

IWRM DISASTER MANGEMNET GENDER ASPECTS ANTIGUA AND BARBUDA

CONTENT

- Disaster Management composition (disaggregated)
- IWRM related hazards
 - Drought, Flooding – Impacts
 - Human – Dumping, water channel alterations
- Community impacts (Groups)
- Consequences
 - Loss of Housing
 - Response considerations
 - Access to services

COMPOSITION AT THE NATIONAL AND COMMUNITY LEVEL

• Policy

- The government Minister with policy mandate Hon. Ms. Samantha Marshall. To date she has been the only female Minister with the portfolio for NODS
- Most of the PSs heading the ministry have been Women, there has only been one man to serve as PS

• National - NODS,

- Since its inception in 1984 The NODS-CU has had FOUR (4) Directors in total, TWO (2) have been women.
- The NODS-CU is staff by 17 personnel, 12 of which are female
- Senior Staff 3 female, 4 male; Admin 9 female, 1 male

DISTRICT DISASTER COORDINATOR VOLUNTEERS

- **The DDC system which has operated for over 30+ years**
 - The Country is divided into seventeen (17) districts
 - Each district is managed on behalf of the NODS-CU by a District Disaster Coordinator trained in disaster management.
 - These coordinators are in charge of a committee of volunteers recruited from the various communities/villages in their district and trained through the national systems
- **Traditionally 60% of the Coordinator have been women**
 - DDCs range in age from mid to late 30s to retirees Need for increased youth involvement. Predominantly
 - over last 5 years approx 30% of this new blood have been persons in their 30-40s (with about 50/50 balance men/women)\

DROUGHT AND WATER RESOURCE MANAGEMENT

- Most of the States Water supply is from Desalination plants located around the island
 - Desalination 60%
 - Surface catchments 30%
 - Ground wells 10%
 - Water harvesting (domestic)
- (National DRR Document 2016)

WATER AVAILIBILITY – DROUGHT ISSUES

- Frequent occurrence every 3-5 years
- The most significant periods in recent history was between the years 1983-85,
- **The Antigua Meteorological Services has recorded twenty four (24) drought episode years between the period 1928 and 2007.**



Pot Works Dam, May 2016,

AGRICULTURAL IMPACTS

Many farmers utilize surface catchments from ponds and Dams
Access in most of the framing belts in the country is a significant investment,

primarily the central plain

Bendals , Bathlodge, Body Ponds Area



AGRICULTURAL IMPACTS

- Although government will extend pipes inward (usually 20 ft.) from municipal pipeline along roadways
 - For farms located a significant distance away
 - Creating catchments
 - Pipe and pumps representing
- Approximately 30% of registered farmers are female
 - Of those approximately 5% are under 50 year of age
- Conversely there is an observed upsurge in young males entering agriculture
 - Of the overall 70% which are males approximately 30% are under 50 years

IMPACTS IN SHERKLEY MOUNTAIN RANGE

WATERSHED AREAS AGRICULTURAL, DEVELOPMENT SLOPE ACTIVITES



Sedimentation along the Southern Forest
Watershed area Swetes to Old Road



Rock slides blocking drains in Folly
Ghaut Valley

SOCIAL ISSUES AFFECTING WATER

CATCHMENTS, CHANNELS

- Illegal Dumping in catchments and channels in Rural and urban areas
 - Contribute to flood issues
 - Agricultural and household impacts



SOCIAL ISSUES AFFECTING WATER CATCHMENTS, CHANNELS

- Altering water course has led to serious flooding event affecting main highway arteries
- Which are now undergoing extensive and expensive rehabilitation programs
 - E.g main artery form airport



FLODDPRONE AREAS IN ANTIGUA & BARBUDA

- **BOLANS**
- **BATH LODGE**
- **BENDALS ROAD**
- **BETHESDA**
- **PICCADILLY**
- **COBBS CROSS**
- **YOKS VILLAGE**
- **SWEETES**
- **LIBERTA**
- **GRAYS FARM**
- **VILLA & POINT AREA**
- **Mc KINNONNS**
- **CEDAR GROVE**
- **CASSADA GARDENS**
- **OD PARHAM ROAD**
- **AIRPORT ROAD**
- **ALL SAINTS**
- **JOHN HUGHES**
- **LIGHTFOOT**
- **PAYNTERS**
- **PIGOTTS**
- **FREETOWN**
- **JENNINGS**
- **LAGOON & MARL HOLE AREA IN BARBUDA**

IMPACT – ECONOMIC VULNERABILITY

- Blocking channels in flood plain,
- flooding out work places (Old Parham road)
- support economically vulnerable populations
 - E.G. - Pigotts, St. Johns



INCREASED FLOODING PRESSURE IMPACT INFRASTRUCTURE AND ECONOMY

- Resulting consequences due to expanding of Flood-prone areas due to
 - building activities
 - Practices in watershed areas



LIMITED ACCESS TO WORK AREAS/TOURISM SECTOR



CONSEQUENCES - LOSS OF HOUSING OF

- Economic – indigent
- Senior population life saving use to build home



VULNEABLE GROUPS FLOODING 2008 - 2018

Increasing number
of vulnerable
population and
communities at risk
Requiring S&R
response



Increased number
of homes at risk
from damages/loss
in flood events





CONSEQUENCES - RESPONSE TO FLOODING

- In immediate response to flood hazards predominantly men (young tend to be involved in community level rescue



VULNERABLE GROUPS DURING RESPONSE

- More prone to Exposure to
 - water-borne ailments
 - Loss of life



IMPACT ON HEALTH

- The majority of health care facilities are situated in coastal areas
 - A significant number are situated in or in close proximity to flood prone areas
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- Storm surges and inundation have grave implications for flooding conditions
 - Water-borne, vector diseases in
 - low-lying and coastal communities.



IWRM – FLOOD AREAS ACCESS/TRANSPORT

- Persons on economic spectrum living in areas
 - Flood prone
 - Mitigation catchment, Channels and drains
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CONSEQUENCES - ACCESS TO SERVICE



ACCESS – BASIC UTILITIES

- Wide network of public access pipes
- Community standpipes
 - Maintenance
 - Damages to social good
- Electricity suppression in Flood impacted areas

Stand Pipe at Ffryes



IMPACT ON UTILITIES

- Increased Pressure on utilities,
- water distribution and dispersion networks
 - Those living in vulnerable areas/squatting
- Upgrading of capacities
- Culverts etc. unable to handle volume of water
- become blocked easily/damaged
 - E.g. Buckley Line 2008



FLOODING – AFFECT ON HOUSEHOLDS

- Access to and from Work, schools, health care facilities etc.
 - For persons with/without transport
 - For those without, relying on public transport



IWRM IMPORTANCE TO FLOOD RISK MANAGEMENT

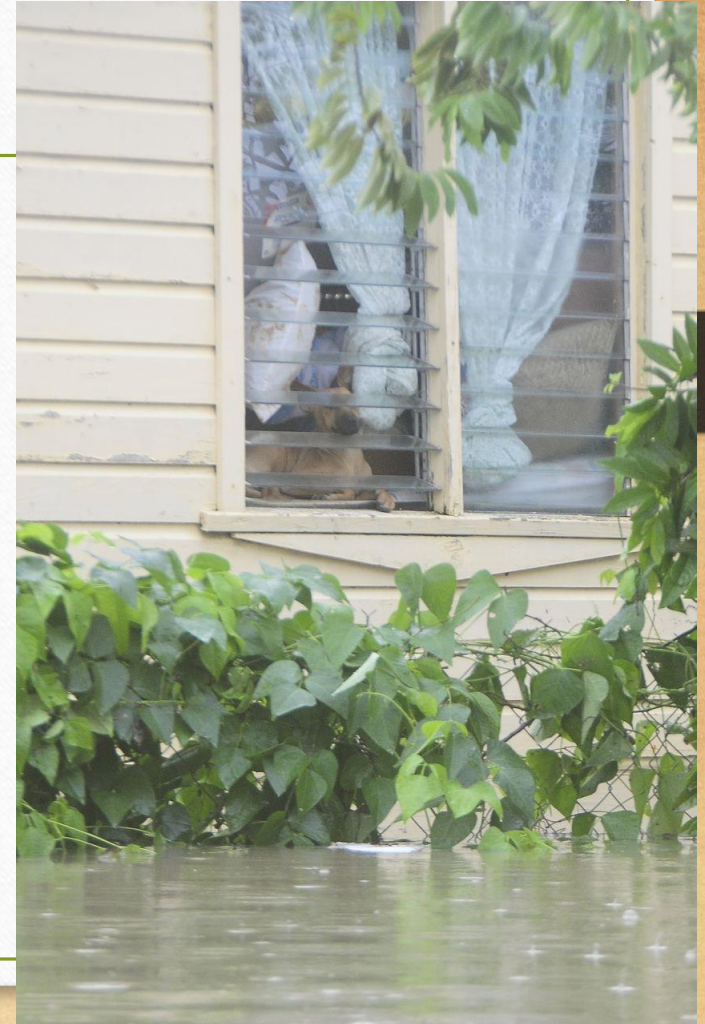
ACCESS IN AREAS THAT FLOOD EASILY/QUICKLY

E.G. -YORKS



AFFECT ON HOUSEHOLDS

- Several communities have flooding issues that restrict access to social assistance
 - Housing assistance
 - Replacement of items for low-income/indigent household



ACCESS TO LIFELINE SERVICES

- Affects access to basic service providers can be compromised
 - Supermarkets
 - Lifeline Services, Ambulance, Fire



BARBUDA PROLONGED FLOOD CONDITIONS

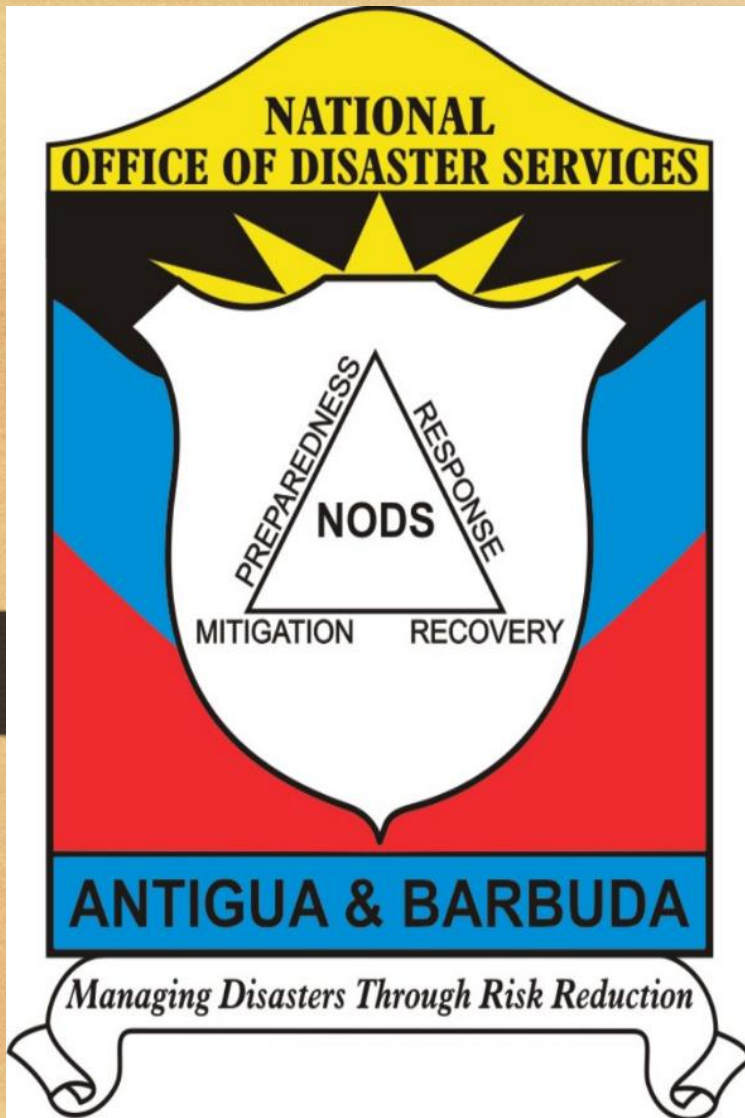
- Barbuda is a flat coral limestone island with a large lagoon situated on its west coast spanning the length of the island and its less than 128ft above sea level
- It experiences storm surge intrusion and prolonged flood conditions in the Codrington Area which is the main settlement adjacent the lagoon
- Desalination is the mainstay water source
- There are a number of traditional ground wells
- Due to the high water table many are not used
 - Salinisation/contamination flood water



MITIGATION FLOOD ROCK FALL URLINGS PROJECT

- Impact of rainfall induced landslide rock fall
- Predominantly fishing village
- Tourism workers (hotels)





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