HISTORY AND STATUS OF BUILDING CODES IN THE CARIBBEAN

Trinidad and Tobago Bureau of Standards (TTBS)
INTRODUCTION
Paradise ????
Faustian Bargain?
<table>
<thead>
<tr>
<th>#</th>
<th>CARIBBEAN COUNTRIES</th>
<th>CARICOM</th>
<th>OECS</th>
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<td>DOMINICA</td>
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<td>13</td>
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<td>TURKS &amp; CAICOS</td>
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EARLY DEVELOPMENT NTS
EARLY NATIONAL REGULATIONS

- Pre-1960s – Most islands under colonial rule
- Historically European-based legislation for buildings focusing more on health aspects
- Building Acts/Regulations - for main cities or for the entire island
- Building Approvals spread through differing agencies
- Some Caribbean States now have Building Codes but legislation need to be updated
<table>
<thead>
<tr>
<th>Decade</th>
<th>Initiative</th>
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</thead>
<tbody>
<tr>
<td>1960’s</td>
<td>I.D. of the need for proper building design and establishment of CCEO (BAPE, JIE, GAPE, APETT)</td>
</tr>
<tr>
<td>1970’s</td>
<td>Regional conferences on earthquakes &amp; start of Code development activities</td>
</tr>
<tr>
<td>1980’s</td>
<td>Regional Building Code - Project formulation, funding &amp; execution</td>
</tr>
<tr>
<td>1985</td>
<td>Parts of CUBiC completed and published</td>
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</table>
REGIONAL MODEL CODE
CUBiC
CONTENTS OF CUBiC 1985

- Part 1  Administration and Enforcement of the Code (Published)
- Part 2  Structural Design Requirements (Published)
- Part 3  Occupancy, Fire Safety and Public Health Requirements (Published)
- Part 4  Services, Equipment and Systems (not completed)
- Part 5  Small Buildings and Prefabricated Construction (not completed)
CUBiC - THE PROS AND CONS

THE GOOD

- First attempt at a Regional Building Code
- Main Parts published (Occupancy, Fire, Safety & Structural Requirements)
- Used as a base document in developing OECS and individual National Building Codes

THE BAD

- Too many volumes: not user-friendly
- Some parts not addressed – e.g. Small Buildings
- Only used sparingly by professionals
- No updating mechanism
CODE DEVELOPMENT AND STATUS IN OECS COUNTRIES
EASTERN CARIBBEAN STATES

- OECS Countries - Antigua & Barbuda, Dominica, Grenada, Montserrat, St Kitts & Nevis, St. Lucia, St Vincent & the Grenadines (BVI and Anguilla)
- Most OECS Countries adopted/adapted the Model Building Codes & Guidelines
- Several OECS countries still working on enforcement legislation
OECS
# OECS COUNTRIES – CODE STATUS

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>BLDG CODE</th>
<th>BASE DOCUMENT</th>
<th>ENFORCEMENT</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTIGUA &amp; BARBUDA</td>
<td>YES</td>
<td>OECS BC&amp;G</td>
<td>Adopted by Cabinet Enforced by Development Control Authority</td>
<td></td>
</tr>
<tr>
<td>DOMINICA</td>
<td>YES</td>
<td>OECS BC&amp;G</td>
<td>No Legal Mechanism</td>
<td>Partially used. Revision planned for 2013/2014</td>
</tr>
<tr>
<td>GRENADA</td>
<td>YES</td>
<td>OECS BC&amp;G</td>
<td>None (draft Legislation)</td>
<td>Revision in progress (est 2014)</td>
</tr>
<tr>
<td>ST. KITTS &amp; NEVIS</td>
<td>YES</td>
<td>OECS BC&amp;G</td>
<td>YES (5 Building &amp; 3 Dev. Control inspectors)</td>
<td>Bldg Code Act due for revision</td>
</tr>
<tr>
<td>ST. LUCIA</td>
<td>YES</td>
<td>OECS BC&amp;G</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ST. VINCENT &amp; THE GRENADINES</td>
<td>YES</td>
<td>OECS BC&amp;G</td>
<td>Adopted in 2008 Enforced since 2010</td>
<td></td>
</tr>
</tbody>
</table>
CODE DEVELOPMENT AND STATUS IN OTHER COUNTRIES
Recent Building Code Drivers

- Seismic Hazards
- Hurricane Hazards
- Sustainability Issues (energy conservation and green construction)
<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>BUILDING CODE</th>
<th>BASE DOCUMENT</th>
<th>CURRENT WORK</th>
<th>ENFORCEMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAHAMAS</td>
<td>BAHAMAS NBC</td>
<td>FLORIDA BLDG CODE</td>
<td></td>
<td>ENFORCED</td>
</tr>
<tr>
<td>JAMAICA</td>
<td>ISSUED 2009</td>
<td>IBC 2003</td>
<td>IBC 2009 Revision ongoing.</td>
<td>LEGISLATION PENDING</td>
</tr>
<tr>
<td>BARBADOS</td>
<td>ISSUED 1993</td>
<td>CUBiC, Scottish Bldg Code.</td>
<td>2013 Revision Completed</td>
<td>LEGISLATION PENDING</td>
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<tr>
<td>GUYANA</td>
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<tr>
<td>TRINIDAD &amp; TOBAGO</td>
<td>SMALL BLDG GUIDE 2006</td>
<td>OECS etc.</td>
<td>2013 Revision ongoing</td>
<td>LEGISLATION PENDING</td>
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<tr>
<td>TURKS &amp; CAICOS</td>
<td>ISSUED 1990/91</td>
<td>CUBiC etc.</td>
<td>REVISIONS SINCE 1991</td>
<td>ENFORCED</td>
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<tr>
<td>CAYMAN ISLANDS</td>
<td>Suriname NBC 2003</td>
<td>USA/European Codes</td>
<td>2010 Revision initiated</td>
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<tr>
<td>HAITI</td>
<td></td>
<td>IBC</td>
<td>2011 Work Initiated</td>
<td>Pending approval Resource constraints</td>
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</table>
IBC-BASED CODE FORMULATION INITIATIVES
International Building Code (IBC)

- Model Building Codes
  - Building Code developed and maintained by a SDO independent of the jurisdiction (ICC, UPC, NFPA, NBCC, EuroCode)

- IBC widely adopted throughout the USA.
  - IBC is adopted widely throughout the USA
  - References the relevant ASCE (wind/seismic codes)
  - Also adopted by Puerto Rico, Jamaica, Republic of Georgia and UAE.
  - IBC published by International Code Council
INTERNATIONAL BUILDING CODE ADOPTION MAP

The IBC is in use or adopted in 50 states, the District of Columbia, the U.S. Virgin Islands, NYC, Guam and the Northern Marianas Islands.
Factors influencing IBC preference

- Language and proximity
- Existing use of US construction products
- Similar hazards – Seismic/Wind
- Code Revision and Support
  - Training
  - Code Commentaries and Handbook
  - Product Certification Service
- Application Documents (NADs)
  - Technical amendments to adapt the IBC for local & regional use
JAMAICA NATIONAL BUILDING CODE

- BSJ/JIE initiative in 2002
  - Based on IBC and related ICC Codes
  - Use NAD approach
  - Completed 11 of 13 NADs
- Revision exercise 2009
  - Status
- Enforcement
  - Legislation status
  - Future plans
TRINIDAD & TOBAGO NBC

- 1970s - early efforts
- 1990s – efforts resulted in SBG:2006
- Existing National Building Code Project
  - Gov’t funding for IBC-based approach
  - National Building Code Steering committee
    - Professional Assoc, Gov’t agencies, NSB
    - Project schedule/budget/process/outputs
    - NAD approach
- Code Areas
  - IBC (Structural, Occupancy, Fire Safety)
  - Mechanical, Plumbing, Accessibility, Green
Regional Building Standards

- RBS project (2007)
  - Scope
    - IBC, IRBC, IEBC. review and development of CADs
    - Member states of CROSQ
    - Hazard Maps - Wind, Seismic, Flooding, Rainfall
  - Several setbacks

- Reformulation of project (ongoing, 2011)
  - New approach
  - Expanded Scope
    - IBC, IRBC, IEBC + **GREEN CODE**
    - CROSQ + CDB burrowing members
SUMMARY

- Post Colonial
  - Building regulations
  - Progressed to Code development activities

- CUBiC (1980’s – 1990’s)
  - CUBiC and OECS Building Code
  - National initiatives based on CUBiC/OECS

- Current (2000’s)
  - Piecemeal adoption of IBC
  - Revision of CUBiC

- Future
  - Regional move to IBC
THANK YOU

!!!