BUILDING CODES - ESTABLISHMENT AND ENFORCEMENT OF BUILDING CODE TO BUILD A RESILIENT FUTURE

Rhys Gwilliam
Architect and Int’l Building Consultant*

*Over 40 years of experience, past 30 years predominantly in the Pacific

Pacific Region Infrastructure Facility
Why building codes are important?

To ensure that acceptable standards of

- structural sufficiency
- fire safety
- health and amenity

are maintained for the benefit of the community now and in the future

- Performance Requirements
- Deemed-to-Satisfy Provisions
GOOD BUILDING CODE OUTCOMES

- Improve construction standards and quality
- Mandate local & imported building supply standards
- Reduce building operational and maintenance costs
- Increase building life span
- Address climate adaption concerns
- Improve resource efficiency (Energy and Water)
- Address social inclusion
### Status of building codes in the Pacific

<table>
<thead>
<tr>
<th></th>
<th>Cooks</th>
<th>FSM</th>
<th>Fiji</th>
<th>Kiribati</th>
<th>Nauru</th>
<th>Niue</th>
<th>Palau</th>
<th>Marshall</th>
<th>Samoa</th>
<th>Solomons</th>
<th>Tonga</th>
<th>Tuvalu</th>
<th>Vanuatu</th>
</tr>
</thead>
<tbody>
<tr>
<td>NBC exists</td>
<td>✓</td>
<td>✗</td>
<td>✓</td>
<td>✓</td>
<td>✗</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>NBC legislated</td>
<td>✓</td>
<td>✗</td>
<td>✓</td>
<td>✓</td>
<td>✗</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✗</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>NBC recently updated</td>
<td>✓</td>
<td>✗</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

---

Regional diagnostic study of the application of building codes in the Pacific

To ensure resilient and safe building stock, they require building codes that:

- appropriate to the Pacific Island environment and available technical skills and capabilities
- address future climate change impact
- have robust governance mechanisms
- integrated into construction teaching curricula effectively complied with and enforced
- properly disseminated among construction industry and the public
Outcomes grouped under three action levels

TECHNICAL
- Building regulations and building codes
- Building standards

POLITICAL
- Legislation and governance
- Institutionalisation

COMMUNITY
- Administration, management and compliance
- Awareness and promotion
What has been done to date

Technical level

Updates to building codes

- In past 5 years: Samoa Tonga Cook Islands Niue Marshall Islands
- Current: Tuvalu and Solomons
- Anticipated 2022: Fiji Kiribati Nauru FSM
Updates to Building standards
- Updating of Fiji wind loading standards (JCU-DFAT)
- Fiji Seismic zone mapping (GNS Science NZ)
- Pacific Quality Infrastructure Project (Pacific Forum)
- Standards Australia and Standards New Zealand concepts/proposal to make their standards more accessible for Pacific Island country stakeholders.

Sustainability
- 2021 Fiji Low Emissions Climate Resilient Development Program. (GGGI-MFAT)
Political level
Review and update of Building control legislation
• In past 5 years: Cook Islands  Kiribati  Vanuatu
• Current: Tuvalu  and Solomons
• Anticipated 2022: Fiji

Community level
Analysis of human resource capacity and capability and the development of awareness strategies
• Anticipated 2022: Fiji and Solomon Islands
What needs to be done

Technical Level

- Building Codes and Home Builders Manuals to be reviewed, updated, and revised
- Building standards to be reviewed

Political Level

- Legislation and institutional frameworks reviewed and strengthened
- Building Code and Home Builders Manuals incorporated into teaching curricula
Community level

- Capability and capacity of local government to enforce compliance analysed
- Capacity building and training programs for construction practitioners and government enforcement agencies designed and delivered
- Awareness raising and promotion strategies developed and implemented
PRIF REGIONAL SUPPORT

PRIF will begin providing technical assistance at a regional level in early 2022

TA objective

to support improvements to national building codes, their implementation and enforcement, and contribute to the efficient and effective application of design and construction standards across the Pacific.
Thank You