



## Climate Action: Directions for Kingston

The *Special Report on Global Warming of 1.5 Degrees* prepared by the UN Intergovernmental Panel on Climate Change, describes impacts of global warming at 1.5C above pre-industrial levels compared to 2C. It also details what is needed to contain warming at 1.5C.

### Why 1.5C?

“The effects of not meeting the 1.5C target would mean huge changes to the world.

“The report shows **we only have the slimmest of opportunities remaining to avoid unthinkable** damage to the climate system that supports life as we know it,’ said Amjad Abdulla, IPCC board member and chief negotiator for an alliance of small island states at risk of flooding as sea levels rise.”<sup>1</sup>

As the world is already experiencing the impacts of global warming at the current increase of 1C, warming another ½ degree will exacerbate those effects. However, if we take drastic measures and hold to a 1.5C target, the global sea level rise would be 0.1 meter lower than a 2C increase, resulting in less flooding.

In real terms, lower ocean rises means that the Arctic Ocean would be ice-free in the summer once per century instead of once per decade as is projected at 2C. While coral reefs would still suffer a horrific decline of 70 to 90 percent, they would not be obliterated as they would be at 2C.

The lower target would also cut the loss and extinction of species and have a less negative impact on ecosystems.

**To contain warming at 1.5C, man-made global net carbon dioxide emissions would need to fall by 45 percent by 2030 from 2010 levels and reach zero by 2050.**

Limiting global warming to 1.5C compared to 2C is projected to:

- reduce increases in ocean temperature as well as associated increases in ocean acidity and decreases in ocean oxygen levels
- reduce risks to marine biodiversity, fisheries, and ecosystems, and their functions and services to humans, as illustrated by recent changes to Arctic sea ice and warm-water coral reef ecosystems
- curb increasing risks to health, livelihoods, food security, water supply, human security, and economic growth<sup>2</sup>

The report was prepared at the request of governments that signed the *2015 Paris Agreement*.

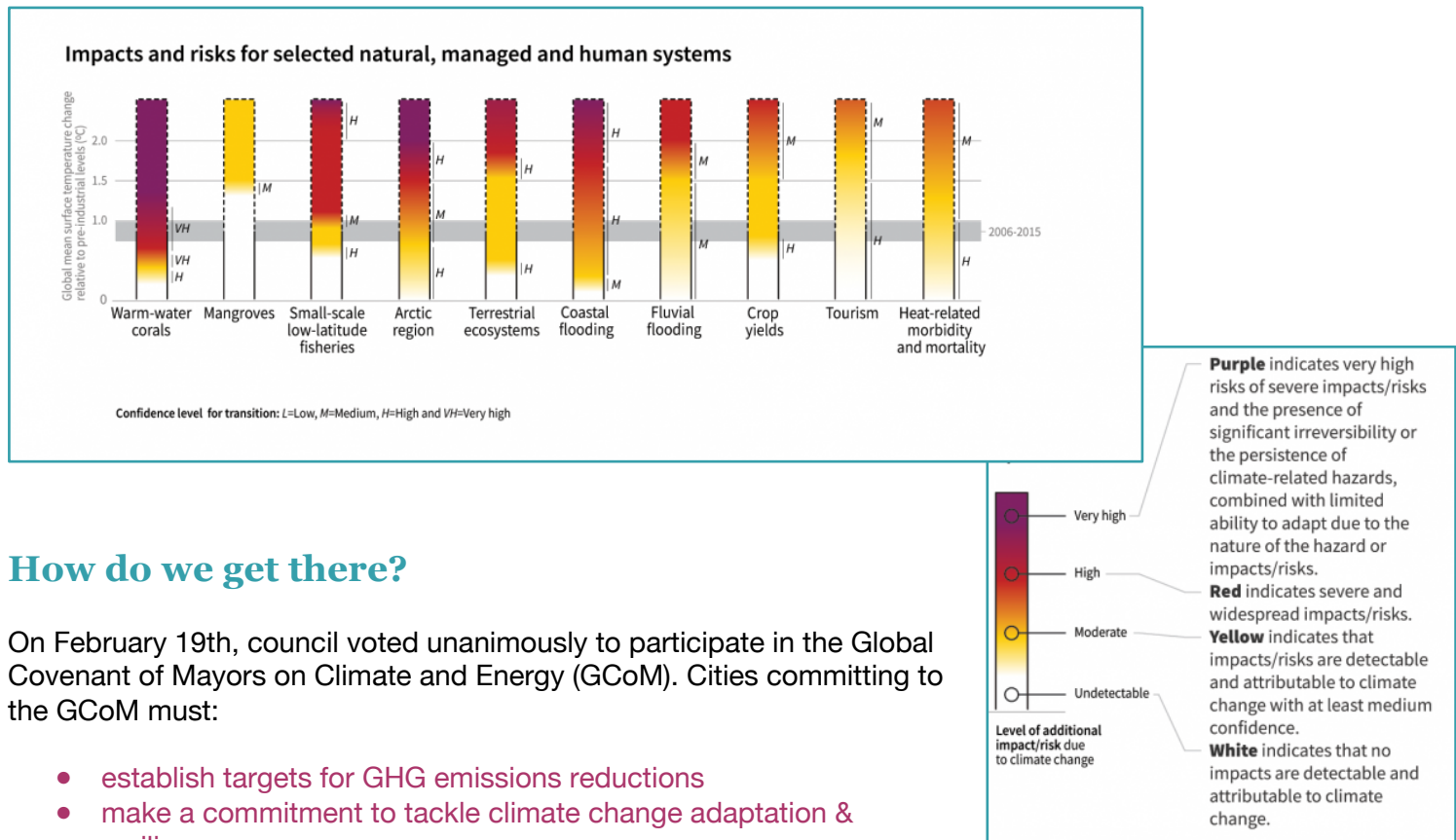
It was prepared by 91 authors and editors from 40 countries. More than 6,000 scientific references are cited and there were 133 contributing authors. It also contains more than 42,000 expert and government review comments.

“Without real change, the world is not even on course to reach the 2C target. There is clearly need for a much higher ambition level to reach even a 2° target, we are moving more toward 3 to 5° at the moment.”  
~ Petteri Taalas, U.N. World Meteorological Organization secretary-general<sup>1</sup>

<sup>1</sup> *Rapid, unprecedented change needed to halt global warming*: <https://www.reuters.com/article/us-climatechange-ipcc/massive-societal-changes-needed-to-meet-lower-global-warming-target-world-needs-un-idUSKCN1MI022>

<sup>2</sup> *Special Report on Global Warming of 1.5 Degrees*: <https://www.ipcc.ch/sr15/>

Keeping the Earth's temperature rise to 1.5C means making rapid, unprecedented changes in the way people use energy to eat, travel and live or we risk even more extreme weather and loss of species.<sup>3</sup>



## How do we get there?

On February 19th, council voted unanimously to participate in the Global Covenant of Mayors on Climate and Energy (GCoM). Cities committing to the GCoM must:

- establish targets for GHG emissions reductions
- make a commitment to tackle climate change adaptation & resilience
- increase access to clean and affordable energy

Based on GCoM requirements: Cities and local governments should set targets that are more ambitious than their country's "nationally determined contribution" (NDC) under the *Paris Agreement*. All participants must establish an action plan to meet their stated targets.<sup>4</sup>

Transportation and buildings are the biggest CO<sub>2</sub> emission culprits in Kingston. Examples of actions to tackle CO<sub>2</sub>e include:

- making climate action a priority and establishing funds for action
- increasing availability of/investing in renewable energy to supply 70-85% by 2050<sup>5</sup>
- electrifying transit
- creating a car-free downtown
- requiring new buildings to be emission-free
- retrofitting old buildings
- greening the city
- education campaigns to encourage eating less meat and dairy, driving electric vehicles, taking transit & buying low-carbon products<sup>6</sup>

<sup>3</sup> *Rapid, unprecedented change needed to halt global warming*: <https://www.reuters.com/article/us-climatechange-ipcc/massive-societal-changes-needed-to-meet-lower-global-warming-target-world-needs-un-idUSKCN1MI022>

<sup>4</sup> Global Covenant of Mayors for Climate & Energy: <https://www.globalcovenantofmayors.org/participate/requirements/>

<sup>5</sup> Special Report

<sup>6</sup> *ibid*