

# National Public Weather and Warning Services in the Swaziland Meteorological Service

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# Introduction

Swaziland's geographical position exposes the country to weather systems from:

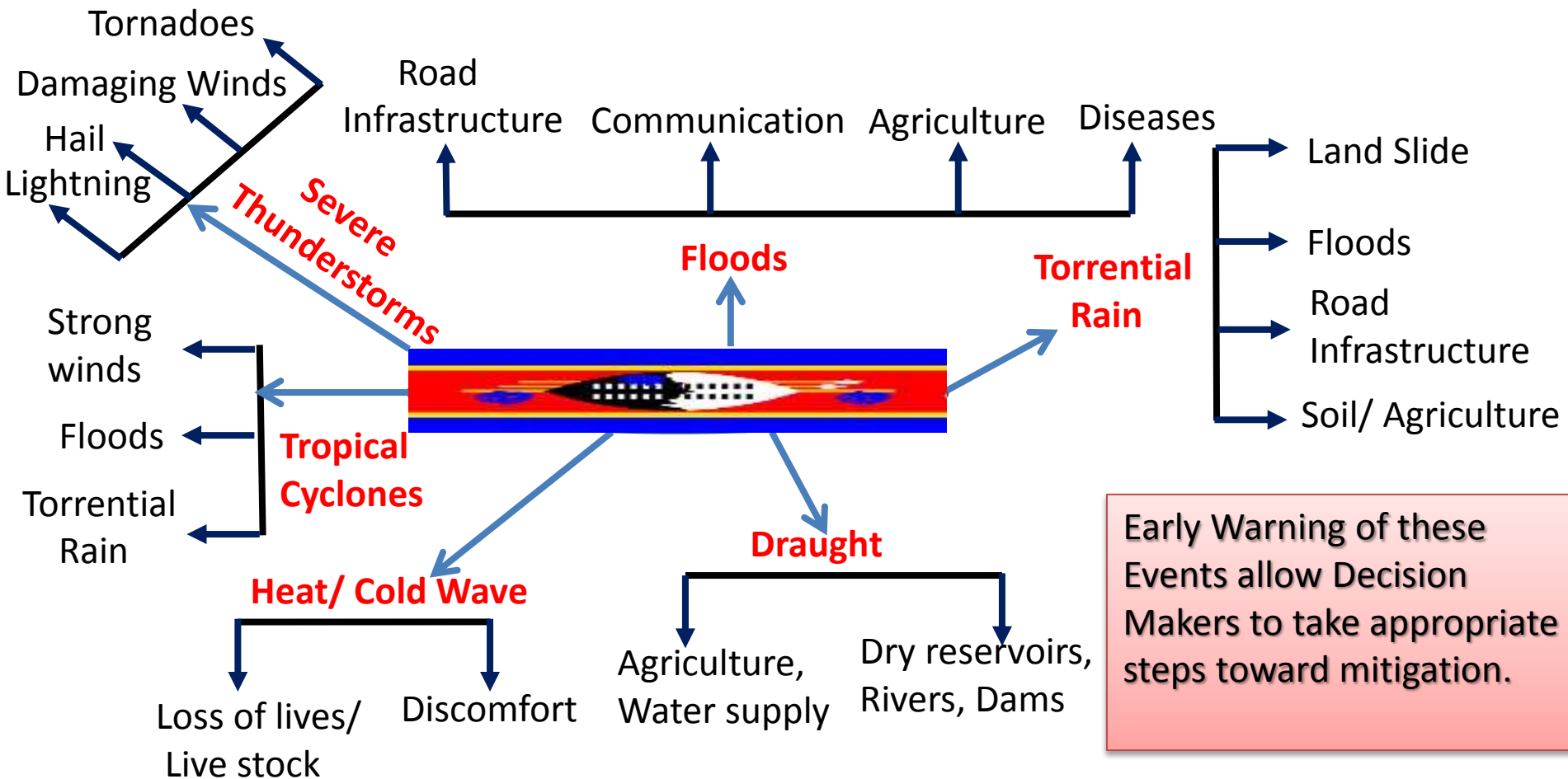
- The Indian Ocean i.e Tropical cyclones, Torrential rains (Summer Season)
- Tropical unstable air from the north. (Summer Season)
- Cold fronts from the south. (Summer and Winter)
- Convection from the west (Summer)
- Strong damaging winds from the west in winter



# Hazards

- Torrential Rains / Floods
- Thunderstorms
- Tornadoes
- Flash Floods
- Tropical Cyclones
- Forest/ wild fires
- Heat/ cold wave

# Natural Disasters Affecting Swaziland



Early Warning of these Events allow Decision Makers to take appropriate steps toward mitigation.



**Warning System**

**National Disaster Management Agency (NDMA)  
(Under the DPM's Office)**

**Dept of Water Affairs/ SEC**

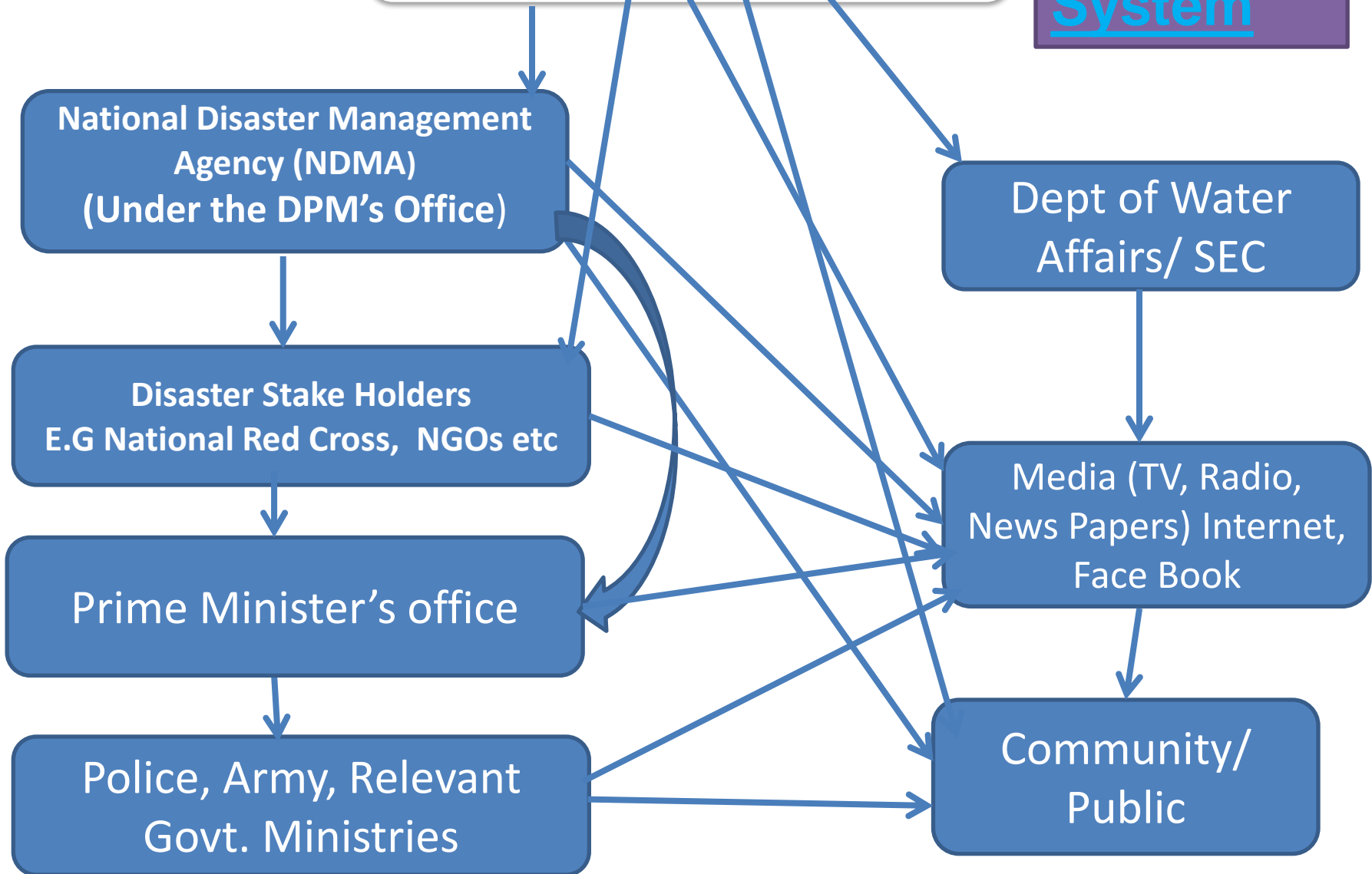
**Disaster Stake Holders  
E.G National Red Cross, NGOs etc**

**Media (TV, Radio, News Papers) Internet, Face Book**

**Prime Minister's office**

**Police, Army, Relevant Govt. Ministries**

**Community/ Public**



# Dissemination Tools

- Meteo Factory: forecasts sent to different user's Fax, emails, SMS, voice server.
- Department's Website: [www: swazimet.gov.sz](http://www.swazimet.gov.sz)
- National radio after every news and 3 times during the day
- Phone
- TV weather presentations
- Social Media- Face book page- Twitter.
- Press briefings

# Working with the National Disaster Management Agency (NDMA)

- MOU and SOP to be signed with the NDMA that will include stake holders such as the Red Cross and others.
- Meetings to discuss seasonal forecasts and conduct drills in different parts of the country
- Community outreach programmes with NDMA and police to sensitize communities on E.g lightning, flash floods and other wx related hazards.
- Direct phone conversation with the NDMA highest officials in the event severe weather becomes eminent.
- Meetings held with stake holders after major events to present reports and feed backs of successes and failures

# Challenges in Working with NDMA

- Reactive rather than proactive to weather hazards.
- Minimum involvement of meteorology in decision making and national risk management programs.
- Lack of meteorological awareness in staff
- Absence of director



# Interaction with the Media

- Slight improvement noted
- Can call the national radio station anytime to give warnings
- Daily radio access where forecasts and warnings are issued, where awareness issues can be raised.
- Daily weather presentations on National TV where warning and awareness issues can also be raised.
- News papers do publish warnings and awareness issues on weather related hazards such as lightning, flash floods and fire warnings without charges.

# Media Reports Clips

Wednesday, January 18, 2012 The National Newspaper of Swaziland Since 1097 Price E3-00

**WIN \$BIG E500,000 OVER 3 MONTHS CASH!**

**MACFORD RUNS TO BENNETT**  
AFTER BUSINESSMAN SAID SHANDILE SHOULD BE SENT HOME IF FOUND GUILTY

**IT'S NOT A CYCLONE**




- Experts allay fears that it could be another 'Zamcolo'
- Rains are after-effects of Cyclone Dando that hit Moz
- More rain received in 3 days than in a month
- Police issue warning


**MBARANI** - A kosiu crossing between Mbabane and GDS crosses the flooded bridge near Chibulizi with other motorists stuck for a distance yesterday. (By Mkhulu Mkhulu)

**SUPPLEMENT**


**HEAVY RAINS THROUGH LANDSLIDES...**




A front-loader from the City Council clears the remains of a mudslide at Mbabane.



A front-loader and trucks from the City Council took half a day to clear the remains of a mudslide at Mbabane.



A footbridge that connects Extension Three to the Industrial Site, covered in rubbish showing how swollen the Mbabane River was yesterday.





# Challenges with the Media

- Need to sensitize media personnel on the importance of disseminating weather information on time-  
Weather information is perishable
- Interpretation of meteorological terms
- Raising false alarms just to increase sells (print media)
- Little airtime given to weather presentations on TV
- Lack of monitoring of what the editors finally publish.  
(Need to hold workshop for editors).
- Foreign sources of information

# Feed back from the Public/ Users

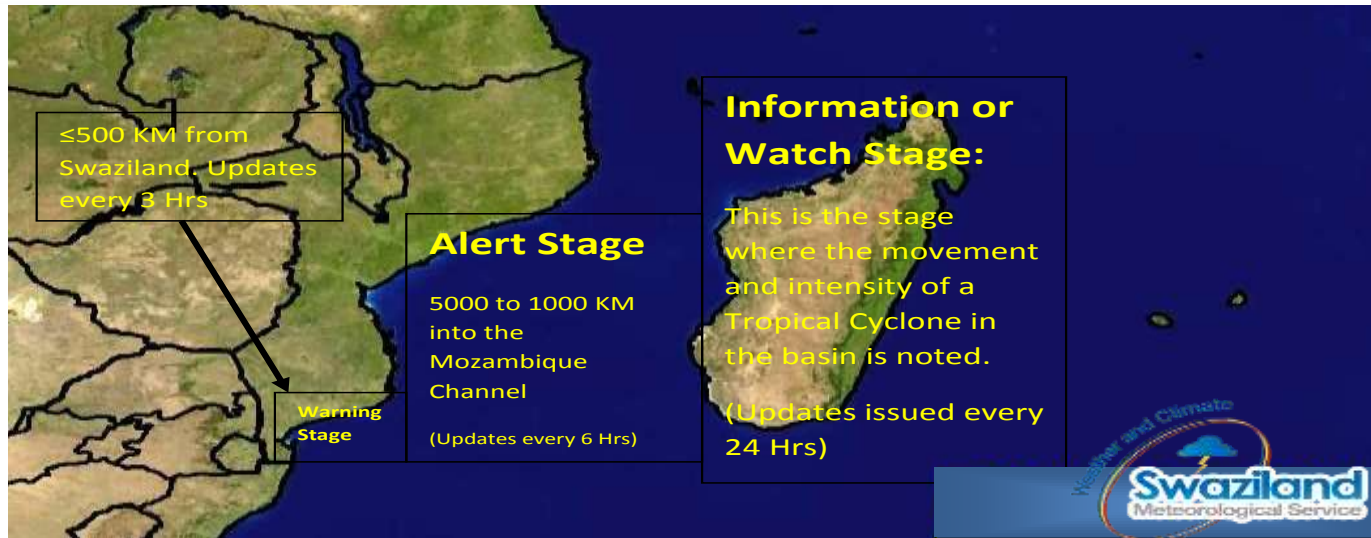
- An online survey was conducted two years ago mainly for users.
- Feed back from NDMA
- Telephonic comments from the public
- More general surveys need to be done.  
Financial constraints hinder progress. Its Work in Progress.

The end....

Thank You for  
listening

**Siyabonga**

## SOP for Reporting Tropical Cyclone Occurrence in Swaziland



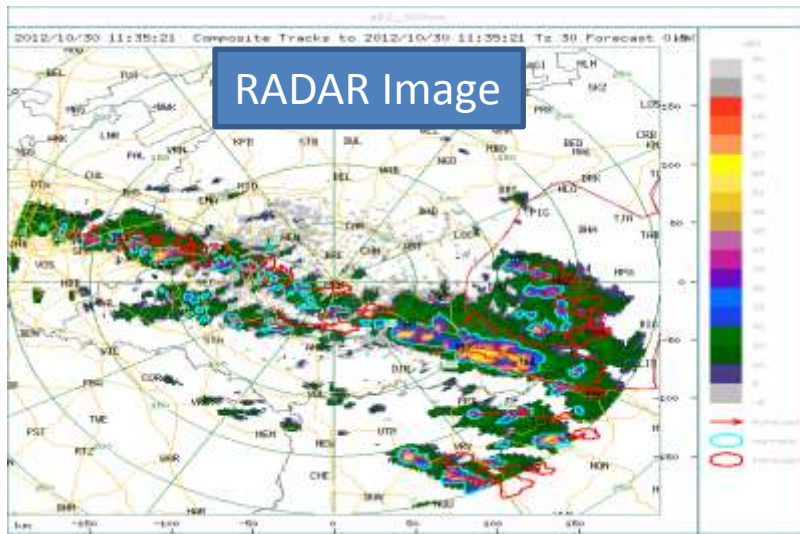
# Numerical Weather Products (NWP) Used

Numerical Weather Products (NWP) include:

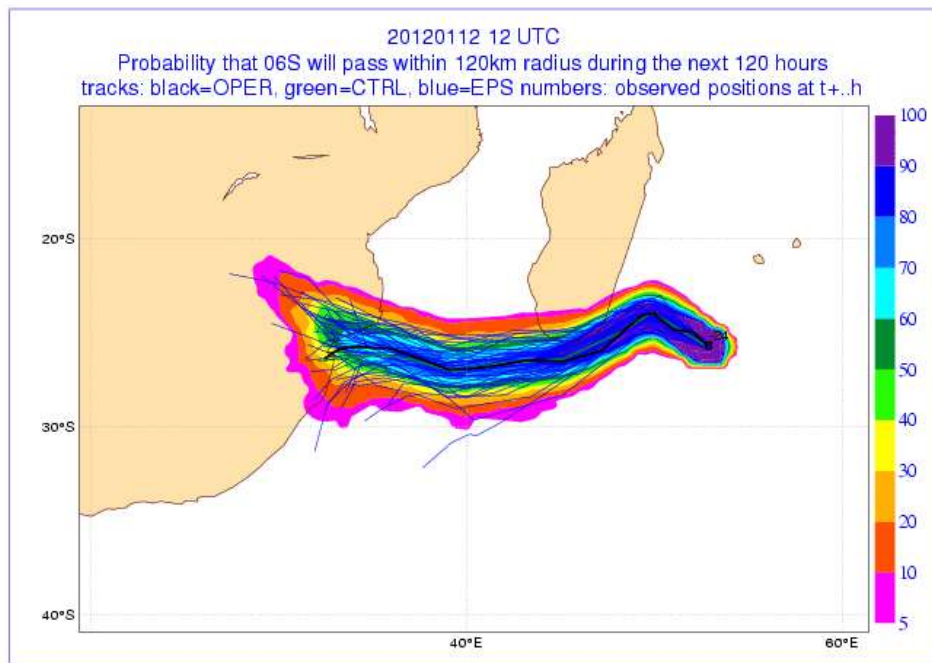
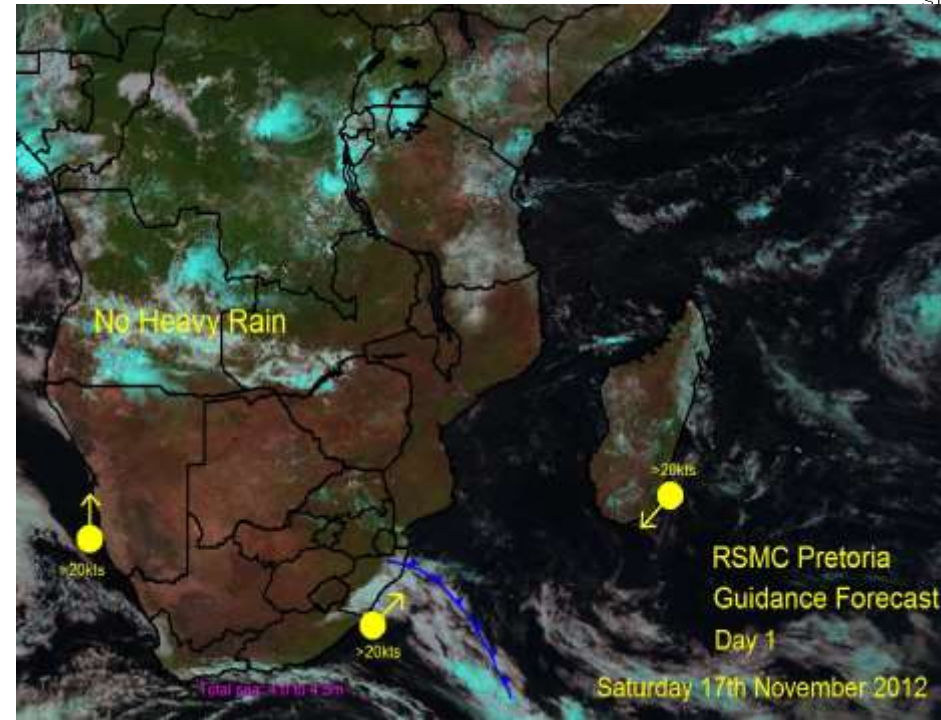
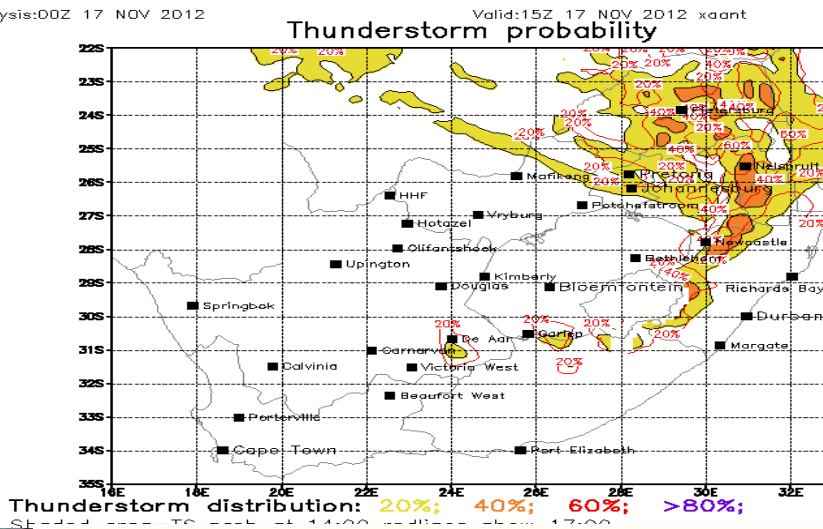
- ECMWF: Ensemble Prediction System (EPS),  
Extreme Forecast Index (EFI)
- UK Models, NCEP
- RSMC Pretoria's Guidance Products
- South African Weather Service Aviation WebSite for  
Thunderstorm Probability and RADAR Images.
- Satellite Images from Eumetsat



# Models cont.

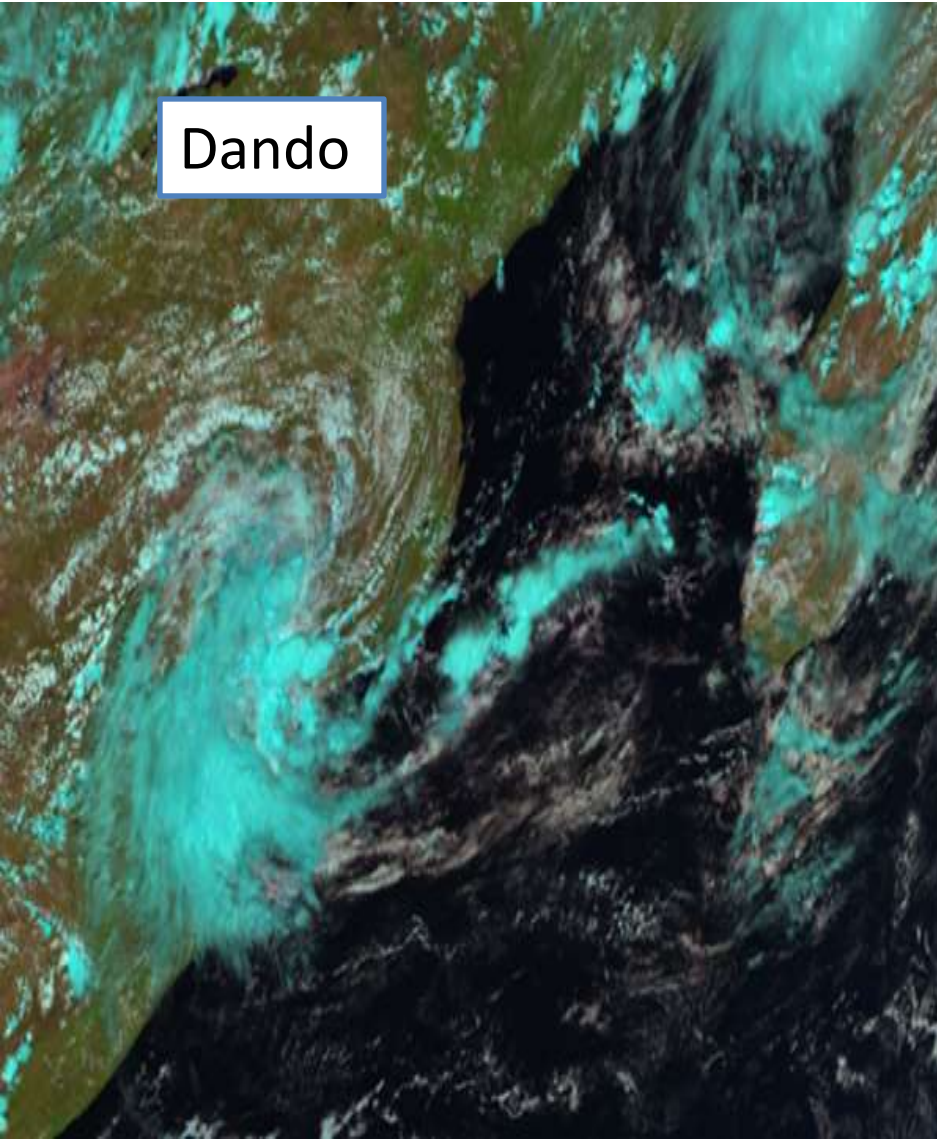


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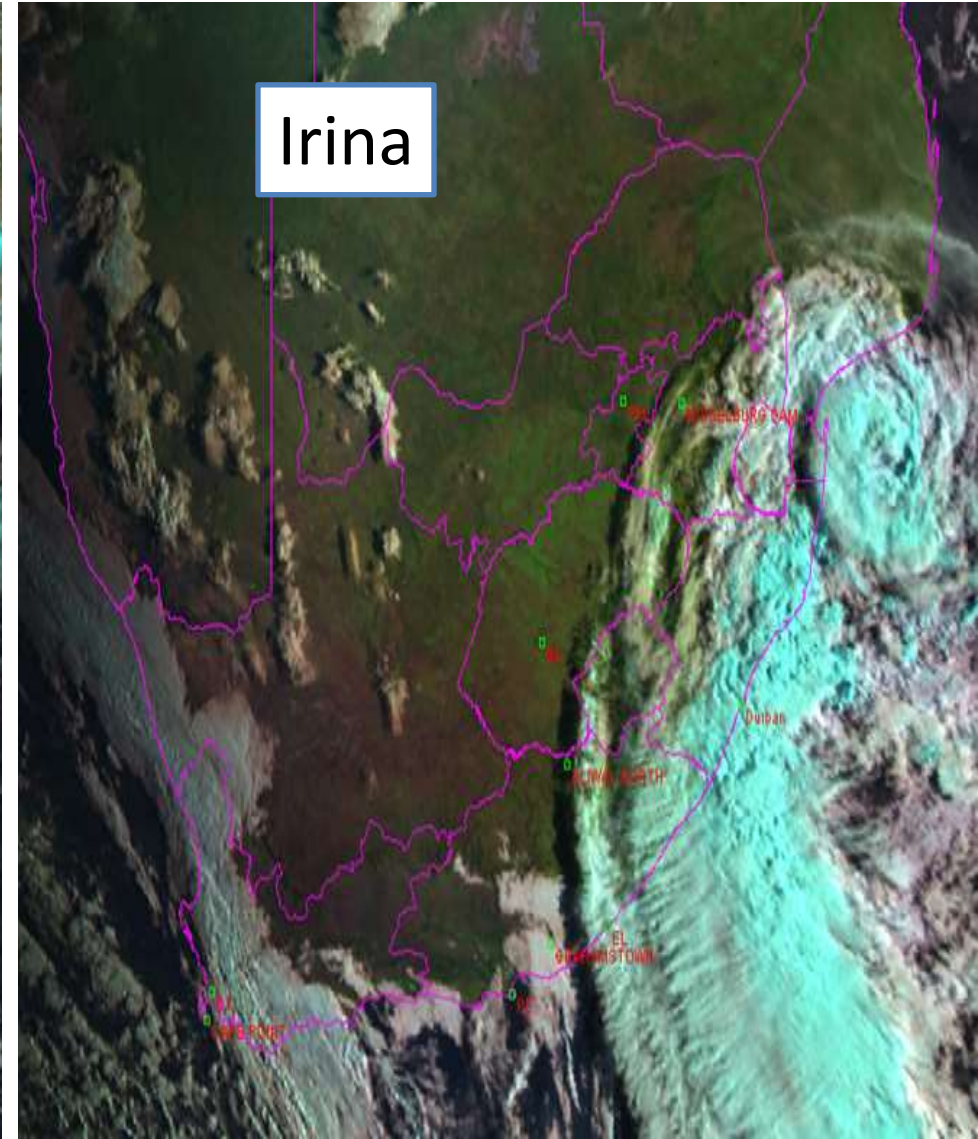


# Tropical Cyclones

Dando



Irina



# Media Praise

**FLAG: ON-SIDE**



## **The Meteorology Department**

The Meteorology Department has been superb this week, giving us plenty of warning about another cyclone slowly moving in our direction, Funso (what next, Cyclone Fatso?). With a changing climate, erratic weather is to be expected and so this kind of real-time information is vital to Swazis, particularly farmers. Mr Ref hopes they will keep up the good work alerting the public to notable weather phenomena that could affect us.

**FLAG: ON-SIDE**

# Challenges

- Staff shortage which result in stress.
- Lack of funds to hold awareness meetings with the stake holders, ie media, Civil Protection Agencies and in ability to reach the rural communities
- Unreliable internet connections to access online NWPs.
- Top management commitment