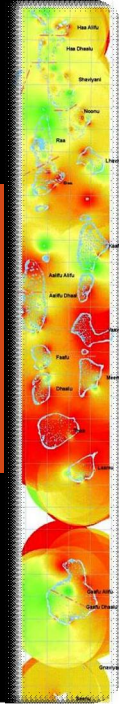


Regional Workshop on Geo-Referenced  
Disaster Risk Management System  
in South and South-West Asia, and Central  
Asia  
10-12 July 2012  
Kathmandu, Nepal



Location





## Country Profile

- 1,190 islands.
  - 198 Inhabited Islands.
  - Total land area 300 sq km
  - Islands range b/w 0.2 – 5 sq km
- § Population approx. 350,000
  - § Economy - Tourism and Fishing



About one third of the total population is in the Capital Island Malé'.

## GIS in Maldives ???

- GIS used to develop a Disaster Risk profile of Maldives 2006-2007
- In an event of major Disasters Digital Meteorological Data Dissemination (DMDD) system is currently used to receive satellite images to monitor the weather in the country
- In the process of establishing a GIS system, including Institutional and structural Arrangements.
  - § Spatial planning Unit exists in the Maldives Land Survey Authority under Ministry of Housing and Infrastructure.
  - § 2009 - Lessons Learned Review :Reviewing existing GIS assets and Resources and provide strategic advice on Spatial Referencing System.

## Cont....d

- § No operational GIS system
- § Sector specific data bases to name a few Ministry of Fisheries, on Bait Fishery, and National Statistical department on Census,
- § A five year National Strategic GIS Framework , Implementation Plan formulated
- § A new Geo spatial Data policy has been developed, and proposed.

## Developing a Disaster Risk Profile for Maldives

### – Policy

- § The programme was developed to support for providing incentives for voluntary migration to larger islands, initiated in 2002 with the long term objectives of reducing the number of inhabited islands and consolidating the population
- § Population consolidation approach to incorporate the aspect of extreme vulnerability and develop measures to mitigate disasters

## Cont...d

### – Objectives of the Study

- § To generate an elaborate disaster risk analysis of 10 islands, designated as potential “Safe Islands” selected based on location and population.
- § To determine the probability of Hazard occurring across different regions of the country
- § To Assess the complete range of vulnerabilities experienced throughout Maldives with reference to multiple Hazard events
- § The influence inter-sectorial DRM strategies towards recognizing the dynamic form of vulnerabilities which are differently experienced across the region.

## Cont...d

- Multi -Hazard Risk Analysis based on:
  - Historical data
  - Geological, meteorological and hydrological evidence
  - Geographical and environmental setting
- Vulnerability Assesment based on:
  - Socio-economic context
  - Asian tsunami experiences
- To influence inter-sectoral DRM strategies based on:
  - Findings and lessons learnt
  - Adaptation strategies developed

## Hazard Assessment – Digital Base Map

- Metodology for spatial analysis and mapping
  - § No such map is available
  - § Topographic maps using aerial photographs
- Digital Base maps created from satellite images. 1037 islands captured Using remote sensing Images ( USGS Landsat images and Aster images)
  - § Island Boundaries and their attributes information created. (e.g. name of islands, names of atolls, vegetation and land masses)
  - § The base maps has been superimposed on each of the hazard maps .
  - § Identification of islands based on Atlas of the Maldives (4 ed., 2004)
  - § Tsunami storms and Earthquake have been modeled using probablistic techniques.

## Vulnerability Assessment

§ Undertaken for Physical and Social Aspects Separately.

§ Based on field Visits and Secondary Data

Physical Vulnerability: Secondary data

✓ Vulnerability and Risks associated Buildings : data Taken from Census.

Social Vulnerability : Vulnerability and Poverty assessment Report forms the Basis.

✓ Participatory Rapid Assessment / Focus Group discussions to correlate it with qualitative and perceptual data from the field.

§ For all Hazards combined for each inhabited island , a risk index has been used to map every island.

## Cont..d

Hazard Zone	Range of probable maximum wave height
1	<30 cm
2	30-80 cm
3	80-250 cm



预览已结束，完整报告链接和二维码如下：

[https://www.yunbaogao.cn/report/index/reportId=5\\_7519](https://www.yunbaogao.cn/report/index/reportId=5_7519)

