The Future of Pacific Cities: Innovative Solutions for Sustainable Urbanization in the Pacific

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USP Statham Campus, Suva, Fiji

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The Future of Asia and Pacific Cities 2019: Urban Opportunities to deliver the 2030 Agenda for Sustainable Development
United Nations ESCAP

- Regional development arm of the UN
- 53 member States, 9 associate members, from Turkey to Tonga
- Headquartered in Bangkok, 4 subregional offices – Pacific Office in Suva
- ESCAP fosters sustainable development in line with the 2030 Agenda:
  - Policy dialogue, regional cooperation, intergovernmental platforms
  - Results oriented projects, technical assistance, capacity building
  - Research & analysis, peer learning, knowledge sharing
- Interdisciplinary expertise from urban to environmental issues, to energy, science and technology, trade and transport
Cities and global sustainability agendas
The 2030 Agenda and cities

The wording in the SDG zero draft indicates that

21% of the 169 targets can only be implemented with local actors.

24% should be implemented with local actors.

A further 20% should have a much clearer orientation towards local urban stakeholders but current SDG wording does not suggest this.
Environment Resources and Resilience

Equity and Equality

Partnerships and Institutions

Infrastructure, Housing, Basic services

11 Sustainable Cities and Communities

1 MDG: No Poverty
2 MDG: Zero Hunger
3 MDG: Good Health and Well-being
4 MDG: Quality Education
5 MDG: Gender Equality
6 MDG: Decent Work and Economic Growth
7 MDG: Reduced Inequalities
8 MDG: Environment Resources and Resilience
9 MDG: Climate Action
10 MDG: Responsible Consumption and Production
11 MDG: Peace, Justice and Strong Institutions
12 MDG: Affordable and Clean Energy
13 MDG: Clean Water and Sanitation
14 MDG: Life on Land
15 MDG: Life Below Water
16 MDG: Partnerships for the Goals
17 MDG: Peace, Justice and Strong Institutions
Snapshot of SDG progress in the Pacific, 2017
What are the effective *means of implementation* of the global agendas at the local level to achieve sustainable urbanization?
The Future of Asia and Pacific Cities 2019:
Urban Opportunities to deliver the 2030 Agenda for Sustainable Development
To create a ‘possibility space’ to re-imagine the future of built/natural environments in Asia-Pacific cities, with the aim to further support the localization and implementation of global sustainability agendas, and guide the development of prosperous, resilient, and inclusive cities for all.
A moment of opportunity for Pacific cities

• decisions made now have long-term impacts, and will determine the sustainable development trajectories of Pacific cities

• in particular, most urban infrastructure investments, especially environmental ones, are capital intensive and long-term—e.g. water and sewer mains need to be replaced once in 30 years

• poor investment choices can create a lock-in effect and increase the challenge to establish sustainable development trajectories
• will be a **major Report** on cities in the Asia-Pacific region

• will be a **policy advocacy Report** for national and local governments and stakeholders in the region

• will provide a **conceptual framework** to localize the global agendas in Asia-Pacific cities

• will critically assess and provide **knowledge and best practices** of the means of implementation across a range of urban sustainability areas

• will feed into the 5th **Pacific Urban Forum** during Q1 2019

• will be launched at, and inform the thematic areas and structure of, the 7th **Asia-Pacific Urban Forum** during Q3 2019
State of urbanization in the Pacific

- falling urban security driven by poverty, unemployment, ethnic conflict, and the transition from traditional to market economies
- urban poverty levels are increasing, having been exacerbated by the global economic crisis of 2008-2010 and cost-of-living increases

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<tr>
<th>Country</th>
<th>National</th>
<th>Urban</th>
<th>Rural</th>
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<tr>
<td>Cook Islands</td>
<td>28.4%</td>
<td>30.5%</td>
<td>23.6%</td>
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<td>Samoa</td>
<td>20.3%</td>
<td>23.3%</td>
<td>17.9%</td>
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<tr>
<td>Solomon Islands</td>
<td>22.7%</td>
<td>32.2%</td>
<td>18.8%</td>
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<tr>
<td>Tonga</td>
<td>22.3%</td>
<td>23.6%</td>
<td>22.8%</td>
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Unemployment

• Pacific SIDS generally have large informal economies
  —Papua New Guinea – 84%, Samoa – 68%, Fiji – 60%

• unemployment rates vary:
  —from over 30% (Marshall Islands, Kiribati, and Tuvalu), below 7% (Palau, Tonga, and Vanuatu), or to 1.4% (Papua New Guinea)

• youth unemployment rates are much higher than for the overall population
  —over 50% in Kiribati, Marshall Islands, Nauru, and Tuvalu

• over half the population is under 24 years old in most Pacific SIDS
High negative migration rates

- annual averages per 1,000 population (2010-15):

- migration provides remittances, but also causes “brain drain”

Unemployment rates (%) and net international migration rates (%) for Pacific SIDS
Investment Needs as percentage of GDP
Climate-adjusted estimates, 2016-2030

- however, on a per capita basis ODA is already higher in the Pacific than in any other region
- 10 Pacific SIDS are among the 25 countries where ODA is highest as a proportion of national income
Internet users in 2016 (% of population)

<table>
<thead>
<tr>
<th>Pacific SIDS</th>
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<tr>
<td>Cook Islands</td>
<td>54.0%</td>
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<td>Fiji</td>
<td>46.5%</td>
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<td>French Polynesia</td>
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<td>Guam</td>
<td>77.0%</td>
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<td>Kiribati</td>
<td>13.7%</td>
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<td>Marshall Islands</td>
<td>29.8%</td>
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<tr>
<td>Micronesia (Federated States of)</td>
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<tr>
<td>Papua New Guinea</td>
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<tr>
<td>Samoa</td>
<td>29.4%</td>
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<tr>
<td>Solomon Islands</td>
<td>11.0%</td>
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<td>Tonga</td>
<td>40.0%</td>
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<tr>
<td>Tuvalu</td>
<td>46.0%</td>
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<tr>
<td>Vanuatu</td>
<td>24.0%</td>
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- renewable sources accounted for less than 10% of total energy use in Pacific SIDS in 2015
- there is a lack of data to inform policy – as of 2015, only Fiji had data on expenditure on research and development (R&D), which it calculated at only 0.15% of GDP in 2012
Introduction

1. The Future of Urban Governance and Capacities for Resilience
2. The Future of Urban Finance
3. The Future of Smart Urban Data and Technologies
4. The Future of Urban/Territorial Planning

Selection of themes was influenced by:
• the ESCAP – UN-Habitat Regional Partners Forum held in November 2017
• the Regional Report for Habitat III
Key questions for all themes:

a) What are current good practices, emerging examples, and new opportunities for cities in the Pacific region which address current and future challenges in Pacific cities?

b) How can innovative solutions be scaled up for cities to drive the achievement of the SDGs by 2030 - recognizing different challenges within cities, across countries, and across subregions in the Pacific?
Consultative Meetings

• Subregional Pacific meeting
  4 July 2018, Suva, Fiji

• Thematic consultation on Smart Cities in Asia and the Pacific
  10 July 2018, Singapore

• Subregional consultation for South and South West Asia
  September 2018 TBD, New Delhi, India

• Expert Group Meeting on Municipal Finance
  September/October 2018 TBD, Manila, the Philippines

• Subregional consultation for North and Central Asia
  October TBD, Geneva, Switzerland

• 6th Asia-Pacific Forum on Sustainable Development (APFSD)
  March 2019 TBD, Bangkok, Thailand
Pacific subregional meeting on

The Future of Pacific Cities: Innovative Solutions for Sustainable Urbanization in the Pacific
Objectives

1. Review the overall issues and assess the sustainability of urban development in the Pacific, and develop recommendations for public, private and civil society organisations for the sustainable management of Pacific cities, towns and settlements

2. Broaden the knowledge base regarding sustainable city planning, financing, data, technologies, resilient local governance and urban management capacities in the Pacific through the elaboration of local good practices and knowledge partnerships

3. Build ownership for the Report and encourage participants to become champions, to take its knowledge and recommendations forward, and to disseminate, and raise awareness within their networks
Expected outcomes

1. Validation of the overall narrative and structure of the Report from a Pacific urban perspective

2. A more granular and regionally-specific understanding of the challenges and future opportunities of sustainable city development in the Pacific, to generate examples of best practices and case studies that can feed into the Report

3. Confirmation of timeline and possible thematic working group for the Report on Pacific cities to further elaborate content from the Pacific against the thematic focus areas of the Report
Today’s Programme

- Country presentations
- Group discussions on the solutions for means of implementation
  
  Coffee break
- Plenary group discussion
- Closing

  Lunch break
- Academic-Practitioner Collaboration for Urban Shelter in the South Pacific (APCUS-SP)
Topics for group discussions on the solutions for means of implementation

Group 1: Urban governance and capacities for resilient cities – Facilitator: Renata Netaf
Group 2: Urban finance – Facilitator: Kemo Pepena-G guise
Group 3: Data and technologies for smart cities – Facilitator: Mere Naulumi tua
Group 4: Integrated urban/territorial planning – Facilitator: Fetoloa’I Yandall Alama

a) What are current good practices, emerging examples, and new opportunities for cities in the Pacific region which address current and future challenges in (city governance and capacity development for resilient cities OR urban financing OR smart urban data and technologies OR urban and territorial planning) in Pacific cities?

b) How can innovative solutions be scaled up for cities to drive the achievement of the SDGs by 2030 - recognizing different challenges within cities, across countries, and across subregions in the Pacific?
Cities and the global agendas

New Urban Agenda – transformative commitments for sustainable urban development

Addis Ababa Action Agenda – mobilizing domestic sources of finance

Paris Agreement – recognized the importance of the engagement of all levels of government and various actors

Sendai Framework – unplanned and rapid urbanization as an underlying disaster risk driver
A moment of opportunity for Pacific cities

- decisions made now have long-term impacts, and will determine the sustainable development trajectories of Pacific cities
  - in particular, most urban infrastructure investments, especially environmental ones, are capital intensive and long-term — e.g. water and sewer mains need to be replaced once in 30 years
- poor investment choices can create a lock-in effect and increase the challenge to establish sustainable development trajectories
Past trajectories and Future pathways
Alternative trajectories

A: Dynamic trajectory
B: Static trajectory
C: Transition
Chapter 1
The Future of Urban Governance and Capacities for Resilience
Chapter 1
The Future of Urban Governance and Capacities for Resilience

• in the context of their unique challenges, how can Pacific cities increase their capacities and make local governance more effective in order to address the multidimensional urban impacts of social, economic, and environmental shocks and stresses, including from natural hazards and climate change? How can Pacific cities increase the resilience of the most vulnerable segments of society in particular?

• how can improving both technical (e.g. human resource capacities) and functional (e.g. stakeholder engagement) institutional capacities increase resilience in Pacific cities?

• how can local governments engage with the informal sector to strengthen resilience?

• how can nature-based solutions or ecosystem-based urban development approaches and green infrastructure increase resilience in Pacific cities?

• where necessary, how can off-island migration (‘migration with dignity’) be supported and the economic, social, cultural, and psychological costs associated with climate change-related migration be minimized, both for the voluntary migration of individuals and for the planned resettlement of entire communities?
Chapter 2
The Future of Urban Finance
The Future of Urban Finance

• how can Pacific cities expand their access to climate finance? What are their options (e.g. disaster-contingent lines of credit, sovereign or regional insurance schemes)?

• how can Pacific cities finance the additional costs of ‘climate proofing’ infrastructure?

• what role can community financing play in the Pacific (e.g. savings, innovations like crowdfunding, blockchain, housing microfinance)?

• what are the new and innovative solutions to meet the existing finance gap in the Pacific (e.g. land value capture, PPPs, debt capital) and de-risk investments (e.g. pooling, credit enhancements, safeguards)?

• how can Pacific cities finance support for the most vulnerable groups (e.g. youth, women)?
Chapter 3
The Future of Smart Urban Data and Technologies
Chapter 3
The Future of Smart Urban Data and Technologies

• how can municipal governments reduce the digital divide in the Pacific?

• what kinds of data is needed, and how can it be collected, to enable Pacific cities to offer basic services and livelihoods to all their residents and truly leave no one behind? e.g.:
  — natural hazard and climate change information
  — baseline data on settlement types (geospatial data on urban assets and population, length of settlement occupation, governance arrangements, levels of provision of basic infrastructure and services, waste management arrangements, types of basic tenure security)

• what kinds of innovative technologies can Pacific cities use to strengthen their connections with global markets and increase their resilience? How can such investments be financed? How can Pacific governments choose the appropriate technological solutions for their unique context?
Chapter 4
The Future of Urban/Territorial Planning
Land use and urban villages

• decisions around planning and investments in infrastructure and basic services do not currently address the trends in land use in Pacific cities

• the future of Pacific cities will be increasingly determined by the growth of urban villages, which are characterized by underserviced squatter and informal settlements

• urban villages already contain over 1 million residents, and have flourished not only within and adjoining land owned by customary landowners, but increasingly on state and freehold lands as people seek available and affordable land for housing

• lands being occupied is that discarded by the formal planning system
  — the edges of rivers and estuaries
  — accretion lands on ocean and lagoon foreshores
  — mangrove wetlands
  — tidal lagoons and swamps
  — peri-urban “edge” lands
  — waste disposal sites
  — residual land parcels within formally planned residential areas
Urban villages

• the process is the opposite of the top-down formal planning systems
  — land occupation and building come first, with services, infrastructure, and land tenure security following later, if at all
  — housing construction is “stop-start” and reiterative
  — government imposition and control is minimal or absent

• urban villages are not just 'settlements' – they are communities with social networks, governance structures and a defined way of life – but they have inadequate levels of basic services and infrastructure such as sanitation, water, waste disposal, electricity, roads, and drainage

• the solution is not “formalizing the informal,” which would continue to perpetuate current practices and approaches such as eviction, relocation, and even eradication
Chapter 4
The Future of Urban/Territorial Planning

• how to plan cities in the context of the mixture of formal planned development (native and traditional villages) and new urban villages (informal and squatter settlements)?

• how to reconceptualize approaches to Pacific urbanization? (i.e. it is not about “formalizing the informal” by standardization and regularization)

• how can urban planning be used to encourage healthier lifestyles in Pacific cities?

• what are the entry points in Pacific cities for enhancing cross-sector integration and inclusive planning processes to increase inclusiveness, resilience, and prosperity?

• how can Pacific cities plan land use for circular economy and integrated resource management of key resource flows (e.g. waste, water, energy)?
The Pacific context

• the small size, limited resources, geographic dispersion, and isolation from markets of Pacific small island developing States (SIDS) disadvantage them economically and increase their development challenges
  — in a study ranking the remoteness of 219 countries, where 1 was the most accessible and 219 the most remote, the average rank of Pacific SIDS was 197

• the impact of natural hazards and climate change threaten the integrity, food security, water, health, infrastructure, livelihoods, economies, populations and ecosystems of Pacific SIDS
Urban challenges in the Pacific
Urban population as a percentage of total population
State of urbanization in the Pacific

• growing towns and cities fueled by strong rural–urban and circular migration
• inadequate affordable land with formal services to accommodate urban and peri-urban population growth, with escalation of land disputes and conflicts
• unmet demand for services and infrastructure, including water, sanitation, and adequate drainage
• impacts of climate change increasingly affecting towns and cities, with most Pacific urban centres in low-lying, hazard-prone coastal areas
• limited capacities for urban management and planning, and the actions required at all levels to enable urban centers to be effective drivers of economic, social, and environmental development
Economic growth, 2000-2016

Pacific

ESCAP Asia-Pacific aggregate
Proportional mortality, by cause

Non-communicable diseases account for up to 80% of deaths in Fiji and 74% in Tonga and Tuvalu, compared with the global average of 68%.
Behavioural risks are driving non-communicable diseases

• obesity and diabetes
  — obesity rates are as high as 54-58% in Tonga and Samoa, with rates over 25% in most Pacific SIDS, versus the global average of 13%
  — Cook Islands, Marshall Islands, Nauru, and Palau are among the world’s top 10 diabetes-prevalent countries

• tobacco use
  — 66% of adult men in Kiribati and 40-55% in Palau, Papua New Guinea, Samoa, and Tonga are regular tobacco users
  — high consumption of tobacco by youth, especially by young women, with 47% in Cook Islands and 62% in Palau

• lack of public spaces encourages physical activity, with urban areas not designed for walkability
Economic and non-economic costs of disasters

• Pacific SIDS are highly exposed to a range of natural hazards of hydro-meteorological origin (cyclones, droughts, landslides and floods) and geological origin (volcanic eruptions, earthquakes and tsunamis), with:
  — 5 of the top 15 countries with the highest weather-related disasters risk
  — 10 of the top 30 countries with the largest potential economic disaster losses

• since 1950, extreme events have affected 9.2 million people, with 9,811 deaths and $3.2 billion in damages

• countries have experienced losses approaching or exceeding their GDP
  — Tropical Cyclone Pam in Vanuatu in 2015 – losses of $450 million (64% of GDP)
  — Tropical Cyclone Heta in Niue in 2004 – losses of over five times the 2003 GDP
Average annual loss by 2030 (% of GDP)
Climate change

• Pacific SIDS only contribute 0.03% of the world’s greenhouse gas emissions, yet are amongst the most vulnerable to its effects

• climate change is increasing the risks of weather-related disasters by changing the nature and extent of natural hazards, by increasing their frequency, intensity, duration, and spatial extent

• climate change projections identify increases in extreme hot days and warm nights, extreme rainfall events, the intensity of tropical cyclones in the South Pacific, as well as sea level rise and ocean acidification

• climate change causes long-term degradation to the natural environment and to critical ecosystems (e.g. coral bleaching)
Environmental degradation

• ocean plastic
  — at the current rate the oceans will carry more plastic than fish by 2050
  — there are 500 times more microplastic particles in the oceans than there are stars in our galaxy

• environmental degradation is exacerbated by the increasing population, unplanned urbanization, unsustainable coastal development, the exploitation of natural resources, poor waste management, and pollution
  — half the coral reefs are threatened due to overfishing, runoff from land-based sources, and coastal development
  — over 2/3 of mangrove forests are threatened by infrastructure development, tourism, sedimentation, and pollution
  — there is also decreased biodiversity, overexploited fisheries, and pollution of water sources
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<th>Goal</th>
<th>Indicator</th>
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<td>Goal 1</td>
<td>International poverty</td>
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<td>Spending on essential services</td>
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<td>Goal 2</td>
<td>Prevalence of undernourishment</td>
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<td>Prevalence of stunting</td>
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<td>Prevalence of malnutrition</td>
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<td>Goal 3</td>
<td>Mortality from NCDs</td>
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<td>Suicide mortality</td>
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<td>Neonatal mortality</td>
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<td>Goal 4</td>
<td>Organized learning (before primary)</td>
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<td>Women in parliaments &amp; local governments</td>
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<td>Women in managerial positions</td>
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<td>Safely managed drinking water</td>
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<td>Safely managed sanitation</td>
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<td>Access to electricity</td>
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<td>Goal 8</td>
<td>Real GDP per capita (growth)</td>
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<td>Commercial bank &amp; ATM</td>
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<td>Real GDP per employed (growth)</td>
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<td>Unemployment rate</td>
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<td>Manufacturing value added</td>
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