



# CLIMATE CHANGE ISSUES

Role of ICTs in climate  
change adaptation and  
mitigation

# ICT- The Enabling Technology



- I start with the assumption that we all are aware of the role of ICTs in disaster management and mitigation.
- So rather than go into details about its role as a tool for monitoring, preparing for and mitigating the impacts I will try to focus on implementation issues.

# Preparation



ICTs as an enabling technology and facilitates:

- Monitoring infrastructure
- Collection of data- remote sensing
- Data- analysis
- Modeling of systems
- Early warning systems

# Public Education



- Reaching broad appeal through broadcasting and new social media
- Facilitating the presentation of information in graphical, innovative and interesting format
- Facilitating the exchange of information and experiences
- Allowing for national sensitization programs relatively inexpensively

# Warning Systems



- ICTs allowing for integration of remote sensing and automatic alerts and response mechanisms
- National sirens for alerts
- Mobile networks to provide SMS broadcasts messages
- Facilitating communications at National Emergency Centres



## Samoa in the South Pacific

Emphasis on its geographical isolation

# Samoa



- Samoa – encompassing the western Samoan islands in the South Pacific.
- Two main islands – Upolu and Savaii
- Total area of approximately 2,800 sq. Km



# Samoa case



- Unfortunately as always happens Samoa now has a heightened awareness due to the suffering brought on by Tsunami in September 2009.
- This has led to the development of policies and plans to mitigate effects of disaster
- Not that plans did not exist but rather were just that –plans on Paper gathering dust.



# Samoa's preparation



- Samoa was just not prepared for the Tsunami;
- The infrastructure was inadequate, warnings and alerts emanating from the centre in Hawaii could not be actioned in time;
- When the disaster struck decisions were being made for preparation and dealing with the same disaster.

# Public Education in Samoa



- Prior to the Tsunami there was no real awareness;
- Now there are awareness programs that take on board the cultural sensitivities and ICTs play a key role;
- The Broadcast media is used;
- Limited Internet penetration precludes its use as an effective role for information dissemination

# Developing warning systems



- Samoa now has developed a relatively sophisticated warning system using ICT
- Yet to be fully tested, a totally NOC is established with some redundancy;
- Integrated systems allow for warnings received from Hawaii in the case of earthquakes and Tsunamis to be relayed directly to the select officials and if the risk is up graded for dissemination of messages to all of the population using SMS texts, or radio/TV broadcasts

# The future



- The proposal; is for Samoa to ratify the Tampere Convention; fully implement its National Emergency Telecommunications Plan and remove all regulatory strictures that impede effective response;
- ICT usage will be integrated in remote sensing, data collection, information analysis and dissemination of information to the public.
- The role of ICTs in public education is not to be discounted.

# Conclusion



- ICT will play an increasingly important role in disaster management and mitigation;
- In the forefront of planning must be that the ICTs are to complement the human element not supplement.
- Disaster management is basically an intense human relations issue and cannot be fully automated.

# Recommendations



- ICT and its applications are central for effective remote sensing, data collection; data analysis and disaster/climate change modeling;
- ICT would be very important in public education and information dissemination;
- The key issue is that the use of ICTs must be complementary to the human processes.

# Thank you



- Contact us at
- [ddefreitas@regulator.gov.ws](mailto:ddefreitas@regulator.gov.ws)
- + 685 30282
- [www.regulator.gov.ws](http://www.regulator.gov.ws)