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## **Low economic, political, and cultural diversity within the largest global networks of marine reserves**

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Cooperation between countries in managing and protecting shared marine resources is beneficial both ecologically and economically, but how best to establish the cooperation needed at a global scale is under constant evolution. Here, we used hydrodynamic modelling to identify ecologically connected networks of marine reserves and evaluated these networks with socio-economic indicators. We found that 17% (11/66) of the largest networks (>20 reserves) span multiple countries and are part of a heterogeneous networks. The countries involved in the heterogeneous networks have different economic, political, and cultural views. Most of the networks currently are homogenous and have similar levels of development, shared languages, and other cultural values. While economic and cultural homogeneity might lead to more efficient ecological management in the short term, heterogeneous networks may prove to be more resilient in the longer term, once climate change has impacted marine connectivity.