:



THE 2030 AGENDA FOR
SUSTAINABLE DEVELOPMENT



SUSTAINABLE
DEVELOPMENT
GOALS



Challenges in the implementation



Challenges in the implementation

Lightning hazard as **extensive risk**



Extensive risk: *Exposure of dispersed populations - Repeated or persistent hazard conditions - Low or moderate intensity - Highly localized nature - Debilitating cumulative disaster impacts*



Challenges in the implementation



<https://sendaicommitments.undrr.org/>



Conclusions

- ✓ It is noticeable that the world is going through a new phase in disaster risk management oriented to sustainable development, and this is an ideal scenario to take the decision of getting actively involved in the topic
- ✓ The Colombian current context in disaster risk management has all the potential and resources to design and implement public policies on lightning safety education successfully



Conclusions

- ✓ The proposal and development of voluntary commitments within the Sendai Framework for Disaster Risk Reduction 2015-2030 could be a successful way to insert lightning flashes into the DRM global scenario
- ✓ That labor must take into consideration the particular characteristics and effects of lightning phenomenon and how to articulate this process with the natural hazards mitigating strategies and policies of each country



Thanks for your attention!

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