Republic of Mozambique
State Administration and Public Function Ministry
National Institute for Disaster Management
INGC

CENOE
National Center for Emergency Operation

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Use of Space Technology and Disaster Risk Assessment in MOZAMBIQUE
INTRODUCTION

Mozambique

- **Location:** Southern Africa eastern coast (10° 27' e 26° 52' south and 30° 12' e 40° 51' east)
- **Surface:** 799,380 km² and 2,700 km of coast line
- **Population:** 20,5 million (47.7% Man and 52.3% Woman);
- **68.5% of population is rural;**
- **31.5% urbane;**

**Economy:**
- 80% of population – agriculture.

**Official Language:**
PORTUGUESE
Direction and Coordination on Disaster Management

Strategy border to Guiding Plan (Context)

- Vulnerability Reduction
- Prevention and Mitigation
- Response and Assistance
Demoina: (109 óbitos, 80.000 afectados)
Nadia: (54 óbitos, 903.000 afectados);
Bonita: (1 óbito)
Delfina: (59 óbitos, 497021 afectados)
Filao: (100 óbitos, 500 afectados)
Japhet: (21 óbitos, 105.231 afectados);
Favio: (9 óbitos, 150.000 afectados).
Africa Sul
Swazilandia
Zambézia
Malaíwi
Tanzânia

Oceano Índico

Ano | Bacias Hidrográficas |
---|----------------------|
1972 | Limpopo |
1975 | Limpopo, Incomati |
1984 | Limpopo, Incomati |
1985 | Pungue, Incomati, Limpopo |
1997 | Motomoli, Licungo, Lurio |
1998 | Govuro |
1999 | Umbeluzi, Incomati, Limpopo, Pungue, Zambeze, Lugela |
2000 | Pungue, Zambeze, Chire, Licungo, Incomati, Limpopo |
2001 | Pungue, Incomati, Limpopo, Pungue, Zambeze |
2006 | Zambeze |
2007 | Zambeze, Buzi |
2008 | Zambeze, Pungue, Buzi, Save, Lucungo, Messalo |

Óbitos | Afectados |
---|----------|
23 | 181.000 |
9  | 113      |
9  | 23       |
102.000 | 4.500.000 |
400.000 | 553.000  |
70.000  | 400.000  |
Arid and Semi–arid zones (1.5 Million affected)
Vale do Rift

Earthquake Vulnerable Areas

MOZAMBIQUE
2006 02 22 22:19:07 UTC
Depth: 11 km, Magnitude: 7.0
Seismicity 1990 to 2005

22Fev06 Sysm, with 7.0 magnitude in Machaze
Affected 1,444
Death: 4
Use of Space Technologies for Disaster Management activities in Mozambique
The use of space technologies in Mozambique has started in the year 2009 through the production of maps for Decision Purposes.
Áreas potencialmente inundadas até 18/12

Flood_observatory
População Total vs. Afectados

Fonte: Direção Regional Norte (INGC)
Ongoing activities regarding use of Space Technologies in Mozambique
Área do bairro
Total de área com risco de inundação
Infra-estruturas de Ensino em risco de Inundação
Município da Matola
Áreas de risco de Cheias no distrito de Guijá

Legenda

Areas_de_Risco
- Alto Risco de Cheias
- Alto Risco de Inundações

Projecção: WGS 1984
Produção do mapa: ArcGIS v9.3
Fonte de dados: DNA
Principais com risco de Erosão
Município da Matola

Legenda
Risco de Erosão
- Sem Risco
- Risco Baixo
- Risco Médio
- Risco Alto
- Bem-Sucedido

Prancheta: INGC 2013
Fonseca dos Santos: INGC
Fonte dos dados: INGC
Ingenia: Google Earth
Prancheta de tráfego: Anvisa v.6.3
Data: 05-02-2013
Area ardida entre 2001 - 2015

Legenda

- PA_Guija
- Queimadas entre 2001_2015
- Distrito_de_Guija

Projeção: WGS 1984
Produção do mapa: ArcGIS v9.3
Fonte de dados: CENACARTA/ Governo do distrito

INGC
UN-SPIDER
Technical Advisory Mission
to Mozambique 8 – 12 October 2012
Objectives | Output | Outcome
--- | --- | ---
Review current **policies, procedures** and **mechanism** related to the use of space-based information and make recommendations. | **Policy level recommendations** for effective usage of space technology for disaster management will be submitted to the authorities. | **DRR and emergency response** is ensured through an **efficient** and **effective** usage of space technology for disaster management.

To engage key **stakeholders** who are custodians of geo-spatial data related to disaster management | Identify mechanism for improved coordination among data providers and data users to boost information sharing amongst the stakeholders | Spatial data is available for disaster risk management, on timely basis and with higher interoperability.

Develop a **capacity building** strategy for stakeholder agencies | Medium and long-term capacity building plan and funding sources to be recommended, with facilitation through UN-SPIDER. | Top level decision makers are aware of technology trends, best practices and needs. Critical mass of trained personnel on utilization of space technology for disaster management.

Develop a **long-term association** with UN-SPIDER to take benefits of outreach activities, capacity building programmes and resources available through UN-SPIDER network. | Develop a national forum to communicate with the stakeholders and develop precise action plan to implement recommendations. | Efficient uses of national capacity and resources available through UN-SPIDER network during emergency situations, as well as in non-emergency situation.
MUITO OBRIGADO

Thank you