

ZAMBIA'S EXPERIENCES ON THE GLOBAL NAVIGATION SATELLITE SYSTEM(GNSS) APPLICATION IN REMOTE SENSING.

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INTRODUCTION

- ZAMBIA, 08 AND 18 DEG. SOUTH OF EQUATOR AND 22 AND 34 DEG. EAST OF GREENWICH MERIDIAN.
- SINCE 1967, ZAMBIA METEOROLOGICAL DEPARTMENT (ZMD) UNDER MINISTRY OF COMMUNICATION AND TRANSPORT PROVIDES EARLY WARNING AND ALERTS OF ADVERSE WEATHER AMONG OTHERS.
- PRODUCTS AND SERVICES:- DAILY, WEEKLY AND MONTHLY WEATHER FORECASTS, REPORTS AND UPDATES BOTH ON ELECTRONIC MEDIA AND TABLOIDS.

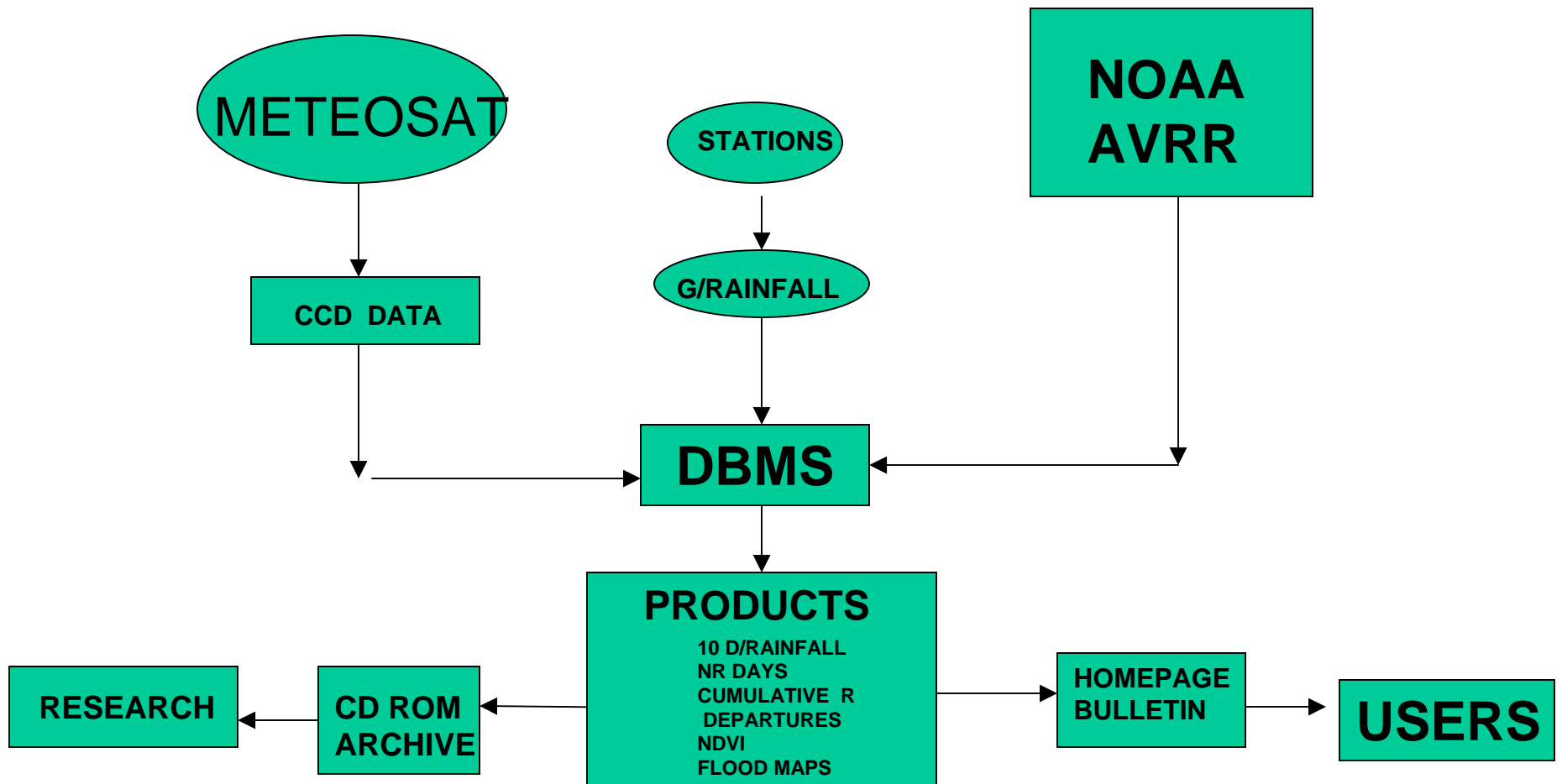
MAIN OBJECTIVE

- TO SHOW HOW GNSS TECHNOLOGY HAS BEEN USED TO SIGNIFICANTLY REDUCE LOSS OF LIFE AND PROPERTY IN ZAMBIA.
- IN PARTICULAR THE PAPER DISPLAYS SEVERAL NOAA AND METEOSAT REMOTE SENSED PRODUCTS USED IN DISASTER MANAGEMENT.

METHODOLOGY

- NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION(NOAA) SATELLITE SERIES AND GEOSTATIONARY METEOROLOGICAL SATELLITE (METEOSAT) OBSERVATIONS, ANALYSIS AND VISUAL INTERPRETATIONS.

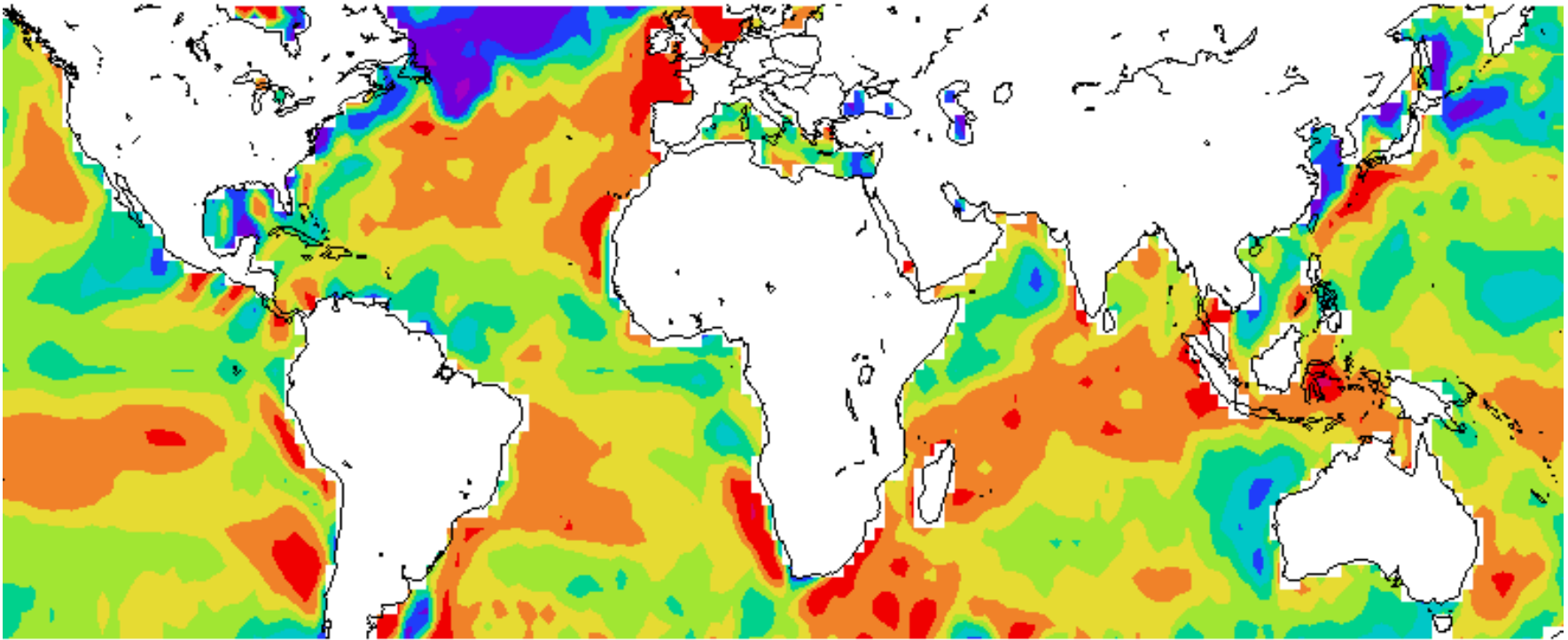
REMOTE-SENSING UNIT(ZMD)



RESULTS AND DISCUSSION

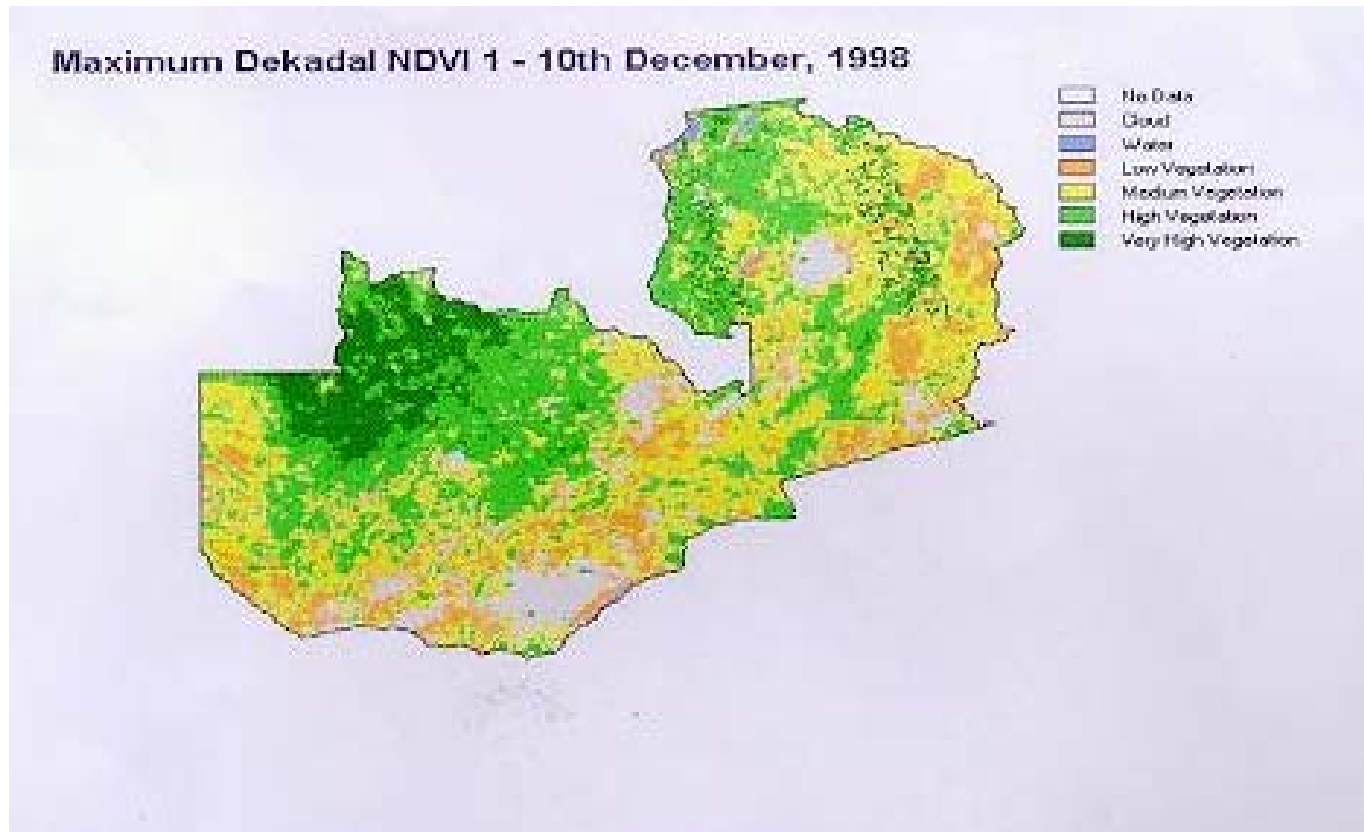
- SEA SURFACE TEMPERATURE(SST) MAP.
- NORMALISED DIFFERENCE VEGETATION INDEX(NDVI) MAP.
- SATELLITE IMAGE OF CYCLONE TRACKING.
- SUPPORT SATELLITE DATA FOR RISK AND DAMAGE ASSESSMENT, DETECTION, AND MONITORING.

SEA SURFACE TEMPERATURE



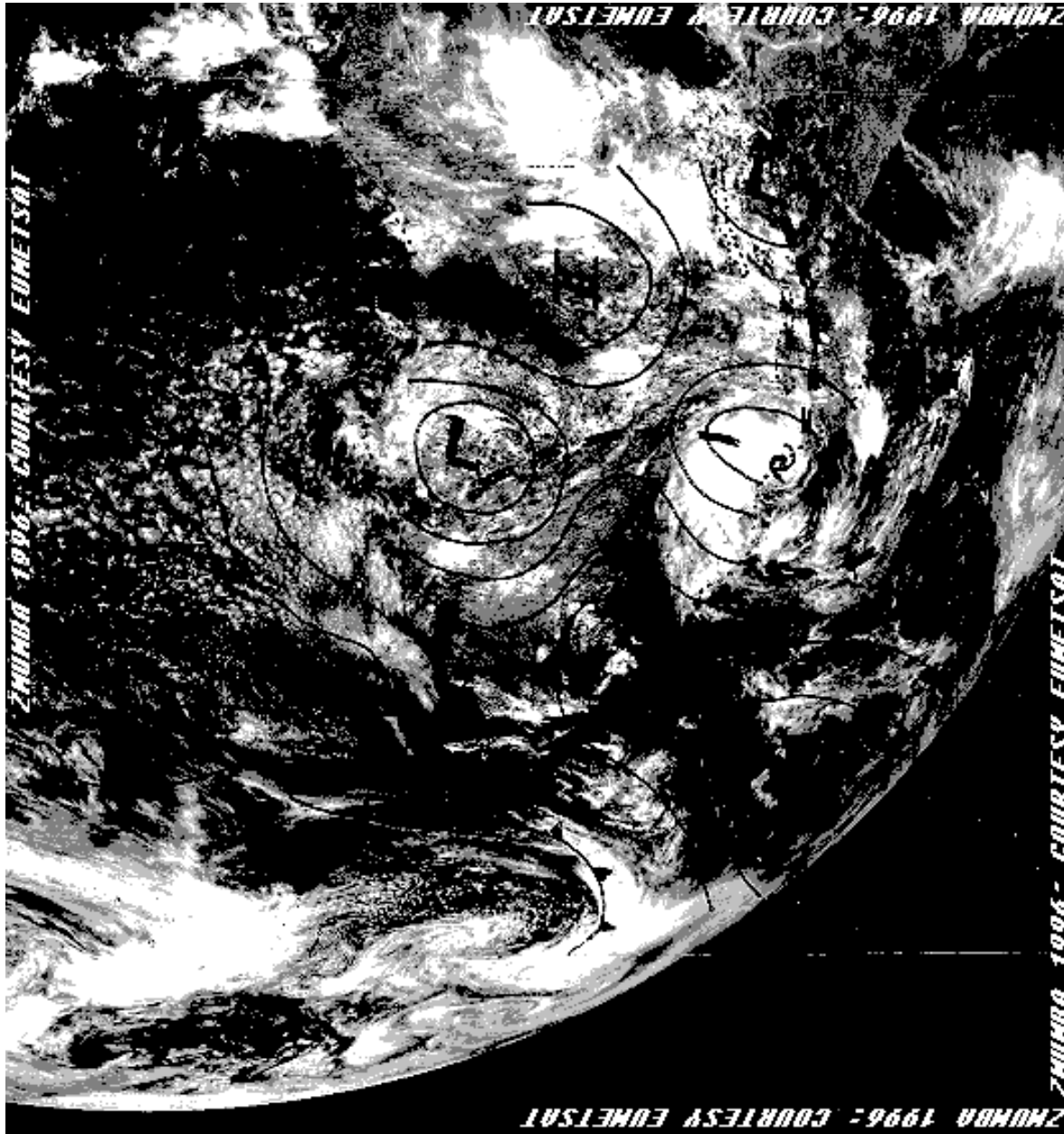
BY MONITORING, ABLE TO WARN THE PUBLIC AND RELEVANT AUTHORITIES ON THE IMPENDING REDUCTION OR SURPLUSES IN RAINFALL PERFORMANCE

NORMALIZED DIFFERENCE VEGETATION INDEX (NDVI) MAPS



ABLE TO BOTH ASSES THE AGRICULTURAL
PRODUCTION POTENTIAL AND ANALYSIS OF
VULNERABILITY TO FOOD INSECURITY

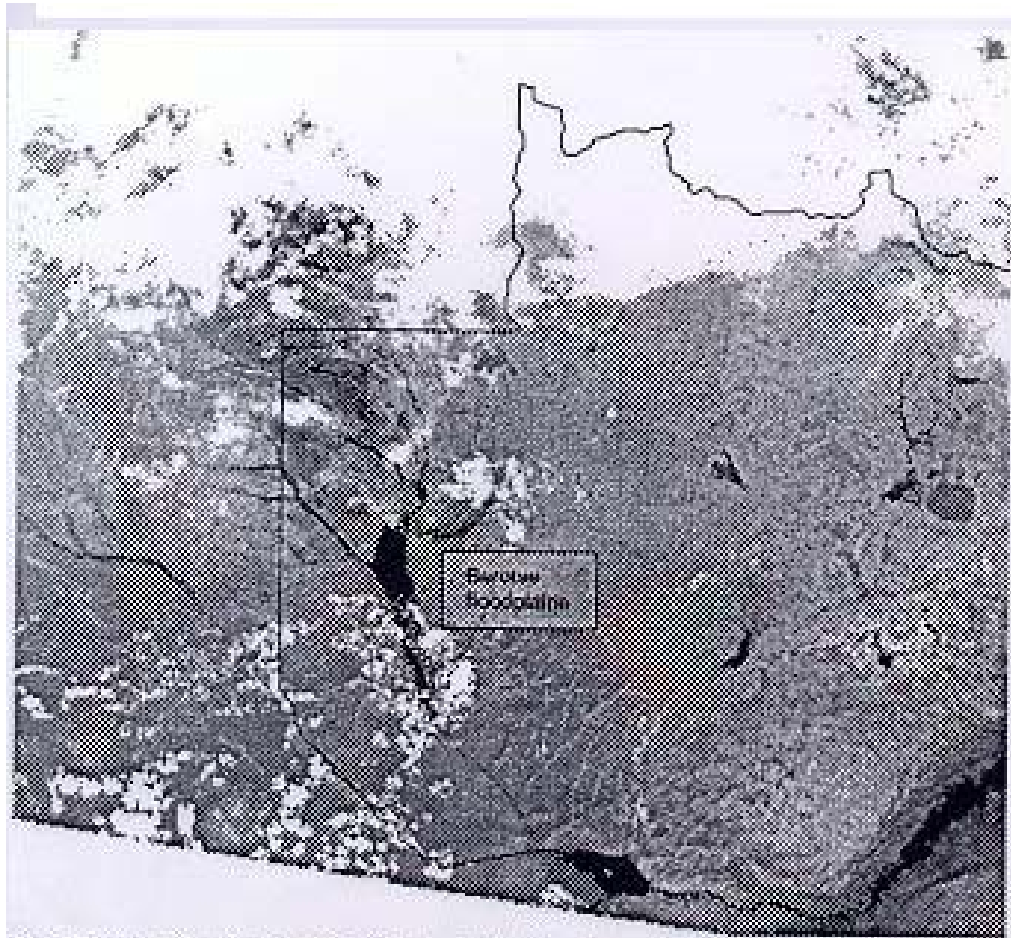
SATELLITE IMAGE OF CYCLONE TRACKING.



Tropical
cyclone
'Bonita'
In 1996

FLASH FLOOD MONITORING

Western part
of Zambia
during
2001/2002
Season



The Barotse flood plains in Western Zambia. Large flooded areas are also visible in the headlands of the Zambezi catchment inside Eastern Angola. Other wetlands in Zambia and at the tip of the Caprivi Strip are also visible

RECOMMENDATIONS

- RS, GIS ,GPS AND IMAGE PROCESSING BE INCLUDED IN ICT STRATEGIC PLANS OF DEVELOPING COUNTRIES.
- WMO DAY, 23RD MARCH, SHOULD BE USED TO EDUCATE, TRAIN AND CREATE AWARENESS OF GNSS TECHNOLOGY AMONG THE PUBLIC, MANAGERS, POLICY AND DECISION MAKERS AMONG MEMBER COUNTRIES.

CONCLUSION

- GNSS TECHNOLOGY IS FOR A WIDE RANGE OF SECTORS.
- GNSS TECHNOLOGY IS FOR DISASTER MANAGEMENT, ECONOMIC GROWTH AND SUSTAINABLE DEVELOPMENT.
- GNSS TECHNOLOGY IS COST EFFECTIVE, CONVINIENT AND RELIABLE.

ACKNOWLEDGEMENT

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THANK YOU