



©FAO/Riccardo Gangale

Collaborative Partnership on Sustainable Wildlife Management

The Collaborative Partnership on Sustainable Wildlife Management (CPW) is a voluntary partnership of international organizations with substantive mandates and programmes for the sustainable use and conservation of wildlife resources. The mission of the CPW is to increase cooperation and coordination among its members and other interested parties on sustainable wildlife management to promote the sustainable use and conservation of terrestrial vertebrate wildlife in all biomes and geographic areas.

Sustainable wildlife management

Sustainable wildlife management (SWM) is the sound management of wildlife species to sustain their populations and habitat over time, taking into account the socioeconomic needs of human populations. This requires that all land-users within the wildlife habitat are aware of and consider the effects of their activities on the wildlife resources and habitat, and on other user groups. In this factsheet, the term “wildlife” refers to “terrestrial or semi-terrestrial vertebrates”.

In view of its ecological, social and economic value, wildlife is an important renewable natural resource, with significance for areas such as rural development, land-use planning, food supply, tourism, scientific research and cultural heritage. If sustainably managed, wildlife can provide continuous nutrition and income and contribute considerably to the alleviation of poverty as well as to safeguarding human and environmental health.

The objective of the fact sheets produced by the CPW is to inform decision-makers, stakeholders and the general public about issues and opportunities relating to the sustainable use and conservation of terrestrial and semi-terrestrial vertebrate wildlife.

What is at stake?

Gender inequalities and differences play an important role in the use, management and conservation of wildlife at the local level. Addressing gender issues is, therefore, as essential in achieving sustainability objectives as it is in advancing equal rights. The term gender refers to sociocultural norms about what is considered appropriate for women and men within a society. These norms shape interactions between women and men and define their roles and responsibilities. Access and control over resources are defined by the power relationships underlying gender roles, which are also influenced by other social markers such as race, ethnicity, class and sexuality.

Gender issues are often overlooked or little addressed in wildlife conservation and management

efforts, even within those that are focused on community-driven efforts.^{1, 2} Yet key factors influencing sustainable wildlife management (SWM) such as human-wildlife conflicts, unsustainable and illegal trade, tenure rights, poverty, and food and livelihood security all have significant gender dimensions. If these are not addressed, they may considerably limit the effectiveness of the management measures adopted and exacerbate pre-existing gender inequalities. Taking gender issues into account in respect to wildlife management involves addressing needs, priorities, knowledge and understanding of both women and men, and ensuring that both are actively involved in decisions over SWM in a way that leads to reconciling goals of gender equality and sustainable wildlife management.

Key issues

Sustainable Livelihoods

Many households, particularly in rural areas in the developing world, depend on wildlife as a source of protein and of income. As bushmeat hunting is generally a male-dominated activity, this influences the focus of wildlife management strategies to concentrate on men's behaviours and needs. Yet, gender relations are integral to the bushmeat value chain. In some settings, both women and men are directly involved as hunters, such as among the Australian Martu.³ In other cases, women derive part of their livelihood from the sale of cooked or uncooked bushmeat. In Yaoundé, Cameroon, 84.3 percent of workers in markets and restaurants selling bushmeat in 2006 were women.⁴ Gender relations also influence bushmeat hunting indirectly. For example, women's uncompensated agricultural and household work allows men to devote more time to hunting, but also diminishes the household need for cash income derived from hunting.⁵ Women may also play a role in perpetuating existing hunting behaviours, for instance by preparing meals for hunters and expressing a preference for men that hunt as potential partners.⁶ Hence, SWM practices need to consider gender roles and relations to understand the needs, values and beliefs that drive hunting behaviours.

Wildlife further provides alternative income sources in the form of wages or compensation for wildlife tourism and conservation. Ensuring that both women and men benefit from such livelihood opportunities is necessary to encourage broad community support for SWM and to promote gender equality. For instance, the employment of women from local communities in the all-female Black Mambas Anti-Poaching Unit of the Balule Nature Reserve in South Africa has helped bridge the gaps between wildlife conservationists

and local communities. The female rangers take part in anti-poaching patrols, outreach, and community education programmes. Since its inception, the Black Mambas have contributed to a 76 percent reduction in poaching on the reserve.⁷

Food Security

In some settings, bushmeat hunting plays a role in increasing food security, for instance by compensating for the seasonality of other livelihood activities such as agriculture, and mitigating the impacts of shocks. One such shock is crop and livestock raiding by wildlife, which can dramatically threaten the food security of a household. Threats to food security can have particularly detrimental impacts on women and children. Research shows considerable intra-household inequalities in food distribution, consumption and caloric intakes. Although all household members will suffer in times of food insecurity, evidence suggests that women and girls risk receiving less and lower quality of food than their male counterparts with dire consequences for their health and nutrition status.⁸

Women's and children's food security can therefore disproportionately be affected by wildlife management measures that do not address human-wildlife conflicts effectively, or that unselectively ban bushmeat hunting where bushmeat is the most accessible source of protein or cash income. Hence selective bushmeat hunting, regulated so as to allow for the harvesting of resilient species while preventing the hunting of vulnerable ones, may simultaneously maintain viable wildlife populations and promote human food security.

Household and community food security is further affected by the decision-making and income-sharing arrangements between men and women. For instance, children's food security increases when women have more power over the allocation of income within the



household.⁹ In contrast, men tend to spend more on personal and luxury items rather than on household food, health or education when they experience an increase of income.¹⁰ Thus, bushmeat hunting does not de facto increase food security for the entire household, particularly when gender inequalities in decision-making power persist. More data are needed to understand the relationships between bushmeat hunting, food security and intra-household dynamics.

Human-wildlife Conflicts

Human-wildlife conflicts (HWCs) lead to a lack of security, increased workload, decreased food and economic security, and decreased wellbeing for local communities. Women generally experience a higher percentage of detrimental effects than men largely due to the gendered division of labour. Women are often responsible for home agriculture and the small-scale raising of poultry and livestock and therefore must guard against and deal with the aftermath of damage resulting from HWCs. Women may risk their security by going into forests to collect firewood and they are responsible for travelling long distances to fetch water due to lack of plumbing or when pipes are broken by animals.¹¹ These costs often go unaddressed in wildlife conservation measures, negatively influencing attitudes toward wildlife and leading to the legal and illegal killing of wild animals.¹² Importantly, there is evidence that gender-specific impacts of HWCs, such as those that relate to 'invisible' costs in the form of time, workload and safety of women, often go unnoticed by public officials.¹³ Reconciling the potential trade-off between human wellbeing and wildlife cannot be achieved without the agency and decision-making of women in the food system, and without recognizing and overcoming the constraints that they face as a consequence of these conflicts.

Decision-making in the Context of SWM

In both the private and public spheres, women face limitations in engaging in decision-making at a level equal to that of men. In respect to SWM, there are well-documented gender disparities in access to forest resources and management.¹⁴ Household responsibilities, such as caretaking and food provision, severely limit the time many women can devote to participation in management consultations, committees and boards, which are rarely designed with these time constraints in mind. In the Canadian Arctic, the percentage of women on hunting and wildlife management boards ranges from 0 to 20 percent, depending on the region. Factors contributing to lower representation of women in these management roles include higher status given to men as hunters as compared to women as fishers; deference given to male elders; and the lack of reimbursement for costs of caring for children or elders, for which women are primarily responsible.¹⁵

The gender gaps in SWM decision-making processes

may contribute to increasing inequalities between men and women and to less effective management of wildlife. Wildlife management policies that do not take into account local community needs, including the particular needs of women, can lead to non-compliance by those affected. Additionally, women may possess unique perspectives and knowledge which are necessary for effective SWM. Importantly, the absence of measures to promote and facilitate the meaningful participation of a 'critical mass' of women in decision-making could lead to an unfair distribution of the costs and benefits of SWM between women and men.¹⁶

Unsustainable and Illegal Trade

Wildlife trade, when properly regulated, can sustainably contribute to local livelihoods and national economies. However, illegal wildlife trade, which represents an estimated 25 percent of the total wildlife trade,¹⁷ poses great risk to biodiversity conservation. There is a growing political awareness of complexities of addressing illegal trade and of understanding how it affects women's and men's livelihoods.

The greatest factors driving illegal trade include demand by collectors for exotic pets and trophies, and by consumers for exotic meats, medicine, fashion, and other animal products.¹⁷ Gender norms, roles and stereotypes about masculinity and femininity are integral to the marketing and sales of these products. Certain animal products are culturally valued for their purported medicinal properties for enhancing virility, masculinity, or fertility and are thereby marketed in ways that reinforce these norms and stereotypes. In some countries, for example, it is believed that consuming parts of wild animals will transfer their inherent traits to humans: the fierceness of tigers and the sexual stamina of rhinoceros for men, and the docility of deer for women.^{18,19} Interestingly, while the majority of illegal medical products based on animals are aimed at men, animal-based products used for non-gendered medical remedies, such as bear bile, are used equally by men and women.²⁰

Consuming wild meats may demonstrate wealth, prestige, and social standing in some cultures, whereas in others it may be a matter of choice, taste and options. In some urban areas, wild meat is a luxury good which is marketed to and adopted by young men to boost their professional and social status. In line with culturally-ascribed notions of masculinity, the consumption of wild meats in Vietnam has become associated with "relaxation and adventure" activities such as indulging in alcohol and paid sex for men with disposable incomes.²⁰ In contrast, wild animal products are marketed towards women in the form of fashion products and accessories (such as bear tooth necklaces and tortoise shell combs).¹⁹ Understanding the cultural and gendered nuances influencing consumption can help create culturally appropriate and effective campaigns against illegal wildlife products.

Experience and knowledge

Alternative Livelihoods

One method of addressing gender inequalities in SWM is by supporting alternative livelihood activities for both women and men. In some cases, gender-differentiated livelihood opportunities may be the most suitable and viable options to respond to both women's and men's needs. In other cases, expanding beyond gender-differentiated livelihoods may help both SWM and gender equality goals. The employment of female rangers in the Virunga National Park highlights the potential for facilitating women's access to traditionally male-dominated activities. This strategy yields positive conservation results, and helps recast women from victims of human rights violations to full actors in the reconstruction of the Democratic Republic of the Congo.²¹

However, it is not enough simply to introduce an alternative livelihood activity without ensuring its social and economic viability and considering gender issues at every level of implementation. For instance, wildlife farming is a food and income-generating activity that is compatible with women's involvement.²² However, one study found that women were often excluded from training, which led to a low adoption of the practice by women.²³ This reinforces the need for gender considerations to be taken into account in educational programmes and training, as well as provision of services and supportive technologies, to ensure that alternative livelihood opportunities are accessible to and can benefit both women and men.

Environmental Education

Environmental education is an important tool to improve attitudes related to wildlife. For instance, education through direct experiences, such as visits to protected areas by local residents, can be a valuable learning tool. Particularly in the case of women, such visits can help reduce the participants' fear of wildlife and increase their support for the conservation of species that they rarely see or may view negatively due to HWCs.²⁴ Education and training for women and men regarding the impacts of overharvesting and the loss of threatened and endangered species are also important measures to support SWM.

Mitigation of Human-wildlife Conflicts

Addressing the gendered impacts of HWCs requires gender-responsive solutions. Compensation schemes are one way of mitigating the negative impacts of HWCs. However, it is important to seek inputs from both women and men to ensure the inclusion of costs borne by all members of a household or community. Consultations that focus on obtaining feedback from the head of the household may be dominated by views and priorities of men, who are typically the household head. Including women's perspectives can lead to solutions

such as in-kind compensation through the provision of firewood, which can be more effective in compensating women's labour costs than simple monetary payments.

Empowerment and Decision-making for SWM

SWM can reconcile the goals of promoting sustainable use and gender equality by strengthening women's leadership and decision-making power in relation to the use of resources. For instance, a project to diminish illegal wildlife trade in the Yasuní Biosphere Reserve in Ecuador has been led by a local women's group, which is engaging communities to reduce illegal overharvesting and to improve food security. Strengthening women's leadership while allowing for the participation of both women and men has generated broad community support for adopting alternative income-generating activities, limiting bushmeat hunting to subsistence needs, and conserving some highly threatened species.²⁵ In addition, as women are often responsible for managing livestock and crops, their views on how to improve wildlife management should inform and guide decision-making for HWC projects and programmes, in which they should be actively engaged.

Regulating Bushmeat Hunting

In certain contexts, the legalization and regulation of selective bushmeat hunting may be considered, particularly in cases where bushmeat is central to food security.²⁶ In addition to being often disproportionately affected by food insecurity, women's workload tends to increase substantially when hunting is banned in the land they use around protected areas.¹⁹ Hunters may disregard regulations when the subsistence needs of their families are not met, rendering outright bans ineffective.²⁶ Conversely, allowing the hunting and trade of selected resilient species could avoid negative impacts on women and men while increasing the willingness of hunters to respect bans on more vulnerable species.



Raising Awareness on Illegal Wildlife Products

Finally, reducing the pressures on wildlife from unsustainable and illegal trade in exotic products requires consideration of the intended consumers of these products, who are typically defined in respect to gender stereotypes and cultural norms.¹⁹ Awareness-raising campaigns to counter consumption of exotic wildlife products could be made more effective by an enhanced understanding of the drivers,²⁷ and by addressing the ideas and values tied to masculinity and femininity which drive gender-specific demands of consumers.¹⁹

Challenges

Significant challenges to mainstreaming gender in SWM include the dearth of reporting on gender equality outcomes and the lack of research on the interface between wildlife, livelihoods and gender. Most available research points to why gender should be considered in wildlife management. However, arguments are mainly based on localized case studies. The absence of a solid empirical base renders more difficult the tasks of advocating and effectively mainstreaming gender in wildlife management, and of using SWM as a tool to promote gender equality.

Gender mainstreaming may further face challenges in many research and conservation organizations in which there remains a cultural divide between social scientists, advocating for inclusion, and natural scientists, some of whom view gender as a confusing and distracting concept in wildlife conservation.² Coupled with a lack of institutional expertise on gender, this leads to a gap between discourse and implementation. Gender mainstreaming activities may be included as add-ons to existing programmes, without being fully integrated or budgeted, limiting the success of such interventions.

In addition, tackling gender issues within SWM is complicated by the pervasiveness of gender inequalities. Gender roles and norms which influence SWM are rooted in social structures, such as family, schooling and the community, in ways not immediately perceived to be related to SWM. Gender inequalities are magnified by complex issues such as development, poverty, and family planning. Addressing the wide range of gender issues in SWM is therefore a complicated process requiring linkages that are oftentimes not envisioned in wildlife management projects.

Opportunities

Substantial commitments to gender equality have been made at the international and national levels, notably within the framework of the Sustainable Development Goals, particularly SDG 5 on gender equality. International institutions, conservation agencies, national governments, and donors are increasingly including gender equality and women's empowerment in their corporate policies and initiatives, which

fosters an increase in financial, technical and human resources dedicated to gender mainstreaming and to the promotion of women's and girls' rights. This presents a substantial opportunity for wildlife managers and biodiversity conservation practitioners to access comprehensive guidelines and training modules as well as funding, by addressing gender equality in their activities.

Advances in science, technology, and social sciences also present significant opportunities for the development of alternative solutions and the dissemination of information. However, case studies have shown that agricultural extension services and technology development personnel frequently target men, wrongly expecting them to transfer information to women.²³ This reinforces the importance of developing alternative solutions with women's and men's needs in mind, and to ensure that information on and access to technology are provided to both women and men.

The inclusion of gender considerations in training for policy makers and practitioners, as well as within academic curricula, can increase the capacity of researchers, policy makers and programme managers to address gender issues. Fostering an understanding of gender relations and their impacts on SWM among wildlife management practitioners and researchers can help bridge the gap between social scientists and natural scientists,² as well as promote interventions that address wildlife conservation and gender equality objectives.

What is still to be learned?

The collection of more sex-disaggregated data would support mainstreaming gender issues in wildlife management. Sex-disaggregated data and qualitative information are needed to establish baselines.¹⁴ For example, knowing the nature and extent of women's participation in decision-making groups is important to the design of inclusive SWM schemes. Sex-disaggregated data are also needed to perform monitoring and to assess outcomes.¹⁴ Successful conservation outcomes, such as a diminishing rate of poaching in fields surrounding a protected area, could hide an increased workload for women. Conducting gender-based assessments would therefore enhance knowledge of the linkages between gender issues and SWM, and inform more effective, equitable and inclusive programmes.

Similarly, there is a need for the identification of best practices and the compilation of detailed case studies of gender mainstreaming approaches in a variety of cultural and institutional settings. The outcomes for both wildlife conservation and gender equality objectives need to be equally documented to contribute to further understanding of the gender dimensions of wildlife management.

Endnotes

1. Meola, C. 2013. Navigating gender structure: women's leadership in a Brazilian participatory conservation project. *Forests, Trees and Livelihoods*, 22(2), 106-123.
2. Ogra, M. 2012. Gender mainstreaming in community-oriented wildlife conservation: experiences from nongovernmental conservation organizations in India. *Society and Natural Resources*, 25, 1258-1276.
3. Bliege Bird, R. and Bird, D.W. 2008. Why women hunt: risk and contemporary foraging in a western desert aboriginal community. *Current Anthropology*, 49(4), 655-693.
4. Edderai, D. and Dame, M. 2006. A census of the commercial bushmeat market in Yaoundé, Cameroon. *Oryx*, 40(4), 472-475.
5. Espinosa, M.C. 2010. Why gender in wildlife conservation? Notes from the Peruvian Amazon. *The Open Anthropology Journal*, 3, 230-241.
6. Lowassa, A. Tadie, D. and Ficher, A. 2012. On the role of women in bushmeat hunting - Insights from Tanzania and Ethiopia. *Journal of Rural Studies*, 28, 622-630.
7. www.theguardian.com/environment/2016/feb/26/the-all-female-patrol-stopping-south-africas-rhino-poachers
8. Asian Development Bank. 2013. Gender equality and food security - women's empowerment as a tool against hunger. Mandaluyong City, Philippines, 101 pages.
9. The World Bank, Food and Agriculture Organization, and International Fund for Agricultural Development. 2009. Module 1: gender and food security. In *Gender in agriculture sourcebook*, 11-22.
10. Kiewish, E. 2015. Looking within the household: a study on gender, food security, and resilience in cocoa-growing communities. *Gender & Development*, 23(3), 497-513.
11. Browne-Nuñez, C. Jacobson, S.K. and Vaske, J.J. 2013. Beliefs, attitudes, and intentions for allowing elephants in group ranches around Amboseli National Park, Kenya. *Wildlife Society Bulletin*, 37(3), 639-648.
12. Kanshy, R. and Knight, A.T. 2014. Key factors driving attitudes towards large mammals in conflict with humans. *Biological Conservation*, 179, 93-105.
13. Ogra, M. 2008. Human-wildlife conflict and gender in protected area borderlands: A case study of costs, perceptions, and vulnerabilities from Uttarakhand (Uttaranchal), India. *Geoforum*, 39, 1408-1422.
14. United Nations Environment Programme (UNEP). 2016. Global gender and environment outlook - the critical issues. Nairobi, Kenya, United Nations Environment Programme.
15. Kafarowski, J. 2005. "Everyone should have a voice, everyone's equal": gender, decision-making and environmental policy in the Canadian Arctic. *Canadian Woman Studies/Cahiers de la femme*, 24(4), 12-17.
16. Agarwal, B. 2015. The power of numbers in gender dynamics: illustrations from community forestry groups. *The Journal of Peasant Studies*, 42(1), 1-20.
17. Elliott, L. 2007. Transnational environmental crime in the Asia Pacific: an 'un(der)securitized security problem? *The Pacific Review*, 20(4), 499-522.
18. Milliken, T. and Shaw, J. 2012. The South Africa - Viet Nam Rhino Horn Trade Nexus: A deadly combination of institutional lapses, corrupt wildlife industry professionals and Asian crime syndicates. Cambridge, UK, 180 pages.
19. McElwee, P. 2012. The gender dimensions of the illegal trade in wildlife: local and global connections in Vietnam. In Cruz-Torrez, M.L. & McElwee, P., eds. *Gender and Sustainability Lessons from Asia and Latin America*, pp 71-93. Tucson, the University of Arizona Press.
20. Drury, R. 2011. Hungry for success: urban consumer demand for wild animal products in Vietnam. *Conservation and Society*, 9(3), 247-257.
21. UNESCO. 2016. Breaking new ground: Virunga's female rangers. *World Heritage*, 78, 42-47.
22. Secretariat of the Convention on Biological Diversity. 2011. Livelihood alternatives for the unsustainable use of bushmeat. Report prepared for the CBD Bushmeat Liaison Group. Technical Series No. 60, Montreal, SCBD, 46 pages.
23. Ogunjinmi, A.A. Ogunjinmi, K.O. and Osunsina, I.O.O. 2012. Scaling up women's roles in sustainability and conservation through wildlife farmig - an overview. *Journal of Environmental Extension*, 10, 52-55.
24. de Pinho, J.R. Grilo, C. Boone, R.B. Galvin K.A. and Snodgrass, J.G. 2014. Influence of aesthetic appreciation of wildlife species on attitudes towards their conservation in Kenyan agropastoralist communities. *PLoS ONE*, 9(2), e88842.
25. www.traffic.org/home/2011/2/22/women-hold-key-to-solving-wildlife-trade-issues-in-amazon.html
26. Groff K. and Axelrod, M. 2013. A baseline analysis of transboundary poaching incentives in Chiquibul National Park, Belize. *Conservation and Society*, 11(3), 277-290.
27. www.traffic.org/home/2016/7/25/changing-consumer-choice-advice-a-few-clicks-away.html

KEY MESSAGES

- In order to be effective and sustainable, interventions intended to control overharvesting of wildlife need to address gender and cultural norms that incentivize such activities.
- Alternative livelihood strategies, to be viable initiatives, must be developed and implemented taking into account the needs, priorities and capacities of women and men.
- Awareness-raising campaigns that address gender stereotypes and norms may help reduce consumer demand for exotic wildlife products.
- Policies directed to bushmeat conservation need to address gender issues and related factors of poverty and alternative livelihoods, in order to promote sustainable wildlife management.
- Gender analyses, using sex-disaggregated data, should be undertaken as part of the design and development of wildlife management interventions, as well as during monitoring and evaluation.
- More research is needed on the gender dimensions of wildlife conservation and management.