

## Antarctic Engagement to avoid an Order from Strength world

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### **Abstract**

In the early 2000s, the Millennium Ecosystem Assessment<sup>1</sup> developed four scenarios for a future world. Its most dystopic was Order from Strength – a regionalized and fragmented world, paying little attention to public good, being reactive to environmental problems, and with significant population growth. Two notable global developments suggest that this path may have been avoided: The UNFCCC 2015 Paris Climate Agreement<sup>2</sup> and the UN Sustainable Development Goals<sup>3</sup>. Yet others suggest that an alternative path is far from secure. Political change sweeping through several nations indicates growing regionalization, a focus on domestic security, and a neglect of scientific evidence that does not fit ideology. The 2016 World Energy Outlook<sup>4</sup> concluded that recent actions are insufficient to limit warming to < 2°C, with the US\$7.4 trillion cumulative investment in renewable energy projected to 2040 remaining just 15% of total cumulative investment in energy supply. The 2015 World Migration Report<sup>5</sup> indicated ongoing growth of informal settlements across the world, with ever larger numbers of people living in conditions highly vulnerable to the impacts of climate change. Biodiversity declines continue unabated<sup>6</sup>, with even relatively pristine areas not faring well<sup>7</sup>. In consequence, global society now faces a decision point. The choice will make the definitive difference between commitment to a growingly dystopic, biologically impoverished, unstable world, and one which will harbour fewer challenges. This choice will be made across many levels of society. Cities and local boroughs will perhaps play as significant a role as central governments. In consequence, engagement about the scientific evidence emerging from investigations of Antarctica will have to be broadened. The Antarctic research community has a key role to play through its participation in international bodies such as the IPCC, UNFCCC, Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES)<sup>8</sup> and the Convention on Biological Diversity (CBD)<sup>9</sup>. As the representative of science in the Antarctic Region, the Scientific Committee on Antarctic Research (SCAR) has an obligation to make clear the societal significance of research in, from and about the Antarctic to these bodies, and to encourage the Antarctic Treaty System to engage with them. Long-standing ATS concerns about its relationship with United Nations<sup>10</sup> need to be overcome. Antarctica is not isolated from the rest of the world, either naturally or politically. At a more local level, Antarctic researchers and SCAR need to press on with engagement demonstrating to citizens and cities that the costs and difficulties associated with an improvement in sustainability are less than those that will be faced if business continues as usual. These costs include loss of infrastructure, agricultural production and protected areas through sea level rise, rendering many previous sustainability gains void. The clarity of communication from Antarctic scientists and dramatic beauty of the continent and its biodiversity offer unparalleled opportunities to convey evidence in ways that will tip the decision to the benefit of all.

**Keywords:** evidence-based policy; global engagement; science communication; sustainable development

## ***References***

1. Millennium Ecosystem Assessment. 2005. Ecosystems and Human Well-being: Biodiversity Synthesis. World Resources Institute, Washington, DC.
2. UNFCCC. 2016. The Paris Agreement. [http://unfccc.int/paris\\_agreement/items/9485.php](http://unfccc.int/paris_agreement/items/9485.php)
3. United Nations. Sustainable Development Goals. <http://www.un.org/sustainabledevelopment/sustainable-development-goals/>
4. International Energy Agency. 2016. World Energy Outlook 2016 - Executive Summary. World Energy Outlook. International Energy Agency, Paris. doi:10.1787/weo-2016-en
5. World Migration Report. 2015. Migrants and Cities. New Partnerships to Manage Mobility. International Organization for Migration, Geneva.
6. Tittensor, D.P. et al. 2014. A mid-term analysis of progress toward international biodiversity targets. *Science*, 346, 241-244.
7. Chown, S.L. et al. 2017. Antarctica and the Strategic Plan for Biodiversity. *PLoS Biology*, 15, e2001656.
8. Intergovernmental Platform on Biodiversity and Ecosystem Services. <http://www.ipbes.net/>
9. The Convention on Biological Diversity. <https://www.cbd.int/>
10. Saul, B. & Stephens, T. 2015. Antarctica in International Law. Hart Publishing, Oxford.