The future face of conservation: could it be female?

Helen Schneider

In an *Oryx* Editorial in April 2012 Bill Adams notes that the world population reached a new milestone late in 2011. A baby born in the Philippines, a so-called mega biodiverse country, was nominally identified by the UN as the seven billionth person on the planet. Adams goes on to explore the implications for conservation of feeding so many people, and concludes by asking 'what is the chance the earth's eight billionth child will grow up to experience nature and their place in it? What is the chance they will grow up a conservationist?' (Adams, 2012).

What is interesting for me, a conservationist concerned with the diversity of life on earth, human as well as non-human, is that the putative seven billionth child is a girl. What are the chances of that? Perhaps not so surprising given that the world sex ratio at birth is 1.07 male/female and the gender balance of world population as a whole is even closer to parity (CIA, 2011). But what are the chances she will be a conservationist? I venture to suggest that, given how little attention is given to women and girls in biodiversity conservation initiatives, it may well be significantly less likely than if she were born male.

Even putting aside the equity and social justice issues of largely ignoring the rights of half the world population, there are clear practical and strategic reasons why gender is important for conservation. Women comprise half or more of the agricultural labour force in many African and Asian countries. They provide up to 90% of the labour used in rice cultivation in South-East Asia. In sub-Saharan Africa they produce up to 80% of basic foodstuffs for both household use and sale (FAO, 2009). Women can therefore hardly be said to be absent from the rural landscapes in which conservationists work. Although both women and men make key decisions that affect agricultural biodiversity, there is often a gender differentiation in their roles and responsibilities. For example, home gardens, usually managed by women, provide a variety of food and medicinal products for household consumption and for market. These gardens can act as experimental plots where women try out a diverse range of wild plants and endemic species. In Thailand, for example, research showed that women rescued species from a nearby forest before it was cleared, resulting in 60 home gardens containing more than 230 different species (FAO, 2005).

Similarly, women and men have different roles, skills and knowledge in the use and management of forest resources. Whereas men tend to dominate the timber sector, women access forests to gather fuel, food, medicine and materials for cultural practices. Research in Laos, Cameroon and Tanzania illustrates the importance of gender in the use of wild forest species, with women being very involved in harvesting but men doing the trading and hence controlling the income generated (Powell et al., 2011). In many places men are responsible for hunting but it is women who control key links in the market chain and in some cases have been seen to use both verbal and non-verbal behaviours to encourage men to hunt (Nasi & van Vliet, 2012).

Research in India and Nepal confirms that forest condition is significantly better when managed by community forest user groups with a high proportion of women in key decision-making roles (Agarwal, 2009). Good forest governance is recognized as a key prerequisite for successful efforts to reduce emissions from deforestation and forest degradation (REDD). Yet a review of women's tenure and leadership in forest management in Asia has shown that exclusion and gender inequality is still commonplace (Buchy, 2012). Given their key roles in productive activities that affect natural resources and family well-being, surely women's voices need to be heard in current debates on conservation and development?

It is not just terrestrial biodiversity that is affected by the livelihood strategies of both women and men. Coastal and deep-sea fishing is often considered a male domain. In some places, however, women are involved in many types of fishing, from deep-sea fishing together with men to reef gleaning and freshwater trapping (Kailola, 1996). Data from 86 countries indicate that, in 2008, 5.4 million women worked as fishers and fish farmers in the primary sector (FAO, 2011). Traditionally women are more involved in fishing activities in shallow nearshore waters and in some aspects of freshwater fisheries. Women also play a prominent role in post-harvest processing and marketing. In West Africa as much as 80% of seafood is marketed by women. In Vietnam, women make up 80% of the aquaculture workforce (FAO, 2009). Much of women's contribution to fisheries is invisible but their role in the wider market chain must mean that they should be key players, alongside men, in any efforts to conserve biodiversity through the sustainable management of fisheries and aquaculture resources.

Over the last 2 decades gender equality has been seen as an important issue in major multilateral environmental agreements. In 1992 Agenda 21 set the stage stating that 'Women have considerable knowledge and experience in managing and conserving natural resources'. In addition, the preamble to the Convention on Biological Diversity recognizes 'the vital role that women play in the conservation and sustainable use of biological diversity' and affirms 'the need for

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the full participation of women at all levels of policy-making and implementation for biological diversity conservation' (WEDO, 2012).

Yet women are often marginalized in the practice of conservation. Research has shown that men participate in, and thus benefit from, conservation projects more than women (Flintan, 2003; Watson, 2005; Mamo, 2007; Anthem, 2008). Just take a look around the room at community meetings or training facilitated by conservation organizations. How many female faces do you see? How many female voices do you hear? With the exception of some small-scale income generating activities with women's groups, the answer is probably very few, if any.

Women are less likely to own land and are therefore more heavily dependent on common property or open access resources. Biodiversity loss has been shown to disproportionately affect women and their children, adding to their workload by increasing the time needed to collect fuel, water and wild resources for food, fibre and medicine. Yet interventions to support women's empowerment often have positive impacts on family well-being as women tend to invest additional income in health and education. In turn, improvements in health and education outcomes tend to lead to a reduction in family size over time which can help slow population growth (Kabeer, 2003).

We should be careful, however, not to assume that women are somehow a homogeneous group. Other differentiations such as ethnicity, religion, age and wealth interplay with gender to affect access to assets and decision-making and hence the livelihood and well-being of the whole family. If conservationists make conscious efforts to understand and work with these differences we could design policies and practices that are inclusive of a range of experiences, interests and claims, and more likely to have positive, sustainable, equitable biodiversity outcomes.

A further step to facilitating women's voices to be heard in the sustainable use of biodiversity is to support the employment and professional development of women in conservation. One such source of professional development is the Conservation Leadership Programme (CLP), a partnership of four international conservation organizations and BP. During 2003–2012 men comprised 64% of alumni grant recipients (n=216) and the same percentage of participants in CLP training (n=474). On the internship programme the gender balance is slightly better: 58% male to 42% female (n=42 and 30 respectively) over 2006–2012. Despite no explicit gender policy within CLP, there does seem to be a slight trend towards more female participation in the programme over the most recent 5 year period (R. Dalzen, pers. comm.).

So here's the challenge for us all. Can we increase the odds that the seven billionth child, and her sisters around the world, will grow up to be conservationists—whether that be as worthy successors to influential figures such as Wangari Maathai or Elinor Ostrom, or, equally importantly, as local stewards of the biodiversity of the countries of their birth? Could—indeed should—the future face of conservation be female?

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