UN Sustainable Development Goals, 2030
UN Sustainable Development Goals, 2030

Sustainable Development Goals

1. No Poverty
2. Zero Hunger
3. Good Health and Well-Being
4. Quality Education
5. Gender Equality
6. Clean Water and Sanitation
7. Affordable and Clean Energy
8. Decent Work and Economic Growth
9. Industry, Innovation and Infrastructure
10. Reduced Inequalities
11. Sustainable Cities and Communities
12. Responsible Consumption and Production
13. Climate Action
14. Life Below Water
15. Life on Land
16. Peace, Justice and Strong Institutions
17. Partnerships for the Goals

Source: ‘Centre for Innovation’, Leiden University
UN Sustainable Development Goals, 2030

Sustainable Development Goals

1. No Poverty
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11. **Sustainable Cities and Communities**
12. Responsible Consumption and Production
13. Climate Action
14. Life Below Water
15. Life on Land
16. Peace, Justice and Strong Institutions
17. Partnerships for the Goals

Source: ‘Centre for Innovation’, Leiden University
65% of the 169 targets underlying the 17 Goals are linked to territorial and urban development

Source: ‘Financing Sustainable Urbanisation’, UN Habitat, February 2020
Climate Change

Source: Climate Action Tracker, December 2019 Update
UN Habitat World Urbanisation Prospects
Nearly 50% of the projected increase will be in the Commonwealth.

Source: ‘World Urbanisation Prospects, 2018’, UN Habitat
Secondary Cities, the Hidden Story

Source: NYU Marron Institute of Urban Management, Nicolas Galarza, 2000
Floor area additions by 2060

Source: ‘Energy Technology Perspectives’, International Energy Agency/OECD, 2017
Climate Change Risk

Source: ‘Climate Change Risks’, Verisk Maplecroft 2018
CO² per Capita v Rates of Urbanisation

Urban growth (%) CO² per capita (metric tonnes)

250m people 2.3bn tonnes CO²

2.27bn people 2.7bn tonnes CO²
Survey of the Built Environment Professions, 2020

Authors

- Commonwealth Association of Architects
- Commonwealth Association of Planners
- Commonwealth Association of Surveyors and Land Economists
- Commonwealth Engineers Council

Contributors, by Discipline (61)

- Architecture: 29
- Engineering: 10
- Surveying: 5
- Town Planning: 17

Contributors, by Country (31)

- Asia (6): Bangladesh, India, Malaysia, Pakistan, Singapore, Sri Lanka
- Caribbean and Americas (7): Antigua and Barbuda, Barbados, Belize, Canada, Dominica, Grenada, Trinidad and Tobago
- Europe (3): Cyprus, Malta, United Kingdom
- Pacific (3): Australia, Fiji, New Zealand
## Built Environment Professions in the Commonwealth

<table>
<thead>
<tr>
<th>Country</th>
<th>Architectural Institutes</th>
<th>Engineering Institutes</th>
<th>Town Planning Institutes</th>
<th>Surveying Institutes</th>
</tr>
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<tbody>
<tr>
<td>Antigua and Barbuda</td>
<td>The Antigua &amp; Barbuda Institute of Architects</td>
<td>Association of Professional Engineers Antigua and Barbuda</td>
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<td>Totals</td>
<td>Architectural Institutes: 45</td>
<td>Engineering Institutes: 47</td>
<td>Town Planning Institutes: 32</td>
<td>Surveying Institutes: 28</td>
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</tbody>
</table>

**Note:** Some institutes may not have specific names, indicating that they are either not located in the respective country or are part of broader institutions with multiple departments.
Ratio of Architects v Rates of Urbanisation, 2019

United Kingdom: 0.619
Australia: 0.543
Hong Kong: 0.500
New Zealand: 0.392
Canada: 0.274
Singapore: 0.228
Antigua and Barbuda: 0.218
Mauritius: 0.167
Botswana: 0.110
Dominica: 0.084
Malaysia: 0.073
South Africa: 0.072
Trinidad and Tobago: 0.069
Sri Lanka: 0.065
India: 0.065
Nigeria: 0.038
Pakistan: 0.033
Fiji: 0.033
Bangladesh: 0.021
Belize: 0.016
Zambia: 0.015
Rwanda: 0.014
Kenya: 0.012
Ghana: 0.011
Uganda: 0.005
Gambia, The: 0.005
Ratio of Architects v Rates of Urbanisation, 2019

United Kingdom 1.0%
Australia 1.7%
Hong Kong 0.8%
New Zealand 2.0%
Canada 1.5%
Singapore 0.5%
Antigua and Barbuda 0.4%
Mauritius -0.1%
Botswana 3.3%
Dominica 2.1%
Malaysia 2.1%
South Africa 1.6%
Trinidad and Tobago 0.4%
Sri Lanka 1.5%
India 2.3%
Nigeria 4.2%
Pakistan 2.7%
Fiji 3.2%
Bangladesh 2.2%
Belize 3.1%
Zambia 4.2%
Rwanda 4.2%
Kenya 4.1%
Ghana 3.4%
Uganda 4.0%
Gambia, The 6.2%

Urban growth
Ratio of Architects v Rates of Urbanisation, 2019

- United Kingdom: 0.619
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- Uganda: 0.008
- Gambia, The: 0.005

Urban growth

Professionals per thousand population
Ratio of Architects v Rates of Urbanisation, 2017

- United Kingdom: 0.82% Architects, 5.30% Urbanisation
- Australia: 1.37% Architects, 3.07% Urbanisation
- Hong Kong: 0.64% Architects, 3.19% Urbanisation
- New Zealand: 0.98% Architects, 2.77% Urbanisation
- Canada: 1.16% Architects, 2.19% Urbanisation
- Antigua and Barbuda: 0.235 Architects, 1.16% Urbanisation
- South Africa: 0.67% Architects, 0.98% Urbanisation
- Malaysia: 0.62% Architects, 0.64% Urbanisation
- Sri Lanka: 0.054% Architects, 0.82% Urbanisation
- Botswana: 0.042% Architects, 1.37% Urbanisation
- Pakistan: 0.029% Architects, 1.33% Urbanisation
- Bangladesh: 0.019% Architects, 3.19% Urbanisation
- Ghana: 0.017% Architects, 3.07% Urbanisation
- Uganda: 0.004% Architects, 5.30% Urbanisation
Ratio of Planners v Rates of Urbanisation, 2019

![Bar chart showing the ratio of planners to rates of urbanisation for various countries.](chart.png)
Ratio of Engineers v Rates of Urbanisation, 2019
Ration of Surveyors v Rates of Urbanisation, 2019

![Bar chart showing the ratio of surveyors to urban population growth in Malaysia, Trinidad and Tobago, Nigeria, and Rwanda.](chart)

- **Malaysia**: Professionals per thousand population (0.25), Urban growth (2.1%)
- **Trinidad and Tobago**: Professionals per thousand population (0.07), Urban growth (0.4%)
- **Nigeria**: Professionals per thousand population (0.02), Urban growth (4.2%)
- **Rwanda**: Professionals per thousand population (0.01), Urban growth (3.1%)
United Kingdom: 0.619, 0.69
Australia: 0.543, 0.72
Hong Kong: 0.392, 0.5
New Zealand: 0.32, 0.61
Canada: 0.274, 0.32
Singapore: 0.228, 0.35
Antigua and Barbuda: 0.218, 0.35
Mauritius: 0.167, 0.35
Botswana: 0.110, 0.44
Malaysia: 0.106, 0.44
South Africa: 0.072, 0.17
Trinidad and Tobago: 0.069, 0.17
Sri Lanka: 0.065, 0.09
India: 0.065, 0.09
Nigeria: 0.038, 0.16
Pakistan: 0.033, 0.16
Fiji: 0.033, 0.16
Bangladesh: 0.021, 0.15
Zambia: 0.015, 0.08
Rwanda: 0.014, 0.08
Kenya: 0.012, 0.14
Ghana: 0.011, 0.14
Uganda: 0.005, 0.09

S Schools per million population
P Professionals per thousand population
Continuing Professional Development

Architects, Mandatory CPD?
- Yes: 63%
- No: 37%

Planners, Mandatory CPD?
- Yes: 56%
- No: 44%
Built Environment Policy

Planning Legislation
- Implemented effectively: 42%
- Fit for purpose: 71%

Building Codes
- Implemented effectively: 29%
- Fit for purpose: 55%
Building energy codes by country, 2018

Source: International Energy Agency, March 2019
Built Environment Policy

- Effective NUA implementation plan
- NUA embraced by government
- Effective COP21 implementation plan
- COP21 targets
- Effective SDG implementation plan
- SDG targets developed
- Health and safety standards adequately regulated?
- Effective health and safety standards

Built-Environment Policy

Yes | No | n/a
--- | --- | ---

0% | 10% | 20% | 30% | 40% | 50% | 60% | 70% | 80% | 90% | 100%
Built Environment Policy

Has your government developed effective...?

- Renewable energy policy
- Disaster management plans
- City resilience strategies
- Smart Cities strategy
- National BIM strategy
- National housing strategy
- National construction strategy
- Sustainable design and construction standards
- Anti-bribery and corruption legislation
- Inclusive design standards

[Bar chart showing percentages for each policy, with blue for 'Yes' and orange for 'No']
Biggest **Built Environment** challenges?

- Climate change
- Resilience to disaster and the need for adaptation
- Rapid urbanisation
- Urban sprawl
- Affordable housing
- Traffic congestion
- Lack of public transport
- Outdated planning policy and building code
- Lack of enforcement of existing regulations
- Lack of local building materials
- Skills shortage
- Economic uncertainty
- Corruption and uncontrolled development
Biggest challenges for the Profession?

- Failure to develop and implement local plans
- Failure to enforce regulations
- Procurement methods and forms of contract
- Increasing use of Design & Build, loss of control
- Impact of foreign consultants and contractors
- Competition from unqualified persons
- Digitisation and advances in technology
- Declining fees v increasing risk and liability
- Need for continuing professional development
- Lack of resources to develop knowledge and skills
- Lack of government support and patronage
- Economic uncertainty
- Lack of respect for the professions
Biggest challenges facing *Education*?

- Insufficient universities, places of learning
- Poorly skilled and unqualified teaching staff
- Outdated curriculum
- Need to align education with the SDGs and industry needs
- Inadequate teaching material and lack of facilities, esp. digital tools
- Low standards compared with best practice
- Lack of practical training opportunities for students
- Low levels of funding vs high fees/low pay
- Failure to attract the best students
- Lack of access to research facilities
- Lack of diversity in terms of gender and ethnicity
Survey of the Built Environment Professions, 2020

Key findings:

1. There is a critical lack of capacity in a number of Commonwealth countries, many of which are urbanising rapidly and are among the most vulnerable.

2. There is a corresponding lack of educational and institutional capacity to grow the profession fast enough in a number of Commonwealth countries.

3. There is a perceived weakness in built environment policy in many Commonwealth countries in terms of standards, implementation and enforcement.
Commonwealth results

A study of the results of the 2019 report reveals that an assessment has only been made in 36 countries and that:

- **Challenges remain** in 10 countries
- **Significant challenges** remain in 13 countries
- **Major challenges** remain in 12 countries

The targets have only been achieved in 1 country.

Commonwealth results

A comparison of the results in 2017 and 2019 reveals that progress towards achievement of SDG 11 is:

- **unchanged** in 23 countries
- **improving** in only 2 countries
- **worsening** in 10 countries

Unplanned?
Unplanned, poorly planned?
Unplanned, poorly planned, well planned?
CHOGM 2020, Rwanda

Land of a thousand hills
CHOGM 2020, Rwanda
Reflections on the findings of the survey

Impact of the findings on the ground

- **Professor Barbara Norman**, University of Canberra
- **Mr Jalal Ahmed**, President, Institute of Architects Bangladesh
- **Ms Sithabile Mathe**, Chairperson, Architects Registration Council of Botswana
- **Mr Kalim Siddiqui**, Chairman, Pakistan Council of Architects and Town Planners
- **Mr Sulaiman Kamara**, Research and Community Officer at the Sierra Leone Urban Research Centre

Significance of the findings

- **Ms Astrid Haas**, Policy Director, International Growth Centre
- **Professor Tadj Oreszczyn** and **Mike Davies**, University College London, Energy Institute
- **Dr David Howard**, Associate Professor in Sustainable Urban Development, University of Oxford. Co-Director, Global Centre on Healthcare and Urbanisation, Kellogg College, Oxford
- **Ms Lucy Slack**, Deputy Secretary General, Commonwealth Local Government Forum
- **Mr VK Madhavan**, Chief Executive, WaterAid India
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