## Gender in conservation and climate policy

Men and women differ in their perceptions of environmental risk, vulnerability to climate change impacts and adaptation behaviour. Effective policies must address the diversity of gender roles and identities, and the underlying drivers of inequality.

roperly functioning ecosystems provide important services, such as pollination, food production, disease control and recreational experiences. Because culturally defined gender roles and responsibilities lead to differences in resource use, ecosystem services have a gendered component: men and women differ in their perception of ecosystems and in the ecosystems they value<sup>1</sup>. Consequently, women may be adversely impacted by decision-making around natural resources and ecosystems that does not account for the services provided to them, which is a real concern given that women tend to have a limited voice in environmental decision-making1.

Although some governmental and nongovernmental organizations have begun to address this inequity by implementing gender quotas in conservation interventions, these efforts fall short of realizing gender equality in decision-making, as they only require minimal representation of women. In an Article in this issue, Nathan Cook, Tara Grillos and Krister Andersson show that more progressive gender quotas, that require at least 50% of group members to be women, not only go beyond tokenism in addressing issues of gender representation, but lead to better conservation outcomes and more equitable division of intervention benefits. Framed field experiments like the one Cook and colleagues employed are important for creating the controlled conditions that allow strong inferences about the effect of a particular variable (in this case, group gender composition). However, the authors are careful to acknowledge that such studies cannot fully capture the complexity of forestuser behaviour, or the discrimination women face even when given the opportunity to participate, in the real world.

Participation in groups to address climate change impacts can contribute to a sense of social support and solidarity<sup>2</sup>. Thus, progressive gender quotas in collective action decision-making may provide a particular benefit to women, who are more likely than men to adapt to environmental change through their social groups and networks<sup>3</sup>. Consideration of such indirect benefits are needed to ensure that women are not simply used as policy instruments to



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achieve (for instance) forest conservation, but are the subjects of such policies and true beneficiaries<sup>4</sup>.

As described in an accompanying News & Views, different theories may explain why gender quotas have a positive impact on conservation intervention outcomes. On the one hand, gender essentialism contends that there are inherent differences between men and women from birth, such that women are naturally pre-disposed to be more proenvironmental and altruistic. On the other hand, systemic theories focus on the role that culture plays in different socialization experiences for men and women, leading to gender differences in behavioural expectations that, in many cases, manifest as women tending to display attributes that happen to support environmental conversation, like being less risk-averse and more long-term oriented.

The latter view is more consistent with the growing recognition that gender is not a binary, but rather one social grouping that intersects with other identities, such as marital status, age, class or ethnicity, to determine position in society; it is position in society, not gender per se, that has consequences for vulnerability and resilience to climate change<sup>2,5,6</sup>. For instance, gender differences in perceptions of household livelihood resilience in Kenya intersect with ethnicity, leading to different adaptive capacities for women in similar settings but from different ethnic groups<sup>7</sup>. Similarly, differences in labour and expenditure expectations between junior wives and cooking wives among Dagoba women in Ghana lead to adoption of different

agricultural practices that present different challenges and opportunities for climate change adaptation<sup>5</sup>.

Indeed, a more holistic consideration of gender roles is needed before policies that seek to disrupt them are implemented. Greater inclusion of women in decisionmaking processes only promotes gender equality if complementary efforts are aimed at relieving women of their other genderdefined responsibilities, such as care taking. Otherwise, despite the best intentions, these policies actually hurt women by creating an additional work burden, and they fail to address the inequalities that limited women's involvement in the first place<sup>4</sup>. This requires appreciation of the fact that changes in gender roles do not just impact women if women's roles change, men's roles must change too5. Yet, men are often ignored in efforts to promote gender equality. Similarly, men are overlooked in the discourse on climate change vulnerability and gender2, even though socially defined gender roles also dictate how men respond to adverse environmental impacts. For instance, men are more likely than women to migrate in response to livelihood shocks. While male absence increases vulnerability for women, men that migrate often end up in urban slums, working and living in poor conditions, and are thus at risk for a range of health problems that enhance male morbidity and mortality2. Rather than targeting only women (or only men, for that matter), to build resilience in the face of climate change impacts policies must address the diversity of gender roles and social identities, and their interactions in decision-making, division of responsibilities and adaptation behaviour. П

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