

Implementing the SDGs: Responsibilities of national governments

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UN Sustainable Development Goals



UN Sustainable Development Goals: cities targets

Goal 11

Make cities inclusive, safe, resilient and sustainable

10 targets: including affordable housing, accessible transport, participation, heritage, safety, good planning, resilience, urban finance

Persistent challenges

The persistence of multiple forms of poverty, growing inequalities, and environmental degradation remain among the major obstacles to sustainable development worldwide
(UN Habitat 2016, New Urban Agenda)

Some stark facts

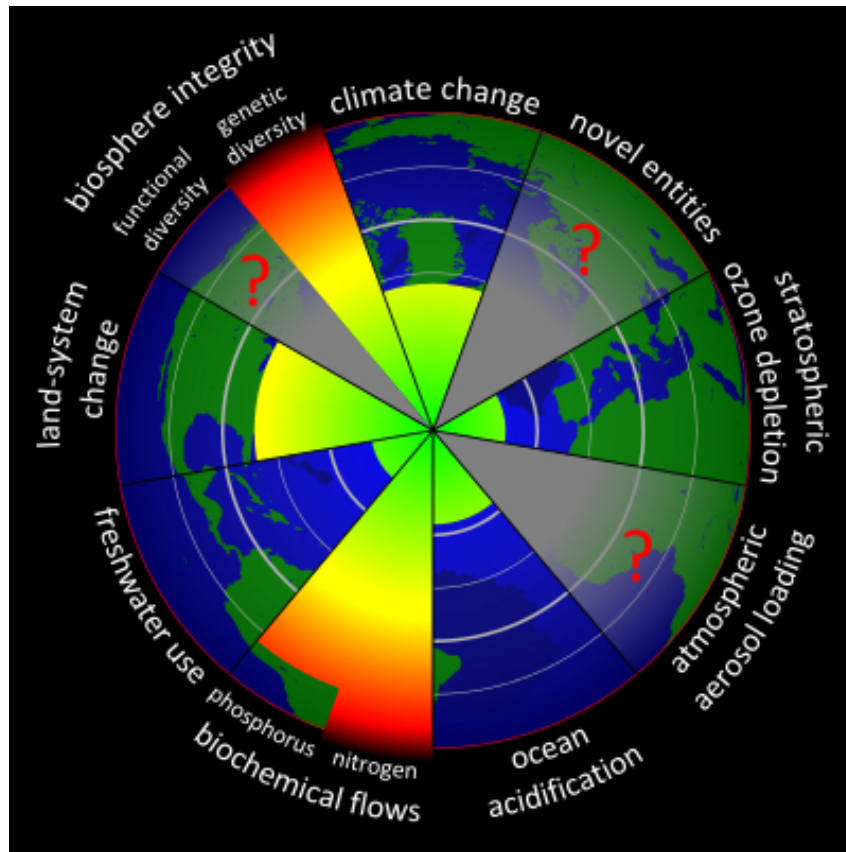
- Persistent poverty: 900 million people are living in slums
- 1/3 of urban residents in Asia and the Pacific are without access to adequate shelter, safe drinking water and sanitation, and clean energy
- Cities account for 75 per cent of world final energy use and 76 per cent of carbon dioxide emissions

Poverty in India



Photo: Slums in India, Zanskar, Thinkstock

Planning and Planetary Boundaries



- Planning within planetary boundaries provides a robust framework to implement the UN Sustainable Development Goals and develop more sustainable pathways for cities and regions.
- Consideration of the key planetary boundaries in day-to-day urban decision making (e.g. carbon, water, air pollution, biodiversity, land system change and oceans) provides an essential environmental health check for cities and regions.

Norman, B & Steffen, W (forthcoming 2018)

Rockstrom et al 2009; Steffen et al 2015

Extreme events



Hurricane Harvey impacts, 2017
Photo: Karl Spencer, Thinkstock



Bushfires, Sydney Australia
Photo: John Camemolia, Thinkstock

What are the options for adapting to sea-level rise?

There are five types of options for adapting to sea-level rise:

In choosing your options you will need to consider:

\$ \$ \$ \$
 Low – high
 Potential cost to government and regulators

🕒 🕒 🕒
 Short- to long-term
 Protection

1 Planning options

📍 **Scope objectives, strategies and policies**
\$ Taking account of risk and sensitivity to impact

📍 **Coastal hazard mapping**
\$\$ Mapping areas at risk of erosion and inundation, and mapping minimum floor height to avoid risk

📍 **Risk management**
\$ Cost-benefit analysis, vulnerability assessment, impact assessment

📍 **Emergency planning and preparedness**
\$ Prepare emergency plans for flooding, upgrade resources to match risk

2 Regulatory options

📍 **Regulation of land use**
🕒 Zoning to regulate land use, establish minimum setback and building elevation etc.

📍 **Development permits**
\$ Requirements or regulation on specific developments to protect from hazard

📍 **Building regulation**
\$ Control design elements (e.g. materials)

3 Land use change or restriction options

📍 **Transfer of development potential**
\$ Land swap to allow development on low-risk land

📍 **Land acquisition**
\$\$\$ Purchase land at high risk and rezone

📍 **Land trusts**
 Manage land for conservation benefits, restrict development

📍 **Easements and covenants**
\$ Restrictions or conditions attached to land title

4 Structural options

📍 **Structural elevation**
\$\$ Infill to raise land for building or habitable areas above flood risk

📍 **Sea walls, groynes etc**
\$\$\$ Hard shoreline structures to protect from flooding

📍 **Other hard protection**
\$\$\$ Storm-surge barrier, secondary protection e.g. raised roads

📍 **Flood proofing**
\$ Use building materials that can withstand short-term flooding, locate services (e.g. electricity) above flood level

5 Soft options

📍 **Dune building or rehabilitation**
\$\$ Creation or rehabilitation of dunes or offshore islands to buffer flood risk

📍 **Coastal wetland creation or restoration**
\$\$ Buffer to reduce wave energy

📍 **Beach nourishment**
\$\$\$ Addition of sediment to continually replenish loss from natural erosion

You are also likely to need to combine options

For example, zoning of at-risk areas as unsuitable for development + a sea wall to protect high-value assets already in place

COMMENT

ministries) and ocean-management agencies (such as the FAO, the UN Environmental Programme, regional fisheries management organizations, and ministries of fisheries and the environment).

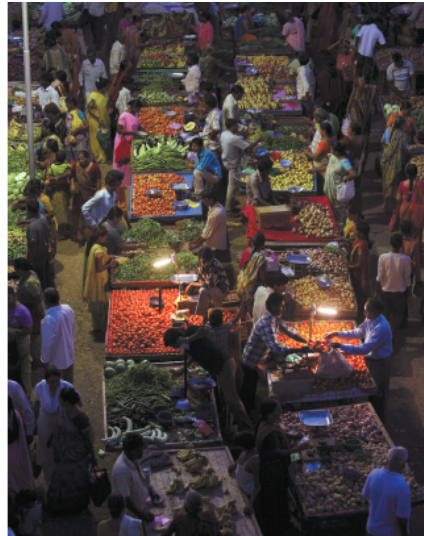
Mitigating losses of biodiversity and income have been at the heart of fisheries-management policies. In our view, there should be a much stronger emphasis on human health. This would mirror recent shifts in agricultural policy that respond to rising burdens of diet-related diseases.

These policy changes are possible. We believe that improvements in fisheries management and marine conservation can serve as nutritional delivery mechanisms. A meta-analysis of nearly 5,000 fisheries worldwide found that applying sound management reforms to global fisheries could increase catch by more than 10%. Without these changes, the health of the poor is at risk. ■

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Full author details and Supplementary Information accompany this article online at go.nature.com/25080lp.



Solar lights are used by vendors in rural western India, where lack of electricity has stymied development.

Map the interactions between Sustainable Development Goals

Måns Nilsson, Dave Griggs and Martin Visbeck present a simple way of rating relationships between the targets to highlight priorities for integrated policy.

Next month in New York, the United Nations' 2030 Agenda on Sustainable Development will have its first global progress review. Adopted by the UN General Assembly in 2015, the agenda represents a new coherent way of thinking about how issues as diverse as poverty, education and climate change fit together; it entwines economic, social and environmental targets in 17 Sustainable Development Goals (SDGs) as an 'indivisible whole'.

Implicit in the SDG logic is that the goals depend on each other — but no one has specified exactly how. International negotiations gloss over tricky trade-offs. Still, balancing interests and priorities is what policymakers do — and the need will surface when the goals are being implemented. If countries ignore the overlaps and simply start trying to tick off targets one by one, they risk perverse outcomes. For example, using coal to improve energy access (goal 7) in Asian

GOALS SCORING

The influence of one Sustainable Development Goal or target on another can be summarized with this simple scale.

Interaction	Name	Explanation	Example
+3	Indivisible	Inextricably linked to the achievement of another goal.	Ending all forms of discrimination against women and girls is indivisible from ensuring women's full and effective participation and equal opportunities for leadership.
+2	Reinforcing	Aids the achievement of another goal.	Providing access to electricity reinforces water-pumping and irrigation systems. Strengthening the capacity to adapt to climate-related hazards reduces losses caused by disasters.
+1	Enabling	Creates conditions that further another goal.	Providing electricity access in rural homes enables education, because it makes it possible to do homework at night with electric lighting.
0	Consistent	No significant positive or negative interactions.	Ensuring education for all does not interact significantly with infrastructure development or conservation of ocean ecosystems.
-1	Constraining	Limits options on another goal.	Improved water efficiency can constrain agricultural irrigation. Reducing climate change can constrain the options for energy access.
-2	Counteracting	Clashes with another goal.	Boosting consumption for growth can counteract waste reduction and climate mitigation.
-3	Cancelling	Makes it impossible to reach another goal.	Fully ensuring public transparency and democratic accountability cannot be combined with national-security goals. Full protection of natural reserves excludes public access for recreation.

Urban Thinkers Campus: Kuching New Urban Agenda UN Habitat



Transforming lives



Village near Suru Valley in Ladakh, India

What is a national urban policy?

'A coherent set of decisions derived through a deliberate government-led process of coordinating and rallying various actors for a common vision and goal that will promote more transformative productive, inclusive and resilient urban development for the long term'.

(UN Habitat and the OECD 2017)

Alternative national models

- National Urban Policy
- National Sustainable Development Strategy
- Sustainable Development Commission
- Mainstreamed across governments
- Any or all of the above

Urban data needs for decision makers

- Timely for policy makers
- Comparative between urban centres
- Reliable for major investment decisions
- Accessible to relevant stakeholders
- Consistent over time for trend analysis

Regional planning: New York Regional Association



A Region Transformed

Building a Long-Term Vision
for the Metropolitan Region

rpa.org/fourth-plan #4thPlan

Prosperity and Opportunity

Half of the households in the region spend more than a third of their income on rent.

▶ [Read more](#)



Sustainability and Resilience

By 2050, 2.3 million people are expected to be living in areas at risk of flooding.

▶ [Read more](#)



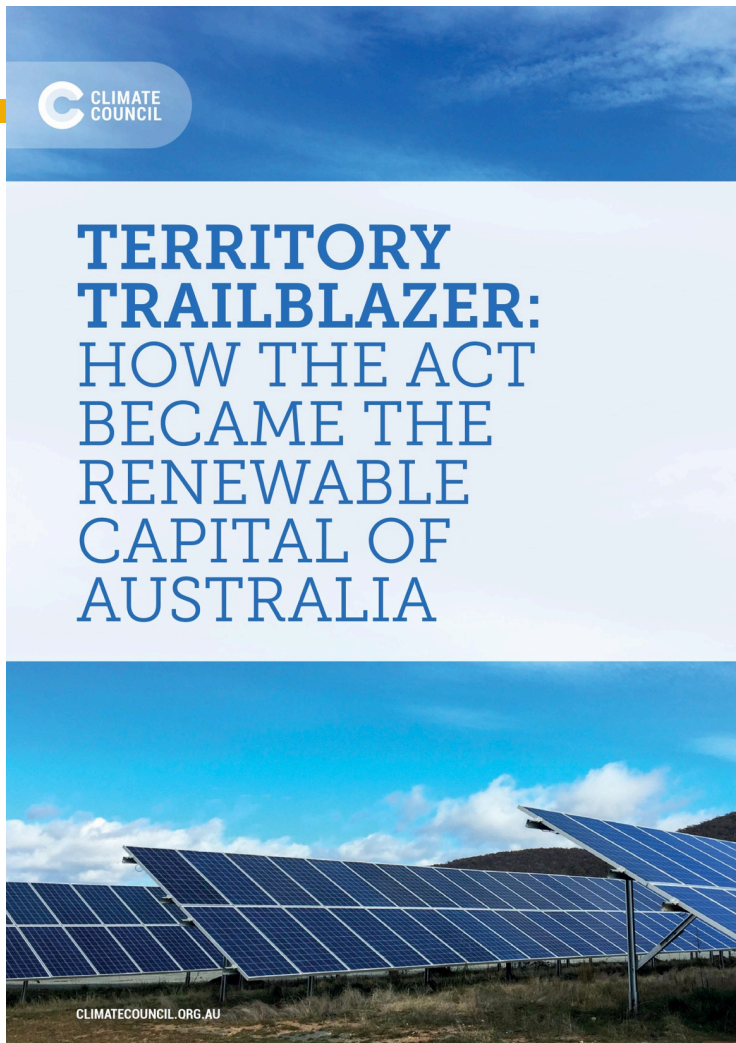
Movement and Connection

The main rail tunnels connecting New York and New Jersey are more than 100 years old.

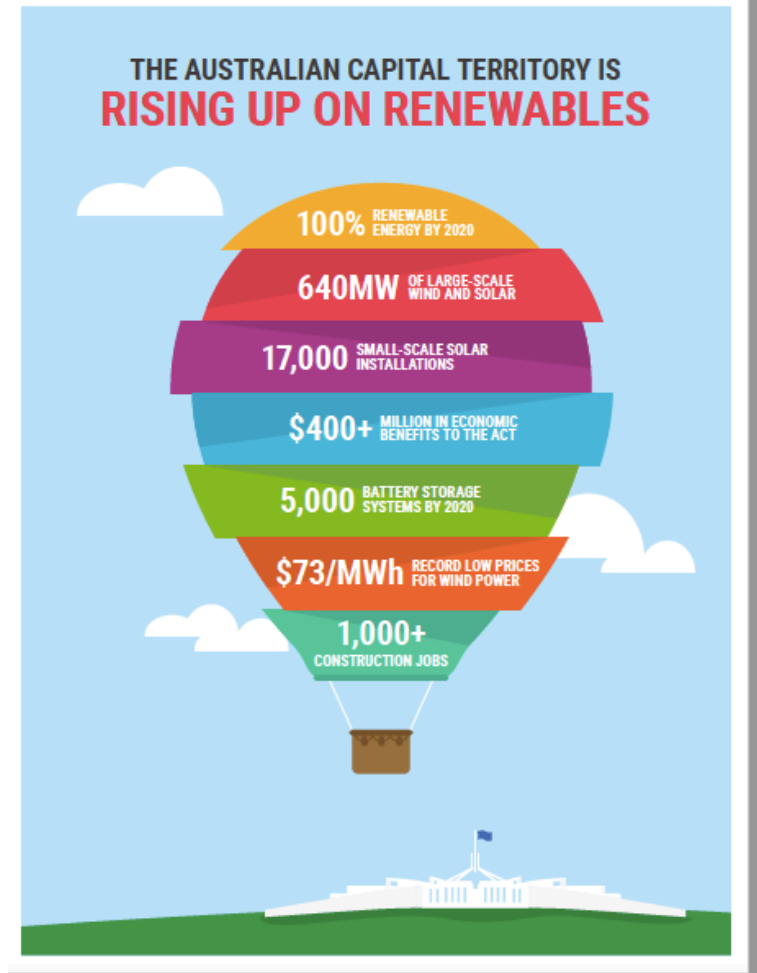
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Local innovation



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HOW THE ACT BECAME THE RENEWABLE CAPITAL OF AUSTRALIA



Sustainable Solutions Development Network : University partnerships



Providing knowledge, innovation and solutions

Creating future SDG implementers

Universities own operations

Cross sectoral leadership

Conclusions

1. A long term vision with clear targets
2. Collaboration and partnerships
3. Transparency and accountability in urban decision making
4. We have the 'toolkit' for a sustainable future
5. We are the stewards of our home, our planet