

COMMENTARY:

# Resilience synergies in the post-2015 development agenda

Erin Roberts, Stephanie Andrei, Saleemul Huq and Lawrence Flint

Policymakers have committed to tackling loss and damage as a result of climate change across three high-profile international processes. Framing post-2015 development as a means to address loss and damage can synergize these agendas.

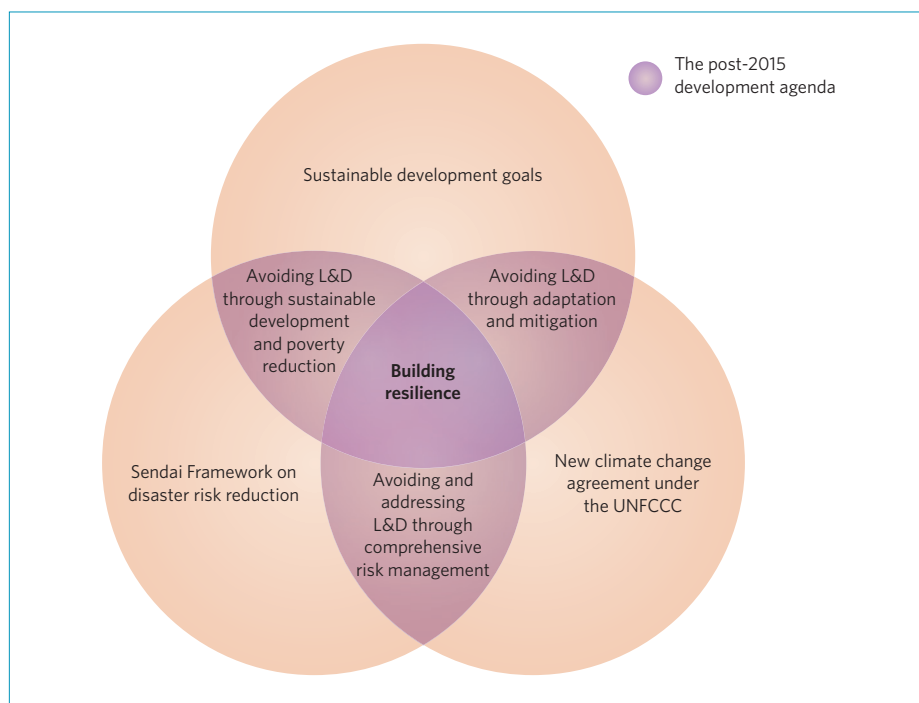
Avoiding and reducing loss and damage associated with the impacts of climate change is an implicit goal within three high-profile international policy processes: the Sendai Framework for Disaster Risk Reduction 2015–2030<sup>1</sup> (or ‘Sendai Framework’), adopted in March 2015, the Sustainable Development Goals (SDGs) adopted in late September 2015, and the new climate change agreement under the UNFCCC to be established at the 21st Conference of the Parties (COP 21) in Paris in December 2015. Framing these three processes as a collective means to avoid loss and damage that can be avoided, and implement approaches to address unavoidable loss and damage, is one way of capitalizing on synergies between the processes (Fig. 1 and Supplementary Information).

The current SDG proposal includes 17 goals and 169 targets, many of which are relevant for addressing climate change<sup>2</sup>. The thirteenth proposed SDG specifically refers to the need to take action to combat climate change.

Poverty eradication and sustainable development play a crucial role in reducing vulnerability and building resilience to climate change. Efforts to address climate change must therefore build on robust sustainable development and poverty reduction policies and plans, which will increase the extent to which losses and damages can be avoided.

The aim of the Sendai Framework is to reduce disaster risk and losses — including to lives and livelihoods — resulting from events both anthropogenic and natural in origin. Preventing new disaster risks and reducing existing ones will require the implementation of a range of measures that build resilience<sup>1</sup>.

However, the Sendai Framework fails to provide the support needed to implement its guidelines in developing countries.



**Figure 1** | Resilience in three high-profile international agreements. Implementing measures to adapt to loss and damage, and prevent further impacts, is one way to synergize the sustainable development, disaster risk reduction and climate change agendas.

While there is a great deal that developing countries are already doing to reduce disaster risk, these efforts could be enhanced with international support.

In December 2015, Parties to the UNFCCC will gather in Paris to finalize the new climate change agreement. Under the new agreement there is an opportunity to acknowledge the link between mitigation, adaptation and loss and damage, to enhance efforts to avoid loss and damage through mitigation and adaptation, and to assure provisions for addressing these issues in the post-2020 world.

In spite of current efforts, the limits to adaptation are already being reached in some parts of the world<sup>3–5</sup>. To be durable, the new agreement must therefore acknowledge that limits to adaptation exist and ensure developing countries have the support to address loss and damage given the likely climate realities in 2020, 2030 and beyond.

Framing the post-2015 development agenda as a collective means to build resilience to climate change and avoid loss and damage and address loss and damage that is not avoided through enhanced comprehensive risk management is one

way to align the implementation of these three agendas. □

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#### Additional information

Supplementary information is available in the online version of the paper.

#### References

1. Sendai Framework for Disaster Risk Reduction 2015–2030 A/69/L.67 (United Nations General Assembly, 2015).
2. Resolution adopted by the General Assembly on 25 September 2015 A/RES/70/1 (United Nations General Assembly, 2015).
3. Dow, K., Berkhout, F. & Preston, B. L. *Nature Clim. Change* 3, 305–307 (2013).
4. Preston, B. L., Dow, K. & Berkhout, F. *Sustainability* 5, 1011–1035 (2013).
5. Warner, K. & Geest, K. V. *Int. J. Glob. Warm.* 5, 367–386 (2013).

## COMMENTARY:

# International standards for climate-friendly cities

Victoria Hurth and Patricia McCarney

More effort should be put into standardization as a route to achieving international consensus and action on climate change. Cities are a good example of what is being achieved through this arguably unfashionable mechanism.

Standardization is the process of taking disparate approaches and creating a common set of rules about ways of perceiving, describing and behaving. Standards structure the world, provide social order<sup>1</sup>, and focus action and could be crucial for efforts to tackle climate change.

Following 6 international meetings, 5 drafts, 300 comments and the involvement of 20 countries and 12 partner institutions, the world's first international standard for tracking cities' performance was finally approved in May 2014. ISO37120 establishes a standardized set of definitions and methodologies for 100 city indicators providing a baseline of data for cities to track their own progress and draw comparative lessons from other cities globally. It moves the world towards better climate policy performance management.

Policymakers often look to large-scale system levers to tackle problems such as climate change. However, in the urgency of the task, we can overlook the slow deliberate shifts in thinking and operating at a global level that can produce dramatic changes by focusing energy through alignment of thought and action. One of the areas where this type of change is most apparent is in international standardization.

Standards are being produced that relate to all areas of human activity, from local to national and international levels. At each level, the work becomes more complex

and slow, but the resulting standards are potentially more effective.

The national level tends to be the focal point of efforts to standardize and regulate systems, but there are very few bodies that can do this work at the global level<sup>2–4</sup>. However, it is at the global level that work on climate change is critical, yet most challenging. Although climate change is unlikely to be addressed without international coordination of actions, learning and culture, a number of observers are sceptical about the role of traditional multilateral international negotiations in addressing climate change<sup>5,6</sup>. This type of international political cooperation relies on overarching commitments, which, it is hoped, will translate into initiatives that will durably affect systems and cultures before the next government comes along and sweeps those initiatives away.

Standardization, however, is developed through a bottom-up approach. It is open to influence by a wide variety of parties, relatively transparent and not generally subject to national control. Therefore standards can have a democratic foundation and durability that transcends political cycles.

There are around 14 distinct ISO standards that address climate change. A recent addition to this list, and which has historically received limited standards attention, regards cities.

#### Standards for cities

Cities are estimated to be responsible for between 60%<sup>7</sup> and 75%<sup>8</sup> of global greenhouse gas emissions. Around 54% of the world's population lives in cities today (up from 30% in 1950) and this is projected to increase to 70% by 2050<sup>9</sup>. This means that the full remit of infrastructural and service decisions that city managers make today will be critical in setting the global emission trajectories for the future.

Not all emissions will be directly under the control of city administration. A recent estimation by the Federation Of Canadian Municipalities suggests 44% of its provincial greenhouse gas emissions are under the control of local governments<sup>10</sup>.

In 2014, two landmark efforts to standardize city approaches to climate change were launched. First, in December, the World Resources Institute, C40 Cities Climate Leadership Group and ICLEI-Local Governments for Sustainability along with input from many other stakeholders including International Organization for Standardization (ISO) and the UN, partnered to create a standard for cities known as the Global Protocol for Community-Scale Greenhouse Gas Emission Inventories (GPC). This provides detailed guidance for cities to measure and report their climate emissions and sources. The GPC Protocol is working to give cities the standards and tools they need